

Government of Nepal
Ministry of Federal Affairs and Local Development
OFFICE OF THE DISTRICT COORDINATION COMMITTEE
Dhading

Earthquake Housing Reconstruction Project
(EHRP)

Environmental and Social Screening Report (ESSR)
Sub project Kusunde/Settlement: DHD/SRM-1:SiddhalekRM, Dhading

Date: 22 August, 2017

Abbreviation

CBS:	Central Bureau of Statistics
CF:	Community Forest
CL-PIU:	Central Level Project- Implementation Unit
DCC:	District Coordination Committee
DDRC:	District Disaster Response Committee
DL-PIU:	District Level – Project Implementation Unit
DHG:	Dhading
DTO:	District Technical Office
DUDBC:	Department of Urban Development and Building Construction
EECCS:	Energy Environment and Climate Change Section
EHRP:	Earthquake Housing Reconstruction Project
EIA:	Environmental Impact Assessment
ENRC:	Environment and Natural Resource Committee
EPA:	Environment Protection Act
EPR:	Environment Protection Rule
ESMF:	Environmental and Social Management Framework
ESMP:	Environmental and Social Management Plan
FGD:	Focus Group Discussion
GPS:	Global Positioning System
ICS:	Improve Cooking Stove
IEE:	Initial Environmental Examination
IP:	Indigenous People
IPDP:	Indigenous People Development Plan
SRM:	Siddhalek Rural Municipality
LGCDP:	Local Governance and Community Development Program
MoFALD:	Ministry of Federal Affairs and Local Development
MoFSC:	Ministry of Forest and Soil Conservation
MoUD:	Ministry of Urban Development
NRA:	National Reconstruction Authority
RAP:	Resettlement Action Plan
RCC:	Reinforced Concrete Cement
RM:	Rural Municipality (<i>Gaupalika</i>)
VCDP:	Vulnerable Community Development Plan
VDC:	Village Development Committee

Table of Contents

ABBREVIATION	I
1. BACKGROUND	1
2. SCOPE OF EHRP	1
3. SUB-PROJECT (SETTLEMENT)	2
4. SOCIAL AND ENVIRONMENTAL SCREENING AND ITS OBJECTIVES	3
5. METHODOLOGY	3
6. FINDINGS AND ISSUES	3
7. ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES AND MONITORING ACTIVITIES	6
8. CONCLUSION AND RECOMMENDATIONS	10
ANNEXES	I
ANNEX 1: ENVIRONMENTAL AND SOCIAL SAFEGUARD SCREENING CHECKLIST AT SETTLEMENT LEVEL	I
ANNEX 2: NAME LIST OF BENEFICIARY WITH DETAILS	X
ANNEX 3: SUB PROJECT IN GOOGLE MAP	XIII
ANNEX 4: QUANTITY CALCULATION SHEET	XIV

List of Figures

FIGURE 1: DISTRICT MAP SHOWING VDCs AND MUNICIPALITIES OF DHADING DISTRICT2
FIGURE 2: LOCATION OF KUSUNDE SETTLEMENT (SIDDHALEK RM-1 NALANG)2

1. Background

Nepal earthquake of April 2015 and subsequent aftershocks including of May 2015, caused wide spread destruction of residential houses, heritage sites, water supply system, government building, rural road, health posts etc. Dhading is one the earthquake affected district. According to National Reconstruction Authority (NRA) source, the total number of houses damaged in Dhading district is 88,441 of which 81,313 are fully damaged and 7,128 partially damaged.

Government of Nepal has selected Dhading district as one of the three districts to be supported under the World Bank funded Earthquake Housing Reconstruction Project (EHRP). The main objective of the EHRP is to restore earthquake-affected houses with multi-hazard resistant core housing units in targeted districts (Nuwakot, Dolkha and Dhading district) and to enhance the government's ability to improve long-term disaster resilience. The project has four components: (1) Improved Housing Reconstruction, (2) Disaster Risk Management Systems, (3) Project Implementation Support and (4) is for Contingency Emergency Response.

2. Scope of EHRP

EHRP supports only reconstruction of owners built houses. Government, through EHRP, provides grants to households for construction of residential houses following 'owner-driven' housing construction model.

EHRP approach includes:

- All Beneficiary households will build their house on their own land. Thus, land acquisition and resettlement is not envisaged under the project.
- Residential houses will be small and constructed by the beneficiary household themselves.
- Not all the houses will be constructed at the same time. Beneficiary households are expected to build their houses at their own pace.
- Contractors will not be used. Households have option to hire skilled and unskilled laborers as needed.
- In Nepal, community members also come together to help each other to build their houses and community help is also provided to the vulnerable households.
- General awareness/orientation on building earthquake resilient houses, environment and Social safeguards and "Build Back Better Opportunity" provisions in the project to beneficiary households.
- EHRP (housing component) does not support reconstruction of heritage/cultural sites, schools and other physical and social infrastructure and services.

Government's overall approach for earthquake disaster recovery in Nepal includes:

- Skilled-training (mason, carpentry, plumbing, electrical) as a part of overall strategies are being provided by Department of Urban Development and Building Construction (DUDBC) in coordination with other line agencies and NGOs/INGOs. All interested community members and beneficiaries including those from vulnerable groups can take the training. NRA has already finalized the earthquake resilient house construction design parameters. Based on the design parameter DUDBC engineer verifies earthquake resilient house reconstruction and beneficiaries are entitled to revive the tranche payment.
- Government recognizes the need for supplementary top-up financial assistance worth NPR 50,000 for vulnerable households which could be in the form of materials and labor support among others. This supplementary financial support will be provided by partner organizations. Currently, the government is preparing the guideline for

vulnerable support package for partner organizations and is expected to be finalized by end of August 2017.

- Housing construction support of NRs 25,000 may be used as an opportunity to promote sanitations, renewable energy (including solar power, Improved Cooking Stoves (ICS) or bio-gas etc. As such, the sanitation part of the settlement is likely to improve. Unless toilet or installation of alternative energy provision is adopted by beneficiaries the amount allocated will not be paid to the beneficiaries

3. Sub-project (Settlement)

Environmental and Social Screening is done at settlement level. Under EHRP-Settlement /sub project is defined using combination of criteria including the following: administrative boundary (such as a ward, or a VDC), name of the village/place (such as Tole)/ community, natural or topographical boundary, and contiguity. Former Village Development Committees (VDCs) are restructured as Rural Municipality/Municipality according to new restructure federal system of Nepal.

The sub-project settlement-*Kusunde* lies at 27.871° N and 84.848° E with average altitude of 900amsl in Siddhalek Rural Municipality (SRM) Ward-1 (Former Nalang VDC Ward Number-6). The settlement is accessible through earthen rural road via; *Mugling-Dhadingbesi* Feeder Road¹ (Kalupande Highway). The total number of earthquake-affected HHs identified in the settlement is 95. (Annex- 2: list of beneficiary HHs).

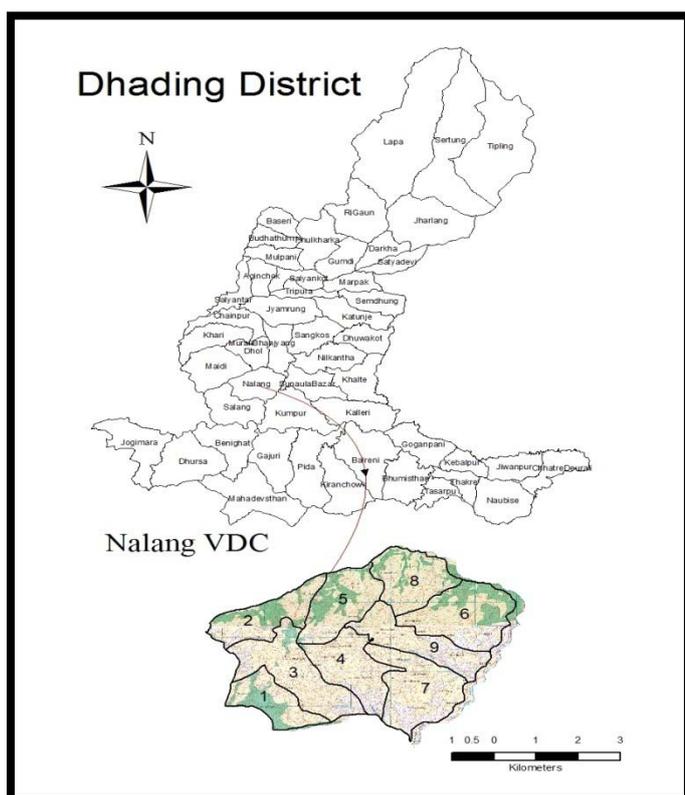


Figure 1: District Map Showing VDCs and Municipalities of Dhading District

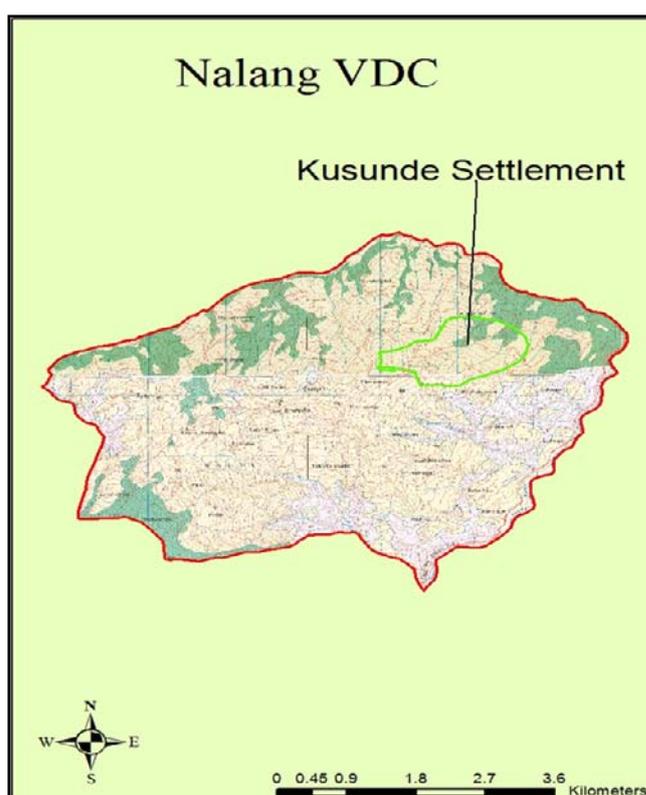


Figure 2: Location of Kusunde Settlement (Siddhalek RM-1 Nalang)

Physiographical condition of the subproject area (*Kusunde*) is characterized by hill with subtropical climate (Annex-3 Settlement Google Map).

¹Feeder road, reference no. F106, Department of Road, <http://dor.gov.np>

4. Social and Environmental Screening and its Objectives

ESMF requires Environmental and Social Screening Report (ESSR) of each subproject/settlement. The objectives of Screenings are:

- To identify potential environmental and social issues/risks related to the subprojects and its activities (physical, biological, social –cultural issues/risks specific to the area, in and around the settlement),
- To identify the need to obtain any regulatory clearances such as from Ministry of Forest and Soil Conservation (MoFSC) for specific site/s like clearing/felling of trees, from District Coordination Committee(DCC), Municipality(M) and RM for approved quarry sites etc,
- To check if the proposed location and activity meets the exclusion criteria,
- To establish the need to carry out any further investigation/survey/ assessment for preparation of safeguard document like Environment and Social Management Plan(ESMPs), Resettlement Action Plan (RAP), Vulnerable Community Development Plan(VCDP) or any specific study and to provide guidance regarding environmental and social requirements and steps that needs to be taken for addressing identified issues., and
- To explore opportunities for creating linkage for enhancing benefits, building better and synergy.

5. Methodology

- Desk study: Documents such as district profile, VDC profile, CBS publication and publication of line agencies at district level and other project related reports were reviewed. Aid of topographic maps of scale 1:25000 and regional geological map including google earth map was taken to get the overview of the project area.
- Field visit and consultation: Environmental and Social screening checklist was used (Annex 1) for recording information. Walkover survey for recording information was also carried out at settlement level. Free, prior and informed consultation with beneficiaries and local informants was undertaken on 15 July, 2017. During the consultation, they were informed about the project provisions and information on socioeconomic setting including physical and biological features were recorded.
- Further consultation and discussion were held with and among EHRP Consultants; consultant engineers from Ministry of Urban Development (MoUD), Local Governance and Community Development Programme (LGCDP) Social Mobilizers.

6. Findings and Issues

Following are the potential environmental and social issues and impacts identified by the Environmental and social screening study of the affected settlement

A. Earthquake Damaged Houses and Construction Materials

- In the subproject area 95 beneficiaries will rebuild their houses within the sub-project location following recommendation by Department of Urban Development and Building Construction (DUDBC) engineers. The reconstruction policy of NRA also permits to rebuild their houses within the district;
- The beneficiary HHs are currently residing in temporary shelters within the settlement;
- Wall with stone masonry in mud mortar, timber framed windows and doors made from local woods and roof formation with CGI and slate are the materials used to build earthquake damaged houses;

- Total demand of materials due to reconstruction activities are stone (2850 m³), mud (3895 m³), timber (7458 ft³), slate (14620 ft²), CGI sheets (115005 ft²). The details of raw materials calculation is presented in the Annex 4; and
- Stone and timber salvaged are being packed and stored properly and being used for reconstructions of houses.

B. Forest and Wildlife

The sub-project settlement has access to Nalang Thuloban CF with an area of 126.9 Ha and 365 user HHs and Bisauni Pakha CF with an area of 12.52 Ha and 77 user HHs. The forest consists of tropical mixed vegetation dominated by Sal (*Shorea robusta*). The major fauna with low frequency of occurrence in the forest and adjoining area are Rhesus Monkey (*Macaca mulata*), Langur (*Prebyitis entellus*) Jackal (*Canis aureus*) and Deer (*Muntiacus muntjack*). The common avian fauna in the area are Kaliz Pheasants (*Lophura leucomelanos*), Parrots (*Psitta sps.*) and Crow (*Corvidae corvus*). *Pakhanved*, *Titepati*, *Gurjogana*, *Kukurdaino*, *Kurilo* are available medicinal plants and NTFPs in the forest

The *Bisaunu Pakha* and *Nalang Thuloban* community forests has not allowed or allocated subsidized timber for earthquake affected households yet. However, the plan for distribution is to be discussed in CF annual general meeting. Timber distribution should be carried out in planned and well managed way following government directives such that impact on the nearby two community forest will be minimal

The total demand of timber from project related activities is 78 ft³/HH. The demand is minimized from the use of salvaged timber and trees from own farm land, outsourced from nearby market place at *Dhading Besi* and *Gajuri* and purchase at subsidized rate distributed by the Timber Corporation of Nepal (TCN). Therefore impact of project activities on forest sector is likely to be low or minimal.

C. Debris/Solid Waste Management and Hazardous Materials

Debris from earthquake-damaged houses is managed at site by respective owner on their own farm land. Solid waste like cement bags, metal scraps generated during construction will have minimal impact. However most of this reuseable waste are reused or sold. No hazardous waste has been reported or observed.

D. Socio-economic and Cultural Features

- Sub-project area is a mixed community consisting Brahmin (47 HHs), indigenous people (36 HHs), and Dalits'(12 HHs);
- Among total beneficiaries 20 HHs are identified as women headed household;
- The Indigenous HHs are scattered within the settlement and they do not have collective attachment to the area;
- Agriculture is primary livelihood in this area along with a few in small-scale business and foreign employment. The farming practice is of conventional type;
- Sub-project area has access to electricity supplied through national grid. Firewood is the major source of fuel for cooking. Practice of Improved Cooking Stove (ICS) is not observed in *Kusunde* settlement area; and
- A primary education service is available at the settlement.

E. Water and Sanitation

Bhumedanda spring (stream) located towards uphill is the only source of drinking water in the sub-project. Except for dry season water availability is adequate in the area. Thus a new source of drinking water and proper distribution facility should be established to ensure water security. Practice of sanitation is satisfactory in *Kusunde Settlement*. However, minimal sanitation

standards should be included in new constructions. Water needed for reconstruction have to be fetched from *Bhumedanda* stream source.

F. Build Back Better Opportunity

- Improved water, sanitation and hygiene situation in the settlement by: a) toilet construction using housing grant allocated for sanitation purpose; b) increasing water availability for sanitation.
- As the individual residential houses in the settlement/ subproject area are using firewood as the traditional cooking fuel, this project provides an opportunity to build Improved Cooking Stoves (ICS) or bio-gas etc.
- These could be promoted through agencies including government and NGOs/ INGOs which are already engaged in these sectors in the district. Such opportunity needs to be further explored and promoted as far as possible.
- In Nalang area Action Nepal and Nepal Red Cross Society are working on Water and Sanitation and livelihood. Such opportunity needs to be further explored and promoted as far as possible in future; and
- DL-PIU/CL-PIU may explore and coordinate with district forest office, rural road projects, water induced disaster management office, Forest and Soil conservation office, Watershed management office etc. for mitigating/ managing the proper drinking water supply and better livelihood opportunities.

G. Any Sensitive Site

There is no known significant physical cultural site, and no protected site in the immediate surroundings of the subproject/ settlement. There is no known habitat for endangered, rare, protected or special species.

7. Environmental and Social Mitigation Measures and Monitoring Activities

The following are Environmental and Social issues and mitigation measures identified from screening report. Table-1: Environmental and Social Issues, Impacts and Mitigation Measures.

SN	Environmental and Social Issues	Mitigation Measures	Mitigation Measure Cost	Responsibility		Remarks
				Implementation	Monitoring/Supervision	
1.	Impacts from the supply and purchase of construction materials (aggregates, stone and sand) from local market on the local community	Aggregates will be purchased from suppliers or at market (Malekhu and Dhadingbesi Bazaar). Quarry operators supply the materials from approved quarry sites which are near to about 18 km away from settlement. District Coordination Committee (DCC) former District Development committee (DDC) is the licensing authority for the quarries, and is responsible to monitor the licensed quarry sites and enforce compliance to environmental mitigations. Timber will be sourced from demolished house salvage, from own farmland, distributed from government relaxation quota and from licensed local market. The timber Corporation of Nepal, a government entity, also supplies additional timber to local market of the earthquake-affected district.	Contractor will be responsible to borne mitigation cost as a part of quarry site license approval clause.	Beneficiary Household/DL-PIU	Monitoring by CL-PIU/mobile team and Third party. Monitoring findings will be shared with DCC.	Aggregated suppliers and vendors are registered on concerned government authority to have permits to supply and sale the products.
2.	Forest and Wild life	The requirement of timber will be fulfilled from the quantity salvaged, felling of standing timber trees on	Not applicable	Beneficiary Household/DL-PIU	Monitoring by CL-PIU/Mobile team and Third Party.	

SN	Environmental and Social Issues	Mitigation Measures	Mitigation Measure Cost	Responsibility		Remarks
				Implementation	Monitoring/Supervision	
		farmland owned by the beneficiaries, purchase from local market at Malakhu and Dhadingbesi, purchase at subsidized rate distributed by the Timber Corporation of Nepal (TCN), a government owned entity and remaining unfulfilled need from the CF.			Monitoring findings will be shared with DCC	
3.	The construction of small residential buildings will involve small scale civil works. Hence, there is health and safety risks of minor accidents and injuries.	Various training and awareness activities will be organized by DL-PIU, health and safety training and awareness is part of those training and awareness by DL-PIU. Masons and carpenters will be trained on relevant safety measures, and owners will be made aware of the safety risks and management.	The cost of health and safety awareness and training is internalized within the overall cost of training and awareness. Project Implementation Unit (PIU) as a part of annual work plan will develop environmental and social training, awareness and dissemination plan and cost/ budget.	DL-PIU	CL-PIU/NRA	DL-PIU itself is a project implementation unit (PIU)
4.	Debris /Solid Waste Management	Demolition waste generated is already managed insitu. The solid waste generated during construction will be minimal and will be managed by beneficiaries	Not Applicable	Beneficiaries	DL-PIU	
5	Build Back Better Opportunity – enhancement measures					
5.1	Health and sanitation	In terms of prioritizing built back better opportunity need priority are: 1. Integration of toilet construction in	Housing construction support of NRs 25,000	Beneficiary Household/DL-PIU	Monitoring CL-PIU/mobile team/CL-PIU/and third party	Monitoring cost is covered under overall project site visit,

SN	Environmental and Social Issues	Mitigation Measures	Mitigation Measure Cost	Responsibility		Remarks
				Implementation	Monitoring/Supervision	
		<p>housing reconstruction.</p> <p>2. Addressing Indoor air pollution through well ventilated housing desing including promotion of Improjved Cooking Stove (ICS)</p> <p>3. Renewable energy (including solar power or biogas etc).</p>				<p>supervision and monitoring. External monitoring (third party) for overall EHRP is estimated to be about NRs. 7 million.</p>
5.2	<p>Indigenous Peoples and other vulnerable groups including marginalized, poor, woman headed households, disabled people</p>	<p>Mitigation measures include:</p> <ul style="list-style-type: none"> • Targeted communication and awareness to vulnerable group(e.g. organizing consultation in areas accessible for women and people with disabilities.) on: <ul style="list-style-type: none"> ○ Awareness on efficient usage of water and WASH ○ Information about the project, grant, training opportunities ○ Awareness campaign on indoor pollution and its health effects • Target vulnerable groups while providing trainings to construction workers, supervisors, social mobilisers; • Target female-headed households and other vulnerable groups during social mobilization process and provide them with additional technical assistance during construction period (masonry, carpenters, etc.); and 	<p>This will not require additional mitigation cost.</p>	<p>DL-PIU/Mobile team/ Partner organizations</p> <p>(The team will ensure that vulnerable groups are targeted and their participation in ensured through district project team mobilization)</p>	<p>Monitoring by CL-PIU/NRA</p>	<p>The Government/Project is drafting a guideline for Vulnerable Community Support Package equivalent to NRs 50,000 for vulnerable households to be provided through partner organizations. The project (NRA) including the district team will coordinate with NGOs/INGOs and donor partners to provide the package to the vulnerable groups in the concerned settlement</p> <p>Monitoring cost is covered under overall</p>

SN	Environmental and Social Issues	Mitigation Measures	Mitigation Measure Cost	Responsibility		Remarks
				Implementation	Monitoring/Supervision	
		<ul style="list-style-type: none"> • Ensuring their participation during consultation process throughout project implementation cycle; • Provide additional assistance in accessing housing grants (e.g.-facilitate opening bank account, paperwork for installments/tranche, etc.) 				project site visit, supervision and monitoring. External monitoring (third party) for overall EHRP is estimated to be about NRs. 7 million.
5.3	Other build back better opportunities	Coordination and linkages with other line agencies including government and NGOs/ INGOs, which are already engaged in these sectors in the district.	This will not require additional mitigation cost.	DL-PIU	CL-PIU/NRA	Agencies working in different sections will be added later on in the Annex

8. Conclusion and Recommendations

The major conclusion on environmental and social issues is:

- Sub-project activities will not have impact on protected area/protected species/habitat, social, cultural, archeologically sensitive areas in and around the settlement/subproject area;
- Housing construction will be owner driven. Health and safety aspects of house reconstruction will be addressed by the training and awareness to be carried out by the DL-PIU, and by the mobile team (consisting of engineers, environmental and social persons).
- Timber, stone and other construction materials will be purchased from nearby local market at *Malekhu* and *Dhadingbesi bazzar*. Besides use of timber from own farmland and community forest (*BisauniPakha* CF and *Thulonalang* CF), distributed volume according to government relaxation quota and purchase from Timber Corporation of Nepal(TCN) will fulfill the demand. Therefore, impact on forest will be low or minimal.
- The total earthquake affected households (95HHs) does not lie under zone of influence of flood or landslide.
- As affected households of *Kusunde settlement* have own land for reconstruction of houses and also not any major risk identified so land acquisition and involuntary settlement is not required;
- Water needed for reconstruction have to be fetched from *Bhumedanda* stream source;
- There will be no adverse impacts on vulnerable groups, marginalized groups (female-headed households and indigenous peoples groups).

The environmental and social impact identified from the reconstruction activity in this settlement is envisaged as minimal or low and no significant adverse impact is foreseen. Owners will purchase the raw material requirement such as aggregates and timber from quarry and local market. The potential impacts and mitigations are summarized in Table -1. There is no need for further Environmental Assessment.

Furthermore, the sub-project does not entail land acquisition or involuntary resettlement thus RAP is not required. In relation to presence of IPs, the screening and community consultation suggests that the project area is a mixed community where indigenous households and other households live together. The indigenous HHs are scattered within the settlement and they do not have collective attachment to the area. They have same socio-economic and educational status with other caste groups. The vulnerable households are benefited from the EHRP project and they do not have any adverse impact from it. Besides housing grant they are entitled to get 50,000 top up subsidy .Thus, a separate VCDP is not required. Measures to ensure that the vulnerable groups including indigenous peoples are not excluded during project implementation and they are able to maximize benefits from the project are discussed in Table -1.

Report Prepared by:

Name: SandeshPokharel and BhagawatiKhand

Designation: ES and SDS

Date: 21thAugust , 2017

Annexes**Annex 1: Environmental and Social Safeguard Screening Checklist at Settlement Level**

1.	Project Title	Earthquake Housing Reconstruction Project (EHRP)
2.	Project District	Dhading
3.	Name of the Rural Municipality/Municipality	Siddhalek Rural Municipality, Nalang
4.	Name of the Settlement, Ward No.	Kusunde, SRM-1 (Former Nalang VDC-6)
5.	Number of eligible households:	95 HH
6.	Altitude of the Settlement (in meters)	812 m
7.	Nearest road head/highway/headquarter	Mugling Dhadingbesi Feeder Road (Kalupandey Highway)
8.	Settlement ID/no	DHD/SRM-1/Kusunde
9.	Proposed Date of Commencement of Work: _____	May-7, 2016
	Number of houses damaged	95 HHs
	Number of houses to be reconstructed	95 HHs
	Quantity of debris generated (by type)	Stone (6175 m ³), Wood (30400 ft ³), Slate (54000 ft ²) and CGI sheets (33233 ft ²)
	Quantity of reusable materials (by type)	Stone (2470 m ³), Wood (18420 ft ³), Slate (16200 ft ²) and CGI sheet (13293 ft ²)

	Quantity of debris that needs to be disposed	Debris materials as stone, bonding soil have already been managed at settlement level by local people
	Quantity of construction materials needed (Timber, sand, gravel, stone, etc)	Timber-7458 ft ³ , Mud- 3895 m ³ , Stone- 2850 m ³ , Slate-14620 ft ² CGI sheet- 115005 ft ²
	Any hazardous materials mixed with debris (e.g. from damaged health-posts, medicines, from agro-vet shops/ service etc)	None: (all damage material is residential houses/ no medical shops. No hazardous materials/pesticides were found).
10	Exclusion criteria:	
	Shelter/house should not be located in the risky spots (having ground slope of more than 30 degree, known flood risk spot, on top of or adjacent to known fault-line, etc).	There is not any risk in zone observed
	House/ shelter should not be located in protected area, and forest.	There is no protected area in sub project vicinity
	Any activity, including material quarrying, resulting significant conversation or degradation of critical natural habitat is not permitted	Not any
	Use of any public PCR in private home reconstruction is not permitted.	Not any

S. No	ISSUES	YES	NO	DO NOT KNOW/remarks
1	Is the proposed sub-project likely to have minimal or no		√	OP 4.01

	adverse environmental impacts?			
2	Is the proposed subproject likely to have adverse environmental impacts that are site specific; few if any of them are irreversible, and mitigation measures are readily known or can be designed?	√		OP 4.01 Minor impact on community forest
3.	Is the proposed subproject likely to have adverse impacts on the health and quality of forests or rights and welfare of people and their level of dependence upon or interaction with forests? Is the proposed subproject likely to bring about changes in the management, protection or utilization of natural forests or plantations?		√ √	OP 4.36 Any adverse impact on health and quality is unlikely including rights, welfare, dependence and interaction. Any changes in management and protection is unlikely however utilization will increase for limited period but not significantly
4	Will the sub-project be supporting reconstruction, management, or preservation of physical cultural resources? Is the subproject located in, or in the vicinity of, cultural sites? Will the sub-project likely adversely impact physical cultural resources? ²		√ √ √	OP 4.11
5.	Will the sub-project involve significant conversion or degradation of critical or non-critical natural habitats? ³		√	OP 4.04

²Examples of physical cultural resources are archaeological or historical sites, including historic urban areas, religious monuments, structures and/or cemeteries particularly sites recognized by the government.

6	Does the sub-project involve involuntary land acquisition or prior acquisition of land or demolition of existing structures?		√	OP 4.12
7	Are there any ethnic minority communities present in the project area ? Are they adversely impacted by the proposed sub-project?	√	√	OP 4.10 Gurung and Newars are IPs listed (36HHs) and they are project beneficiaries
Physical features				
1	Is the settlement/subproject located in an area susceptible to landslides, rock fall or erosion, flood prone areas and extreme climatic conditions, fogs, avalanche, snow-fall, etc? (show in map)		√	There is not any history of rock fall and Landslide in the subproject area
2	Is the settlement located close to groundwater sources, springs, surface water bodies, riverbank, and watercourses?	√		Balamdanda spring is located near the settlement. But it will not be affected.
3	How is the terrain? –flat, ridge, undulating, terraced, valley, tar etc.	√		Terraced
4	Any history of erosion, flashflood, landslides, earthquake in the area/ vicinity?		√	
5	Current land use practice (agriculture, grazing, barren, forest, shrubs-----)	√		Most of Agriculture, grazing and forest
6	Is the subproject located on prime agricultural land?		√	

³ Critical natural habitats include those habitats that are legally protected, officially proposed for protection, identified by authoritative sources for their high conservation value, or recognized as protected by traditional local communities.

7	Does the sub project involve significant extraction, diversion or containment of surface or ground water for the local people or agriculture?		√	
8	Any existing/approved/ potential quarry sites (sand, aggregate, stone, slates, boulders) in the vicinity of the sub-project?		√	Possible quarry site is at TrishuliKhola river bank deposits at Malekhu Bazar These sites are approved quarry sites from DCC.
9	Are there any potential sites/land for debris management/ solid waste management/ reclamation for future use?		√	People have managed debris from damaged houses at their own backyard
10	Are there any areas or features of high landscape or scenic value on or spots with unique feature in and around the location which could be affected by the project? (examples, viewing point/ ridge/ peak, water-fall, cave, cliff etc)		√	Sidda Peak around 5 Km far from the settlement area
11	Any risks (health and safety, location- cliff, ridge etc.) associated with the setting of the sub-project which needs to be taken care?		√	
Biological features				
1	Any critical habitat or ecosystem of importance? Is the subproject located in or adjacent to a protected areas/ national forests, wilderness areas, wetlands (Ramsar), biodiversity, critical habitats?		√ √	
2	If the subproject is located near the forest, what is the category of the forest- national, community, leasehold, religious etc.?	√		BisauniPakha and Nalanag Thuloban Community Forest

3	Any area/ spot in and around the subproject/ settlement that is known as/for wildlife/ bird habitat (examples – bear, langur monkey, red panda, deer, trees where vulture or bats nests, cliff where wild beehives,etc)	√		Occasional visit in community forest area such as Monkey, Deer, Squirrel and Birds as Kalij, Warbler and Sparrow.
	Is the settlement/ subproject area a known wildlife movement/ migration route or bird migration route?		√	Migratory animals are not reported in the sub-project area
	Is there any water body, river, wetland etc known as important habitat (or renowned) for fishes or aquatic life? Any Ramsar site in the vicinity of the settlement/ subproject?		√ √	
4	Would the sub-project potentially cause adverse impacts to habitats (e.g. modified, natural, and critical habitats) and/or ecosystems and ecosystem services?		√	
5	Does the Project involve changes to the use of lands and resources that may have adverse impacts on habitats, ecosystems, and/or livelihoods?		√	
6	Are there any areas/ spots used by the protected, important sensitive species of flora and fauna for breeding, nesting, foraging, resting and for migration?		√	
7	Would Project activities pose risks to endangered species or their habitat?		√	
8	Does the sub-project implementation leads to harvesting of natural forests, timber, plantation development, or deforestation?	√		Harvesting of timber is required in sustainable manner

9	Any NTFP or medicinal plants in and around the sub-project?	√		Medicinal plant <i>Pakhanved</i> , Titepati, Gurjogana, Kukurdaino, Kurilo are available
Socio-economic and Cultural Features				
1	Is the subproject located in a densely populated area?		√	The distribution pattern of houses in the settlement is scattered
2	How many people comprise a typical household?	√		5 member/HH
3	How many households are without any land/shelter, any squatters?		√	
4	Is the subproject located near to the sites of archaeological/historical or cultural importance?		√	
5	Presence of minority/vulnerable/indigenous population in the area?	√		Of the total 95 36 HHs are IPs, 12 HHs are Dalit and remaining 47 HHs are Brahmin/Chettri and 20 HHs are female headed households.
6	Is the sub-project located near cultural or religious place of importance including sacred hill/ peak, sacred cliff, cave and/ or sacred tree?		√	
7	What household and livelihood support activities typically take place within the affected community?	Agriculture, service, remittance, business and		

		occasional labor works		
8	What are the typical building practices of the affected people and what are the different materials have they used in the past?	2 story, Timber, Stone, Clay, Bamboo and Corrugated Sheets		
9	Will the project require displacement or relocation of persons in the affected area?		√	
10	Who are the vulnerable people in the population, also considering those affected by HIV/AIDS etc.?		√	Woman Headed Houses, Dalits and IPs
11	What is the current availability of water for drinking and personal hygiene		√	Inadequate in dry season
12	What is the current provision of social/infrastructure facilities (health posts, sub-health posts, schools, communications, road etc?)	√		Access of road, school
13	Are there any roads on around the location which causes congestion, environmental problems during project implementation?		√	
14	Are there any open space, industries, recreation areas which could be affected by the project?		√	
15	Are there any women headed HH (No. of HHs to be identified) in the settlement.	√		20HHs
16	Are there any conflicts about the use of local resources		√	No any conflict to use the local resources
	What are the programs/ activities ongoing or planned in the settlement/ VDC or subproject area that may be coordinated, linked, and/or worked together for synergy and for 'building better'? Examples: Biogas, improved smokeless stoves, sanitation, micro-hydropower, catchment area/ soil erosion protection, community forest, buffer zone management, trail development, agriculture, composting, flood protection, river training, etc?)	√		Need to identify from DCC.
	Identification of 'no go' or 'do not disturb' area/ spots/ features based on hazards potential, protected or protection worthy area, common resources, and cultural values.		√	

	Customized minimum requirements for the subproject/ settlements	Timber, Building Stone, Mason and easy access for material transport, and further study to build synergy with environmentally friendly and socially acceptable technology
	Identify programs/ activities for coordination and linking for 'building better' and / or synergy.	Need coordination and link with district level line agencies working in ICS, Sanitation program, agriculture, irrigation and livelihood enhancement activities.

Screening Conclusions:

- I. **Main environmental issues are:**
 - Potential environmental impacts on community forest (Nalang Thuloban and Bisauni Pakha Community Forest) due to demand of timber and impact due to raw material sourcing such as stone, sand and aggregates from quarry sites is envisaged likely to be low or minimal.
- II. **Permits/ clearance needed are:**
 - Permits from DFO /CFUGs for distribution of timber from community forest to earthquake affected household as provisioned by GoN Rules and Guidelines; and
 - Ensure that the quarry operator hold required permits from Rural Municipality/DCC.
- III. **Main social issues are:**
 - 36 HHs belong to indigenous people (IP), 12 HHs are Dalits, and 20 HHs are woman headed among the beneficiaries
 - Any social issues of significant concern were not identified at the sub-project settlement
- IV. **Land acquisition and involuntary resettlement (permanent or temporary) if any;**
 - Land acquisition and involuntary resettlement is not need.
- V. **Need for any special study:** Not required
- VI. **Preparation of ESMP**
 - Environmental and social impacts are nominal. Therefore, no need of ESMP.
- VII. **Need for IPDP/VCDP:**
 - The project area is a mixed community where minority, indigenous households and other households live together. The indigenous HHs are scattered within the settlement and they do not have collective attachment to the area. They have same socio-economic and educational status with other caste groups. The vulnerable households are benefited from the EHRP project and they do not have any adverse impact from it. Besides housing grant they are entitled to get 50,000 top up subsidy.
- VIII. **Need for IEE or EIA:** Not Applicable
- IX. **Any other requirements/ need/ issue etc:** Not Applicable

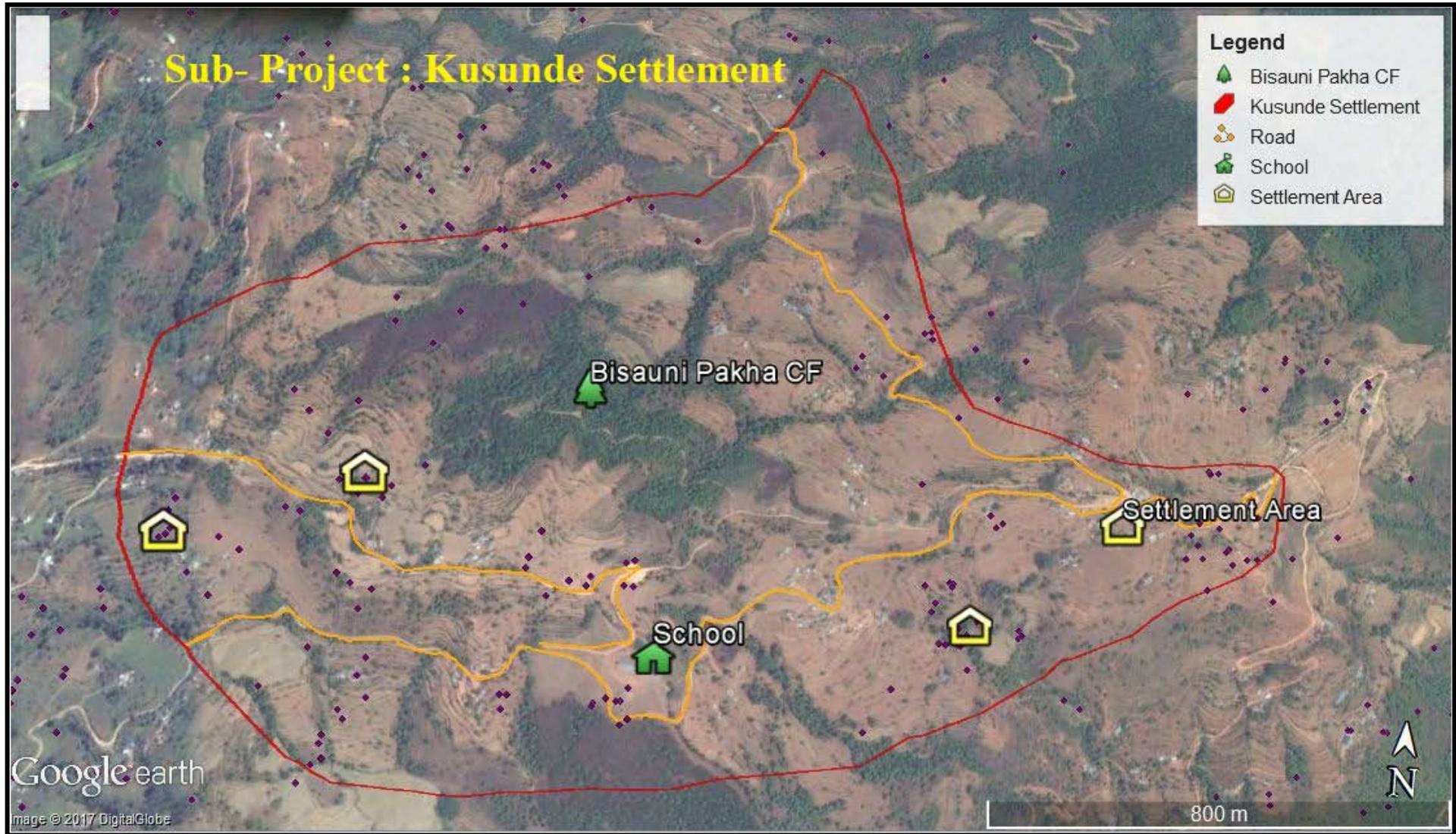
Annex 2: Name List of Beneficiary with Details

SN	Beneficiaries	Sex	Vulnerable HHs (Dalits, IPs, Women Headed)	District	VDC	Ward	Settlement
1	PadamBahadurSilwal	M		Dhading	Nalang	6	Pipalnalang
2	DharmarajSilwal	M		Dhading	Nalang	6	Pipalnalang
3	Narayan Prasad Sulwal	M		Dhading	Nalang	6	Pupalnalang
4	Durga Man Newar	M	IPs	Dhading	Nalang	6	Balamdada
5	RajaramSilwal	M		Dhading	Nalang	6	Balamdada
6	LaxmiSilwal	F	Women Headed	Dhading	Nalang	6	Balamdada
7	TejBahadurShrestha	M	IPs	Dhading	Nalang	6	Balamdada
8	Tika Devi Silwal	F		Dhading	Nalang	6	Balamdada
9	BalBahadurSilwal	M		Dhading	Nalang	6	Balamdada
10	GhanashyamBhatta	M		Dhading	Nalang	6	Balamdada
11	Krishna Raj Pokhrel	M		Dhading	Nalang	6	Balamdada
12	Man BahadurSarki	M	Dalit	Dhading	Nalang	6	Balamdada
13	LaxmiShrestha	F	IPs,Women Headed	Dhading	Nalang	6	Balamdada
14	TilBahadurShrestha	M		Dhading	Nalang	6	Balamdada
15	HariramBhatta	M		Dhading	Nalang	6	Balamdada
16	Krishna BahadurSarki	M	Dalit	Dhading	Nalang	6	Balamdada
17	Mira Nepali	F	Dalit,Women Headed	Dhading	Nalang	6	Balamdada
18	HariBahadurSilwal	M		Dhading	Nalang	6	Balamdada
19	Narayan Newar	M	IPs	Dhading	Nalang	6	Balamdada
20	PadamBahadurNewar	M	IPs	Dhading	Nalang	6	Balamdada
21	Sane Sarki	M	Dalit	Dhading	Nalang	6	Balamdada
22	SukalaxmiBada	F	IPs,Women Headed	Dhading	Nalang	6	Pipalnalang
23	GomaSimkhada	F	Women Headed	Dhading	Nalang	6	Balamdada
24	Chun BahadurSilwal	M		Dhading	Nalang	6	Balamdada
25	Nanda Prasad Adhikari	M		Dhading	Nalang	6	Balamdada
26	DamodarAdhikari	M		Dhading	Nalang	6	Balamdada
27	KupanathSimkhada	M		Dhading	Nalang	6	Balamdada
28	Nil PradadSilwal	M		Dhading	Nalang	6	Balamdada
29	NilkanthaPandit	M		Dhading	Nalang	6	Balamdada
30	Ram Prasad Silwal	M		Dhading	Nalang	6	Balamdada
31	MeghGiri	M		Dhading	Nalang	6	Kamdi
32	Nil Giri	M		Dhading	Nalang	6	Kamdi
33	BhawaGiri	M		Dhading	Nalang	6	Kamdi
34	BalGiri	M		Dhading	Nalang	6	Kamdi
35	Narayan BahadurSilwal	M		Dhading	Nalang	6	Kamdi
36	ManjuPokhrel	F	Women Headed	Dhading	Nalang	6	Kamdi
37	Shanta Mani Silwal	M		Dhading	Nalang	6	Kandi

SN	Beneficiaries	Sex	Vulnerable HHs (Dalits, IPs, Women Headed)	District	VDC	Ward	Settlement
38	BindaSilwal	F	Women Headed	Dhading	Nalang	6	Kamdi
39	Santa BahadurBaram	M	IPs	Dhading	Nalang	6	Kamdi
40	SaraswotiSilwal	F	Women Headed	Dhading	Nalang	6	Kamdi
41	AnuGiri	M		Dhading	Nalang	6	Kamde
42	KhilaGiri	M		Dhading	Nalang	6	Kamdi
43	Krishna Giri	M		Dhading	Nalang	6	Kamdi
44	DilBahadurGurung	M	IPs	Dhading	Nalang	6	Jhagare
45	Maya Sarki	M	Dalit	Dhading	Nalang	6	Kusunde
46	MekKumariSilwal	F	Women Headed	Dhading	Nalang	6	Balamdada
47	GomaSilwal	F	Women Headed	Dhading	Nalang	6	Balamdada
48	BilbhadraSilwal	M		Dhading	Nalang	6	Balamdada
49	Bimala Nepali	F	Dalit,Women Headed	Dhading	Nalang	6	Kusunde
50	Ratna Maya Nepali	F	Dalit,Women Headed	Dhading	Nalang	6	Kusunde
51	Gore BahadurSarki	M	Dalit	Dhading	Nalang	6	Kusunde
52	BishalBahadur Nepali	M	Dalit	Dhading	Nalang	6	Kusunde
53	Ram Bahadur Kasai	M	IPs	Dhading	Nalang	6	Kusunde
54	Sitaram Kasai	M	IPs	Dhading	Nalang	6	Kusunde
55	Tumbe Kasai	M	IPs	Dhading	Nalang	6	Kusunde
56	PhulmayaBhatta	F	Women Headed	Dhading	Nalang	6	Kusunde
57	Krishna Bahadur Kasai	M	IPs	Dhading	Nalang	6	Kusunde
58	DhanBahadurShrestha	M	IPs	Dhading	Nalang	6	Kusunde
59	Samsher Kasai	M	IPs	Dhading	Nalang	6	Kusunde
60	Krishna BahadurGurung	M	IPs	Dhading	Nalang	6	Kusunde
61	Man BahadurGurung	M	IPs	Dhading	Nalang	6	Kusunde
62	LalBahadur Nepali	M	Dalit	Dhading	Nalang	6	Kusunde
63	Krishna BahadurSarki	M	Dalit	Dhading	Nalang	6	Kusunde
64	DhanBahadurSilwal	M		Dhading	Nalang	6	Kusunde
65	Tanka Man Bada	M	IPs	Dhading	Nalang	6	Kusunde
66	SitaramShrestha	M	IPs	Dhading	Nalang	6	Kusunde
67	Tikaram Kasai	M	IPs	Dhading	Nalang	6	Kusunde
68	Junmaya Kasai	F	IPs,Women Headed	Dhading	Nalang	6	Kusunde
69	Tara NathBada	M	IPs	Dhading	Nalang	6	Kusunde
70	Khadka Man Bada	M	IPs	Dhading	Nalang	6	Kusunde
71	TikaLalNewar	M	IPs	Dhading	Nalang	6	Kusunde
72	BishnuBahadurShrestha	M	IPs	Dhading	Nalang	6	Kusunde
73	KrishnamanShrestha	M	IPs	Dhading	Nalang	6	Kusunde
74	NirBahadurShrestha	M	IPs	Dhading	Nalang	6	Fadke
75	RadhikaBosi	F	IPs,Women Headed	Dhading	Nalang	6	Jhagare

SN	Beneficiaries	Sex	Vulnerable HHs (Dalits, IPs, Women Headed)	District	VDC	Ward	Settlement
76	Man KumariBosi	F	IPs,Women Headed	Dhading	Nalang	6	Jhagare
77	NetramanBada	M	IPs	Dhading	Nalang	6	Jhagare
78	Mangal Kasai	M	IPs	Dhading	Nalang	6	Kusunde
79	Kul Man Bada	M	IPs	Dhading	Nalang	6	Jhagare
80	Tul Man Bada	M	IPs	Dhading	Nalang	6	Fadke
81	Bishnumaya Kasai	F	IPs,Women Headed	Dhading	Nalang	6	Fadke
82	Basudev Kasai	M	IPs	Dhading	Nalang	6	Fadke
83	Krishna Bahadur Nepali	M	Dalit	Dhading	Nalang	6	Fadke
84	Suku Maya Shakya	F	IPs,Women Headed	Dhading	Nalang	6	Fadke
85	Kush BahadurRimal	M		Dhading	Nalang	6	Fadke
86	Bhumi Prasad Silwal	M		Dhading	Nalang	6	Fadke
87	AatmaramSilwal	M		Dhading	Nalang	6	Fadke
88	Purna Prasad Silwal	M		Dhading	Nalang	6	Fadke
89	BhagwatiSilwal	F	Women Headed	Dhading	Nalang	6	Fadke
90	BhojrajSilwal	M		Dhading	Nalang	6	Fadke
91	Nar BahadurAdhikari	M		Dhading	Nalang	6	Fadke
92	EkBahadurAdhikari	M		Dhading	Nalang	6	Fadke
93	Game Raj Silwal	M		Dhading	Nalang	6	Fadke
94	SitaSilwal	F	Women Headed	Dhading	Nalang	6	Fadke
95	Bil Man Bada	M	IPs	Dhading	Nalang	6	Fadke

Annex 3: Sub project in Google Map



Annex 4: Quantity Calculation Sheet

Level	Materials				
	Stone	Mud	Wood	Slate	CGI Sheet
	Cu. M	Cu. M	C.ft	S.ft	S.ft
Upto Plinth	28	30	54.39	0	0
Super Structure	27	10	133.5	0	0
Roofing	0	0	82.64	1732	1732
Total	55	40	270.53	1732	1732
Salvaged	2470	0	18240	16200	13293
Salvaged/HH	26	0	192	270	379
Additional Required	2850	3895	7458	14620	115005
Additional Required Per HH	29	40	78.53	1462	1353

Source: NRA Design Catalogue Vol-I/MOUD/GOV