

NEPAL ELECTRICITY AUTHORITY
(His Majesty's Government Undertakings)
Transmission Line/Substation Construction Department

Vulnerable Community Development Plan
For
Khimti - Dhalkebar 220 kV Transmission Line Project
FINAL REPORT

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CHAPTER

INTRODUCTION

1.1 INTRODUCTION

The proposed Khimti-Dhalkebar 220 kV Transmission Line Project (KDTL), the first 220 kV TL project in Nepal, is a component of Power Development Fund (PDF), which is financed by the World Bank. The Power Development Fund aims to meet the objectives of HMG/N in extending access to an electricity supply to a larger percentage of the population by supporting the development of Nepal's power sector.

Nepal Electricity Authority (NEA) proposed Khimti - Dhalkebar 220 kV Transmission Line (TL) Project to evacuate the power generated from proposed Upper Tamakoshi Hydroelectric Project including other hydro power project in the regions. The proposed 220 kV transmission line will also be connected with two existing Independent Power Producer (IPP) plants, namely; Khimti Hydropower Plant (60 MW) and Bhotekoshi Hydropower Plant (36 MW). This transmission line project also plans to export power to India as well as to serve the population of eastern region of the country.

Since the proposed transmission line project is funded under Power Development Fund financed by the World Bank (WB), the requirement of "Policy Framework for EIA for Projects under the PDF" has to be satisfied. In keeping view the above requirement, a separate SIA report is prepared for Khimti - Dhalkebar 220 kV Transmission Line Project.

This Vulnerable Community Development Plan (VCDP) for proposed Khimti - Dhalkebar 220 kV TL Project is being prepared by Environmental and Social Studies Department (ESSD) of NEA. The VCDP will be an integral part of project documents.

1.2 OBJECTIVES

The principal objectives of VCDP are to;

- ensure the participation of members of affected Vulnerable Community (VC) in the entire process of planning, implementation and monitoring of VCDP,
- identify and analysis of the impacts on VC of project areas,
- ensure that vulnerable people benefit form the proposed project and potential adverse impacts on VC resulting from the implementation of the proposed project are at best completely avoided or at least mitigated,
- assist the People from VC in the planned development of their communities as an enhancement measures.

1.3 METHODOLOGY

Following methodologies were adopted to prepare the VCDP:

1.3.1 Literature Review

Relevant information and literature from various sources such as Center Bureau of Statistics (CBS), District Profiles, VDC Profiles and publication of local NGOs were collected and reviewed for required information.

The Scoping Document, EIA, SIA, and ACRP report of the KDTL Project were also reviewed. The Outline prescribed in "*Policy Framework for EIA for Projects under the PDF*" is also carefully reviewed to determine the scope and framework of the VCDP.

1.3.2 Field Work

Various professionals of ESSD comprising the Coordinator (Economist) and Sociologist conducted field visit for observation and administration of survey questionnaire and checklist.

1.3.3 Questionnaire Survey

An appropriate questionnaire was prepared (*Annex II*) in Nepali language and administered at project sites among the identified affected families from Vulnerable Communities of the Project. The questionnaire was pre-tested before administration in the field. List of affected families from Vulnerable Communities was sorted out from SIA report of the project. Local enumerators were used for questionnaire survey and 32 numbers of households (80 % of total 39) were surveyed.

1.3.4 Checklist and Focus Group Discussion

A checklist was prepared and administered in the field with the key informant and local knowledgeable persons of the project area. The responses were documented regarding information about the vulnerable group of the area, expected impacts and mitigation measures. About eight checklists were filled in six VDCs of three districts.

Similarly, eight focus group discussions (FDG) were conducted among the members of Vulnerable Communities in Kamalamai Municipality, Ranichuri, Bhadrakali VDC of Sindhuli district, Bhaluwajor and Khimti VDC of Ramechhap district and Tulsi VDC of Dhanusha district. The general issues discussed in the meetings were; the likely impacts of the project, existing socio-economic condition of the Vulnerable Communities and the area, their concerns and their anticipation from the project. The size of the FGD range from six to 12 people. Similarly, the main issues raised in the FGD were; appropriate compensation, rural electrification, health and sanitation facilities, infrastructures facilities, awareness program to address social exclusion/caste discrimination and superstition in the society, training on advance vegetable farming system and marketing, local employment, skill training and implementation of income generating activities based on local resources, support to local temples and cultural sites, promotion of bio-gas and developed stove for environmental protection and health.

1.3.5 Data Analysis

The data of questionnaire were grouped and analyzed as per required output table. Essentials output tables are presented in appropriate place of the report.

1.3.6 Limitation

VCDP is being prepared by ESSD/NEA for the first time. No literature and reference materials were available on VCDP for transmission line sector for ready reference. Keeping all this reservation in mind, a reasonable effort has been made to prepare the VCDP.

The Socio-economic survey represents only the affected families of Vulnerable Community of the project area.

1.4 PROJECT DESCRIPTION

The Khimti - Dhalkebar 220 kV Transmission Line Project starts from Kirnetar village of Dolakha district and will cross Ramechhap, Sindhuli and Mahottari districts. The final destination point of this project is the Dhalkebar substation of Dhanusha district. The total length of the TL alignment is approximately 73 kilometers. The project will cover 16 VDCs and 1 municipality of the 5 district of Janakpur Zone. Mahottari district only includes forest area and Dolakha district is nominally connected by the transmission line alignments. Hence, the study area mainly focused on Ramechhap, Sindhuli and Dhanusha districts only out of 5-affected district by the project. The Right of Way (RoW) of the proposed project will be 15 meter from the center line on each side and approximately 12.5 m x 12.5 m area will be required for tower foundation. The project-affected area is defined as the project area consisting of the RoW, substation area as well as the area that will be impacted due to the construction and operation of the project.

SALIENT FEATURES

Project:	Khimti – Dhalkebar 220 kV Transmission Line Project
Zone:	Janakpur
District:	Dolakha, Ramechhap, Sindhuli, Mahottari and Dhanusha
VDC/ Municipality:	Sahare, Khimti, Gelu, Tilpung, Kathjor, Manthali, Bhaluwajor, Bhimeshore, Ratanchura, Ranichauri, Jalkanya, Bhadrakali, Gairibas, Tulasi Bahunmara, Bengadabar and Dhalkebar VDCs and Kamalamai Municipality ,
TL Line Length:	73 km
Span:	350 meters
No. of Angle Point:	53
No. of Tower	230
Voltage Level:	220 kV
RoW:	30 meters
Tower Type:	Steel Lattice Structure, self supported
Circuit:	Double
Conductor:	ACSR BISON, Duplex
Earth Wire:	EHS 7/3.35
Foundation Type:	Pad and Chimney isolated
Foundation Area:	12.50 x 12.50 meters (approx. average per foundation)
Bay Extension:	One at Khimti substation and another at Dhalkebar substation
Estimated Project Cost:	US\$ 22 million
Funded by:	World Bank, HMG/N and NEA

1.5 PROJECT AFFECTED AREAS AND LOCATIONS

The total population of the project area is 114,516 and number of households is 21,668. The male and female populations are 56,414 (49.26%) and 58102 (50.74%) respectively. Average household size varies in between 4.39 and 6.21 and total average constitutes 5.28 persons per household. Annual population growth rate in the project area is about 2 %. Brahmin, Chhettri, Tamang, Newar and Magar are the major ethnic groups found in the project area. About 56.85 % population of the project area is literate. The literacy rate is high (68.28%) in Gauribas VDC of Mahottari district and lowest (43.40%) in Kathjore VDC of Ramechhap district.

Krishna temple, Kalika Devi temple, Ram temple, Bhimeshwor temple, Dhanaugi temple and Ganesh temple are the main religious places found in the project affected VDCs. Health facilities in project area are inadequate and main diseases prevalent are stomachache, diarrhea, fever, tuberculosis, hysteria, skin diseases etc. Firewood, kerosene and electricity are the main source of energy for lightening and cooking. Most of the households in the project area use firewood for cooking.

The project area includes predominantly rural economy with agriculture as a main source of livelihood and income. The other occupations include business, service, labor work and domestication of livestock. Irrigated, unirrigated and grassland are the main land type occupied by the local people. Distribution of PAFs by size of land holding reveals that most of the families cultivate less than one ha of land. Estimated annual income per household in project area is NRs. 72400 in which agriculture and labor/ wages contributes about 36 % and 28.5 % respectively. Expenditure pattern of PAF residing along the RoW indicates that the share of expenditure on food is about 69 %, which is relatively in higher side. Expenses on energy constitute 9 % followed by clothing, education and medicine. About 350 – 400 m stretch of the proposed alignment passes near the Manthali airport at a distance about 740 m from the airport. No objection letter from the airport authority received during the study.

Altogether five districts are affected by 73-km long transmission line alignment, which is located in Terai, Mid hills and Chure area of Nepal. Topography, climate and agricultural practices differ according to agro-climatical zones. Dhanusha is most populated district followed by Mahottari, Sindhuli, Ramechhap and Dolakha district. Male and female ratio has mixed tendency. Female outnumber males in Dolakha and Ramechhap districts. Annual population growth rate is lowest in Dhanusha and highest in Sindhuli and Mahottari districts, which is approximately 2 % per annum.

In terms of educational establishments, Sindhuli has 705 schools and colleges. The number of educational establishments in Dolkha, Ramechhap, Mahottari and Dhanusha constitute 479, 523, 347 and 504 respectively. Teacher student ratio is highest in Dhanusha followed by Mahottari. It is lowest for Ramechhap. The published data reveal that literacy rates are 44, 34, 38, 32, and 39 percent in Dolakha, Ramechhap, Sindhuli, Mahottari and Dhanusha districts respectively. Paddy, wheat, maize and other cereal and cash crops are produced in the affected districts but the productivity is low due to traditional techniques and marginal use of

modern agricultural inputs. Total cereal production in five affected districts is estimated at 21,733, 64,988, 79,648, 161,485 and 198,797 metric ton for Dolakha, Ramechhap, Sindhuli, Mahottari and Dhanusha districts respectively.

1.6 VULNERABLE COMMUNITY IN THE PROJECT AFFECTED AREA

The Social Impact Assessment study of the proposed project has identified 39 affected families as the members of the Vulnerable Communities among the affected population (**Annex III**). These families belong to marginalized and disadvantage group from occupational and low caste (29 HHS), ethnic minorities (10 HHS) including women headed households (5 HHS).

S. No.	Affected Families from Vulnerable Community	Districts			Remarks
		Sindhuli	Ramechhap	Dhanusha	
1.	*HAYU	1	-	-	Endangered Group
2.	**MAJHI	5	-	4	Highly Marginalized Group
3.	DAMAI	-	-	2	Occupational Caste
4.	KAMI	8	3	1	-do-
5.	SARKI	2	12	1	-do-
	Total	16	15	8	

(Note: * & ** Based on NEFIN classification)

Major settlements of affected families of Vulnerable Community are Bhaluwajor, Khimti and Manthali VDCs in Ramechhap District; Tulsi VDC in Dhanusha District and Bhadrakali VDC and Kamalamai Municipality in Sindhuli District.

The economy of the families of Vulnerable Community is based on agriculture and livestock and is primarily subsistence in nature. Agriculture farming and livestock constitute 36 % of occupation with 48 % average annual income accruing from it. Being subsistence based economy, the households produce for them and for limited sales to purchase manufactured goods. A variety of occupational skills including carpenter, blacksmith, tailor, mason, shoemaker and driver are found in the Vulnerable Community of the project area.

CHAPTER SOCIO-ECONOMIC INFORMATION

2

This section provides relevant demographic and socio-economic data in order to help characterize the affected Vulnerable Community. The findings from survey/interviews of affected Vulnerable Community are given to elaborate on the socio-economic characterizations. These survey/interviews are particularly important since there is no recent data available at the village level on Vulnerable Community.

Out of total 39 households (HHs) identified (SIA 2004) as the affected families from Vulnerable Community, 32 households were surveyed which stands for 80 %.

2.1 POPULATION AND HOUSEHOLDS

Total numbers of household surveyed during the filed survey is 32 with total population of 200 comprising male 106 and female 94. The population distribution among the affected members of Vulnerable Communities in the project area indicate that the population density is high in their community with average household size of 6.25 compare to 6.22 for PAF and 5.88 for SPAFs as presented in SIA 2004.

Table - 2: Total Population and Households

Description	Total
Total Population	200
Male	106
Female	94
Number of Households	32
Average Household Size	6.25

Source Field Survey, 2004

2.2 AGE AND SEX DEMOGRAPHICS

The population distribution of the surveyed households by age and sex shows that about 30 % of the households members fall below 15 years age group and about 9 % are above the age group of 60 years. This indicates that the economically active population among these families accounts for 61 %.

Table - 3: Population Distribution by Age Group and Sex

Age Group	Male	Female	Total	%
Below 10 Years	24	16	40	20
10-15 Years	10	10	20	10
15-60 Years	62	60	122	61
Above 60 Years	10	8	18	9
Total	106	94	200	100

Source Field Survey, 2004

2.3 EDUCATIONAL STATUS

The average literacy rate among the surveyed families of Vulnerable Communities is 56 % and 36.5 % of population are illiterate. Among the literate, 22 % are able to read and write, 29 % are under SLC and 5 % are in SLC level and above.

Population	Under Six years	Illiterate	Literate			Total
			Able to read & write	Under S.L.C	S.L.C. & above	
Male	9	29	26	33	9	106
Female	16	44	18	25	1	104
Total	15	73	44	58	10	200
Percentage	7.5	36.5	22	29	5	100
<i>Source Field Survey, 2004</i>						

2.4 OCCUPATIONAL STATUS

According the survey result, 36 % of these households surveyed identified agriculture and livestock as their main occupation. About 20.68 % of the residents are students. Share of labor and mason constitute 9.13 % and 4.32 %. Other skill related occupational share includes Blacksmith (2.40%), Shoemaker (1.44 %), Carpenter (1.92 %), Tailor (1.92 %) and driver (1.4 %).

Occupation	Male	Female	Total	%
Agriculture & Livestock	30	35	65	31.25
Business	1	1	2	0.96
Service	6	1	7	3.37
Students	27	16	43	20.68
Labor & Wages	10	9	19	9.14
Able to work	8	8	16	7.69
Mason	9	0	9	4.33
Blacksmith	4	1	5	2.40
Carpenter	4	0	4	1.92
Tailor	3	1	4	1.92
Shoemakers	3	0	3	1.44
Driver	3	0	3	1.44
Others	6	22	28	13.47
Total	114	94	208	100
<i>Source Field Survey, 2004</i>				

2.5 INCOME AND EXPENDITURE PATTERNS

2.5.1 Sources of Income

The finding of survey indicated that agriculture is the main source of income contributing 41.33 % of the annual average income to these households followed by labor and wages (13.85 %) and service (11.51 %). Carpentry and animal husbandry constitute 8.66 % and 7.15 % of average annual income. The findings of survey suggest that the annual income of the households' average is NRs. 24,062.00.

Income Source	Amount (NRs) in Thousand		% of Average Amount
	Total	Average	
Agriculture	358,000.00	11,187.50	41.33
Service	100,000.00	3,125.00	11.51
Trade	15,000.00	468.75	1.73
Pension	22,000.00	687.50	2.54
Cottage Industries	21,000.00	656.25	2.42
Labor and Wages	120,000.00	750.00	13.85
Pig & Poultry Farming	20,000.00	625.00	2.30
Animal Husbandry	62,000.00	1,937.50	7.15
Carpentry	75,000.00	2,343.75	8.66
Other	73,000.00	2,281.25	8.42
Total	866,000.00	24,062.50	100

Source Field Survey, 2004

2.5.2 Expenditure Patterns

The survey result shows that 49.88 % of the household income is spent on food items. The non-food related expenditure on clothing, medicine, energy and education are 14.53, 8.98, 7.80 and 6.73 % respectfully. Consumption of alcohol stands at 6.26 % of their expenditure.

Expenditure Items	Amount (NRs) in Thousand		% of Average Amount
	Total	Average	
Food	422,000.00	13,187.50	49.88
Energy	66,000.00	2,062.05	7.80
Medicine	76,000.00	2,375.00	8.98
Clothing	123,000.00	3,843.75	14.53
Education	57,000.00	1,781.25	6.73
Wine (Alcohol)	53,000.00	1,656.25	6.26
Other	49,000.00	1,531.25	5.79
Total	846,000.00	26,437.05	100

Source Field Survey, 2004

2.6 HOUSING PATTERNS

The rural house of the project area is in general similar to those of the rural areas of Nepal. The houses are one and/or two storey high and are of *Kachhi* type with thatched or tile roofs. All the members of Vulnerable Communities interviewed have their own house in the project area.

2.7 POVERTY RANKING

The survey finding on food sufficiency showed that about 21.88 % of households have sufficient food for 12 months and above. Likewise, 25, 37.5 and 12.5 % of households have sufficient food for 9, 6 and 3 months respectively. Only one household is reported to have food reserve for less than 3 months.

Sufficient for Month	No. of HHs	% of HHs
12 & above	7	21.88
9	8	25.00
6	12	37.50
3	4	12.50
Less than 3	1	3.12
Total	32	100.00

Source Field Survey, 2004

2.8 COMMUNITIES FACILITIES

Drinking water, health, road, suspension bridge, irrigation, rural electrification, hydropower and small agricultural development project are some of the major developmental projects within project area in Mahottari, Ramechhap, Sindhuli and Dhanusha. Most of the developmental projects are located in Ramechhap district than other district of the project area.

Other infrastructures and communities facilities found in the project area are 11 kV transmission line in Manthali area, 33 kV transmission line in Ratanchura and Bhadrakali area, an airport in Manthali, irrigation canal in Khurkot, Sindhuli to Banepa road and Bardibas to Sindhuli road are other infrastructures located in the project area.

CHAPTER INSTITUTIONAL ARRANGEMENT

3

3.1 EXISTING INSTITUTIONAL CAPACITY

Development of large infrastructures project require active coordination and cooperation with local government, line agencies, other developmental agencies and local communities. Institutional capacities of some of the existing institution in the project area are presented below.

3.1.1 In the Government

The government and semi-governmental institutional in the project area include Nepal Electricity Authority, District Drinking Water Office, Road Division, Hospital, Irrigation, Agricultural Service Center, Veterinary, Bank, Forest Office, Police Office, etc. that provide services to the local people.

Village level administration is carried out by elected VDC that plan and implement village level small-scale development activities such as drinking water supply, construction of road, school, and small-scale irrigation canals. Their budget are comprised of local fund and supplemented by the government through DDC. However, in present scenario VDC is less active in terms of implementation due to prevailing conflict. The tenure of elected VDC representatives has been completed and a new VDC representative has yet to be elected. The VDC secretary is the VDC Chairman at present.

The district level activities of the line agencies of government are coordinates by the Local Development Officer (LDO). CDO of the district oversee the duties of LDO.

3.1.2 In the Communities

In addition to local government, there are approximately 20 NGOs and clubs working in the project area in the field of health and sanitation, social service, skill development, income generation, drinking water, irrigation and agriculture development. The staffing capacities of these institutions vary from 1 - 100 in numbers.

3.1.3 In the Promoting Agency

The Environmental and Social Studies Department is the apex body of NEA entrusted to carry out all the environmental studies, monitoring and management of NEA's hydropower, transmission line and distribution projects. It has wide experiences in the field of environmental and social studies of the projects and has completed several studies such as EIA, IEE, ACRP and Environmental Audit of hydropower generation, transmission line, distribution, access road and rural electrification projects of different capacities. ESSD/NEA in association with several international consulting firms has prepared many guidelines, which are in practice for various environmental studies. ESSD is a leading institution in the field of

environmental studies, monitoring and management with well trained and experiences manpower in physical, biological and socio-economic and cultural aspects.

The Khimti-Dhalkebar 220 kV Transmission Line Project will be in charge of overall responsibilities of the VCDP with Environmental Monitoring Unit (EMU) of the project being executing body of VCDP.

3.2 STRENGTHENING INSTITUTIONAL CAPACITY

3.2.1 In the Government

Support for strengthening institutional capacity of local government (VDC/DDC/Municipality) needs to be provided for making good relationship and rapport as well as ensuring desirable role for the successful implementation of VCDP and the proposed KDTL Project. However, present situation limit this process since there is no elected representatives at the local government (VDC/DDC). VDC secretary is the chairperson of the VDC in present context.

3.2.2 In the Communities

Out of 21 NGOs and Clubs working in the project area, Rural Health Development Project, Community Development Society, Tamakoshi Sewa Samiti, Druba Tara Yuva Club and Dhanusha Sewa Samiti are actively working in the field of environment, drinking water, Health, social service, public awareness and income generation. The NGO's working in the project area needs to be trained and provides exposure to meet the objective set forth in VCDP.

3.2.3 In the Promoting Agency

NEA is pioneer in the field of environmental study, monitoring and management of hydropower generation, transmission line and distribution projects of different capacities. The enactment of EPA and EPR 1997 require EIA and IEE study of development projects. Similarly, donor funded project are also required to be complied with donors policies requirements. The KDTL Project requires preparing SIA, ACRP, ARAP and VCDP apart from mandatory EIA as per EPR 1997. The VCDP is being prepared by ESSD/NEA for the first time. In order to build capacity in ESSD/NEA to satisfactorily deal with the social safeguard concerns of donors, the World Bank can facilitate to enhance the capacity of ESSD on social safeguards by providing training to social staff of ESSD. This will certainly help in effective implementation of the social plans and programs of the project.

CHAPTER 4

IMPACT ASSESSMENT

Transmission Line project is linear facilities. Majority of 73 km long Khimti - Dhalkebar 220 kV Transmission Line alignment traverse through sparsely populated areas, thereby, having minimal effects on local residents and area. The TL alignment passes through 16 VDCs of five districts of Janakpur Zone of Nepal. Out of five districts, the TL alignment passes through private land in Ramechhap, Sindhuli and Dhanusha districts only.

This chapter presents the likely adverse impacts that will occur as a result of construction and operation of the Khimti- Dhalkebar 220 kV Transmission Line Project.

4.1 IMPACTS ON LAND AND HOUSES

The total houses that are likely to be affected by the project are 17 in 9 VDCs of three districts. Out of these 17 houses, only two houses belong to the members of Vulnerable Communities at Bengadabar VDC of Dhanusha district, which are presented in table below.



Affected House at Bengadabar VDC

Types of House Affected	Name of House Owner	
	Purna Maya Kamini	Bishne Damai
Type	Kacchi	Kacchi
Storey	2	2
Roof	Tiles	Slate
No. of Room	6	4
Building Material	Wood, nail, tiles, rod	Wood, nail, tiles, rod
Area of house	304 sq. ft.	383 sq. ft
Date of construction	1989	1978

Source Field Survey, 2004

The project will acquire 1.06 ha of land from 68 household for the permanent purpose and 0.5 ha will be temporarily affected by the project.

Out of total 68 household, about 39 households from the Vulnerable Community will be affected by the land take for the project in eight VDCs of three districts. Private land will not be affected in Dolakha and Mahottari district. The total numbers of households affected by the project, as a whole is highest in Ramechhap district where as it is highest in Sindhuli district

for Vulnerable Community. Similarly, it is lowest in Dhanusha district for both the categories (Table - 10).

S. No.	District	Total no. of Households Affected	%	Total no. of Household Affected in Vulnerable Community	%
1.	Dhanusha	66	9.24	8	20.52
2.	Ramechhap	365	51.1	15	38.46
3.	Sindhuli	283	39.6	16	41.02
	Total	714	100	39	100

Source Field Survey, 2004

Likewise, the total numbers of households affected by the land take is highest in Sidhshewari VDC (16.80%) of Sindhuli district followed by Katahare (15.40 %) and Nagthali VDC (14.98%) as presented in SIA 2004. Similarly, the total numbers of household from Vulnerable Community to be affected by the land take is highest in Bhaluwajor VDC of Ramechhap district followed by Siddheswori VDC of Sindhuli district and Bengadabar VDC of Dhanusha district (Table - 11).

S. No.	VDCs	Districts	No. of HHs
1.	Bhadrakali	Sindhuli	1
2.	Bhimeshwor	Sindhuli	2
3.	Ratanchura	Sindhuli	1
4.	Sidheswhari	Sindhuli	12
5.	Bhaluwajor	Ramechhap	13
6.	Nagthali	Ramechhap	2
7.	Bengadabar	Dhanusha	8
	Total		39

Source Field Survey, 2004

The name of owners of house and land to be affected by 30 m corridor of transmission line alignment is provided in **Annex - III**. Due to the limited area of land requirement for tower foundation, impact on land is insignificant compare to the total land owned by the project affected families. The overall magnitude of impact to the Vulnerable Community due to land take is considered to be low, extent is local and duration is long term.

4.2 LOSS OF STANDING CROPS

During the transmission line construction, erection and stringing, there are likely to be adverse impact on standing crops around the tower pads by the construction-related activities and movement of workers and machines/materials. The construction planning of transmission line related works including erection and stringing are to be preferably carried out during lean

season to avoid or minimize damage to the standing crops. The magnitude of impact is considered to be low, extent is local and duration is short term.

4.3 OCCUPATION SAFETY AND HEALTH HAZARDS

Occupation Safety and Health Hazards likely to be occurred during the implementation of the project, particularly during the erection of tower and stringing of lines. This type of works related injuries and fatalities occurred in Nepal primarily due to negligence and unsafe construction practices. Similarly, vehicular related accidents are anticipated during the construction of the project. The magnitude of impact is considered to be moderate, extent is local and duration is short term.

4.4 SOCIO-CULTURAL IMPACTS

The Socio-cultural impacts associated with the construction of the TL will be minor in comparison to other development projects construction sites. The actual area falling under construction is small and the construction period required at each tower site is short. Hence, significant pressure and change on local social and cultural practices is not anticipated in the project. The magnitude of impact is considered to be low, extent is local and duration is short term.

4.5 HEALTH AND SANITATION IMPACTS

The Project area has relatively poor health and sanitation facilities. Health care facilities are located distantly. Transmission line facility requires small local labor force mainly for transporting parts of tower and foundation equipment, stringing and drums from one tower to another. Local labor force shall be engaged for the construction except some skilled and expert manpower. The health and sanitation impacts related to the construction of the transmission lines are expected to be limited due to the short construction time period at each site. Potential impacts on health and sanitation due to concentration of labor and staff, equipment and construction material will be low and local.

4.6 REDUCTION IN LAND VALUE

The provision in Electricity Regulation 1993 restricts the construction and location of houses along the right of way (RoW) for safety concern. There are limited areas of land along the RoW suitable for construction of houses. However, the RoW reduces the land value due to restriction on building houses. The overall magnitude of impact is moderate, extent is local and duration is long term.

CHAPTER 5

VULNERABLE COMMUNITY CONCERN/EXPECTATION AND PROPOSED PLAN

The strategy adopted in VCDP are to mitigate and/or minimize the adverse impact on the families of Vulnerable Community as well as to enhance the opportunities created by the project to improve the livelihood and condition of these communities as a result of project implementation. The VCDP consist of a numbers of activities and include mitigation measures of potentially adverse impacts. The NEA as a proponent of the proposed project will bear principal responsibilities in implementation of the plan and program contained in VCDP.

Focus Group Discussion, interviews and field based observation have been used to analyze the potential impacts and to reflect their concerns and expectations.

5.1 VULNERABLE PEOPLES' EXPECTATION

The VCDP draws its plan and program with the interaction and group discussion with local people from VC including teachers and community leaders (*Annex IV*). There are large numbers of expectation of vulnerable people regarding the project as observed during the field survey. The field observation and interaction with the local population indicate following major issues in the community of vulnerable group;

- Due to the low income generating opportunity and lack of skill and technology available in their areas, the majority of Vulnerable Community members expect the program to provide income generating activities and skill training program in appropriate way so that it could be managed in sustainable manner.
- Due to the low literacy rate, most of the members of the Vulnerable Community of the project areas suggest for implementation of non-formal education program.
- Most of the members of the Vulnerable Communities were aware of excessive use of alcohol by them. They felt the need of social awareness through community mobilization to control the use of alcohol.
- Due to the lack of access to information and familiarity with the government administrative process and low level of education status, they tend to low level of participation in the decision making process. Hence, they desire community mobilization program and role in decision-making process.
- The basic infrastructures facilities in the project areas are either missing or in poor condition. Accordingly most of the vulnerable people expect from the project are for drinking water facilities, school renovation, rural road and electricity facilities.

- The critical issues raised by the majority of vulnerable people are social exclusion based on caste discrimination. Access to public facilities and resource is highly dependent on social identity (caste, ethnicity and gender), economic status (landowner, businesspersons or sharecropper) and physical location (urban, rural or remote rural) in Nepal. This phenomenon is non-uncommon in the proposed project areas. They want to overcome this malpractice.
- Unemployment and/or disguised unemployment are common in the rural areas of Nepal. Due to lack of income generating activities in project areas, people tend to migrate to the urban center of Nepal as well as neighboring India or third countries. Unemployment is one of the core problems areas that the people from Vulnerable Community articulated.

5.2 PROPOSED PLANS

The VCDP aims to mitigate and/or minimize the adverse impact on the families of vulnerable community as well as to enhance the opportunities created by the project to improve the livelihood and condition of these communities as a result of project implementation. Likewise, it also plans to address the major issues faced by Vulnerable Community. Thus, the VCDP include following mitigation measures as well as enhancement measures to mitigate and/or minimize potential adverse impacts on Vulnerable Communities as well as to address their concerns and specific requirements.

5.2.1 Mitigation Measures:

- The acquisition and compensation activities will be guided by the principle, which ensures that the absence of legal entitlement will be no bar in compensating the assets and property. The compensation of all the affected assets and structures or land will be paid at replacement cost
- Priority will be given to the members of Vulnerable Community, who fulfill the essential selection criteria in different training related to institutional development, income generation and technological aspects etc.
- Awareness program against social malpractices based on caste discrimination and on Health and sanitation awareness program will be initiated for the members of Vulnerable Community.
- Similarly, efforts will be delivered to augment the stage of awareness of the members of Vulnerable Community on various opportunities available and on how to take advantage of these opportunities.
- Active participation of the members of Vulnerable Community including women will be encouraged during the program implementation.
- A grievance redress mechanism will be formulated and made effective within the office of the project proponent including the participation of representatives of the Vulnerable Community during the implementation.
- Priority will be given to the members of Vulnerable Community in the project employment as far as practicable. Experiences in other project of Nepal have shown that the project employment is an effective measure to enhance the livelihood of the affected families.

- Prior consultation with the families of affected Vulnerable Community to be relocated will be carried out about possible relocation sites and their views will be taken into account in selecting the final relocation site.

5.2.2 Enhancement Measures:

5.2.2.1 Infrastructure Support

The development of infrastructures is the prerequisite for overall development of any region or communities. In order to address the needs of the Vulnerable Community, infrastructure support in following area will have positive and effective result in enhancing socio-economic condition of the members of the vulnerable group as well as local area;

- Drinking water facilities
- School renovation
- Rural road
- Electricity facilities

5.2.2.2 Economic Support

The VCDP contain following activities to support economic aspects of the vulnerable community;

- Skill training on advance farming and marketing
- Improved livestock facilities
- Non-timber forest product farming
- Occupational training
- Initiation of income generation activities based on locally available resources
- Capacity building program for NGO, VDC, DDC staff

5.2.2.3 Socio-cultural Support

The VCDP contain following activities to support socio-cultural aspects of the Vulnerable Community;

- School children support program
- Construction and/or renovation of Pati, Chautari (Rest Places) and Temples
- Advocacy and sensitization program for social inclusion and caste discrimination
- Health training to women health worker

5.3 COSTS ESTIMATION AND FUNDING

The cost estimation for the implementation of VCDP excluding the cost of compensation and rehabilitation amount is approximately NRs. 20,00,000.00 as presented in table 12. The program cost will be funded by NEA through KDTL Project. However, a small portion of the cost is anticipated to be covered through people participation.

S. No.	Activities	Units	Estimated Amount in NRs.
01.	Infrastructures Support	LS	10,00,000
02.	Economic Support	LS	500,000
03.	Socio-cultural Support	LS	500,000
	Total		20,00,000

(In word Rupee Twenty Lakh only)

Apart from above cost, some costs are included in project design and can not be separated. The items in built in project design and included in tender documents are not included in the above cost estimation.

CHAPTER PARTICIPATORY PLANNING AND IMPLEMENTATION

6

The VCDP draws on qualitative and quantitative data from primary as well as secondary sources, which have been carried out during the field survey. Various meeting and interviews were conducted with local people including teachers, NGOs, members of Vulnerable Community etc. Furthermore, it is suggested to promote further public participation particularly the member of Vulnerable Community and VDC, and discuss the project objectives and activities focusing specifically on the findings and programs of VCDP.



Group discussion at Bengadabar VDC
in Dhanusha district

6.1 STRATEGY FOR COMMUNITY PARTICIPATION

During the preparation of VCDP, concerted efforts have been given not only to mitigate the project impacts to affected Vulnerable Community but also to provide them an opportunity for their socio-economic upliftment. Field visits were conducted and consultation meetings were carried out with the members of Vulnerable Community as well as other knowledgeable local people.

Active participation of stakeholders and local community is essential for sustainable and successful implementation of the program, The affected members of Vulnerable Community are consulted and encouraged to participate in the process of preparing VCDP.

A committee will be formed during implementation comprising representatives of affected families from Vulnerable Community, VDC and NGOs to support the implementation of VCDP and to resolve any disputes arising out of the implementation process of VCDP.



Group discussion at Ranichuri VDC in
Sindhuli district

In summary, the affected families' members of Vulnerable Community, NGOs and VDCs participated in the following activities;

- Information dissemination at the beginning through meeting , interview, questionnaire survey

- Field visit, FGD and checklist administration

6.2 IMPLEMENTATION ARRANGEMENT

6.2.1 Contribution of the Communities

A committee will be formed comprising representatives of VDC, NGOs and Vulnerable Community that will bear responsibilities in facilitating implementation and monitoring of VCDP. Similarly, local participation in the form of cash or labor will be sought in program implementation. The local committee may also contribute by taking responsibilities in keeping vegetation clearance of RoW at their area during operation phase of the project with financial support from the project.

6.2.2 Contribution of the Promoting Agency

NEA being the proponent of the project, required fund for the implementation of the program will be provided by NEA. Similarly, NEA will also provide required services for technical and mobilization of NGOs through KDTL Project. NEA will further ensure that adequate budget will be available for the implementation of VCDP.

6.2.3 Contribution of the Donor

The proposed project requires preparing SIA, ACRP, ARAP and VCDP apart from mandatory EIA as per EPR 1997. The social assessment process is covered under the EIA requirements in Nepal. Effective identification of social safeguard issues and its mitigation is an important part of development process. There is no Involuntary Resettlement Policy in Nepal so far. In this context, the World Bank can facilitate to enhance the capacity of ESSD on social safeguards by providing training or more focused training to social staff of ESSD. This will undoubtedly assist in efficient and successful implementation of the social plans and programs not only of proposed project but to other project to come in Nepal.

CHAPTER MONITORING AND EVALUATION

7

The implementation of VCDP will be closely monitored and supervised. In order to ensure that the implementation of the VCDP is being carried out effectively in accordance with the objective set forth in VCDP, an internal as well as independent external monitoring required to be carried out during implementation. Thus, VCDP will be monitored in following ways;

7.1 INTERNAL MONITORING AND REPORTING BY PROMOTING AGENCY

The internal monitoring activities will be carried out by the promoting agency i.e. ESSD/NEA. A set of monitoring indicators will be determined during VCDP implementation. The main purpose of the monitoring mechanism is to maintain the satisfactory functioning of the various organizations responsible for execution during the implementation process.

7.2 PARTICIPATORY MONITORING AND EVALUATION

Participatory monitoring and evaluation will be carried out by a committee comprising the representative of members of Vulnerable Community, VDCs and local communities, NGOs, and representatives of affected families to ensure and assist to responsible organization in implementation of VCDP. The committee will undertake the independent monitoring and evaluation of the VCDP implementation to observe;

- The functioning of the Promoting Agency regarding the implementation of VCDP
- To evaluate whether the outcome of VCDP comply with the main objective of VCDP

7.3 EXTERNAL SUPERVISION AND EVALUATION

The responsibilities of external supervision and evaluation will be carried out by the World Bank mission visit and through the review of reports submitted by the proponents.

Monitoring reports will be prepared and distributed by Environmental Monitoring Unit (EMU) of the project in its regular reporting schedule.

REFERENCE:

- | | |
|--|---|
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