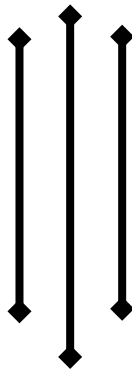




**Government of Nepal**  
**Ministry of Federal Affairs and Local Development**  
**OFFICE OF THE DISTRICT COORDINATION COMMITTEE**  
**Nuwakot**

**Earthquake Housing Reconstruction Project**  
**(EHRP)**



**Environmental and Social Screening Report (ESSR)**  
Sub project Makaichaur/Settlement: 28-59-4-11: Thansing VDC, Nuwakot District

Date: 31 August 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	 2074-2-7	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 Sedai		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
EIA	Environmental Impact Examination
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
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
TCN	Timber Corporation of Nepal
VCDP	Vulnerable Community Development Plan
VDC	Village Development Committee

## Units

#	Numbers/ Count
%	Percentage
cft	Cubic Foot
cum/m <sup>3</sup>	Cubic Meter
km	Kilometer
masl	Meter Above Sea Level

## Table of Contents

<b>ACRONYMS AND ABBREVIATION .....</b>	<b>III</b>
<b>TABLE OF CONTENTS .....</b>	<b>IV</b>
<b>1. BACKGROUND.....</b>	<b>1</b>
<b>2. SCOPE OF EHRP .....</b>	<b>1</b>
<b>3. SUB PROJECT .....</b>	<b>2</b>
<b>4. SOCIAL AND ENVIRONMENTAL SCREENING AND ITS OBJECTIVES.....</b>	<b>3</b>
<b>5. METHODOLOGY .....</b>	<b>3</b>
<b>6. FINDINGS AND ISSUES .....</b>	<b>4</b>
A. EARTHQUAKE DAMAGED HOUSES AND LOCAL CONSTRUCTION MATERIALS .....	4
B. FOREST AND WILDLIFE .....	4
C. DEBRIS/SOLID WASTE MANAGEMENT AND HAZARDOUS MATERIALS .....	4
D. SOCIO-ECONOMIC AND CULTURAL FEATURES .....	5
E. WATER AND SANITATION.....	5
F. BUILD BACK BETTER OPPORTUNITY .....	5
G. ANY SENSITIVE SITE .....	5
<b>7. FEEDBACK OF ENVIRONMENT AND NATURAL RESOURCE COMMITTEE (ENRC) REVIEW MEETING.....</b>	<b>6</b>
<b>8. ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES, MONITORING ACTIVITIES: REMARKS .....</b>	<b>6</b>
<b>9. CONCLUSIONS AND RECOMMENDATION .....</b>	<b>13</b>
<b>ANNEXES .....</b>	<b>I</b>
ANNEX I: ENVIRONMENTAL AND SOCIAL SAFEGUARD SCREENING CHECKLIST .....	I
ANNEX II: ELIGIBLE HHs LIST OF MAKACHAURSETTLEMENT .....	XI
ANNEX III: REVIEW MEETING MINUTES FOR APPROVAL OF SCREENING REPORT FOR THANSING VDC.....	XIV
ANNEX IV: LIST OF CONSULTATION .....	XVI
ANNEX V: AERIAL VIEW OF MAKACHAUR SETTLEMENT IN GOOGLE MAP.....	XVII
ANNEX VI: QUANTITY CALCULATION SHEET FOR MAKACHAUR.....	XVIII

## 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 fully damaged 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 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:

- Beneficiary households will mostly 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:

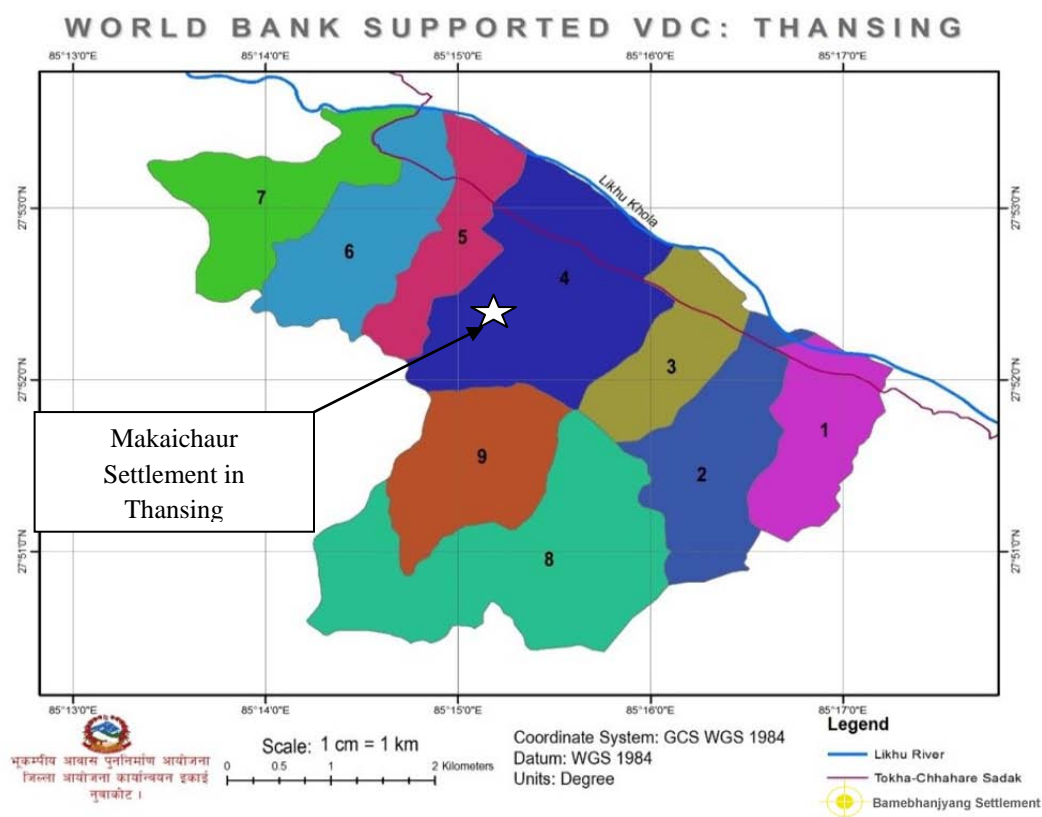
- Skilled-training (mason, carpentry, plumbing, electrical) as a part of overall strategies are being provided by Department of Urban Development and Building Construction (DUDBC) in coordination with other line agencies and NGOs/INGOs. All interested community members and beneficiaries including those 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 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

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 Makaichaur settlement is located in Likhu Rural Municipality (former Thansing VDC) Ward no.-4 and it lies in southeast part of district headquarter, Bidur (Fig. 1 and Annex V) at an altitude of 838m asl. The settlement is accessible by 2 km earthen road from *Tokha-Chhahare Feeder Road*.



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

The total number of eligible HHs considered as beneficiaries identified from National Reconstruction Authority (NRA) for “Nepal Earthquake 2015” within this settlement is 65HHs (refer to Annex II).

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

Before the earthquake, most of the houses were made with stone/brick with mud bonded and few with cement. The proposed newly reconstruction houses will be made with stone and brick masonry using availability of local raw materials under government standard.

#### **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 forest user 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 were of 24'\*32' plinth area with four rooms in two stories made from timber, stone, clay, bamboo and corrugated sheets;
- The 65 beneficiaries HHs are currently residing in temporary shelter within the settlement;
- 40% of the damaged HHs uses stone (approximately. 780 cum) for constructing houses and rest 60% uses bricks (estimated 10, 33,305 numbers) excluding sand aggregate, timber, cement and iron/metal bars (refer details in annex VI). All the required raw materials for building will be purchased from DCC (Former DDC) approved quarry site nearby ward 1, 2, 3 and 4 of Thansing VDC. Identified quarry sites are located nearby Likhu River and local markets for construction materials are located at Chhahare, Dhikure, Battar and Bidur. The existing earthen rural road provides access to the market and approved quarry sites to collect construction materials;
- 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 nearby community forest area named Keureni Community Forest (CF) consisting Sal (*Shorea robusta*), Chestnut (*Castonopsis sps*) and Chilaune (*Schima wallichii*);
- Asparagus (Local Vernacular Name: *Kurilo*) is the NTFP found within the settlement;
- Species of monkey like *Semnopithecus entellus*, *Sus scrofia* and *Hystrix indica* are the mammals rarely reported in Keureni CF;
- Except Sal (*Shorea robusta*) species there was not found any protected floral species by government of Nepal. and
- Project activities and implementation is not likely to directly affect aquatic life of nearby Likhu River (it is not a Ramsar Site) The total additional demand of timber for the settlement is about 115.05 cum after reusing 130 cum from salvage timber. The requirement of timer will be fulfilled from the quantity salvaged, felling of standing timber trees on farmland owned by the beneficiaries, purchase from local market at Dhikure, Battar and Bidur, purchase at subsidized rate distributed by the Timber Corporation of Nepal (TCN), a government owned entity and other from the CF at government relaxation quota. Most of the standing trees in the forest are immature having low timber value. Therefore, impacts on Makaichaur CF due to reconstruction activities are likely to be low or minimal.

### C. Debris/Solid Waste Management and Hazardous Materials

- Most of the generated debris are already managed in-situ by the eligible HHs. The remaining debris will be managed during reconstruction of houses; and
- None of the hazardous waste has been reported before and after earthquake. Nominal damage was incurred to the health post close to settlement due to earthquake, however it has been recovered at the present.

#### ***D. Socio-economic and Cultural Features***

- The houses in the settlement is sparsely distributed where 65 HHs are identified as eligible HHs;
- The project area is a heterogeneous community where indigenous households and other households live together. Out of 65 HHs in the community, 31 HHs are Brahmin/Chettri, 19 HHs are Indigenous, 15 HHs are Dalits and 8 HHs are women headed HHs (Annex-II, Eligible HHs);
- The eligible 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 major source of livelihood is agriculture and occasional labor works;
- Public health post is located at a half hour walking distance within the settlement; and
- Most of the HHs gradually replacing the traditional firewood with liquefied petroleum gas (LPG) as cooking fuel.

#### ***E. Water and Sanitation***

- The source of drinking water is from Sindhure Khola. It has been influenced from earthquake and damages intake and few meters main pipeline. It is a type of perennial spring.
- Sanitation condition was found satisfactory within the settlement even though some of the HHs are using temporary toilet which will be completed with the final installment of housing grant money.

#### ***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; 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. There is no hazardous place or restricted spots 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 25<sup>th</sup> April, 2017 (Annex III)

- It is likely that the most of the earthquake affected HH may choose to rebuild their houses in-situ and where no options exists few of them are using agriculture land;
- 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 Makaichaur settlement area; and
- Uttis (*Alnus nepalensis*) should be planted towards the uphill side of Makaichaur to augment water availability.

**8. Environmental and Social Mitigation Measures, 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 (Bidur, Batar Bazar). Quarry operators supply the materials from approved quarry sites which are near to about 3 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.</p> <p>Timber will be sourced from demolished house salvage, from own farmland, distributed from government relaxation quota (from Makaichaur CF though the quality timber is limited in the forest) and from licensed local market. The timber Corporation of Nepal, a government entity, also supply additional timber to local market of</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 and Third party.</p> <p>Monitoring findings will be shared with DCC.</p>	

SN	Environmental and Social Issues	Mitigation Measures	Mitigation Measure Cost	Responsibility		Remarks
				Implementation	Monitoring/Supervision	
		the earthquake affected district.				
2.	Forest and Wild life	<p>The mitigation measures regarding impact on forest (timber supply/demand) is already discussed in foregoing cell. Besides, following measures should be adopted while managing timber from forest;</p> <ul style="list-style-type: none"> <li>• Seek for alternative to timber as for example Aluminium Window Pane;</li> <li>• Use trees felled by the wind or other factor, and use trees without disturbing the core forest area, for example trees likely to be lost by landslide, tree along forest path etc;</li> <li>• Fell tree based on density and distribution, do not fell tree from sparse area of the forest;</li> <li>• Undertake plantation of tree along bare area as a part of community forest management plan;</li> <li>• Abide by forest law, regulations and guidelines; and</li> </ul> <p>Impact on wildlife is expected to be</p>	Not applicable	Beneficiary Household/DL-PIU	<p>Monitoring by CL-PIU and Third Party.</p> <p>Monitoring findings will be shared with DCC</p>	

SN	Environmental and Social Issues	Mitigation Measures	Mitigation Measure Cost	Responsibility		Remarks
				Implementation	Monitoring/Supervision	
		minimal				
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	
4	Build Back Better Opportunity – enhancement measures					
4.1	Insufficient water for drinking	The issue will be addressed during preparation of ESMP considering following matters in specific  Water source protection;  Plantation of Uttis ( <i>Alnus nepalensis</i> ) in uphill section to augment water availability;  Construction of intake and	The cost of awareness on wise use of drinking water is allocated within cost internalized within the overall cost of training and awareness for EHRP.  PIU will develop and implement awareness activities	User Group (UG)/DL-PIU	CL-PIU	The works will be implemented forming User Group (UG) from among beneficiaries.  CL-PIU will submit copy of awareness event records to Bank  Detailed quantity estimates and cost

SN	Environmental and Social Issues	Mitigation Measures	Mitigation Measure Cost	Responsibility		Remarks
				Implementation	Monitoring/Supervision	
		replacement of damaged main pipe line for collecting water; and  Awareness program to community on wise use of available drinking water resource and source protection measures.	Lump sum of NRs. 500,000 for plantation, source protection by barbed wire fencing and construction of reservoir tank to collect water from spring source. It will be detailed out during preparation of ESMP			calculation for water supply scheme and trainings/workshops meetings will be further explored after detail site investigation at the time of preparation of ESMP.
4.2	Health and sanitation	In terms of prioritizing built back better opportunity need priority are:  <ul style="list-style-type: none"> <li>• Integration of toilet (sanitations) construction in housing reconstruction</li> <li>• Addressing Indoor air pollution through well ventilated housing design including promotion of Improved Cooking Stoves (ICS)</li> <li>• Renewable energy (including solar power, or bio-gas etc .</li> </ul>	Housing construction support of NRs 25,000	Beneficiary Household/DL-PIU	Monitoring CL-PIU/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.
4.3	Indigenous Peoples and other vulnerable groups including marginalized, poor, woman headed households, disabled	Mitigation measures include:  <ul style="list-style-type: none"> <li>• Targeted communication and awareness to vulnerable group(e.g. organizing consultation in areas accessible for women and people with disabilities.) on:</li> </ul>	This will not require additional mitigation cost.	DL-PIU Partner organisations  (The team will ensure that vulnerable groups	Monitoring by CL-PIU/NRA	The Government/Project is drafting a guideline for Vulnerable Community Support Package equivalent to NRs

SN	Environmental and Social Issues	Mitigation Measures	Mitigation Measure Cost	Responsibility		Remarks
				Implementation	Monitoring/Supervision	
	people	<ul style="list-style-type: none"> <li>○ Awareness on efficient usage of water and WASH</li> <li>○ Awareness campaign on indoor pollution and its health effects</li> <li>○ Information about the project, grant, training opportunities</li> <li>● Target vulnerable groups while providing trainings to construction workers, supervisors, social mobilisers;</li> <li>● 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</li> <li>● Ensuring their participation during consultation process throughout project implementation cycle;</li> <li>● Provide additional assistance in accessing housing grants (e.g.-facilitate opening bank account, paperwork for installments/tranche, etc. )</li> </ul>		are targeted and their participation in ensured through district project team mobilization)		<p>50,000 for vulnerable households to be provided through partner organisations. 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>



SN	Environmental and Social Issues	Mitigation Measures	Mitigation Measure Cost	Responsibility		Remarks
				Implementation	Monitoring/Supervision	
4.4	<ul style="list-style-type: none"> <li>Loss of productive agricultural land in the settlement area</li> </ul>	<ul style="list-style-type: none"> <li>Organize awareness program and distribute awareness materials in relation to prevention of loss of productive agricultural land in and around the settlement area</li> </ul>	<ul style="list-style-type: none"> <li>The cost of awareness activities is internalized within the overall cost of training and awareness.</li> </ul>	<ul style="list-style-type: none"> <li>DL-PIU</li> </ul>	<ul style="list-style-type: none"> <li>CL-PIU/NRA</li> </ul>	<ul style="list-style-type: none"> <li>CL-PIU will submit copy of awareness event to Bank</li> </ul>
4.5	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 by the owner will be addressed by the training and awareness to be carried out by the DL-PIU;
- Timber and other construction materials will be purchased from nearby local markets such as Dhikure, Battar, and Bidur. Besides, use of timber from own farmland, distributed volume according to government relaxation quota and purchase from Timber Corporation of Nepal (TCN) will fulfill the additional demand of 115.05 cum whereas, 780 cum stone will be fulfilled from nearby DCC approved quarry sites within the settlement of Thansing VDC wards 3 & 4.
- Occurrence of natural hazards/disaster in Makaichaur settlement is low or unlikely and is insignificant concern;
- Apart from the ENRC review meeting suggestions; DL-PIU team will complete study in order to finding out the detailed estimates of the intervened activities within the sub-project. Land acquisition and involuntary resettlement is not required; and
- There will be no adverse impacts on marginalized and disadvantaged group communities including indigenous peoples

The environmental and social impact envisaged from the reconstruction activity in this settlement is 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. Measures will be provisioned to address drinking water insufficiency in the sub-project after detailed assessment in the field from technical persons at the time of preparation of detail ESMP. The potential impacts and mitigations are summarized in Table -1. There is no need for further detailed 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. 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

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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 Reconstruction Project (EHRP)
2.	Project District	Nuwakot
3.	Name of the VDC/Municipality	Former Thansing VDC (Current Likhu Rural Municipality)
4	Name of the Settlement, Ward No.	Makaichaur-4
5	Number of eligible households:	65 HHs
6	Altitude of the Settlement (in meters)	838 m asl
7	Nearest road head/highway/headquarter	2 Km from Tokha-Chhahare Road/19 km form district headquarter
8	Settlement ID/no	28-59-4-11
9	Proposed Date of Commencement of Work:	January 6, 2017
	Number of houses damaged	65 Houses
	Number of houses to be reconstructed	65 Houses
	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	NA, 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. the remaining debris will be addressed during constructions by the individual households
	Quantity of construction materials needed (Timber, sand, gravel, stone, etc)	Additional about 115.05 cum Timer and about 780 cum stone is needed and brick of 10,33,305 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.	<b>Exclusion criteria:</b>	
	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).	NA
	House/ shelter should not be located in protected area, and forest.	NA
	Any activity, including material quarrying, resulting significant conversation or degradation of critical natural habitat is not permitted	NA
	Use of any public PCR in private home reconstruction is not permitted.	NA

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		√	OP 4.36 The quantity distributed as per approve

	<p>their level of dependence upon or interaction with forests?</p> <p>Is the proposed subproject likely to bring about changes in the management, protection or utilization of natural forests or plantations?</p>		√	<p>government quota will not have adverse impact on forest.</p> <p>Minor increase in utilization is expected</p>
4	<p>Will the sub-project be supporting reconstruction, management, or preservation of physical cultural resources?</p> <p>Is the subproject located in, or in the vicinity of, cultural sites?</p> <p>Will the sub-project likely adversely impact physical cultural resources?</p>		√  √  √	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 and are likely to be affected by the proposed sub-project?		√	OP 4.10
<b>Physical features</b>				
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?	√		Perennial Likhu River at 3 Km from the settlement
3	How is the terrain? –flat, ridge, undulating, terraced, valley, tar etc.	√		Most of the settlement is in ridge part of hill with mostly constituting farm land

4	Any history of erosion, flashflood, landslides, earthquake in the area/ vicinity?		√	
5	Current land use practice (agriculture, grazing, barren, forest, shrubs-----)	√		Mostly agricultural land and forest area
6	Is the subproject located on prime agricultural land?		√	As most of the reconstruction work is in-situ the agricultural land will not be affected. Few HHs are using agricultural land where no alternative for land exist
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. 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?		√	Not applicable. 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?		√	
<b>Biological features</b>				
1	Any critical habitat or ecosystem of importance?  Is the subproject located in or adjacent to a		√	The Likhu river is not a

	protected areas/ national forests, wilderness areas, wetlands (Ramsar), biodiversity, critical habitats?		√	Ramsar Site.
2	If the subproject is located near the forest, what is the category of the forest- national, community, leasehold, religious etc.?	√		Makaichaur Community Forest. Sal ( <i>Shorea robusta</i> ), Chilaune ( <i>Schima wallichii</i> ); and Kattus ( <i>Castonopsis sps</i> ) are the major tree species found in the CF
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)	√		Langur ( <i>Semnopithecus entellus</i> ) frequently visit the Makaichaur CF
	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?		√	Though Likhu river is an important river of the locality, important species of fish do not occur in the river. The subproject activities will not have any adverse impacts on Likhu River, and its watershed.  No Ramsar site near the 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?		√	Minor use of CFis expected since standing tree have low timber value
9	Any NTFP or medicinal plants in and around the sub-project?	√		<i>Asparagus sps.</i>
<b>Socio-economic and Cultural Features</b>				
1	Is the subproject located in a densely populated area?		√	65 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?	√		19 HHs are Indigenous, 15 HHs are Dalit and 8 are 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 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
11	What is the current availability of water for drinking and personal hygiene,	√		Drinking water supply from spring Sindhure Khola is inconvenient and sanitation condition is satisfactory
12	What is the current provision of social/infrastructure facilities (health posts, sub-health posts, schools, communications, road etc?)	√		Public health post is located at a half hour walking distance within the settlement
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.	√		8 HHs are women headed HHs
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			Discourage use of agricultural land for housing. Properly manage remaining demolition waste/debris during housing reconstruction. Proper re-used of salvaged materials, Adoption of proper safety measures and priority to vulnerable HHs during the reconstruction works.
	Identify programs/ activities for coordination and linking for 'building better' and / or synergy.			Housing construction support of NRs 25,000 needs to be used as an opportunity to promote sanitations, renewable energy (including solar power, Improved Cooking Stoves (ICS) or bio-gas etc

### 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 Corporation of Nepal.

(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:**

- Of the Total 65 HHs 19 HHs are Indigenous, 15 HHs are Dalit and 8 are Women headed HHs
- Any social issues of significant concern were not identified at the sub-project settlement except systematic sourcing of water from the damaged intake and main pipe line while will be dealt while preparing detail ESMP.

(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):**
  - Sub-project implementation is envisaged to have minimal environmental and social impacts therefore no need of ESMP. However, the poor management of water from Sindhure Khola will be properly managed after study of water supply scheme and plantation work if needed.
- (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. 19 out of 65 HHs are IPs households. and these IP HHs do not have collective attachment to the area. 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:**

Title and Date: Sudeep Ghimire/20<sup>th</sup> April, 2017

**Social Specialist in District Level -PIU:**

Title and Date: Rishi Ram Bimali/20<sup>th</sup> April, 2017

**Project Manager in District Level - PIU:**

Title and Date: Sunil Raj Giri/DTO Chief/Project Manager

**Presentation/ Briefing to DCC – ENRC done on: 25<sup>th</sup> April, 2017**

Advice, comments, and suggestions from the DCC-ENRC are: in detailed minute attached in last portion of the compilation

Screening cleared by DCC – ENRC on: 22<sup>nd</sup> May, 2017

**Annex II: Eligible HHs List of Makaichaur Settlement**

S. N.	Beneficiary	Vulnerable HHs (Dalit/IPs/Woman Headed)	Gender	Ward	Village/Tole
1	MadhuSudhanBhandari		M	4	Makaichaur
2	Thakur BahadurPaudel		M	4	Makaichaur
3	Krishna BahadurBhandari		M	4	Makaichaur
4	RajuBhandari		M	4	Makaichaur
5	BhairabBahadurBhandari		M	4	Makaichaur
6	Ishwor Prasad Bhandari		M	4	Makaichaur
7	DilBahadurShrestha		M	4	Makaichaur
8	LumaniBahadurGhartichh		M	4	Makaichaur
9	Khop Maya Ghartichh	Women Headed	F	4	Makaichaur
10	GyaniOjhachhee	Women Headed	F	4	Makaichaur
11	MinnBahadurBhandari		M	4	Makaichaur
12	Ram BahadurShrestha	IPs	M	4	Makaichaur
13	BattuSunarni	Dalit	M	4	Makaichaur
14	MukundaBahadurBhandari		M	4	Makaichaur
15	BishwonathAdhikari		M	4	Makaichaur
16	SanjeevBhandari		M	4	Makaichaur
17	BhairabBahadurBhandari		M	4	Makaichaur
18	ChudaBahadurBhandari		M	4	Makaichaur
19	Ram BhaktaShrestha	IPs	M	4	Makaichaur
20	Shree Ram Shrestha		M	4	Makaichaur
21	Sudip Raj Adhikari		M	4	Makaichaur
22	Shiva Ram Risal		M	4	Makaichaur
23	KhemNathAdhikari		M	4	Makaichaur

S. N.	Beneficiary	Vulnerable HHs (Dalit/IPs/Woman Headed)	Gender	Ward	Village/Tole
24	TejKumariBhandari	Women Headed	F	4	Makaichaur
25	PrakashBhandari		M	4	Makaichaur
26	Ram PrashadAdhikari		M	4	Makaichaur
27	Deepak Paudel		M	4	Makaichaur
28	KhadgaBahadurGhartichh	IPs	M	4	Makaichaur
29	LalBahadurMijar	Dalit	M	4	Makaichaur
30	Ram Kumar Shrestha	IPs	M	4	Makaichaur
31	ShyamMijar	Dalit	M	4	Makaichaur
32	Ram SharanMijar	Dalit	M	4	Makaichaur
33	GopalMijar	Dalit	M	4	Makaichaur
34	GauthaliMijar	Dalit/Women Headed	F	4	Makaichaur
35	Tula BahadurMijar	Dalit	M	4	Makaichaur
36	SundarMijar	Dalit	M	4	Makaichaur
37	Raj MaanMijar	Dalit	M	4	Makaichaur
38	Nawa Raj Mijar	Dalit	M	4	Makaichaur
39	KuleMijar	Dalit	M	4	Makaichaur
40	Madhu Sudan Paudel		M	4	Makaichaur
41	SurdarshanBasnet		M	4	Makaichaur
42	BishnuLalShrestha	IPs	M	4	Makaichaur
43	Krishna BahadurShrestha	IPs	M	4	Makaichaur
44	Gopi Nepali	Dalit	M	4	Makichaur
45	Mathu Ram Shrestha	IPs	M	4	Makaichaur
46	Krishna MaanShrestha	IPs	M	4	Makaichaur
47	Krishna Das Shrestha	IPs	M	4	Makaichaur

S. N.	Beneficiary	Vulnerable HHs (Dalit/IPs/Woman Headed)	Gender	Ward	Village/Tole
48	ReshamShimkhada		M	4	Makaichaur
49	SabitriBhandari	Women Headed	F	4	Makaichaur
50	SambarBahadurBhandari		M	4	Makaichaur
51	ShyamLalShrestha	IPs	M	4	Makaichaur
52	PurnaLalShrestha	IPs	M	4	Makaichaur
53	SukaLaxmiShrestha	IPs/Women Headed	F	4	Makaichaur
54	Kamala Adhikari	Women Headed	F	4	Makaichaur
55	MeghLalShrestha	IPs	M	4	Makaichaur
56	Dip LalShrestha	IPs	M	4	Makaichaur
57	Rudra Prasad Adhikari		M	4	Makaichaur
58	MohaLalShrestha	IPs	M	4	Makaichaur
59	Bala Ram Mijar	Dalit	M	4	Makaichaur
60	BuddhiBahadurMijar	Dalit	M	4	Makaichaur
61	Raghu Mijar	Dalit	M	4	Makaichaur
62	Gyanu Maya Shrestha	IPs/Women Headed	F	4	Makaichaur
63	Shree Krishna Shrestha	IPs	M	4	Makaichaur
64	Krishna Das Shrestha	IPs	M	4	Makaichaur
65	BhaktaLalShrestha	IPs	M	4	Makaichaur



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

आज तिथि २०७४/०९/१२ गते यस नुवाकोट जिल्ला जिल्ला स्तरीय स्थानीय तह हुनामा स्थानीय विद्यालय अधिकारी श्री केसर वडापुर पश्चिम न्युकोट अध्यक्षतामा भूकम्प आवाप पुनर्निर्माण आयोजना अन्तर्गत वित्त ब्ययमा गरिने वातावरणीय तथा खानाजिउ इन्जिनियरिङ तथा स्वतन्त्र-स्थापना प्रोजेक्ट/प्रतिवेदन उपर हस्तपुल गरि यस मुद्दाव पेरा गर्नु पर्ने भएकाले नेपाल सरकार युवापुनर्निर्माण आवाप पुनर्निर्माण आयोजना डिस्कल आयोजना कार्यालय इडई (DL-PIU) ले तयार पारेको खाबोड बिदुर-८, डेडरेमि मल्लिको वातावरणीय तथा खानाजिउ इन्जिनियरिङ तथा स्वतन्त्र-स्थापना प्रमिबेदन खासै खासिबु धानविद्, गा.वि.प. हाल लेखु-६, ५२ इडई-८ का वर वटा कल्लि हड्डो वातावरणीय तथा खानाजिउ इन्जिनियरिङ प्रमिबेदन उपर हस्तपुल गरि निम्नानुसारको यस मुद्दावपेरा प्रदान गरियो।

उपस्थिति

१.	केसर न. पण्डित	स्था-वि.अ, नुवाकोट	
२.	केसर शशि प.थी	स्था-वि.लगायत वि.वि.डि.अ. नुवाकोट	
३.	वेद प्रकाश गौडेल	(NEA) नुवाकोट	
४.	गोपबन्धु युगा	वि.प. ड.प. रमिरी	
५.	अश्विका शर्मा	सा.प (नियु.भा.पा) <del>नुवाकोट</del> अम्लिका	
६.	राम बहादुर खड्का	इ.अ. वि.प्रा-८/१०	
७.	पुष्कर शर्मा विमल	व.डा.क. जि.सि.सि.	
८.	शारदा कुमारी	- ES, DLPIU, EHRP	
९.	जयकान्त लोडा	- SDS, DLPIU, EHRP	
१०.	पद्म रवि शर्मा	- जि.व.अ. नि.व.का.	
११.	सन्धि लक्षाल	- DL-PIU, Nuwakot.	
१२.	शुभा विक्रम लक्षाल	- DLPIU Nuwakot	
१३.	राधिका शर्मा	DLPIU Nuwakot	
१४.	सन्धि अधिकारी	- DTD	
१५.	जतिष राम विमल	SDS DLPIU/EHRP	
१६.	सुदिप शिर्षे	ES, DLPIU/EHRP	
१७.	उपेन्द्र शर्मा	डि.अ. तथा कान्ताल अ. वि.सि.सि.	
१८.	सन्दीप श.शर्मा	जि.सु.सि.का., प्रमुख	
१९.	डि.प. हरि प्रसाद नुवाकोट	जल उपकरण प्रकल्प व्यवस्थापन इन्जिनियर	
२०.	शैल पुन	- नि.व.का.	

१) मिजि आवास पुनर्निर्माण कार्य पुरानो घरबाट निस्कने debris को हटोटा नई व्यवस्थापन गर्नु विशेष ध्यान दिनु पर्ने निर्णय गरियो।

२) मिजि आवास सडकको सिनसिनामा आमे प्रयोग गरी वन तथा खाडीमा पार्ने बाटो बनाउनपनि डग गर्न अवलम्बन गर्नु पनि method प्रयोग गर्नु पर्ने।

३) मिजि आवास जसमा जस पुनर्निर्माण गर्दा वनसभ्य काठ को पुष्पमा Alternative प्रयोग गर्ने नई जसोकाय स्वयम् हुने incentive दिनु बाहेक आवेदन तथा वन विभाग को साथ २ water source बढाउनु कान्छी जाँच (इतिहास) लगाउनु व्यवस्था तथा प्रत्येकमा गर्न पर्ने।

४) यात्राका लागि काठमा देखिबन्दा शक्तिप्राप्त गर्नको लागि अतिरिक्त कम्पनी कान्छीमा जग चेतना फैलाउनु।

५) उपर्युक्त गरिएका उतिबेला नई सुझाव बढेला नखनोको लागि फेराम गरी असाध्य बढाउनु।

*(Handwritten signatures and names follow, including 'Anuraj' and 'Anuraj')*

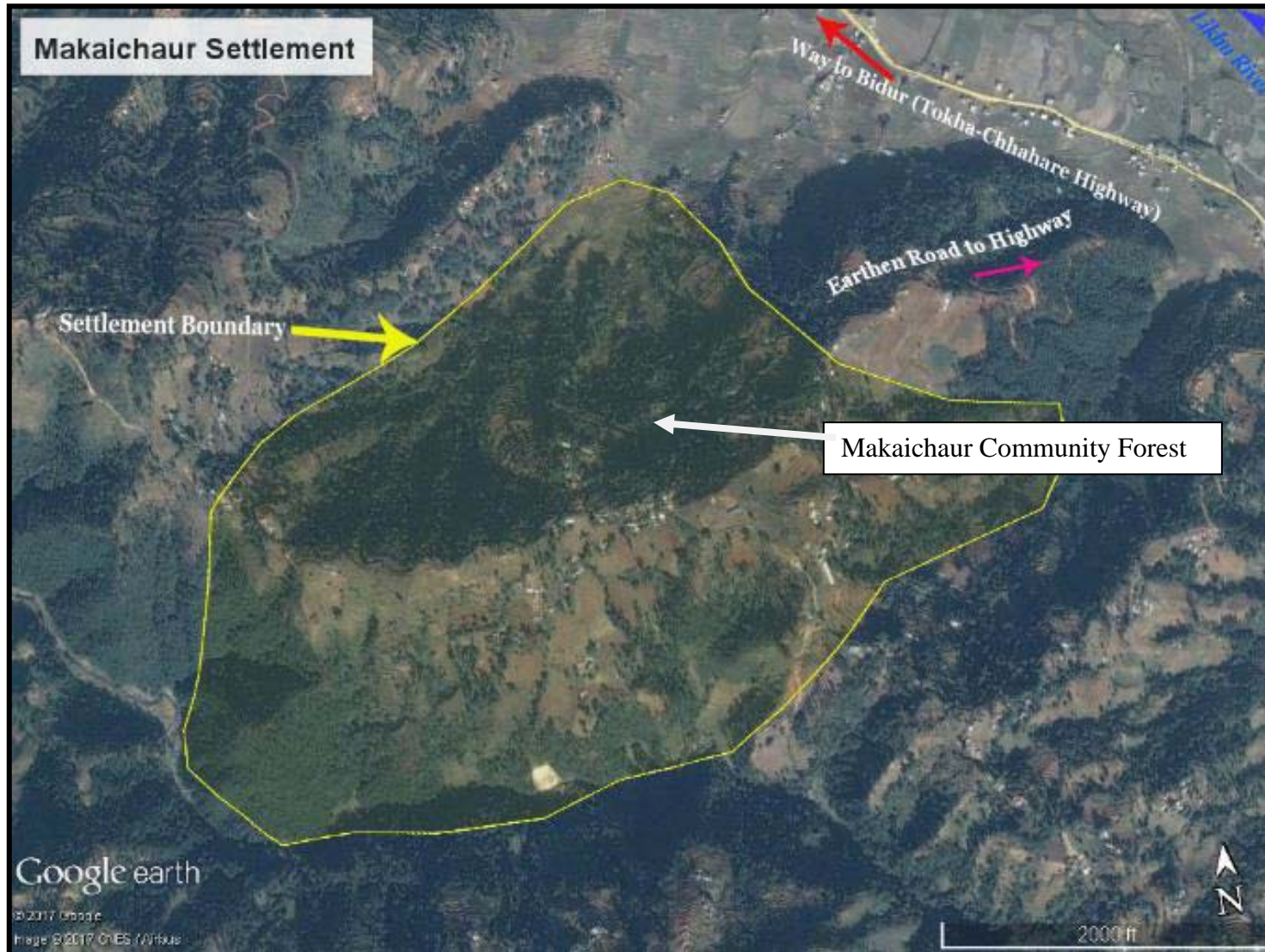
**Annex IV: List of Consultation**

Name of VDC:Thansing, 7

Name of Settlement: Makaichaur

S.N	Name of Participants	Tole	Remarks
1	PadamBahadurThapa	Makaichaur	
2	BuddhiBahadurDahal	Makaichaur	
3	NawarajMijar	Makaichaur	
4	ShyamlalShrestha	Makaichaur	
5	Gopal Prasad Phuyal	Makaichaur	
6	Ram BahadurBhandari	Makaichaur	
7	ShibaramRisal	Makaichaur	
8	ShreeramShrestha	Makaichaur	
9	RamhariShrestha	Makaichaur	
10	SagarShrestha	Makaichaur	
11	SurendraBhandari	Makaichaur	
12	Ram BahadurOja	Makaichaur	
13	SurendraBhandari	Makaichaur	
14	BijayaBhandari	Makaichaur	
15	ShreeramAdhikari	Makaichaur	
16	Thakur BahadurPaudel	Makaichaur	
17	PromodBhandari	Makaichaur	
18	LaxmiPaudel	Makaichaur	
19	DebendraThapa	Makaichaur	
20	BimalaRisal	Makaichaur	
21	RekhaBhandari	Makaichaur	

**Annex V: Aerial View of Makaichaur Settlement in Google Map**



**Annex VI: Quantity Calculation Sheet for Makaichaur**

**Type of house: Model no. Stone Masonry in Cement Mortar (SMC-2.1) and Brick Masonry in Cement Mortar (BMC-2.1)**

Reference:  
MoUD/DUDBC

Total HHs: - **65**

S. No.	Structure Wise	Materials					
		Stone (m <sup>3</sup> )	Brick (#)	Cement (Bags)	Sand (m3)	Aggregate (m3)	Timber (m3)
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
<b>Total (Per HHs)</b>		50.00	26,495.00	220.50	30.00	14.00	3.77
Reuse from demolished house		20.00					2.00
<b>Total Reusable Materials</b>		<b>1,300.00</b>					<b>130.00</b>
Additional Needed/House		30.00					1.77
Estimated Total Additional Quantity		1,950.00	1,722,175.00	14,332.50	1,950.00	910.00	115.05
<b>Additional Needed for Total HHs Brick:Stone=60:40%</b>		<b>780.00</b>	<b>1,033,305.00</b>	<b>14,332.50</b>	<b>1,950.00</b>	<b>910.00</b>	<b>115.05</b>

Note: \*: - 1 m<sup>3</sup>=35.28 cft

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

**Note:** Project has been providing training to local masons and carpenters on EQ resilient house construction. Each owner will build their 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 labor and no need for labour camp.