



Government of Nepal

Ministry of Federal Affairs and Local Development

OFFICE OF THE DISTRICT COORDINATION COMMITTEE

Nuwakot

Earthquake Housing Reconstruction Project

(EHRP)



Environmental and Social Screening Report (ESSR)
Sub project Karsar/Settlement: Thansing VDC, Nuwakot District

Date: 3 September 2017

Seal of Acceptance of Environment and Social Screening Report



Upendra Pyakurel

Energy and Environment Officer

Energy and Environment Section/Committee


District Coordination Committee

Bidur, Nuwakot








Official Stamp

Screening Survey, Review and Reporting Team



 In completion of Environmental and Social Screening Report (ESSR), here are the list of personals who had overall responsibility in surveying, data verification,

Position	Name	Signature & Date	Remarks
District Project Manager/DL-PIU, Nuwakot	Sunil Raj Giri		Review of overall screening process
Deputy Team Leader/DL-PIU, Nuwakot	Ram Bikram Dahal		Guidance and reviewer of the overall screening reporting process
Environmental Specialist/DL-PIU, Nuwakot	Sudeep Ghimire		Support and facilitation during survey to SM and Engineer, data verification, compilation, presentation and finalization of screening report
Social Development Specialist/DL-PIU, Nuwakot	Rishi Ram Bimali		Support and facilitation during survey to SM and Engineer, data verification, compilation, presentation and finalization of screening report
Monitoring and Evaluation Officer/DL-PIU, Nuwakot	Arjun Bahadur Basnet		Support and Facilitate in coordinating the community people and survey work
Engineer	Dipesh Sedal		Technical estimation of the materials generated and used for reconstructing a private home
Social Mobilizer/s	Ambika Bhattarai		Support in conducting screening survey

Acronyms and Abbreviation

CBS	Central Bureau of Statistics
CL-PIU	Central Level Project- Implementation Unit
DCC	District Coordination Committee
DDC	District Development Committee
DL-PIU	District Level – Project Implementation Unit
DTO	District Technical Office
EHRP	Earthquake Housing Reconstruction Project
ENRC	Environment and Natural Resource Committee
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESSR	Environment and Social Screening Report
ESSS	Environment and Social Screening Survey
HHs	Households
ICS	Improved Cooking Stove
IP	Indigenous People
LGCDP	Local Governance and Community Development Programme
LPG	Liquid Petroleum Gas
MoFSC	Ministry of Forest and Soil Conservation
MoUD	Ministry of Urban Development
MoUD	Ministry of Urban Development
NRA	National Reconstruction Authority
NRA	National Reconstruction Authority
NTFP	Non Timber Forest Product
OP/BP	Operational Policy/ Bank Policy
PIU	Project Implementation Unit
POs	Partner Organizations
RAP	Resettlement Action Plan
RM	Rural Municipality
TCN	Timber Corporation of Nepal
VCDP	Vulnerable Community Development Plan
VDC	Village Development Committee

Units

#	Numbers/ Count
%	Percentage
cft	Cubic Foot
cum/m ³	Cubic Meter
Km	Kilometer
masl	Meter Above Sea Level

Table of Contents

ACRONYMS AND ABBREVIATION	III
TABLE OF CONTENTS	IV
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
A. EARTHQUAKE DAMAGED HOUSES AND LOCAL CONSTRUCTION MATERIALS	3
B. FOREST AND WILDLIFE	4
C. DEBRIS/SOLID WASTE MANAGEMENT AND HAZARDOUS MATERIALS	4
D. SOCIO-ECONOMIC AND CULTURAL FEATURES	4
E. WATER AND SANITATION.....	4
F. BUILD BACK BETTER OPPORTUNITY	5
G. ANY SENSITIVE SITE	5
7. FEEDBACK OF ENVIRONMENT AND NATURAL RESOURCE COMMITTEE (ENRC) REVIEW MEETING	5
8. ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES AND MONITORING ACTIVITIES ..	5
9. CONCLUSIONS AND RECOMMENDATION	10
ANNEXES	I
ANNEX I: ENVIRONMENTAL AND SOCIAL SAFEGUARD SCREENING CHECKLIST	I
ANNEX II: BENEFICIARIES HHS LIST OF KARSAR SETTLEMENT	VIII
ANNEX III: REVIEW MEETING MINUTES FOR APPROVAL OF SCREENING REPORT FOR THANSING VDC	X
ANNEX IV: LIST OF CONSULTATION	XII
ANNEX V: ARIAL VIEW OF KARSAR SETTLEMENT IN GOOGLE MAP	XIII
ANNEX VI: QUANTITY CALCULATION SHEET FOR KARSAR	XIV

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. Nuwakot is one the earthquake-affected district. According to National Reconstruction Authority (NRA) source, the total number of houses damaged in Nuwakot district is 74,533 of which 65,759 were fullydamaged and 8,774 were partially damaged.

Government of Nepal has selected Nuwakot 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 approach includes:

- 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 receive 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 September 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 *Karsar* settlement is located in *Likhu* Rural Municipality (Former Thansing VDC Ward no.-4 and 5) and it lies in southeastern part of district headquarter, *Bidur* (Fig. 1). The details on settlement are presented in google earth image (Annex V). The settlement is accessible through *Tokha- Chhahare* earthen feeder road.

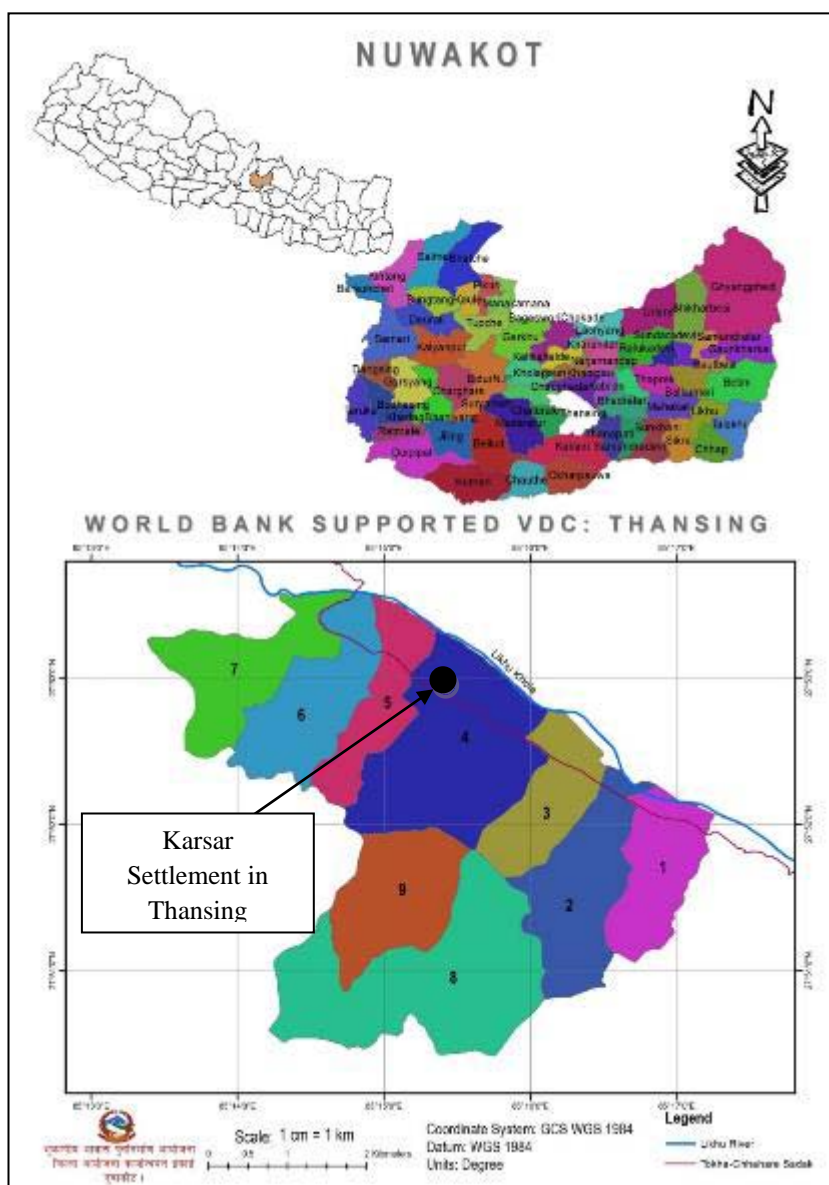


Fig.1: Map Showing *Karsar* Settlement in the Thansing VDC

Physiographical condition of the sub project area is characterized by mountain, subtropical climate, surrounded by uphill area with no such happening of any natural disaster.

The total number of eligible HHs considered as beneficiaries identified from National Reconstruction Authority (NRA) for “Nepal Earthquake 2015” within this settlement is 53 HHs.

4. Social and Environmental Screening and its Objectives

ESMF requires Environmental and Social screening 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 Development Committee (DDC) and VDCs 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 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 I) 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 March 2017. During the consultation, they were informed about the project provisions and information on socioeconomic setting including physical and biological features were recorded. Discussions were also held with district and local sectoral agencies including District Technical Office (DTO), ward secretary of rural municipality, communities’ groups- CFUGs and CBO active in sub project.
- 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 Environment&Social screening of the affected settlement:

A. Earthquake Damaged Houses and Local Construction Materials

- With scattered distribution, a typical house before the earthquake comprised of 24’*32’ plinth with five rooms in 2-3 stories made from timber, stone, clay, bamboo

and corrugated Sheets. The proposed newly reconstruction houses will be made with stone and brick masonry using availability of local raw materials under government standard;

- The 53 beneficiaries HHs are rebuilding their houses in the same location following recommendation by engineers from Department of Urban Development and Building Construction (DUDBC). However, reconstruction policy of NRA also permits to rebuild their houses within the district and adjoining VDCs;
- The beneficiaries are currently residing in temporary shelters within the settlement;
- About 40 percent of the houses will be built using stone and remaining sixty percent will use bricks for reconstructing their houses. Total additional demand of stone approximately 636 cum, bricks is 8,42,531 and timber is 93.81 cum besides sand, aggregate, cement, iron are also required for reconstruction (Annex VI);
- All required raw materials for building will be purchased from DCC (formerDDC) approved quarry site nearby ward 2, 3 & 4 of former Thansing VDC. Most of the identified quarry sites are located nearby Likhu River and local markets are located at Dhikure, Battar, and Bidur; and
- Stone and timber salvaged are being packed and stored properly and being used for reconstructions of houses.

B. Forest and Wildlife

Most of the sub project area lies within the agricultural land and has no forest area. Wild lives and NTFPs were not reported in the settlement area. *Mangifera indica* (leaf and fruit), *Phyllanthus emblica*, *Artemisia indica*, *Centella asiatica*, *Azadirachta indica*, *Acorus calamus*, *Nyctanthes arbortritis*, *Utrica dioica*, etc are medicinal plants found within the settlement.

C. Debris/Solid Waste Management and Hazardous Materials

- With little exception, most of the generated debris are already managed in-situ by the beneficiarie HHs and remaining minor amount that will be generated during the reconstruction of houses will be managed by beneficiaries themselves as well. No hazardous waste were reported or observed in this settlement. Solid waste like empty cement bags, metal scarps generated during construction will have minimal impact.

D. Socio-economic and Cultural Features

- Out of 53 HHs in the community, 38 are indigenous HHs, 14 HHs belongs to Brahmin and Chhetri, 1 HH is Dalit and 6 are women headed HHs (Annex-II);
- Agriculture and labor works are the major source of livelihood among beneficiaries;
- school and public health post is present at half an hour walking distance;
- The existing earthen rural road provides access to the market and approved quarry sites to collect construction materials; and
- All the eligible HHs gradually shifting the traditional firewood with Liquefied Petroleum Gas (LPG) as cooking fuel.

E. Water and Sanitation

The source of water for drinking facility is from spring is fair. Sanitation condition was also found satisfactory within the settlement even though some of the HHs are using temporary toilet which will be completed with the final installment. Project activities and implementation is not likely to affect aquatic life of nearby Likhu river

F. Build Back Better Opportunity

- Improved water, sanitation and hygiene situation in the settlement by toilet construction using housing grant allocated for sanitation purpose and adoption and installation of alternative energy measures;
- As some of the individual residential houses in the settlement/ subproject area are still using firewood as the traditional cooking fuel, this project provides an opportunity to build Improved Cooking Stoves (ICS) or bio-gas etc; and These could be promoted through agencies including government and NGOs/ INGO which are already engaged in these sectors in the district. Such opportunity needs to be further explored and promoted as far as possible.

G. Any Sensitive Site

There is no known significant physical, cultural site, protected site in the immediate surrounding of the subproject/ settlement. There is no known habitat for endangered, rare, protected or special species. There is no hazardous place or restricted place within the settlement.

7. Feedback of Environment and Natural Resource Committee (ENRC) Review Meeting

Following are the major concern/recommendations from the DCC-ENRC meeting held on 25th April, 2017 (Annex III)

- It is likely that the most of the earthquake affected HH may choose to rebuild their houses in-situ instead few of them are using even for agriculture land where no options exists.
- Local government is concerned that as a result of shifting and rebuilding process in the area; there could be loss of productive agricultural land, which could potentially affect the local economy.
- Awareness activities in relation to the above-mentioned issue should be carried out in Karsar settlement land area.

8. 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	<p>Aggregates will be purchased from suppliers or at market (Karsar-Thansing-Dhikure, Battar, and Bidur Nuwakot). Quarry operators supply the materials from approved quarry sites which are near to about 1km 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.</p> <p>Timber will be sourced from demolished house salvage, from own farmland, 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.</p>	Contractor will be responsible to borne mitigation cost as a part of quarry site license approval clause.	Beneficiary Household/DL-PIU	<p>Monitoring by CL-PIU/mobile team and Third party.</p> <p>Monitoring findings will be shared with DCC.</p>	Aggregated suppliers and vendors are registered on concerned government authority to have permits to supply and sale the products.
2.	The construction of small residential buildings will involve small scale civil works. Hence, there is health and safety	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	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	DL-PIU	CL-PIU/NRA	

SN	Environmental and Social Issues	Mitigation measures	Mitigation measure cost	Responsibility		Remarks
				Implementation	Monitoring/Supervision	
	risks of minor accidents and injuries.	risks and management.	develop environmental and social training, awareness and dissemination plan and cost/ budget.			
3.	Debris/Solid Waste Management	Demolition waste generated is already managed in-situ. The solid waste generated during construction will be minimal and will be managed by beneficiaries themselves	Not applicable	Beneficiaries	DL-PIU	
4	Build Back Better Opportunity – Enhancement Measures					
4.1	Health and sanitation	In terms of prioritizing built back better opportunity need priority are : 1. Integration of toilet (sanitations) construction in housing reconstruction 2. Addressing Indoor air pollution through well ventilated housing design including promotion of Improved Cooking Stoves (ICS) 3. Renewable energy (including solar power, or bio-gas etc.	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, supervision and monitoring. External monitoring (third party) for overall EHRP is estimated to be about NRs. 7 million.
4.2	Indigenous Peoples and other vulnerable groups	Mitigation measures include: • Targeted communication and	This This will not require additional mitigation	DL-PIU/Mobile team/ Partner	Monitoring by CL-PIU/NRA	The Government/Project is drafting a

SN	Environmental and Social Issues	Mitigation measures	Mitigation measure cost	Responsibility		Remarks
				Implementation	Monitoring/Supervision	
	including marginalized, poor, woman headed households, disabled people	<p>awareness to vulnerable group(e.g. organizing consultation in areas accessible for women and people with disabilities.) on:</p> <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 ● 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.) 	cost.	<p>organizations</p> <p>(The team will ensure that vulnerable groups are targeted and their participation in ensured through district project team mobilization)</p>		<p>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 project site visit, supervision and monitoring. External monitoring (third party) for overall EHRP is estimated to be about NRs. 7 million.</p>
4.3	Loss of productive	Organize awareness program and distribute awareness materials in	The cost of awareness activities is internalized	DL-PIU	CL-PIU/NRA	CL-PIU will submit copy of awareness

SN	Environmental and Social Issues	Mitigation measures	Mitigation measure cost	Responsibility		Remarks
				Implementation	Monitoring/Supervision	
	agricultural land in the settlement area	relation to prevention of loss of productive agricultural land in and around the settlement area	within the overall cost of training and awareness.			event to Bank
4.4	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

9. Conclusions and Recommendation

The major conclusions on the environmental and social issues are;

- Sub-project activities will not have significant 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 Karsar, Dhikure, Battar, and Bidur. Besides use of timber from own farm, purchase at subsidized rate from timber distributed by Timber Corporation of Nepal (TCN) will fulfill the additional demand 93.81 cum whereas, 636cum stone will be fulfilled from nearby DDC approved quarry sites;
- Out of the total 53HHs not any HHs are in the influence zone of natural hazards as flood or landslide;
- As people of sub-project settlement have their own land for reconstruction of houses, land acquisition and involuntary settlement is not required; and
- There will be no significant adverse impacts on vulnerable groups, marginalized groups (female-headed households and indigenous peoples groups).

The environmental and social impact envisaged 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 timber and aggregates 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 and other HHs live together 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 (See table-1). 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:

DL-PIU/ES Specialist
Name: Sudeep Ghimire
Designation: Environmental Specialist

DL-PIU/ SDS Specialist
Name: Rishi Ram Bimali
Designation: Social Development Specialist

Annexes**Annex I: Environmental and Social Safeguard Screening Checklist**

1.	Project Title	Earthquake Housing and Reconstruction Project (EHRP)
2.	Project District	<i>Nuwakot</i>
3.	Name of the VDC/Municipality	Thansing VDC
4.	Name of the Settlement, Ward No.	Karsar-4 & 5
5.	Number of eligible households:	53 HHs(13 HHs of Ward no 4 & 40 HHs of Ward no 5)
6.	Altitude of the Settlement (in meters)	558 masl
7.	Nearest road head/highway/headquarter	Bidur-Chhahare Highway/12 km from headquarter
8.	Settlement ID/no	28-59-4-12
9.	Proposed Date of Commencement of Work:	January 5, 2017
	Number of houses damaged	53 HHs
	Number of houses to be reconstructed	53 HHs
	Quantity of debris generated (by type)	Stone, bonding soil, wood, rags,
	Quantity of reusable materials (by type)	Stone, Timber
	Quantity of debris that needs to be disposed	With very few exception most of the generated debris are already managed in-situ by the beneficiaries household, Stone and timber salvaged are being packed properly and being used wisely
	Quantity of construction materials needed (Timber, sand, gravel, stone, etc)	Additional about 93.81 cum Timber and about 636 cum stone is needed and brick of 8,42,541 numbers
	Any hazardous materials mixed with debris (e.g. from damaged health-posts, medicines, from agro-vet shops/ service etc)	None:, soil as binding materials are properly disposed and leveled in the adjoining cultivated land
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).	Not applicable
	House/ shelter should not be located in	There is no protected area in sub project vicinity

	protected area, and forest.	
	Any activity, including material quarrying, resulting significant conversation or degradation of critical natural habitat is not permitted	Not applicable
	Use of any public PCR in private home reconstruction is not permitted.	Not applicable

S.No	ISSUES	YES	NO	DO NOT KNOW/remarks
1	Is the proposed sub-project likely to have minimal or no adverse environmental impacts?	√		OP 4.01
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
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
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?		√	OP 4.11
5.	Will the sub-project involve significant conversion or degradation of critical or non-critical natural habitats?		√	OP 4.04
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 IPs are present

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?		√	
2	Is the settlement located close to groundwater sources, springs, surface water bodies, riverbank, and watercourses?		√	
3	How is the terrain? –flat, ridge, undulating, terraced, valley, tar etc.		√	Terraced flood plain of Likhu River
4	Any history of erosion, flashflood, landslides, earthquake in the area/ vicinity?		√	
5	Current land use practice (agriculture, grazing, barren, forest, shrubs-----)		√	Mostly agricultural and forest land
6	Is the subproject located on prime agricultural land?	√		Terraced cultivated land of Likhu flood plain. There is no alternative for land and reconstruction is being undertaken in-situ spots
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?		√	Likhu River bank at the side of Thansing VDC ward no. 2, 3 & 4 had obtained approval from DDC, Nuwakot
9	Are there any potential sites/land for debris management/ solid waste management/ reclamation for future use?		√	People have managed their waste at HHs level
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)		√	
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.?		√	
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)		√	
	Is the settlement/ subproject area a known wildlife movement/ migration route or bird migration route?		√	
	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?		√	Likhu river is an landmark for the settlement. It is not knownas important habitat for aquatic life. Thre is no any Ramsar site at the vicinity of settlement.
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?		√	
9	Any NTFP or medicinal plants in and around the sub-project?	√		<i>Mangifera indica</i> (leaf and fruit),

				<i>Phyllanthus emblica, Artemisia indica, Centella asiatica, Azadirachta indica, Acorus calamus, Nyctanthes arbor-tritis, Utrica dioica</i> , etc are the common medicinal plants reported in the area
Socio-economic and Cultural Features				
1	Is the subproject located in a densely populated area?		√	53 HHs at settlement are scattered in distribution
2	How many people comprise a typical household?	√		Average HHs size is 4
3	How many households are without any land/shelter, any squatters?		√	Every HHs have their own private land
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?	√		38 HHs are Indigenous, 1 HHs are Dalit and 6 Women headed HHs
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 and occasional labor work		
8	What are the typical building practices of the affected people and what are the different materials have they used in the past?	Sizes vary each cases with most 24'*32' plinth with 4 rooms in 1-2 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.?	√		IPs, Women Headed HHs and Dalit are different

				vulnerable peoples
11	What is the current availability of water for drinking and personalhygiene,	√		Drinking water supply spring in fair access and sanitation condition is satisfactory
12	What is the current provision of social/infrastructure facilities (health posts, sub-health posts, schools, communications, road etc?)	√		Access of public health post and 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.	√		6 HHs are women headed
16	Are there any conflicts about the use of 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?)	√		Agencies working in different sections will be added later on in the Annex
	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	<ul style="list-style-type: none"> Discourage use of agricultural land for housing; During reconstruction; encourage re-use of available resource, properly manage waste generated, follow proper safety measure, due priority to vulnerable HHs; and Properly manage remaining demolition waste/debris during housing reconstruction
Identify programs/ activities for coordination and linking for 'building better' and / or synergy.	<ul style="list-style-type: none"> Need for co-ordination with district level line agency; Housing construction support of NRs. 25,000 needs to be used as an opportunity to further promote sanitations, ICS etc; Renewable energy including solar power, or bio-gas etc.; and Identify and co-ordinate with infrastructure development works (eg road upgrading) that are underway as a part of overall reconstruction

Screening Conclusions:**(i) Main environmental issues are:**

- Significant environment issues were not identified. Since construction materials such as timber, stone have to be either purchased from local market or brought from DCC approved quarry sites. The requirement of timer will be fulfilled from salvage and additional from local market and through Timber Cooperation of Nepal.

(ii) Permits/ clearance needed are:

- Ensure that sand, gravel & stone are sourced from approved quarry sites.

(iii) Main social issues:

- 38 HHs are Indigenous, 1 HHs are Dalit and 6 Women headed HHs; and
- 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 needed.

(v) Further assessment/ investigation needed and next step.**(vi) Need for any special study:** Not applicable**(vii) Preparation ESMP (main issue to be addressed by the ESMP):**

Environmental and Social impacts are nominal. However, the type of activities to be conducted, it is recommended that a simple yet comprehensive ESMP shown in table-1 (mitigation measures) commensurate with the potential adverse impacts is implemented. It is recommended that the ESSR provides a brief overview of key mitigation measures for the identified minimal adverse impacts..

(viii) Need for IPDP/VCDP:

The Project area is a mixed community where IPs households and other households live together. Other vulnerable groups (Dalits and female-headed HHs) are also present in the area. Thirty-eight out of 53 HHs in the community are indigenous HHs. 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

(ix) Need for IEE or EIA: Not applicable**(x) Any other requirements/ need/ issue etc:** Not applicable**Screening Tool Completed and Reviewed by:**

Environmental Specialist in the District Level -PIU:	Social Specialist in District Level - PIU:	Project Manager in District Level - PIU:	Presentation/ Briefing to DCC – ENRC done on: 25th April, 2017
Title and Date: Sudeep Ghimire/20 th April, 2017	Title and Date: Rishi Ram Bimali/20 th April, 2017	Title and Date: Sunil Raj Giri/DTO Chief/Project Manager	Advice, comments, and suggestions from the DCC-ENRC are attached in Annex 3 Screening cleared by DCC – ENRC on: 22 nd May, 2017

Annex II: Beneficiaries HHs List of Karsar Settlement

S.N.	Beneficiary	Gender	Vulnerable HHs (Dalits, IPs, Women Headed)	Ward	Village/Tole
1	Sita Ram Thapa	M		4	Dobaate
2	Ram Sharan Thapa	M		4	Dobaate
3	Top Bahadur Thapa	M		4	Dobaate
4	Padam Bahadur Thapa	M		4	Dobaate
5	Sumitra Ghimire	F	Women Headed	4	Dobaate
6	Bishu Prashad Ghimire	M		4	Dobaate
7	Bala Ram Adhikari	M		4	Dobaate
8	Sanu Bhai Bhandari	M		4	Dobaate
9	Bhawani Bhandari	F	Women Headed	4	Dobaate
10	Madhav Prashad Bhandari	M		4	Dobaate
11	Chhatra Bahadur Khatri	M		4	Dobaate
12	Buddhi Bahadur Dahal	M		4	Dobaate
13	Bala Ram Mijar	M	Dalit	4	Makaichuar
14	Hari Bahadur Shrestha	M	IPs	5	Saut tole
15	Binod Dhungana	M		5	Sauttole
16	Goma Shrestha	F	IPs/Women Headed	5	Sauttole
17	Maan Bahadur Shrestha	M	IPs	5	Sauttole
18	Lok Bahadur Shrestha	M	IPs	5	Sauttole
19	Chokal Bahadur Shrestha	M	IPs	5	Sauttole
20	Pausha Kumari Shrestha	F	IPs/Women Headed	5	Sauttole
21	Ram Krishna Shrestha	M	IPs	5	Sauttole
22	Indra Bahadur Shrestha	M	IPs	5	Gairathok
23	Ganesh Bahadur Shrestha	M	IPs	5	Gahirathoke
24	Krishna Ram Shrestha	M	IPs	5	Gahirathoke
25	Durga Narayan Shrestha	M	IPs	5	Gahirathoke
26	Dev Narayan Shrestha	M	IPs	5	Gahirathoke
27	Bir Bahadur Shrestha	M	IPs	5	Gahirathoke
28	Yaba Narayan Shrestha	M	IPs	5	Gahirathoke
29	Keshav Raj Ghimire	M		5	Gahirathoke
30	Ramsharan Shrestha	M	IPs	5	Ganeshthan
31	Ram Bahadur Manandhar	M	IPs	5	Ganeshthan
32	Jeet Bahadur Manandhar	M	IPs	5	Ganeshthan
33	Bharat Bahadur Manandhar	M	IPs	5	Ganeshthan
34	Rajkumar Manandhar	M	IPs	5	Ganeshthan
35	Gore Manandhar	M	IPs	5	Ganeshthan
36	Bhim Bahadur Manandhar	M	IPs	5	Ganeshthan
37	Dhanbahadu Manandhar	M	IPs	5	Ganeshthan
38	Govindalal Shrestha	M	IPs	5	Ganeshthan

S.N.	Beneficiary	Gender	Vulnerable HHs (Dalits, IPs, Women Headed)	Ward	Village/Tole
39	Deep Bahadur Shrestha	M	IPs	5	Ganeshthan
40	Dinesh Bahadur Shrestha	M	IPs	5	Ganeshthan
41	Ram Bahadur Shrestha	M	IPs	5	Ganeshthan
42	Shyam Shrestha	M	IPs	5	Ganeshthan
43	Dilbahadur Manandhar	M	IPs	5	Ganeshthan
44	Lok Bahadur Manandhar	M	IPs	5	Ganeshthan
45	Chandra Bahadur Manandhar	M	IPs	5	Ganeshthan
46	Mohan Bahadur Manandhar	M	IPs	5	Ganeshthan
47	Prem Bahadur Manandhar	M	IPs	5	Ganeshthan
48	Prem Lal Manandhar	M	IPs	5	Ganeshthan
49	Narayan Bahadur Shrestha	M	IPs	5	Ganeshthan
50	Nanda Maya Manandhar	F	IPs/Women Headed	5	Ganeshthan
51	Surya Narayan Shrestha	M	IPs	5	Coaldadha
52	Chini Maya Shrestha	F	IPs/Women Headed	5	Coaldadha
53	Krishna Bahadur Shrestha	M	IPs	5	Coaldadha

Annex III: Review Meeting Minutes for Approval of Screening Report for Thansing VDC

आज तिथी २०७४/०९/१२ गते यस नुवाकोट जिल्ला, खिल्ला खप्तड स्थितिमा हुनामा स्थानीय विडाप अधिकारी श्री डेब्रु वहादुर पण्डित ज्यूको अध्यक्षतामा भूकम्प आवाप पुनर्निर्माण आयोगको अन्तर्गत वसति स्वरूपा गरिने वातावरणीय तथा खानाजिउ इन्फो तथा व्यवस्थापन योजना/प्रतिवेदन उपर हस्तकल गरि यस मुद्दाव पेश गर्नु पर्ने भएकाले नेपाल सरकार भूकम्प आवाप पुनर्निर्माण आयोगको जिल्ला आयोगको कार्यालय इडई (DL-PIU) ले तयार पारेको खावोट सिर्-८, डेडरेभि रिफ्लिडो वातावरणीय तथा खानाजिउ इन्फो स्मर व्यवस्थापन प्रतिवेदन खावोट खावोटु धानविद्, गा.वि.स. हाल लेखु-६, ६५३ डडवि-८ का वर वटा वसति हड्डो वातावरणीय तथा खानाजिउ इन्फो प्रतिवेदन उपर हस्तकल गरि निम्नानुषाङ्को यस मुद्दावसु प्रदान गरियो।

उपस्थिति

१.	केशर न. पण्डित	स्था- वि. भ्र, नुवाकोट	
२.	केशर शर्मा प.पी	स्था- वि. लामा ग. वि. वि. डि. व. नुवाकोट	
३.	वेद प्रसाद गौडेल	(NEA) नुवाकोट	
४.	गोपबन्धु युगा	क्रि. ड. ड. व. रसिरी	
५.	अश्विका शर्मा	सा.प (नियु. शा. पा.)	
६.	राम बहादुर खड्का	इ. व. वि. प्रा. काठ	
७.	पुष्कर शर्मा रिमाल	व. व. क. जि. सि. व.	
८.	शरतोष कुमाल	- ES, CLPIU, EHRP	
९.	अरुण शर्मा शर्मा	- SDS, CLPIU, EHRP	
१०.	पद्म शर्मा शर्मा	- जि. व. व. जि. व. व.	
११.	सन्दिप ज्ञानाल	- DL-PIU, Nuwakot.	
१२.	शश विमल शर्मा	- DLPIU Nuwakot	
१३.	राजन शर्मा	DLPIU Nuwakot	
१४.	सरिता अधिकारी	- DTO	
१५.	जतिष राम रिमाल	SDS DLPIU/EHRP	
१६.	सन्दिप शर्मा	ES, DLPIU/EHRP	
१७.	उपेन्द्र शर्मा	उजा. व. व. व. व. व. जि. व. व.	
१८.	सन्देश शर्मा	जि. व. व. व. व. व. व. व.	
१९.	डि. व. व. व. व. व. व. व. व.	जिल. व. व. व. व. व. व. व. व.	
२०.	ब्रज पुन	- वि. व. व. व.	

१) मित्रि आवास पुनर्निर्माण गर्न पुरानो घरबाट निस्कने Debris (छोटे) नई व्यवस्थापन गर्न विशेष ध्यान दिनु पर्ने निर्णय गरियो।

२) मित्रि आवास नकाडो शिलशिलामा आमे प्रयोग गरी वन तथा खाडीमा पनि यस्तो प्रभावलाई कम गर्न अवलम्बन गर्नुपर्ने method प्रयोग गर्नु पर्ने।

३) मित्रि आवास प्रयोग गर्न पुनर्निर्माण गरी वनसभ काठ को पुर्णमा Alternative प्रयोग गर्न नई प्रयोग स्वयम् कुन incentive दिन सक्ने अवस्था तथा वन विभाग कुन को स source बढाउन कानिपि जाँच (डिप्लो) लगाउन सक्ने तथा प्रयोग गर्न पर्ने।

४) यात्राका लागि फाँटमा देखिएका खेतमाथि खेतको अतिक्रमण कम गर्न कानिपि जनचेतना फैलाउनु।

५) उच्चतम गरिएका पुनर्निर्माणलाई पुर्णतः खोल्न नसक्ने भएतापनि फलानु गरी अगाडी बढाउनु।

(Handwritten signatures and names are present at the bottom of the page, including 'S. Singh', 'S. Singh', 'S. Singh', and 'S. Singh').

Annex IV: List of Consultation**Name of VDC: Thansing, 4 & 5****Name of Settlement: Karsar**

S.N	Name of Participants	Tole
1	Padam Bahadur Thapa	Karsar
2	Arjun Nepali	Karsar
3	Ramsharan Thapa	Karsar
4	Dhurba Shrestha	Karsar
5	Ramhari Adhikari	Karsar
6	Basu Dhakal	Karsar
7	Ram Bahadur Oja	Karsar
8	Krishna Prasad Bhandari	Karsar
9	Gopal Prasad Phuyal	Karsar
10	Sabitri Dahal	Karsar
11	Sashi Bhandari	Karsar
12	Babita Dhakal	Karsar
13	Sita Ram Thapa	Karsar
14	Ram Bahadur Bhattarai	Karsar
15	Manju Ghimire	Karsar
16	Kedar Prasad Bhandari	Karsar

Annex V: Arial View of Karsar Settlement in Google Map



Annex VI: Quantity Calculation Sheet for Karsar

Type of house: Model no. Stone Masonry in Cement Mortar (SMC-2.1) and Brick Masonry in Cement Mortar (BMC-2.1)							Total HHs: 53
S. No.	Structure Wise	Materials					Timber (m ³)
		Stone (m ³)	Brick (Nos.)	Cement (Bags)	Sand (m ³)	Aggregate (m ³)	
1	Upto D.P.C. level	19.00	5,000.00	82.50	12.00	7.00	
2	Super structure	31.00	21,495.00	138.00	18.00	7.00	2.29
3	Roof						1.48
Total (Per HHs)		50.00	26,495.00	220.50	30.00	14.00	3.77
Reuse from demolished house		20.00					2.00
Total Reusable Materials		1,060.00					106.00
Additional Needed/House		30.00					1.77
Estimated Total Quantity		1,590.00	1,404,235.00	11,686.50	1,590.00	742.00	93.81
Additional Needed for Total HHs Based upon Brick: Stone > (60:40)%		636.00	842,541.00	11,686.50	1,590.00	742.00	93.81

Reference: MoUD/DUDBC

Note: *: - 1 m³=35.28 cft

**: - Ratio of ongoing construction of houses for bricks and stone (60:40)

Note: Project has been providing training to local masons and carpenters on EQ resilient house construction. Each owner will build his or her own house using locally available skilled and unskilled human resource. Project will not hire contractor for constructing houses. Hence, there will be no influx of labour and no need for labour camp.