

CHAPTER III

PROJECT IMPACTS AND RESETTLEMENT

3.1 Land Acquisition

As per detail design, the Bhairahawa – Bhumahi Road Upgrading Sub-project would require 71.126 hectares of lands along a total 29.152 km length. As per findings of census, 2687 plots of land will get partially or totally affected requiring relocation and resettlements of 1046 affected households. This figure does not include the plots without having the official boundary.

The need for land acquisition is unavoidable due to the following reasons:

- The acquisition of structures built against the provision of 20.34 meters ROW in the municipal by-laws of Sidharthanagar Municipality at Bhairahawa end through Shanti Nagar will be required. The proposed ROW and construction width in designed Road is 20 meters in the municipal area based on the availability of ROW permitted by the municipal by-laws. The land acquisition in this area will not be required, but the structures built within the ROW will be acquired.
- The proposed ROW is 20.34m in the municipal area and 30m in other parts of the project. The available RoW and width of the current existing alignment road is only 7-12m along most of the stretch. The proposed widening requires 20m construction width in municipal area as per municipal bylaws and 30m construction width in other areas. The land will be acquired for 30m width of land along the existing alignment and the bypasses.
- Bypasses have been proposed to adjust the road curves and avoid the resettlement and impact on the properties and businesses. The land is required for the bypasses. The bypass has avoided the structural properties to the possible level. The provision of bypasses would reduce the project-affected persons.

During detailed design, efforts have been made to minimize serious effects on the families and disruption of their livelihood by land and structure acquisition by adopting appropriate engineering designs and location specific measures. In Sidharthanagar Municipality from Devkota Chowk (0+000 chainage) to Danda bridge (1+000 chainage) where the settlement is densely built; the ROW is minimized to 20.34m in line with the ROW fixed by the municipal bylaws of Sidharthanagar Municipality to minimizing the land acquisition and resettlement. While finalizing the road alignment, the following location specific efforts have been made to minimize the resettlement impacts. Public consultations and field visits helped in getting better planning and designing inputs towards minimizing negative social and resettlement impacts.

- The available ROW is only 20.34m in Shantinagar from Devkota Chowk to Danda Bridge as per municipal by-laws of Sidharthanagar Municipality. The existing RoW is maintained to avoid the resettlement of dense settlement.

- To minimize displacement and reduce disruption of livelihoods, the provision has been made for concentric widening in settlement sections, bypasses to avoid settlement & raised carriageway.
- The minimization in the size of walkways / footpath is considered to avoid the need of demolition of structures in the densely built-up areas in Basantapur and Dhakdhai as applicable. The possibility of reducing the width of the walkways has been considered wherever the structure has been affected in the road widening in Padam road and Jeetpur. The minimization in the size of walkways / footpath at the portion in front of affected structure will minimize the need of demolition of structures in the built-up areas in Jeetpur and Padam Road.
- Bypasses have been designed to avoid the resettlement and impact on the properties and businesses in feasible sections. The bypass has avoided the structural properties to the possible level. The provision of bypasses would reduce the project-affected persons. The design has utilized the agricultural land instead of utilizing a service gravel road to avoid the resettlement leading to displacement of residential structures. The bypass has avoided the structural properties, reducing the affected persons in the context of affected structures.
- The road width has been adjusted to 30 meters in the place of 50 meters to avoid the structure dismantling and resettlement.
- The design has included the existing gravel road as far as possible to minimize the extent of land acquisition. All efforts were made to reduce negative impacts during detailed design and will be made throughout the project implementation process.
- The plans include continuous efforts to reduce negative impacts throughout the project period.

3.2 Types of Losses

The census survey has recorded 2687 plots of private and public lands, and 648 private and public structures, which will get partially and totally affected. The project impacts include the loss of land (agricultural, residential and commercial), structures (residential, commercial and community), income and livelihood (owners, tenants encroachers and squatters) and public lands and structures. They will need resettlement, relocation and compensation.

3.3 Impacts on Land

The major impact of the project is loss of 71 ha of land. As per census findings, about 2687 plots of land will be affected. This figure does not include plots without having official boundary. The proportion & extent of land loss is estimated on the basis of assumption given in the Table 3.3.1.

Table 3.3.1: Assumption of extent of loss of affected land

SN	Land Acquisition Proportion	Assumption of Extent of Loss
1	Upto 25%	25%
2	25% - 50%	50%
3	50% - 75%	100%
4	75% - 100%	100%

The acquisition of land upto 25% is taken as the loss of land upto 25% only. However, the acquisition in the range of 25 - 50% is assumed as 50% and more than 50% as 100% loss. The table 3.3.2 provides the number and percentage of land loss to be occurred in the project area.

Table 3.3.2: Number of Plots by Extent of Land Loss

Districts	0 –10%	10-25%	25-50%	50-100%	100%	Total
Rupandehi	283	427	414	311	97	1532
Nawalparasi	192	271	275	198	119	1055
Total	475	698	689	509	216	2687

Source: Field Survey, 2006

There are a large number of cases where the landownership of number of plots is distributed among different family members of single family. The single family was repeatedly counted as more than two households. The column of number of households is therefore not included in the table. However, the list of households is provided in the annex 1A, 1B, 2A and 2B. Of total 2687 plots, the extent of land loss in 475 plots is less than 10% only. The loss is in the range of 10 - 25% in 698 plots and 25 - 50% in 689. The extent of loss is 50 – < 100% in 725 plots. The plots requiring 100% acquisitions are 12.

Apart from above-mentioned lands, the contractors may require some portion of land for a temporary period for carrying out construction activity. The estimated number of affected households and lands for this purpose can be assessed only during the construction period based on site-specific details.

The owners of all 2687 lands will receive compensation at replacement cost for the portion of land lost together with the cost of crops and trees. Almost all of land owners possess extra lands apart from the affected ones. There is therefore no serious problem of resettlement and relocation. The land price is calculated on the basis of reporting by affected plot owners and other community members on current market value of the land, the cost recorded in the Land Revenue Office and the rate fixed by the government for land registration purpose.

Table3.3.3: Land Price

Name of VDC	Rate demanded by land owners during field interview / kattha	Market rate
Rupandehi		
Bashantapur	1,000,000	250,000
Chipagadh	100,000	100,000
Dhakadhahi	500,000	200,000
Pokharbhindi	600,000	100,000
Nawalparasi		
Banjhariya	300,000	210,000
Hakui	400,000	80,000
Jhambhuwad	400,000	210,000
Manjhariya	400,000	320,000
Parasi	800,000	320,000
Ram Nagar	800,000	300,000
Sukrauli	800,000	80,000

Source: Field Survey, 2006

The land prices as per government market rate developed for the land registration purpose for the last fiscal year 2005 - 2006 are minimum Rs. 80,000 and maximum 320,000 per kattha. The public demands of market price ranged 100,000 – 1,000,000 per kattha.

The final decision on land price will be made by the compensation fixation committee by proceeding the community valuation method. Based on the Land Acquisition Act of Nepal, fixation of compensation rate is the responsibility of Compensation Fixation Committee (CFC) to be formed under the Act. As per the prevailing practices, the CFC to be formed by the CDO has been found to be effective to determine the land cost. It is in the sense that in practice the committee makes extensive consultation with representatives of the affected populations, political party representatives, and relevant district level chiefs of line agencies to fix the compensation as per prevailing market rate. Representatives of the affected households, the local government representatives, the project personnel and other local level representatives of line agencies are brought together to fix the price of land, structures and other asset. Community consultation valuation (CCV) for fixing compensation is a commendable approach applied in recent projects. This helps reduce the existing disparity in the valuation based on prevailing market rate and the ones set by the Land Revenue Office. The CFC through the process of community consultation valuation will determine the replacement value and fair compensation for the lost assets. The costs estimated for the compensation based on the government rate by each VDC are given in the Table 3.3.4.

Table 3.3.4: Compensation cost for land by each VDC/Municipality

Name of VDC	Rate demanded by land owners during field interview / Kattha		Market Rate/ Kattha	
	Rate	Amount	Rate	Amount
Rupandehi				
Bashantapur	1,000,000	202,785,500	250,000	62,300,625
Chipagadh	100,000	15,433,750	100,000	15,433,750
Dhakadhai	500,000	211,577,500	200,000	66,962,500
Pokharbhindi	600,000	5,137,500	100,000	856,250
Sub-total	-	434,934,250	-	145,553,125
Nawalparasi				
Banjhariya	300,000	7,455,000	210,000	5,218,500
Hakui	400,000	29,448,750	80,000	6,339,000
Jhambhuwad	400,000	157,920,000	210,000	82,908,000
Manjhariya	400,000	58,790,518	320,000	46,958,267
Ramgram	800,000	46,610,000	320,000	18,644,000
Ram Nagar	800,000	27,865,000	300,000	10,833,750
Sukrauli	800,000	81,256,750	80,000	15,102,000
Sub-total	-	409,346,018	-	186,003,517
Total	-	844,280,268	-	331,556,642

Source: Field Survey, 2006

The maximum cost for the acquisition of road alignment lands from the affected plots is Rs. 331,556,642 by the government market rate and Rs. 844,280,268 according to the demand by land owners during field interview.

In case the remaining portion of land is not economically viable and, if the AP chooses, the total land will be acquired and will be compensated. During public consultation, some owners have shown concern that their remaining portions of plots inadequate for future use. They will be identified from owners from 509 plots losing in the range of 50 - 100% of their lands. Experience from other road projects indicate that any size of land abutting to the road will be a valuable asset after completion of the road construction. It is unlikely that many owners will be eager to sell the plots to the project. Apart from the compensation for land, crops and trees, all households losing more than 10% of their land will be entitled to receive skill training for a productive activity @ NRS 3000 per family and a one time economic rehabilitation grant up to an amount of NRS 6000 based on the type of productive activity opted by the AP. The total cost estimated for livelihood skill development training is Rs. 3,138,000 and economic rehabilitation grant Rs. 6,276,000. Identified 12 households with 100% acquisition of land and becoming landless will receive an additional assistance of NRS 2000 for a period of three months. Similarly, women-headed households will also get the same facility.

For the purpose of carrying out construction activity, the contractors may require some portion of land for a temporary period. The estimated number of affected households can be assessed during the construction period based on site-specific details. Cost of acquiring land for temporary purpose during construction is included. Provision has been made in the entitlement matrix that contractors would negotiate with the individual land-owners and enter into contract/lease agreement as per current rates and ensure that no persons other than owner affected as a result of temporary acquisition are compensated for the temporary period. Provision has been made for compensation for trees, based on the age and value of the tree; and for the loss of un-harvested crops, if any. In case of disputes such as where land records are not updated or where the APs are unable to produce the desired documents, then the compensation amount will be deposited with the competent authority till the case is disposed. All fees, taxes and other charges, as applicable under the relevant laws, incurred in the relocation and resource establishment will be borne by the project.

3.4 Loss of Structures

The types of structures to be affected by the road include the followings:

- Private residential/commercial and public
- Movable and squatters.

Residential / Commercial and Public Structures: Grossly affected residential/commercial and public structures within 30 m construction width starting from Basantapur to Bhumahi and 20.34 m construction width as per municipal by-laws of the Sidharthanagar Municipality in the proposed road are 649. Of them 630 are private and 19 public structures. The structure owners will lose both the land and structures. They include 182 in Nawalparasi and 467 in Rupandehi. In order to minimize the structure demolition in densely built-up area in Basantapur, it has been discussed with the local communities that the size of the walkways should be minimized to the possible extent provided that the structure demolition can be avoided and the central line of the existing road should be considered for the right of way of roads for 30 meters.

Table 3.4.1: Public and Private Structures

Nawalparasi			Rupandehi			Total		
Private Structures	Public Structures	Total	Private Structures	Public Structures	Total	Private Structures	Public Structures	Total
170	12	192	460	7	467	630	19	649

Source: Field Survey, 2006

Utility types of affected structure are shown in the Table 3.4.2.

Table 3.4.2: Type of structure

Types of Structure	Nawalparasi	Rupandehi	Total
Residential (1)	108	141	249
Commercial (2)	17	36	53
Residential+Commercial(3)	23	267	290
Cowshed	8	-	8
Compound wall	10	14	24
Kitchen	2	-	2
Toilet	1	2	3
Petrol Pump	1	2	3
Non-used	1	-	1
Public Stand Post	4	1	5
Health Post	1	-	1
Staff Quarter	1	-	1
School	1	1	2
Office	2	2	4
Chautara/ Resting Place	2	1	3
Total	182	467	649

Field Survey, 2006

The affected buildings and structures have been categorized according to the type of structures. The major category includes; (a) frame structure (b) cement mortar load bearing wall with RCC/RBC slab (c) mud mortar wall with RCC/RBC slab (d) cement mortar wall with CGI roof (e) mud mortar wall with CGI roof (f) mud mortar wall with Khapada (tile) roof (g) thatched house (Kachha) (h) temporary sheds (bamboo/wood, etc.) and (i) Others.

Of total structures, 249 are residential, 53 commercial and 290 both the commercial and residential. Other losses include assets like public taps 5, chautara/ resting place 3, cowshed 8, compound wall 24, toilet 3, petrol pump 3. As to the APs, the relocation of these utilities can take place. All these utilities will be shifted with the APs and rebuilt at the new location of their resettlement. However, the issues are to be handled through more public consultations.

Households losing structures only are the people squatting in RoW and doing businesses from the mobile structures. 118 affected families in this category have been identified. Other 38 households not having the landownership certificates were also counted as slums and squatters. The squatters residing in RoW will be losing the entire structure.

Extents of impact on affected structures are given in the table 3.4.3:

Table 3.4.3: Extent of Impact on Affected Structure

S.N.	Structure Acquisition Proportion	Nawalparasi		Rupandehi		Total		Assumption of extent of Loss
		No	%	No	%	No	%	
1	Upto 25%	55	30.22	128	27.41	183	28.20	25%
2	25%-50%	37	20.33	123	26.34	160	24.65	50%
3	50%-75%	20	10.99	65	13.92	85	13.10	100%
4	75%-<100%	70	38.46	139	29.76	209	32.20	100%
5	100%	-	-	12	2.57	12	1.85	100%
Total		182	100.00	467	100.00	649	100.00	

Source: Field Survey, 2006

The losses of 306 structures are almost 100% assuming that the structure losing more than 50% is 100% loss. The number of structures losing in the range of 25 – 50% is 160 and below 25% 183.

Compensation: The households losing structures as titleholders will be compensated as per HMGN norms and would receive all benefits as mentioned in the entitlement matrix. Twelve (12) households losing 100% structures preferred relocations in the road side lands. They expect that the compensation cost at the replacement value will enable them to buy land and build new structures.

Movable and Squatter Structures:

Minimum 118 movable structures have been counted at the time of survey. A total of other 38 squatter structures of households without landownership certificates were counted. Squatters / encroachers are not eligible for compensation for the loss of land on the ROW, but are eligible for compensation for affected assets. The squatter households having residential / commercial structure will be allowed to push back on the edge of existing ROW and will receive compensation for their structure at replacement value and shifting assistance on actual cost basis. The movable and mobile commercial sheds will be allowed to relocate at the edge of ROW and will also receive compensation based on the type of business and shifting assistance on actual cost basis.

3.5 Traffic Impact

Proposed project road will impact the regional road network. It will divert traffic from the roads in Sidhartha Highway between Bhairahawa and Butwal, a section of East-West Highway between Butwal and Bhumahi, and the roads connecting Parasi on the project road. The Tolling Study Report estimates the project start year traffic to be in the range of 7,000 – 10,000 PCU per day.

The activities along the road sections carried out by unauthorized occupants in built-up areas, local markets, and busy intersections will be removed and pushed back preventing the traffic disturbances caused by such works.

During public consultations, safety issues were discussed. The project design has considered safety issues with provision of the right of way, provision of walkways, carriageways, number of lanes provision, crossways, vehicle turning points etc., which will help the safety. The issue has been raised on the need of traffic education and educating the road users on safe use of road. The project

will work to implement safety awareness and campaign to educate road users during the implementation of programs on gender, HIV/AIDS and human trafficking.

3.6 Affect on Households/ People

Population and Family Size of Affected Households: A total of 1046 households including 397 in Parasi and 649 in Rupandehi will be affected.

Table 3.6.1: Family size of affected households

VDC/Municipality	HHS	Population of affected HH			Average population size
		Male	Female	Total	
Rupandehi district					
Bashantapur	140	559	552	1111	7.94
Cipagad	57	191	198	289	5.07
Dhakadhahi	278	1064	1061	2125	7.64
Sidharthanagar Municipality	144	304	349	653	4.53
Sub-total	649	2118	2160	4178	6.44
Nawalparasi district					
Hakui	60	272	270	542	9.03
Jhambhuwad	58	218	224	442	7.62
Manjhariya	30	127	104	231	7.70
Parasi	21	40	44	84	4.00
Ram Nagar	96	361	356	717	7.47
Sukaruli	132	393	377	770	5.83
Sub-total	397	1411	1375	2786	7.02
Average	1046	3529	3535	6964	6.7

Source: Field Survey, 2006

The average size of the affected family is 6.7. Affected population are 6964 including 4178 in Rupandehi and 2786 in Nawalparasi.

Vulnerable Households: A total of 162 households have been identified as vulnerable households, which include the people below poverty line, women headed households, scheduled caste, and households with disability. Of total affected households, in an average 137 (29.87%) of affected households are below poverty line while considering the responses of the landowners on their income status. It is 27.68% in Rupandehi and 33.53% in Nawalparasi. Rupandehi is ranked 11 and Nawalparasi 36 on poverty and deprivation.

Table 3.6.2: Rank by poverty

S.N	District	Rank by Poverty and Deprivation
1.	Rupandehi	11
2.	Nawalparasi	33

Source: National Living Standard Survey, CBS/NPC, 2004

A total of 52 women headed households have been identified as vulnerable households. They include 32 in Nawalparasi and 20 in Rupandehi.

Table 3.6.3: No. of women headed households

VDC/Ward, Nawalparasi	No. of hhlds	VDC/Ward, Rupandehi	No. of hhlds
Hakui	4	Basantapur	8
Jamuwad	10	Chhipagadh	1
Manjhharia	6	Dhakdhai	7
Parasi	2	Pokharbhindi	0
Ramnagar	4	Sidharthanagar	4
Sukrauli	6	-	-
Total	32	Total	20

Total numbers of vulnerable affected households with the family members having disability were 7.

Table 3.6.4: Disability in affected households

Types of Disability	VDC	Male	Female	Total
Mental disorder	Hakui - 2	1	1	-
One leg disabled	Hakui - 2	-	1	-
Speaking disability	Hakui - 8 Amahawa	-	1	-
One eye blind	Ramnagar	1	-	-
Paralysis	Jhammuwad-6Ka	1	-	-
One leg disabled	Jhammuwad-6Ka	-	1	-
Total	-	3	4	7

Source: Field Survey, 2006

The numbers of scheduled caste identified in both districts are 115 including 82 in Rupandehi and 23 in Nawalparasi.

Literacy: Nearly 34% population in project sites are illiterate. Literacy status in Rupandehi project sites are relatively lower 58.1% than the district literacy status 65.9%. However, in Nawalparasi, the literacy status is better 74.1% in project sites than the district literacy status of district 53.0%. In average, the female illiteracy is 63.2%. Here also, the female literacy in project sites in Rupandehi district is lower 46.7 against the district female literacy 50.7. In Nawalparasi, the female literacy in the project sites is higher 79.8 than the district female literacy 40.68 Training programs for income restoration will become an important part of rehabilitation measures for illiterate people.

Table 3.6.5: Literacy Rate

S.N		Population Literacy		Female Literacy	
		District	PS	District	PS
1.	Rupandehi	65.95	58.1	50.71	46.7
2.	Nawalparasi	52.99	74.1	40.68	79.8
	Average	59.47	66.1	45.69	63.2

Project Area Literacy

VDC	Higher		SLC+		LS/S		Primary		R & W		Illiterate		Total Literacy		
	M	F	M	F	M	F	M	F	M	F	M	F	Male	Fem.	Total

Rupandehi District															
Basantapur	39	11	42	11	109	30	137	45	100	67	189	89	70.0	64.8	68.1
Chhipagadh	5	0	8	2	60	15	47	24	19	6	74	86	65.3	35.3	53.8
Dhakadhahi	63	17	78	23	229	108	267	150	200	159	381	399	68.7	53.4	62.4
Pokharbhind	4	2	5	1	12	8	13	4	0	0	35	59	49.3	20.3	34.3
Sidhartha M	50	25	48	22	84	56	51	37	26	12	58	102	81.7	59.8	72.0
Total	161		181	59	494	217	515	260	345	244	737	735	67.0	46.7	58.1
Nawalparasi District															
Hakui	3	0	13	0	75	28	76	7	7	45	158	34	52.4	70.2	57.0
Jambhuwad	3	1	14	2	55	3	60	0	134	10	30	0	89.9	100	90
Manjhariya	2	0	11	2	14	12	3	18	29	25	11	1	84.3	98.3	90.6
Parasi	1	0	6	0	12	1	17	9	3	1	13	1	75.0	91.7	78.1
Ram Nagar	12	4	21	7	107	62	73	48	66	32	112	147	71.4	51.0	62.5
Sukrauli	10	1	20	2	105	14	115	29	55	26	158	34	65.9	67.9	66.3
Total	31	6	85	13	368	120	344	111	294	139	482	217	73.1	79.8	74.1

The income restoration program should be such that the illiterate and poor APs can easily adopt the practices. Affected households opined that after the construction of the road they will be able to find a place to continue and improve their present activity without any difficulty.

It is noted that traders and businessmen are dependent on the road for their living. There is a high chance of them being affected during the times of project constructions. Since the occupational pattern of the population is not diversified, efforts at income restoration would be made and directed at enhancing business opportunities of the displaced population.

Gender: Women's participation in economic activities is almost negligible. A majority of women do not have any decision making power at household level in financial matters. It is in rearing of children or in day-to-day activities or social functions that their opinion is sought.

Table 3.6.6: Gender Empowerment

S.N	District	Rank by Women's Empowerment	Gender Empowerment
1	Rupandehi	31	24
2	Nawalparasi	33	26

Women's empowerment in Rupandehi is ranked 31 and Nawalparasi 33. HDI rank on gender empowerment for Rupandehi is 24 against 26 for Nawalparasi. The literacy status of women of affected households is also higher 79.8 in Nawalparasi against 46.7 than Rupandehi (see table 3.6.3). The reason behind higher literacy of women in Nawalparasi is the popularity of non-formal education program targeted mainly to female in Nawalparasi. At district level, the literacy status of population in Rupandehi is higher 50.71 against 40.68 in Nawalparasi.

Table 3.6.7: Female Literacy Rate

S.N		Female Literacy	
		District	Affected Females
1.	Rupandehi	50.71	46.7
2.	Nawalparasi	40.68	79.8
	Average	45.69	63.2

Female Literacy of Affected Households

VDC	Above Schools		School		Read & Write	Illiterate	Overall Literacy		
	Higher	SLC+	LS/S	Primary			Male	Fem.	Total
Rupandehi District									
Basantapur	11	11	30	45	67	89	70.0	64.8	68.1
Chhipagadh	0	2	15	24	6	86	65.3	35.3	53.8
Dhakadhahi	17	23	108	150	159	399	68.7	53.4	62.4
Pokharbhind	2	1	8	4	0	59	49.3	20.3	34.3
Sidhartha M	25	22	56	37	12	102	81.7	59.8	72.0
Total	55	59	217	260	244	735	67.0	46.7	58.1
Nawalparasi District									
Hakui	0	0	28	7	45	34	52.4	70.2	57.0
Jambhuwad	1	2	3	0	10	0	89.9	100	90
Manjhariya	0	2	12	18	25	1	84.3	98.3	90.6
Parasi	0	0	1	9	1	1	75.0	91.7	78.1
Ram Nagar	4	7	62	48	32	147	71.4	51.0	62.5
Sukrauli	1	2	14	29	26	34	65.9	67.9	66.3
Total	6	13	120	111	139	217	73.1	79.8	74.1

Source: Field Survey, 2006

In average, the female illiteracy is 63.2%. The female literacy in project sites in Rupandehi district is lower 46.7 against the district female literacy 50.7. In Nawalparasi, the female literacy in the project sites is higher 79.8 than the district female literacy 40.5. Training programs for income restoration will become an important part of rehabilitation measures for illiterate people.

Decision Making: The women's involvement in decision making in all aspects related to asset ownership, child's education, property transaction, investments and other economic activities is very low in the project sites.

Table 3.6.8: Gender Role in Decision Making in Social and Economic Activities

Activities	Female Decides	Male Decides	Decides Jointly	Total Responses
Asset Ownership	15 (11.1)	77 (57.0)	43 (31.9)	135
Social	5 (3.7)	57 (42.2)	73 (54.1)	135
Children Education	2 (1.5)	26 (20.0)	102(78.5)	130
Marketing	7 (5.2)	50 (37.0)	78 (57.8)	135
Property Transaction	5 (3.7)	56 (41.5)	74 (54.8)	135
Investment on Farm	3 (2.6)	38 (32.8)	75 (64.7)	116
Livestock Sell	7 (7.7)	27 (29.7)	57 (62.6)	91
Household Works	47 (35.3)	3 (2.3)	83 (62.4)	133

Source: HH Survey/April-May/2004

In asset ownership, the male (57.1%) dominates the decision-making. On social issues, 54.1% reported that decision is jointly made. Male dominates the decision in 42.2% of households. Female decision is counted in 3.7% households only. On the issues of children education and rearing, 78.5% households reported of making joint decision. Male decision dominates in 20.0% households. Female decision is sought in 2.3% households only. In marketing, the majorities of households (57.8%) reported of making joint decision followed by 37.0% male decision and 2.2% female decision. On property transaction, 54.8% reported of having joint decision followed by male decision 41.5% and female decision in 3.7%. On the issues of investment on farm and selling of livestock, joint decision

respectively works in 64.7% and 62.6% households, followed by male decision 32.8% and 29.7%, and female decision 2.6% and 7.7%. In household works, the joint decision is made in 62.4% households, female decision in 35.3% households and male decision in 2.3% households.

The discussions with women revealed that the transport facilities will improve access and mobility of women to various socio-economic services. However, they voiced their concerns to the safety of their children during and after the construction of road as there will be increase in quantities and speed of the vehicles thereby increasing the safety hazards specially to the children.

The Gender Development Index (GDI) in Nepal is low and the socio-economic profile of the project area shows much lower socio-economic standing of women. They are largely involved in domestic work and have a very low economic participation rate. The women heads of the households also showed concerns that they will have to face hardships and stress because of their land acquisition and it will take time to regain lost income and livelihoods.

The resettlement policy requires women to be involved in the process of sustainable development. In the process of resettlement, equal gender role has been envisaged specifically in the followings:

- (a) Contribution during the planning stage;
- (b) Ensuring that compensation for land and assets are the same for all affected families;
- (c) Consulting and participation in group-based activities, to gain access and control over resources as a part of the RP implementation;
- (d) Women take part in the issue of identity cards, opening bank accounts and receiving compensation payments.
- (e) Planning of resettlement and income restoration and enhancement.
- (f) Ensuring that the compensation and entitlement is properly utilized.
- (g) Taking part in solving the resettlement grievances
- (h) Taking part in receiving compensation payments.

The project will ensure that women are consulted and invited to participate in group based activities, to gain access and control over resources. The monitoring and evaluation team(s) will include women. During RP implementation, NGOs will make sure that women take part in the resettlement process including receiving compensation. The project will provide training for upgrading women's skills for alternative livelihoods and income restoration.

Socio-economic Impact and Loss of Livelihood: The proposed road will open up the hinterland of the area and enhance economic opportunities in the surrounding areas beyond the project area. It will improve transportation networks and provide rural communities better access to markets, social services and business/employment opportunities. A wide range of services from various local communities, which typically include roadside stall, hotel/restaurants, small retail businesses, mechanics/vehicle repairs shops, petrol stations, and bus/truck stops are seen along the corridor. The proposed road will directly affect the roadside communities, particularly small shop owners and squatters, who largely derive their livelihoods from such activities. One hundred nineteen (119) movable commercial sheds and squatters will suffer temporary loss of income during construction period. Such commercial sheds are small in size and movable from one place to another easily. The movable sheds owners are illegally occupying the government and other private public lands. The owners shall not suffer a lot due to the project for temporarily transforming such shops to other

places. In most case, there is no need to close such commercial during the project implementation as there are several alternative areas along the existing road where they can be relocated. They agreed that they shall be shifted back and moved to other places easily, the income loss is nominal and not required to be compensated. The survey on their income loss is therefore not done. However, the RP has made provisions of compensating for their losses during the construction period.

Agriculture is the prime source of income and livelihood of the affected families followed by the businesses. Other sources of income include job in industry & service in private public organisations.

Table 3.6.9: Average Per Capita Income of Affected Households

Per Capita Income Ranges/Overall	No. of Households	Percentage
< 7600	137	29.87%
7600 – 9,500	111	24.18%
9,500 – 13,000	67	14.59%
13,000 – 18,500	64	13.94%
> 18,500	80	17.42%
Total	459	100%

Rupandehi

Per Capita Income Ranges	No. of Households	Percentage
< 7600	80	27.68%
7600 – 9,500	68	23.53%
9,500 – 13,000	43	14.88%
13,000 – 18,500	44	15.22%
> 18,500	54	18.68%
Total	289	100%

Nawalparasi

Per Capita Income Ranges	No. of Households	Percentage
< 7600	57	33.53%
7600 – 9,500	43	25.29%
9,500 – 13,000	24	14.12%
13,000 – 18,500	20	11.76%
> 18,500	26	15.29%
Total	170	100%

Source: Field Survey, 2006

Overall the majorities 70.13% of affected households had living standards well above the minimum national poverty line Rs. 7600 / capita (NPC, 2005). The people above the national poverty line are 72.32 in Rupandehi and 66.47 in Nawalparasi. The people below poverty line are overall 29.87%. It is 27.68% in Rupandehi and 33.53% in Nawalparasi. These figures are based on the responses of the affected households and do not include the direct and indirect income from agricultural products. The estimate of average income per kattha (3645 sq.ft.) a year per household is Rs. 7,400 and per capita Rs. 1,156. In the project sites, the average number of affected plots per household is 1:3 and average number of kattha is 1:6. The per capita income from the agricultural products from 6 kattha is Rs. 6,936. Adding these incomes to other sources of income means that virtually there is no household below poverty line. The economic situation of the affected households along the road alignment is better being linked to Hulaki road and having transport access to a large number of economic activities. The affected families except the specific 4 identified cases will not have serious problems of resettlement.

3.7 Gender, HIV/AIDS, Health Risks and Human Trafficking

The project site has an unique position of enhancing its vulnerability to HIV, being bordered to India. Estimated 5 million people in India were living with HIV in 2003.

The Ministry of Health and Population (MoHP) in Nepal has formally reported a total of 7663 HIV infections by August, 2006. The data includes the reports from the sentinel surveillance sites and voluntary confidential testing centres only. The estimate of the same source in 2005 was 68,600 people living with HIV/AIDS. The UNAIDS estimated 72,000 in the year 2005. The estimate is almost 30,000 growths of HIV infection within 3 years.

The estimate of growth of HIV infection in young adults is 100,000 – 200,000 and that of AIDS cases and deaths 10,000 – 15,000 by the end of this decade, making AIDS the leading cause of death in population group of 15 – 49 years.

As to the study findings of NCASC/FHI/USAID, 2003 & 2005, the HIV infection in 2005 in the clients of female sex workers (FSWs) who include youths, migrant and mobile labour workers and population was 19.4 against 17.9% in 2003. The project site will have flow of migrant and mobile workers during and after the construction of the road.

Among the high-risk groups, seasonal labor migrants contribute 46% infection in 2005 against 40.7% in 2003. There will be a large number of labor migrants during and after the construction of the proposed road.

The rural women/housewives infected were 17.5% in 2005 against 15.1% in 2003. Awareness and empowerment of women /housewives are asked for.

The Intravenous Drug Users infected ranges 8 – 52% (14%) in 2005 against the range of 9.2 – 68% in 2003. Birganj is major cross-border transaction point of drug users.

The infection in men who have sex with men (MSWs) was 3.6 in 2005 against 1.4% in 2003. How far this case will impact the project site is difficult to work out at this stage.

FSWs infected in 2005 were 2% against 1.7% in 2003. The percentage of street FSWs having HIV or STI infection was 18% against 8% in establishment-based FSWs. The estimate of FSWs in Nepal is minimum 16,600 and maximum 34,300 in 2005. It is assumed that there will be flow of female sex workers in the project areas during and after the construction of the road.

As to the cumulative HIV and AIDS situation of Nepal compiled by the NCASC/MoHP, 2006, predominant modes of transmission are unprotected sexual contact 76%, followed by the injecting drug use which may also include sexual mode of transmission 20.72%, transmission from infected mother to child 3.7%, blood or human organ receipt 0.2%, and MSWs 0.06%. Blood or organ recipients infected with HIV is 1.03% and children 7.9%. The number of children already orphaned by HIV/AIDS is estimated 13,000 (UNICEF in MDG report, 2005). Most of the people living with

HIV/AIDS are not aware that they are infected and engaged in unsafe behaviours. The population residing along the project road may pose a threat in spreading HIV/AIDS and other health problems through long distance truckers/vehicles and their helpers and labor migrant workers. During road construction and operation especially near construction camps and other sensitive locations, there may be a risk of these communicable diseases. Of total HIV infection, about half the cases are estimated of being contained in the motor-able and highway districts and other half in other areas. All these issues are required to be considered in the project area during the implementation of awareness program for HIV/AIDS prevention.

Gender inequality is deeply rooted in the project area. Women have traditionally lower status than men. This has caused male domination and inadequate capacity in mobilizing males for safer behaviours for HIV prevention. High numbers and proportions of HIV infection in housewives is one of glaring examples regarding this situation. About 26% of HIV cases are women. Nearly 15% of HIV cases are found in women from rural areas. Denial, stigma and discrimination to females is associated to contributing factors to HIV vulnerability. Due to the marginalized status in the society with little access to information and services related to HIV/AIDS, women / housewives of males-at-most-risks are growing to be most at risk population.

There is practice of human trafficking mainly to India and gulf countries through the cross-border involving the project sites. Girls/women trafficked to India are returned to Nepal when they are tested HIV positive. It has been found that in absence of other livelihood opportunity, they continue sex trade in Nepal, multiplying the HIV infection.

It is expected that the road will generate a number of roadside restaurants, line hotels, tea stalls and eateries bringing in communicable diseases in the area in absence of prevention measures. Also, during road constructions especially near construction camps and other sensitive locations, there may be a risk of these communicable diseases. For prevention of HIV/AIDS among truckers and in the community, a comprehensive plan of action will be developed for such fatal diseases and will be put into practice during implementation of the Resettlement Action Plan.

Accordingly as per needs, the Gender, HIV/AIDS and Human Trafficking is an integral part of the project. To prevent HIV/AIDS, human trafficking and gender promotion, a comprehensive plan of action has been developed to put into practice during implementation of the project and the resettlement plan.

3.8 Design Benefits

To enhance project benefits for roadside communities and road users, the project design has incorporated the following:

- Provision of pedestrian walkways/footpath
- Provision of cart and cycle track and passenger vehicle and heavy vehicle tracks.
- Slope protection
- Effective surface and sub-surface drainage system to ensure that there shall be no pooling of water on the road and the adjacent area
- Safety measures

3.9 Other Benefits

The people are aware that the road projects will entail a variety of benefits. The benefits include:

- Saving in vehicle operating cost
- Employment in road construction and allied activities and greater mobility
- Lower accidents, quick access to services like hospitals, markets, offices etc.
- Provision of pedestrian walkways; and road lanes for local transport, cycle, cart, rickshaw in major market / business centers will lower accident, enhance the road safety and safety of local road users; reduce road congestion and will help secured and economic speed-up of ICD transports.
- There is an emerging scope of market area development. The improvement of existing market facility and future scope of market and economic development is obvious.
- The minimisation of road length and curves; and provision of other required road structures and facilities will save time and vehicle operating cost of transporters.
- The upgrading of existing roads and the construction of bypass road will have positive economic, environmental and aesthetic impact.
- The provision of slope protection all along the road will strengthen the road.
- Effective surface and sub-surface drainage system will ensure that there shall be no pooling of water on the highway and the adjacent area.
- There is employment potential in the sub-project area due to the direct employment in road construction and allied activities and greater mobility of business and industrial entrepreneurs and service offices.
- There is scope of business and other enterprise development opportunities.
- The road will promote the growth of trade, business, industries and other entrepreneurs.
- The road will have other direct and indirect local development impact.

3.10 Entitlement of Compensation

The households losing structures as titleholders will be compensated as per government norms and would receive all benefits as mentioned in the entitlement matrix. Consultation with affected households revealed that they would opt for self-relocation and would require the government to pay compensation at replacement value for their lost assets. The provision made on compensation for residential and commercial structures and other immovable assets include the followings:

- Cash compensation for structure at replacement cost for titled and non-titled households which also include squatters and encroachers.
- Affected households will be allowed to take salvageable materials from the structures
- Shifting or relocation assistance will be paid on actual cost basis / current market rates.
- One time grant as rental assistance to owner of business and tenant for moving to alternative premise for re-establishing the businesses.
- Provision for relocation for businesses operating from mobile/movable structures on the edge of the ROW.
- Entitlement of shifting assistance to non-titled squatter at actual costs and move their belongings if they decide to "self-relocate" away from the ROW; allowing them to move back and re-establish their structures until they find alternative sites.

The residential structures belonging to the titleholders but would lose the portions, which they have extended on the government ROW will be compensated for their extended portions, which they have used for commercial purposes. In the cases, the road improvement affects their entire structure, as titleholders they would be compensated as per LA act for the portion they own. The extended parts will also be compensated at replacement value.

3.11 Compensation on Loss of Businesses / Income

Households doing businesses from commercial, movable and squatter structures will suffer temporary losses of their business / income during the construction period. Households operating businesses from their own land will be compensated for their temporary loss of income. Business tenants and shops occupying government land will also be compensated for their temporary loss of income. Additionally the business tenants will be paid a one-time rental assistance to re-establish their businesses in alternate premises.

The provision of compensation on businesses/income has been made for the followings:

- Loss of income for owners of business operating from fixed commercial structures and business tenants – onetime lump sum grant based on type of business assessed on a case to case basis.
- Loss of income by owners of businesses operating from mobile / movable structures – one time lump sum grant based on type of business and losses assessed on a case to case basis.
- Loss of wage/income by employees of businesses—one time financial assistance of 30 days income computed at local wage rates for various cadres.
- Employment opportunities connected to the project

For the residential households also using for commercial purposes, apart from compensation for their structures at market / replacement value, shifting costs will also be provided one time in lump sum grant of minimum one month's income based on the type of business for their loss of income. The households operating businesses from rented premises will receive lump sum rental assistance for moving to alternate premises along with grant for income losses.

Provision has been made to provide income restoration assistance to restore the economic status of all the affected persons. Such activities will focus on ensuring payment of adequate compensation to the APs. Such Income restoration activities will be designed by reviewing the extent of effect of the project focusing on (i) complete loss of land and structures, (ii) more than 10% loss of agricultural land (iii) loss of employment (iv) loss of business and business tenants and (v) women headed and vulnerable households. Skill will be provided to all households losing more than 10 percent of their land. They will also receive Income Restoration Grant (ERG) for starting new productive activities up to NRs 6,000 based on type of activities. Besides, arrangement for giving priority for local employment in construction activities will also be made. In order to ensure effective implementation of such activities, consultation and coordination with local level NGOs to impart such activities will also be made.

The provision of income restoration assistance to vulnerable groups including women headed households (without any male earning member) and households having complete loss of land have been made. There is provision of additional assistance to women headed households without any

male earning member – a one time grant of NRs 2000 for a period of three months over and above all other payments in re-establishing and/or enhancing livelihood.

Agricultural titleholders losing more than 10% of total land holding will be entitled to an income restoration assistance in the form of skill training per family for any productive activity at the rate of NRs 3000. They will also receive a onetime economic rehabilitation grant in the form of productive assets up-to an amount of NRs 6,000 based on the nature and type of productive activity they wish to undertake. Among titleholder households, only those families will be entitled for ERG and training, who are actually dependent on the acquired piece of land. Titleholders becoming landless will receive the same benefits as above and additionally they will also receive a one time assistance of NRs 2000 per a period of 3 months. Absentee landlords will receive compensation at replacement cost only.

The types of training support for income restoration and enhancement, the types of training suggested by the public consultation participants include training on micro entrepreneurship; keeping small shop; driving vehicle; poultry; buffalo farming; plumbing, electrician, auto mechanic; seed production; vegetable farming; and cash crops in the area.

For income restoration program, demand driven skill development training with the feasible market scopes will be more fruitful. No business enterprise or income restoration program can be sustained unless it is based on market demand. Market feasibility studies through rapid assessment methods will be required for the purpose. Once the training on the skill with feasible market scopes is received the ERA grant activities will enable them to start the activities trained in and re-establish their livelihood needs in an efficient manner. There should be necessary arrangements to provide infrastructure and other institutional support that will be required to assist the AP to get financial support through local financial sources. The APs will be made aware and trained on different income earning opportunities.

Eligible APs will either be trained in the training institutes identified or by individual trainers. It is expected that such training will be organized during the period of property acquisition. Skill mapping and training needs assessment will be carried out before finalization of training schemes.

The training imparted will be essentially of two types: a technical training relevant to jobs and the other for non-land and land based self-employment and skill development schemes. Provision for training has been made in the RP budget. The implementation of training procedure will involve the following steps:

- The PIU in consultation with the CRO will prepare TORs for the trainers detailing their role in the training program.
- Map all relevant existing institutions/programs in the area that impart training;
- Training needs assessment leading to prioritizing and selection of schemes for training;
- Identification of training institutes/individuals/experts for subcontracting to conduct relevant training demanded by APs within the financial means of the entitlement;
- Preparation of list of trainees (phase wise) in collaboration with the DDC, VDC and PIU;
- Awareness generation and information dissemination on the schemes to the selected trainees to ensure transparency about the training schemes and the entitles amounts;

- Registration of the APs, payment of courses and maintenance of all records, regarding portion of entitlement used by them for a particular course.