

**Earthquake Housing Reconstruction Project
(EHRP)**

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK (ESMF)

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(For Disclosure)

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EXECUTIVE SUMMARY

The Environmental and Social Management Framework (ESMF) for the Emergency Housing Reconstruction Project (EHRP) describes the principles and procedures for addressing environmental and social impacts associated with the project in accordance with GoN's laws and regulations, and World Bank's safeguards policies.

The Project

The main objective of the project is to restore earthquake-affected houses with multi-hazard resistant core housing units in targeted areas and to enhance the government's ability to improve long-term disaster resilience. Component 1 (Improved Housing Reconstruction) will support owner-driven housing reconstruction program that will provide *housing grants* (about USD 2,000 per household) for the construction of approximately 83,000 core housing units, disbursed in multiple tranches, subject to the satisfactory achievement of pre-identified milestones and compliance standards. Component 2: Disaster Risk Management Systems will support the GoN put in place systems to improve disaster risk reduction, preparedness, and disaster response, in line with global best practices. Component 3 (Project Implementation Support) will finance the establishment and operation of the Project Management Unit (PMU), the Central Level Project Implementing Units (CL-PIUs), and the District-Level Project Implementation Units (DL-PIUs). Component 4 is for Contingency Emergency Response.

Environmental and Socio-economic Baseline and Issues

Socioeconomic baseline. According to the 2011 census, the total population in the 3 project districts is 800,095 (52.8 percent are females). Approximately 55.3 percent of the population is indigenous people (known as *adivasi* in Nepal), and there is also a significant presence of other marginalized groups including Dalits that constitute 9.3% of the population and 27.3% of the households are female-headed. Extrapolating from the census data, 22.9% of households do not own any agricultural land; 10.4% do not live in their own house; and 3% do not have any land holding. Significant proportions of people from marginal groups live under the poverty line, do not have food sufficiency and suffer from malnutrition.

Environmental baseline. The 3 project districts are in the mid-hills of Nepal that are generally considered fragile and susceptible to landslides and soil erosions. There are several rivers, streams, springs and wetlands which are important sources of water for the rural communities for drinking and irrigation. Floods in the rivers and streams are common during the monsoon season, and three of the glacial lakes in the area have been identified as having risks of Glacial Lake Outburst Flood (GLOF). There are protected areas with people living in their buffer zones. The protected areas as well as the community- and government managed forests provide habitat to numerous species, including endangered species; numerous ecosystem services; and means of subsistence for local communities. Additionally, cultural heritage sites of local significance are also interspersed throughout the project area.

Social Risks/Impacts. The project is expected to lead to primarily positive benefits. However, few possible risks include: resettlement of households affected by the earthquake; absence of support provisions for landless/vulnerable groups; lack/limited awareness of the housing grants; exclusion based on the eligibility criteria established; inadequate consultations; limited availability of land for resettlement and/or increase in land prices making it unaffordable for resettlement planning; exclusion of households/individuals living in squatter settlements, Guthi land, monasteries, rented land and those without appropriate papers (e.g., citizen certificate, land titles, etc); omission of households where the

household head is a migrant/absentee, from project support; and livelihood impact on forest-dependent communities, including indigenous groups. To address these negative impacts, the following measures will be adopted: preference will be given for building houses in-situ; support provided to the landless through Government's resettlement plan; culturally sensitive and effective consultation strategy; extensive information and awareness campaigns; robust grievance redress mechanism; and specific measures for maximizing project benefits to vulnerable groups and women (e.g., special assistance during construction, preference in training, etc.).

Environmental Impacts. The positive environmental impacts include mechanisms for building back better (e.g., earthquake resistant house and awareness of improved sanitation and indoor air quality) and provisions for promotion of environmental good practices at household as well as at community/settlement level. Some adverse environmental impacts are likely but they are anticipated to be site-specific and moderate. Some of these include: increased demand for timber during house construction which will increase pressure on the forests and forest resources (including chance of timber export from one district to another as government relax timber transportation for the earthquake districts), surge in harvesting of non-timber forest products for sustenance and income generation, and chances of encroachment on protected areas from nearby earthquake affected settlements. There is also increased risk of landslides and soil erosion due to activities such as quarrying stones, excavation, changes in drainage pattern, increased dust pollution in earthen road with plying of vehicles carrying raw materials, conversion of agricultural land for setting up of brick kilns, etc. To address these concerns, the project will: promote re-use of already felled logs, including those affected by the earthquake as well as salvaged timber, stones, clay, from demolished buildings; good practices at the settlement level such as afforestation, community forest, renewable energy, etc.; identification of safe sites for stone quarry, sand/gravel/ clay extraction by qualified persons; safe storage of material, proper management of debris, safe collection and disposal of wastes and hazardous material, if any, and measures to control dusts and manage sanitary wastes; information campaigns about tree species and usage to reduce the impact of deforestation; and trainings on these environmental measures. Further, the project will provide training and awareness relating to safe use of construction equipment and associated safety measures at the worksite.

Policy Framework on Environmental and Social Issues

The GoN's policies and regulations applicable to the project include: (i) land acquisition, compensation and resettlement regulations; (ii) laws relating to indigenous peoples and other vulnerable communities; (iii) guidelines for promoting good governance, social accountability, and communication and consultation; and (iv) legislative measures and directives on environmental protection, natural disaster management, and conservation of forest and wildlife. The World Bank policies applicable in the project are OP/BP 4.01 Environmental Assessment, OP/BP 4.04 Natural Habitats, OP/BP 4.36 Forests, OP/BP 4.11 Physical Cultural Resources (PCR), OP/BP 4.12 Involuntary Resettlement, and OP/BP 4.10 Indigenous Peoples. The GoN's acts and regulations, alongside with the World Bank's operational policies provide the overall regulatory framework that defines the process and procedures for ensuring social and environmental compliance during project preparation, implementation and monitoring.

Addressing Environmental and Social Safeguard Issues

The following six steps will be adopted for addressing environmental and social issues related to the project.

Step 1: Settlement-level screening to identify potential environmental/social issues, determine if there is a need for land acquisition/involuntary resettlement, determine if specific assessments and

safeguards documents are required, and if any permits need to be obtained from concerned authorities.

- Step 2: Development of settlement-level Environment and Social Management Plans (ESMP). ESMP will describe settlement specific environmental and social settings/features; their status, importance and sensitivity; and identify potential impacts at (i) settlement level, and (ii) house-level. Accordingly, customized mitigations and good practices relevant to the settlement and houses, including opportunities for “building back better” will be developed. Resettlement Action Plan, and Vulnerable Community Development Plan, will also be prepared, if required.
- Step 3: Specification of minimum environmental/social requirements in the grant agreements with beneficiaries. The minimum standards/requirements will include: houses that are earthquake resistant; beneficiaries’ access to bank accounts; awareness of access to sanitation/ toilet facilities and ICS for reducing indoor pollution (if bio-mass is used indoor); and reconstructed house location not in risky spots (i.e., areas that are prone to floods, landslides, etc).
- Step 4: Review and clearance of settlement level ESMPs and household level specifications. District level Project Implementation Unit (DL-PIU), with support from partner organization (PO)/ consultants, will prepare and submit the screening checklist and the ESMP to DDC-ENRC for approval. Summaries of each settlement/subproject screening and ESMP will be sent to central PIUs, which may conduct a post review on sample basis. Resettlement Action Plan and EIA/ IEE, where required/prepared, will be reviewed and approved by the World Bank and the central level PIU.
- Step 5: Consultation, Disclosure, and Awareness Raising and Dissemination. Consultation will be carried out throughout the life of the project. Communication and awareness raising will be targeted to various stakeholders including implementing agencies, support/partner organizations, local government officials, and beneficiaries, particularly, vulnerable groups.
- Step 6: Implementation and monitoring. DL-PIU will be responsible for supervision and monitoring of respective ESMPs. The SA/PO and mobile teams will support in implementing and monitoring social and environmental activities. Prior to certifying a payment tranche, the independent assessors will receive the Environmental and Social compliance report for the house from the mobile team.

Consultations and Information Disclosure

During the preparation of the ESMF, consultations were held at central and local levels (namely, the three project districts--Dolakha, Dhading and Nuwakot), and revised and disclosed according to the feedback received. Additional consultations will be carried out during: screening and ESMP preparation; selection of building/shelter site; design of houses; and implementation of the project. All these consultations will be documented. Information to be disclosed will include, at a minimum: eligibility criteria for the housing grants; list of eligible beneficiaries; requirements for receiving grant payments (including E&S requirements); housing models and designs; good practices and opportunities for building better; information on the GRM; and other project information. The means for disclosure could vary, but it will be culturally sensitive, user friendly and understandable and disclosed at a public place.

Grievance Redress Mechanism

The Grievance Redress Mechanism for the ESMF will follow the same mechanism developed for the overall project. Grievances can be registered either orally, in written form, or through telephone call or SMS to the PO, DL-PIU or VDC staff. All reported grievances will be reviewed by the VDC secretary and/or assigned VDC staff, and categorized for local resolution or forwarding to the DL-PIU. DL-PIU will be responsible for forwarding the grievances against responsible parties at the district level and also

higher-level committee in cases of non-resolution. The DL-PIU will communicate the resolutions/progress on the grievances to the complainant, and also enter the information into the MIS. Additionally, the complainant has the option to seek recourse from the court and/or the World Bank's Grievance Redress Service (GRS).

Project Implementation Arrangements

The Government of Nepal (GoN) has the overall responsibility for implementing the project, including its social and environmental management, with the PMU guiding project activities. Central level PIUs will include Environmental and Social specialists for providing oversight of and compliance with environmental and social requirements. At the district level, there will be an Environmental and Social Safeguards specialist at each DL-PIU that will be responsible for screening, preparation and implementation of safeguards management plans, and monitoring them. Mobile teams will be available to support the beneficiaries with construction activities as well as for safeguard support.

Monitoring

Mobile team's social mobilizer and environmental officer will submit supervision and monitoring report to DL-PIU. DL-PIU's safeguard team, with necessary support from PO/SA, will manage periodic (monthly) site monitoring, and submit monitoring report to DDC. Consolidated quarterly environmental and social monitoring report will be submitted to the Central PIUs, and also shared with the World Bank. The central-PIUs' environmental and social specialists are responsible for the overall compliance with ESMF. A third-party, commissioned by the PMU, will monitor the environmental and social compliance, initially six-monthly and later on an annual basis.

Capacity Building

Capacity building will be required at different tiers of project implementation. On a need-basis, the project will hire environmental and social specialists but at a minimum, it will include: (i) a senior Social Specialist and a senior Environmental Specialist at central PIUs, (ii) a social development specialist and an environmental specialist at district level PIU, and (iii) social mobilizer and environmental officer/mobilizer with mobile team. Additionally, a set of planning and implementation tools and guidelines for implementers and beneficiaries will be developed, which will also be used during training and as a reference for technical staff. The central PIU, in consultation with district-PIU, will prepare plans for environmental and social training, orientation and awareness raising, as part of their annual work plan. Social and environmental aspects as well as requirements (minimum requirements and good practices), will be integral part of all of various training to overseers, sub-overseers, carpenters, and masons, etc., and project beneficiaries.

Budget for Implementation of ESMF

Budget Items	Amount/Source
Personnel (Environmental and Social Specialists)	Part of overall human resources required for the project
House/shelter level mitigation measures and good practices	Part of housing agreement
Settlement/Community level mitigations	NPR 100 million (0.5% of project cost)
Monitoring (Central PIU, DL-PIU, mobile team, experts/consultants)	Part of the overall project monitoring costs
External Monitoring	NPR 7 million

Trainings, Awareness-Raising Activities	NPR 7.0 million (in addition to overall training costs for the project)
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ABBREVIATIONS AND ACRONYMS

DL-PIUs	District-Level Project Implementation Units
DRM	Disaster Risk Management
DDC-EECCS	District Development Committee-Energy, Environment and Climate Change Section
DTCO	District Treasury Controller Office
DoLIDAR	Department of Local Infrastructure Development and Agricultural Roads
DUDBC	Department of Urban Development and Building Construction
EIA	Environmental Impact Assessment
EMP	Environment Management Plan
EHDC	Earthquake Household Damages and Characteristics
ESIA	Environment and Social Impact Assessment
ESMF	Environmental and Social Management Framework
GoN	Government of Nepal
ESMP	Environmental and Social Management Plan
GRM	Grievance Redress Mechanisms
GRS	Grievance Redress Service
IA	Implementing Agency
IBRD	International Bank for Reconstruction and Development
ICB	International Competitive Bidding
IDA	International Development Association
IFR	Interim Financial Report
IPF	Indigenous People’s Framework
ISP	Implementation Support Plan
M&E	Monitoring & Evaluation
MoFALD	Ministry of Federal Affairs and Local Development
MoUD	Ministry of Urban Development
NCB	National Competitive Bidding
NGO	Non-Governmental Organization
NPC	National Planning Commission
OP	Operational Policy
PDNA	Post-Disaster Damage and Needs Assessment
PDO	Project Development Objective
PIU	Project Implementing Unit
PMU	Project Management Unit
POM	Project Operations Manual
PP	Procurement Plan
PRAMS	Procurement Risk Assessment System
QCBS	Quality and Cost Based Selection
RAP	Resettlement Action Plan
RPF	Resettlement Policy Framework
SAP	Safeguards Action Plan
SORT	Systematic Operational Risk-Rating Tool
ToR	Terms of Reference

1. INTRODUCTION AND OBJECTIVES

1. This document presents the Environmental and Social Management Framework (ESMF) for the Nepal Emergency Housing Reconstruction Project. The objective of this ESMF is to serve as a practical tool during project formulation, design, planning, implementation and monitoring to ensure that environment and social aspects are duly considered in the planning and implementation process. In addition, the framework describes the principles and approaches to be followed for selecting, avoiding, minimizing and/or mitigating the adverse environmental and social impacts that are likely to arise due to the project. The document is intended to ensure that, for all activities financed by the project, efforts are made to avoid and minimize environmental and social impacts; and where they cannot be avoided, that these impacts are identified and necessary mitigation measures are developed and implemented following relevant Nepali laws and regulations and World Bank's safeguards policies. The ESMF provides information about the project, its environmental and social context, social and environmental risks and mitigation measures, institutional arrangements, monitoring indicators, and capacity building and training requirements to ensure that the potential negative environmental and social impacts of project activities are minimized or mitigated, and positive impacts are encouraged and enhanced, in line with Nepali laws and regulations and applicable World Bank safeguard policies.

2. The ESMF will be a 'live document' enabling updates/revision, when and where necessary. The unexpected circumstances and/or changes in the project design will be assessed and appropriate management/mitigation measures will be incorporated by updating the ESMF. Such revisions or updating will also cover and update any change/modification introduced in the legal /regulatory and/ or institutional regime in the country. The revision/ update will be done upon mutual agreement between the World Bank and the GoN.

2. DESCRIPTION OF THE PROJECT

2.1 Project Background

3. On April 25, 2015, a major earthquake of shallow depth measuring 7.6 on the Richter scale struck central Nepal causing widespread destruction. The earthquake and its sequence of aftershocks caused more than 9,000 deaths and some 25,000 injuries. More than 3,000 public buildings have also been destroyed or damaged, in addition to the loss of a rich set of historical monuments and cultural icons. Further, the earthquake has also caused significant damage to essential services delivery while also disrupting telecommunications and power infrastructure. Given the level of shaking intensity and severe impact in remote districts, these numbers are likely to rise in coming weeks/months, especially following the extensive landslides and avalanches triggered by the earthquake.

4. The World Bank, United Nations Development Program (UNDP) and European Union (EU), upon receiving a request from the National Planning Commission (NPC), GoN, carried out a Post Disaster Needs Assessment (PDNA) to determine the impact of the earthquake event from May 15 to June 15, 2015. The PDNA fed into the government's FY16-17 fiscal budget and the donor conference.

5. The PDNA, completed on June 15, found that total damages and losses resulting from the earthquake sequence amounted to about \$7 billion, and reconstruction needs amounted to about \$6.7 billion. As the earthquake sequence destroyed 490,000 houses—mostly traditional mud-brick and mud-stone houses built and occupied by the rural poor— and rendered another 265,000 houses at least temporarily uninhabitable. In fact, the largest single need identified in the PDNA was housing and human

settlements, accounting for \$3.27 billion of needs (or almost half of the total needs).Based on the findings of the PDNA, the World Bank along with other development partners, agreed on providing assistance for disaster recovery and future risk reduction to Nepal.

2.2 Project Description

6. The main objective of the project is to restore affected houses with multi-hazard resistant core housing units in three (out of 14) severely affected districts and to enhance the government's ability to improve long-term disaster resilience. The Project's direct beneficiaries are expected to be approximately 55,000 households that will receive grants and technical support to rebuild their houses incorporating multi-hazard resistant features. The Project will also inform operational modalities for the development of the government's overall housing reconstruction program, which would benefit all eligible housing reconstruction beneficiaries estimated to be approximately 490,000 households in all the earthquake affected districts.

The Project comprises of 4 components briefly described below.

Component 1: Improved Housing Reconstruction- US\$185 million

7. The component will finance:
- a) the provision of housing grants for construction of approximately 55,000 multi-hazard resilient core housing units. Eligibility will be determined by an assessment of recovery needs and willingness to participate and adhere to project guidelines for resilient construction, quality standards and timelines; and
 - b) the establishment of a program of owner-driven housing reconstruction in targeted areas including: i) social, environmental, and technical support mechanisms for beneficiary households; ii) training of artisans and beneficiaries; iii) communication and outreach; iv) supervision and certification of compliance with multi-hazard resistant standards and of completion of multi-hazard resilient core housing units; v) implementation of the environmental and social management framework including identified safeguard mitigation measures; vi) development of a grievance redress mechanism; and, vii) other enabling activities.
8. Activities under this component will inform operational modalities for the development of the Government's owner-driven housing reconstruction program and are guided by a set of principles including: i) promotion of multi hazard-resistant construction standards and design; ii) primarily in-situ reconstruction, except where relocation is necessary due to vulnerability of location; iii) owner-driven rebuilding with socio-technical assistance, training, and supervision; iv) utilization of easily accessible and local materials and familiar construction methods; and, v) provision of uniform assistance package as reconstruction assistance in tranches based on certification of stage and quality. The beneficiary households will be screened and identified through the Earthquake Household Damages and Characteristics (EHDC) Survey being administered in the 14 most affected districts, including the three project districts.
9. Individual Housing Reconstruction Grants will be disbursed in multiple tranches, subject to the satisfactory achievement of pre-identified milestones, verification of progress and compliance with multi-hazard resistant standards. The exact amount of the grant will be determined by the GoN and may be adjusted if needed during implementation. This would be stated in the Operations Manual. At the time of drafting of this ESMF, the expected grant amount is USD 2,000 per household.

10. The households receiving grants and technical support under this component will be geographically targeted to selected Village Development Committees (VDCs)/Municipalities with rural characteristics, in the affected districts. The VDCs/Municipalities would be selected based on the extent of damages in the village and readiness to implement the project. These criteria would be assessed through the Earthquake Household Damages and Characteristics (EHDC) Survey, which would: i) building on the data already collected by District Disaster Relief Committee (DDRC), ascertain the damage to the housing stock at the VDC/Municipality level against uniformly applied engineering criteria; ii) verify household eligibility through the EHDC Survey including willingness to adhere to project guidelines for resilient construction and timelines; and iii) collect information to open bank accounts for affected households (or other assistance transfer mechanism), which will be in the name of the beneficiary, to ensure timely and transparent fund transfers. Final certification of completion of multi-hazard resilient core housing will be carried out in accordance with the Operations Manual.

Component 2: Disaster Risk Management Systems - US\$10 million

11. The objective of this component is to support the GoN in putting in place systems to provide better disaster risk reduction, preparedness, and disaster response, in line with global best practices. The component will finance, as needed, support in the areas of (inter alia) disaster risk management, risk assessment and financing, structural engineering, remote sensing, GIS, land use and zoning, permitting and approval of site and building plans, professional accreditation, curriculum development, building code implementation and enforcement, studies on safety net practices in post-disaster situations, and inclusive and gendered practices in disaster mitigation planning.

Component 3: Project Implementation Support - US\$5 million

12. This component will finance the establishment and operation of the Project Management Unit (PMU), the Project Implementing Units (PIUs), and the District-Level Project Implementation Units (DL-PIUs). This will cover support to strengthening capacity to effectively procure and manage delivery systems including damage assessment, beneficiary household identification, payment system, management information system (MIS), grievance redress, and communication/outreach. In addition, the component will also finance consultancies/service providers required for the preparation and supervision of specific activities, monitoring and evaluation.

13. There is an existing MIS within MoFALD, as well as a manual-based cash transfer system. Pilots on e-payments have been completed by the ministry as well. The implementation support provided through this project would build on these existing systems to improve financial inclusion, transparency and accountability. This would be done through the opening of bank accounts for payments of the reconstruction grants, expanding the MIS, and providing targeted technical assistance for the provision of communications and grievance redress mechanisms. The comprehensive dataset, which would be developed through this project would remain with MoFALD after the project, and assist in building an evidence base for pro-poor policy decisions for both disaster response and mitigation as well as social protection.

Component 4: Contingency Emergency Response - US\$0 million

14. Following an adverse natural event that causes a major natural disaster, the respective governments may request the Bank to re-allocate project funds to support response and reconstruction. This component would draw resources from the unallocated expenditure category and/or allow the Government of Nepal to request the Bank to re-categorize and reallocate financing from other project components to partially cover emergency response and recovery costs. This component could also be used to channel additional funds should they become available as a result of an emergency.

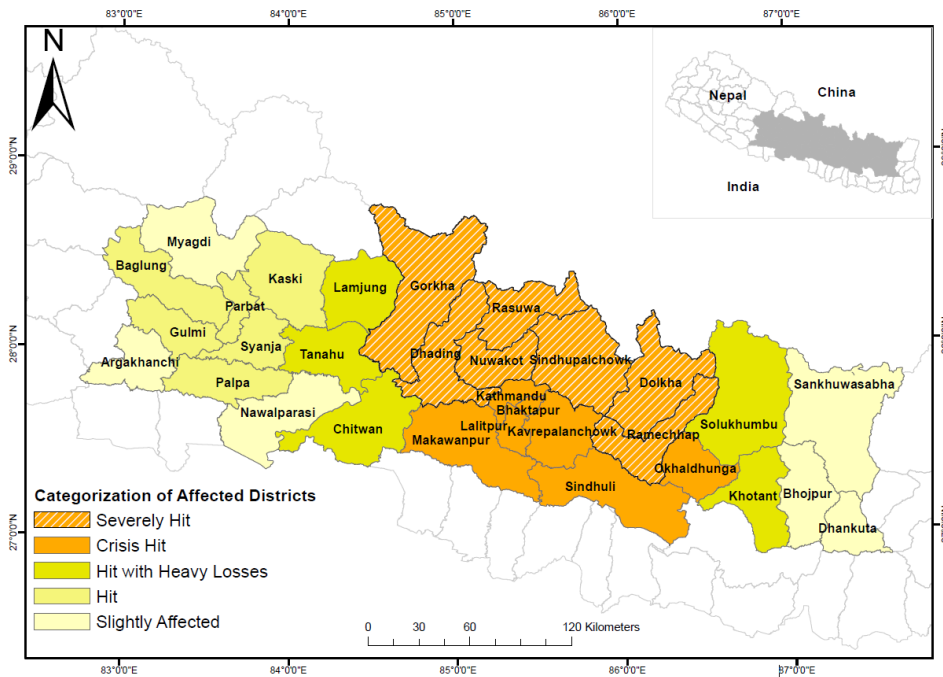
See Annex 4 for detailed phase-wise description of the project.

3. BIO-PHYSICAL ENVIRONMENT AND SOCIO-ECONOMIC BASELINE OF PROJECT AREA AND MAJOR ENVIRONMENT AND SOCIAL ISSUES

3.1 Baseline of Project Area

15. The project will be implemented in the 3 out of the 14 most severely affected districts, namely, Dhading, Nuwakot, and Dolakha (See Figure 1 below for the districts which are labeled “severely hit” and “crisis hit”). All of the project districts are located in the Central Region of Nepal and physiographically, the area lies in the middle hills and the mountain regions of Nepal. Major rivers like , Trishuli, Marsayndhi, Tamakoshi and Sunkoshi drains some of these districts.

Figure 1: Categories of Earthquake-Affected Districts



Source: PDNA 2015

Socioeconomic Baseline Conditions

16. Demography and Social Composition: According to 2011 census, the total population in the 3 project districts is 800,095 out of which females comprise approximately 52.8 percent of the total population. With regards to social composition, indigenous people (known as adivasi janajati in Nepal) constitute approximately 55.3 percent of the population out of which 24.7% are from marginalized

indigenous groups.¹ Likewise, there is also a significant presence of other marginalized groups including, Dalits (previously known as 'untouchables') that constitute 9.3% of the population and 49,000 female-headed households constituting 27.3% of all households. Notably, the figure for female-headed households is likely to increase due to households deaths of male members.

17. The high rate of female-headed households in Nepal, as well as the earthquake-affected districts, is largely due to high migration rates among males of productive age. It is noted however that contrary to other countries, female-headed households are, on average, less poor than the male-headed households. Studies conducted in 2004 showed that only 24% of the female-headed population lived below the poverty line compared to 32% of male-headed households. Some have attributed this difference due to higher remittances flowing to female-headed households – approximately 65%, in contrast to only 24% flowing to male-headed households (CBS 2005).

18. Disability: About two percent (513,321 individuals) of the total Nepali population reported to have some kind of disability. Extrapolating from this data, within the 3 project districts, it can be deduced that 16,000 have physical disability, 8,450 of whom are women and girls. Although there is no data available, it can be assumed that this figure has increased due to injuries sustained in the earthquake.

Table 1 shows some of the important social characteristics of these 14 districts, including impacts from the earthquake.

Table 1: Salient Socio-Economic Characteristics of the 14 Severely Affected Districts

3.1	Total	Male	Female
Population	5,368,513	2,658,274	2,710,239
Household Head Below 30 years of Age (percentage)	19.2%	16.4%	27.1%
Household Head Above 60 years of Age (Percentage)	15.2%	15.0%	15.8%
Total Number of Households	1,237,343		
Average Household Size	4.34		
Female House Ownership (Percentage)	11%		
Female Headed Households (Percentage)	26%		
Percentage of VDCs with High Concentration of Disadvantaged Groups	40.5%		
Total Number of Deaths due to Earthquake	8,556 (total); 3,831 (male); 4,711 (female)		
Total Number of Injuries due to Earthquake	16,095		
Number of Private Houses Destroyed Due to Earthquake	458,272 (Fully Destroyed); 177,389 (Partially Destroyed)		
Number of Government Buildings Destroyed Due to Earthquake	481 (Fully Destroyed); 865 (Partially Destroyed)		

Source: National Population and Housing Census 2011; ddrportal, accessed 24 May 2015

19. Land Ownership: Data from the Nepal Living Standards Survey 2010/11 and Agriculture Census 2011/12, indicates that in all of Nepal, 22.9% of households do not own any agricultural land; 10.4% do not live in their own house; and 3% do not have any land holding. It is likely that the data for the 3 project districts, namely Dhading, Dolakha and Nuwakot, would be comparable. Further, 42% of Dalits live under the poverty line, 80% of which are Dalit women. 63.8% of Dalit families do not have food

¹ NEFIN's classification used to categorize the marginalized groups. See <http://www.nefin.org.np/list/Classification/5/0/6>

sufficiency and 70% of Dalits suffer from malnutrition. Additionally, they also face multiple forms of discrimination and exclusion, which has not only affected how they have experienced the disaster but also their ability to recover from the disaster.

Environmental Baseline Conditions

20. Topography: As mentioned earlier, the project area² lies in the middle hills and the mountains of Nepal. The topography of the project area is undulating and flanked by mountains, ridges, steep hills and valleys. There is great variation in altitude—some places are as low as 800 metres, while others are higher than 5,000 metres. High mountain areas consist of very steep slopes, rock cliffs and deep valleys. Habitation and cultivation are relatively higher in the lower altitude, middle hills and valleys.

21. Slope stability risks: The hills and mountains in Himalayan region³ of Nepal are generally fragile and susceptible to landslides and soil erosions. The main triggers of landslides and erosions in Nepal are due to young geological formations consisting of weathered and fractured rocks/materials in steep slopes; heavy or prolonged rainfall; slope under cutting by river floods; and seismic shaking. Human activities such as excavation (e.g. for construction, deforestation, quarrying, etc) also trigger landslides in these fragile areas. Over the years, watersheds in the region have deteriorated due to land use change, particularly conversion of forests/ vegetation to other purposes (e.g., cultivation). This has further increased the landslide and soil erosion risks in the area. Most of the affected districts, including three project districts, also lie between the two active tectonic plates —main boundary thrust (MBT) and main central thrust (MCT) which are still active and landslides and soil are frequent along these faults.

22. Most landslides and soil erosion events happen during the period of monsoon rain (June through September). Though landslides and erosions are common in the hills/ mountains, there are zones of relatively higher and lower risks. For example, landslides and soil erosion are frequent along the faults such as MBT and MCT, along other local faults and around steep slopes and fractured rocks. The earthquake of April 25, 2015 has further weakened the stability of slopes in the affected areas, evidenced by a large number of cracks/crevices that have formed in the area. As a result, a number of dry landslides have already occurred, and rapid assessments have warned that there are significantly higher risks of landslides in the earthquake-affected districts during the Monsoon rainy season (June – September) and thereafter. Landslides also cause considerable erosion stripping the soil of productivity, and sedimentation, resulting in siltation and obstructing natural drainage and waterways. A total of 2,782 landslides covering 38.2 km² were recorded in 14 affected districts including three project districts. One assessment suggests that there were 199 landslides induced by earthquake in Dhading district, 28 in Nuwakot, and 124 in Dolkha districts⁴. Risks of ice and rock avalanches are high in the higher mountains. The earthquake has further increased the risks. There were reports of avalanches after the earthquake. Part of a glacier above Langtang village (Rasuwa district) broke off and plummeted into the valley below. The Langtang village was completely destroyed by the wet, debris- and ice-rich avalanche. Other avalanches also struck elsewhere in the affected districts.

23. Climate, Rainfall, Hydrology and Water Bodies: Most of Nepal lies within the subtropical monsoon climatic region, but owing to its diverse topography and elevations, the country experiences a wide range of climates including sub-tropical, warm temperate, cool temperate, alpine and arctic. The

² Area affected by the Nepal earthquake of April 25, 2015 and its aftershocks (14 districts).

³ Project area is located within this region.

⁴ Nepal Earthquake 2015 Rapid Environmental Assessment.

earthquake affected districts/ project area experiences generally warm temperate climate which are subtropical in the river valleys (lower altitude) and cool temperate to alpine in the higher mountains.

24. The earthquake affected districts/ project area experiences the monsoon rainfall. Average annual rainfall is between 1700 to 3000 mm; about 80% of which occurs during Monsoon season (June-September). There are pockets of areas that receive higher or lower rainfall than the average. This variation, in the mountain terrain / project area, results from the facing or direction of mountain, aspect of slope, distance from the sea, and altitude. Hence some pockets in the project area may receive 2,500 to 3,000 mm of average annual rainfall. The rainfall is generally high in the eastern part and decreases as it moves to the west. Major rivers like Bhotekoshi, Trishuli, Marsayndhi and Sunkoshi drain the earthquake affected area. Besides, glaciers, a large number of snowmelt-fed tributaries, sub-tributaries, and streams, and groundwater-fed springs feed these rivers. The springs and small streams are important sources of water for the rural communities for drinking and irrigation. One of the impacts of the earthquake has been changes to water flows from many springs (spanning both reductions and increases in different locations). Floods in the rivers and streams are common during the monsoon season (June-September). There have been instances of rivers blocked by landslides debris and later resulting significant floods: such risk⁵ has increased after the earthquake. Two wetlands, namely the Gosaikunda and Gokyo lakes – both of which are listed as the Ramsar sites -- are also located in the earthquake affected districts.

25. There are a number of glacial lakes in the earthquake affected districts. The Himalayan glaciers and glacial lakes are sources of water to several perennial rivers and play an important role in maintaining water flow in the rivers during dry period. Some of the glacial lakes, however, pose threat of Glacial Lake Outburst Floods (GLOF) discharging huge volumes of water and debris and with potential of inflicting significant damage. The three glacial lakes, namely TshoRolpa, Imja, and Thulagi Lake, with risks of GLOF are located within the earthquake affected districts. Risk of Glacial Lake Outburst Flood (GLOF) has increased after the earthquake.

26. Biodiversity, forests and protected areas: There are five protected areas in the 14 affected districts : Manaslu Conservation Area, Langtang National Park, Shivpuri-Nagarjuna National Park, Gaurishankar Conservation Area and Mt Everest National Park. Among them, parts of the three protected area's (namely Shivapuri-Nagarjuna, Gaurishankar and Langtang) territories fall within the three project districts. People live in the buffer zones of these protected areas. The Mt Everest National Park is a world heritage, and popular tourist destination. Besides the protected areas, there are community managed forests and government managed forests. The community managed forests in the buffer zones and outside the zones are important in meeting the firewood, timber and fodder needs of the respective communities.

27. The national parks, buffer zone forests, government forests and community forests provide habitat to numerous species, including globally significant and endangered species, as well as numerous ecosystem services and means of subsistence for local communities. Forest resources were already generally under pressures throughout the region prior to the earthquake, due to various reasons including unsustainable harvesting for timber and firewood. Pre-earthquake, various agencies have been promoting renewable energy technology including improved-cook-stoves (ICS), solar home and bio-gas in the earthquake affected district. The renewable energy technologies led to improvements in household health and livelihood conditions, while also delivering significant positive environmental outcomes. For example, ICS installations can lead to energy savings of up to 80 percent and significant reduction in

⁵ On May 23, 2015 a massive landslide blocked the Kali Gandaki River (Myagdi) causing water level to rise by 150 metres, and creating two-kilometer long artificial lake. This landslide is attributed to the earthquake of April 25, 2015. Also, on August 2, 2014, due to heavy rainfall, a landslide occurred at the Sunkoshi river (Sindhupalchowk), blocking the river to form an artificial lake (about 47 meters deep and over 400 meters long).

greenhouse gas (GHG) emissions, indoor pollution (which is a main cause of respiratory diseases among women and children in the rural areas) and deforestation. A rapid assessment by AEPC and its partner network revealed that 146,767 units of ICS, 16,721 domestic biogas installations and 70,000 solar installations have been destroyed by the earthquake⁶. The housing recovery efforts are meanwhile likely to put even greater strain on these resources as sources of wood for construction and fuel purposes, as well as non-timber forest products for sustenance and income generation. Increased export of timber from one district to another is possible due to government's recent decision to relax timber transportation among earthquake affected districts.

28. **Cultural heritage:** The project affected area includes numerous cultural heritage sites. According to the PDNA, the earthquake affected about 2,900 structures with a cultural and religious heritage value, some of which are UNESCO World Heritage Sites.⁷ In addition to the UNESCO sites and sites listed by the government authority, it is likely, in earthquake affected settlements inhabited by diverse ethnic groups with their own culture, that there are cultural and religious / sacred sites of local value/ importance. These for example may include sacred hill/ peak, sacred cliff, cave and/ or sacred tree, place of worship, temple, monastery, cremation sites, religious bathing sites etc.

3.2 Potential Environment and Social Risks/Impacts

Social Risks/Impacts

29. Based on review of existing literature and findings of the post-disaster needs assessment (PDNA) and consultations in three districts, the project points to a number of social risks and impacts (both positive and negative). These include:

30. **Involuntary Resettlement:** Since the project will be providing grants to households based on 'owner-driven' housing construction modality, project activities are not expected to cause involuntary resettlement. However, the earthquake has resulted in population displacement, landlessness, damages to land due to cracks/fissures making the land inappropriate for house construction, and increased vulnerability of those previously landless. Additionally, there is also the risk of exclusion of households/individuals living in squatter settlements, Guthi land, monasteries, rented land and those without appropriate papers (e.g., citizen certificate, land titles, etc); and omission of households where the household head is a migrant/absentee, from project support. These problems are likely to be further exacerbated by the limited availability of land for resettlement and/or increase in land prices making it unaffordable for resettlement planning. There is also chance of losing their livelihood opportunities since the earthquake affected people's livelihood have been linked with the prevailing/ available natural resources. The GoN is currently in the process of developing a policy for these households who will have to be resettled due to the earthquake. It is expected that for the households rendered landless or those who were previously landless and whose structures were destroyed due to the earthquake, the project will follow the government policy where alternative plots of land will be made available through: surplus government lands, deserve available lands for the new settlement; and where alternative government lands are not available, the government will procure available private lands from the owners on willing buyer willing, willing seller principle, or provide additional funds to individual households for the procurement of land.

⁶Sectoral Report, Nepal Earthquake Post Disaster Needs Assessments (page 297)

⁷Nepal Earthquake 2015, Post –Disaster needs Assessment, Vol. A: Key Findings (page 36).

31. Meanwhile, the following are some of the guiding principles that will be adopted during project implementation to support households that are unable to construct their houses in-situ either due to vulnerability or loss of original location:

- The first preference of the Government to build the houses is **own land of the owners** in the original place where the house was built before earthquake;
- Land obtained on **donation from the relatives/ neighbors** in the villages;
- **Government's land** in the same area;
- Barren land/ land patches of **community forest**; and
- **Leased land** from the private owners for which Government would pay rent for land used under lease agreement.

Note: In case of landless, squatters and other affected households whose structures were destroyed and the land they had occupied are damaged due to cracks/ fissures, the Government would need to provide land based on the policy options specified above.

32. **Indigenous People:** Indigenous Peoples (IPs), also known as Adivasi Janajati in Nepal, account for about 55.3 percent of the total population in the three project districts. Therefore, any development interventions carried out in all or any of these districts are bound to affect indigenous communities, including this project. With the aim of restoring housing in targeted communities affected by the earthquake while increasing long-term resilience, the proposed project will benefit a large number of households from these indigenous groups, particularly those who lost their houses and assets and sources of livelihood as result of the earthquake. This is particularly so with indigenous communities, since the majority of the earthquake victims are reported to be from IP communities. However, as marginalized and excluded communities, there are also risks of not being adequately consulted, risks of exclusion when housing assistance is being distributed, the assistance (e.g., housing designs) not being ‘culturally appropriate,’ and the likelihood of negative impacts on livelihoods, especially for the forest-dependent and agriculture dependent communities.

33. **Dalits:** The Disadvantaged Group Mapping data indicates 38% of the VDCs in all earthquake-affected districts have ‘high’ to ‘very high’ concentration of disadvantaged groups. While some of these ‘disadvantaged groups’ include indigenous peoples, as mentioned above, other groups such as Dalits, disabled, female-headed households are considered equally vulnerable and disadvantaged. In the context of Dalits, they constitute approximately 9.3 percent of the total population in the three project districts. The PDNA indicates that Dalits have been experiencing discrimination and exclusion in the rescue and relief efforts as these services have been made mostly to the district headquarters while Dalits live in settlements away from these areas. Their social status means that Dalits are some of the worse affected social groups, and risk being marginalized and excluded from project benefits.

34. **Women:** It is estimated that 27.3 percent of households (approximately, 49,000 households) are female-headed. However, it can be anticipated that this figure will increase due to households who have lost their husbands to the earthquake. Similarly, it is also likely that there will be an increase in single male households due to a higher earthquake fatalities rates among women. There is risk that depending on the eligibility criteria set for receiving housing grants (e.g., land requirements, bank accounts, etc), most women with no landownership or access to bank accounts, will not be able to receive benefits. The limited mobility of women because of patriarchal norms and their household responsibilities also means that they risk being excluded from consultations and hence unaware of the project benefits. The high rates of female headed households also require that the project provide them with more assistance in finding building materials, accessing masons, and information about multi-hazard designs. Findings from the

PDNA also indicate high risk of sexual violence for women and girls, especially from female headed households has increased as they are now sleeping in highly unsecured shelters.

35. ***People with Disabilities and Elderly:*** Disasters make the situation worse for people living with disabilities, with regard to access to essential services. Presence of debris as a result of the earthquake will create challenges for people with physical disability to move around, but also in accessing relief items. Furthermore, access to temporary shelters, toilets, etc could be a challenge which needs to be addressed in the design of community shelters. In the aftermath of a disaster, senior citizens face additional challenges in accessing livelihood opportunities. They also have restricted mobility in accessing post disaster recovery activities. Furthermore, the increased number of orphans will create a new burden for the surviving elderly guardians in providing care for their children. The pre-disaster situation indicates that only two of the most affected districts have rehabilitation facilities. The housing grants provided through the project will have positive impacts on these individuals. However, the nature of eligibility criteria set for the grants, measures taken for consultations, communications strategy, and additional support provided during construction, there is a risk that these groups will not be excluded from direct benefits.

Environmental Risks/Impacts

Positive Impacts

36. In Nepal most rural housing remains vulnerable to disasters of major magnitude. Therefore, the positive aspect of this project will be the opportunity to build better from a resilience, sustainability and resource efficiency perspective. Planning, design and construction of houses will use criteria and guidelines related to, inter alia, earthquake resilience, flood and landslide risks, climatic considerations, and environmental pollution and health aspects.

37. Considering the varying terrain, ecological zones and climatic conditions of the earthquake affected districts, the minimum standards which are qualitative in nature and specify the minimum levels to be attained in shelter/house will include the following:

- Earthquake resistant and climate smart structures using locally sourced materials.
- Awareness of improving indoor air pollution which has effect on human health, especially women exposed to smoke during cooking (provision of improved cooking stove, chimney etc)
- Awareness of household level sanitation facilities such as toilets (pit latrine etc)

38. Further, to facilitate long-term social and environmental resilience, a set of ‘Principles of good practices’ will be encouraged. These will include;

- i. ***Location/ site selection:*** House/ shelter should be located in safe distance away from landslide prone and flood risk zones, as well as spots with potential water-logging or drainage problems. The topography of the site selected should augment to facilitate water drainage, and the ground conditions should be suitable for excavating toilet pits.
- ii. ***Steep slopes and flood plains*** will be avoided as far as possible. Eligible households should be located in geologically stable areas (as a rule of thumb, areas with slopes of greater than 30 degree inclination may not be desirable for building house).
- iii. ***Climatic considerations and orientations:*** Most new shelter sites will be in the same climatic zone as was the pre-disaster shelter. However, new shelter sites should consider the impact of potential future changes in climate, such as the need for increased drainage because of future increased rainfall), and incorporate features to enhance local climate conditions. The buildings should follow appropriate orientations, depending on the ecological/ climatic zone of Nepal, to suit the specific climatic characteristics of the zone. . In addition, the orientation of the individual shelter

the sizing and layout of the space provided, the positioning of door and window openings for adequate access, lighting and ventilation, and any internal subdivisions should also reflect local practices and blend with the existing environment. Thoughtful placement of a building (its orientation) on a site promotes energy conservation by taking advantage of natural site features such as topography, sunlight, shade and breezes. In the high altitude region, for example, making use of the sun to heat the rooms is a good design concept. One way to blocking the seeping winter wind is to plant trees in the direction of the prevailing wind. In the lower altitude, temperature is comparatively higher. Therefore, orienting a building in such a way that the prevailing winds can be used in cooling rooms is a good practice, and evergreen trees may be planted to prevent direct sunlight entering the building.

- iv. *Earthquake resilient standards*: The houses should follow appropriate technical standards related to planning, design and construction to ensure structural integrity and resilience in the face of seismic events. Earthquake resilient designs and structural safety should be ensured through use of provisions in National Building Codes of Nepal, Public Works Directives as well as other guidelines as applicable including location guidance.
- v. *Environmental Health Considerations*: At the minimum, each house must be aware of the need for sanitation/ toilet and improved /smokeless stove (if fire wood or bio-mass is used as fuel for cooking and heating, which is a main cause of respiratory health problem in rural areas of Nepal) which will have a positive impact on the health of the rural women.
- vi. *Renewable energy and resources*. Green shelter/houses will be encouraged and designed to ensure adequate ventilation and lights, and should give priority to make use of the natural systems, rain-water harvesting and renewable energy sources (solar). The proposed housing reconstruction program will disseminate information about GON's existing programs for subsidies, incentives and provision of facilities or materials for adopting renewable energy like solar, rainwater harvesting, and for promoting sustainable usage of natural resources, and will coordinate with these programs to promote their utilization in tandem with housing reconstruction. The local people will be encouraged to recycle and reuse of the salvaged materials like boulders, window frames, timber beams (pillars), roofing materials, stones, GI sheets and tiles etc.

Annex 3 is a checklist of potential social and environmental good practices that should be promoted in the planning, design and construction of houses.

39. Positive impacts on forest resources and the environment can be anticipated through the promotion of environmental good practices (e.g. alternative energy, recycling/ re-use of timber/materials from damaged houses) as part of design and construction of houses, on case-by-case basis where appropriate, and by reducing the deterioration of the environment and increasing the resilience of ecosystems in an area, if relevant and necessary, through afforestation programs, slope stabilization through re-vegetation, and bio-engineering activities. Also the GON has declared to support forestations program in quake affected districts under forest decade program and also to support improved smokeless stove in the earthquake affected area. These and similar other programs offer opportunities for linking and synergy and enhancing the natural environment in and around the project area.

Adverse Environmental Impacts and Mitigation for long-term environmental impact

40. Adverse impacts arising from construction of shelter/houses will be highly site-specific. The houses will be small and residential, and will be constructed by the owners, constructed in situ and or at alternative nearby locations owned by the recipient. The civil works will be small scale, largely labour-

based, site-specific, and will take place at different locations in large geographical area. Therefore, significant environmental impacts are not anticipated. Nonetheless, various minor impacts need to be screened for and managed in the process of implementing the program, as described below. There is possibility of long-term and induced adverse impacts on the local environment, e.g. degradation/depletion of local natural resources such as surrounding forest, water, slope stability, etc due to extraction of construction timber, sand, stone, soil for constructing shelter for huge number of affected populations as well as pollution from disposal of debris and construction wastes. Efforts should be made to minimize the long-term effects through complementary environmental management and rehabilitation activities at the community/ settlement level besides mitigations incorporated in each shelter/ house⁸. All site-related interventions should incorporate components to restore disturbed environments to pre-project conditions where possible. These efforts should include areas from which natural resources have been extracted (e.g., borrow pits, logging sites) and the clearing and restoration of construction sites (e.g., restoring cement mixing areas, materials storage areas, construction/storing yards).

41. **Forest and forest resources:** According to PDNA, the earthquake led to direct damage and loss of around 29,259 ha of forest. The forest in general, and community managed forests in particular in the vicinity of settlements in the earthquake affected districts are important in meeting the firewood, timber and fodder needs of the respective communities. As the construction of the shelters will be concentrated in the rural/interior part, potential negative impacts related to extraction of timber and other forest resources for construction of small houses/shelters will arise. Timber is one of the basic construction materials used in the remote rural areas. The reconstruction of houses will increase demand for timber and will increase pressure on the already stressed forests – as reported by the stakeholders during consultation timber demand could be slightly higher than supply from the local/ community forest. There is the possibility of the forest resources in the vicinity of the project site being felled/encroached upon for timber. Timber export from the neighboring districts is also possible as government has relaxed, for limited period, transportation of timber to earthquake affected district from elsewhere as a way to reduce pressure on forests in the affected districts. The forests are usually sparse in the middle hills and there is possibility of further degradation of forest, leading to scarcity for fodder and impacts on wildlife from habitat degradation and destruction. Furthermore, enforcement of environmental laws and regulations is very likely to decrease due to weakened government capacity and inaccessibility of many project affected areas, potentially resulting in increased illegal logging and poaching in the guise of recovery and reconstruction.

Potential Mitigation measures include:

- Wherever possible, the program should promote the re-use of already felled logs, including those affected by the earthquake (removal and salvage clearing of forest trees to supplying timber) as well as salvaged timber from demolished buildings. The GON has already declared that it will facilitate the distribution and selling process of all the fallen/felled trees at the various forest areas of the country for the reconstruction to simplify the supply of necessary timber. District level consultation, forest stakeholders suggested that up to 50 % of the timber demand could be met by recycling.
- The program must ensure that timber and fuel wood collection complies with existing forest rules, forest management plans, protected area rules, and buffer zone management plans.
- The program should promote alternative energy and energy-efficient technologies to reduce pressure on forests.
- The DFO and CFUGS, BZUGS etc. should be the channel for providing timber for construction of shelters. The timber already stored in the depot in the DFO or in CFUG depot or in Nepal Timber Corporation should be used.

⁸See Chapter 5 for potential mitigation measures at shelter/ house level and at community/ settlement level.

- Measures such as reforestation and afforestation programs need to be implemented simultaneously to urgently restore damaged forest areas in ecologically fragile and hazard-prone areas. There is possibility of coordinating, linking and working together among various on-going or forthcoming / planned initiatives or program aimed to strengthened forest management and protection in the earthquake affected areas and have positive synergy as well as mitigate cumulative negative effects on forests.
- The CFUGs, BZUGs and forest agencies also need to be supported, based on the impacts and needs in rehabilitating and restoring their forests.
- Information campaigns should be organized to inform local communities and other stakeholders about different tree species and their appropriateness for house reconstruction.
- The opportunities provided by the GoN to provide grants to poor and deprived communities for private forest registration, nursery establishment and its operation, forestation and conservation need to be applied while rehabilitating and restoring forests.

42. ***Landslides and erosions:*** The project area affected by the earthquake encompasses areas which are fragile and susceptible to landslides and erosion. There is a huge number of landslides in the earthquake affected area and in particular a large number of cracks/crevices formed in the area. These pose threat for landslides due to incessant rain during the -monsoon season. Landslides also cause considerable soil erosion and sedimentation polluting water bodies and obstructing waterways. The widely dispersed settlements in the fragile environment of the affected districts represent further challenges to the sustainable provision of building materials for construction of shelters. The extraction for the construction materials from the local area, river banks and hills will have long term impact on the existing environment, impacting topography and aesthetic view of landscape etc .The erroneous extraction of gravels, sand, and boulders, together with incessant precipitation during monsoon season, can disturb the natural condition thus triggering landslides and soil erosion in areas already fractured by earthquake.

Potential mitigation measures include:

1. The materials extracted from the demolished building should be reused (recycle and reuse debris, salvaged stones, clay etc as much as possible). It is estimated that about 50% of rubble generated from the buildings either completely or partially damaged by the earthquake can be recycled or reused.
2. Safe sites for stone quarry, sand/ gravel / clay extraction will be identified by geotechnical experts (or by a civil engineer experienced in slope stability); and building materials should be authorized to be extracted from designated area approved by the competent authority.
3. As far as possible quarrying for construction materials will be done only from designated sites approved by DDCs and VDCs or local authorities. In case approved/ designated sites are not accessible/ or not available in the vicinity of the project site sands, gravel, stones and clays will be quarried and extracted from sites not susceptible to landslide and erosion based on the technical advice from geotechnical expert or civil engineer experienced in slope stability and preparation of EMPs if deemed necessary.
4. House owners or persons involved in quarrying operations will be trained for safe quarrying.
5. The assessment of typical land usage, the distribution of existing vegetation and surface water drainage patterns will be undertaken to assess the impact of any ground clearance that may be required (this will be done as part of screening and ESMP preparation at settlement/ community level) .
6. The use of agricultural or grazing/barren land will be planned to minimize any adverse impact on the slope stability and erosion.

43. **Health and Safety:** Another envisaged impact will be on the health and safety of the local inhabitants, labourers and others involved in the construction. Although the construction works will be small in scale scattered all over, accidents can happen during transportation of construction materials, quarrying, felling of trees and excavation for foundation and clay works, storage of materials and at construction sites/yards and construction/rehabilitation of or disruption to access trails etc.

Potential mitigation measures include;

- Training and awareness in the use of construction equipment and the associated risks and safety issues will be provided to the local inhabitants, skilled-labour (e.g. masons, carpenter), unskilled labourers and other stakeholders involved. Fencing of the construction sites, and maintenance of sites including material storage will also be done with safety considerations. Personal protective equipment appropriate to the situation will be defined in the operational manual and will be employed during construction. Clauses/ checklist related to the safety of work site, safety of workers and safety of community will be added in contract or MoU for demolition, debris removal and construction activities. The project will make available a menu of housing design templates and construction procedure to the communities: this will include environmental health & safety procedures/ guidance.

44. **Environmental Pollution:** A significant amount of rubble and debris have been generated from houses either completely or partially damaged by the earthquake. Haphazard removal and disposal of rubble/debris/demolition materials potentially lead to water/air pollution. Wasted or littered or wrong storage of construction materials could also lead to localized pollution. The pollution risks during construction is related to lack of water and sanitation/ toilet facility (hence open defecation, unhygienic surrounding and practice, which in turn affect household and community health); increased dust pollution particularly in earthen road with plying of vehicles carrying raw materials, conversion of agricultural land for setting up of brick kilns for supplying bricks to reconstruction of houses in the earthquake affected areas; and the indoor air pollution if fire wood or bio-mass is used as source of energy for indoor activity such as cooking, heating, light etc.

45. In addition there is possibility of potentially hazardous materials/chemicals being released in the environment from damaged local agricultural centers, health posts/hospitals etc. which can have long term implications on the health of the local people, water source and soil thus affecting the agricultural productivity. The presence of such items and the potential risks involved in their removal will be identified by appropriately experienced personnel and safely stored for proper disposal.

Potential mitigation measures include:

- Safe storage of construction material (contained, covered and no spill over or littering).
- Controlled removal of rubble and debris. Segregation of usable and non-usable debris/ rubble, and disposal of unusable parts in a safe place as advised by technical person.
- Dust control by water sprinkling or other measures suitable at site and use of masks
- Provision of temporary toilet during construction, and sanitation (toilet), drainage facility designed and constructed as part of new building.
- Provision of improved smokeless stove if the users will use fire-wood or other bio-mass energy for cooking, heating, light etc.
- Safe collection, storage and disposal of any hazardous chemicals/ materials if the screening at a community/ settlement level detect its presence in the area (for example in damaged agricultural service centre, health post etc).

- Eligible construction materials suppliers/ vendors ensure that applicable environmental clearance has been complied with (e.g. brick kilns,from where bricks are procured,comply with environmental requirements including EPA/ EPR and other requirements).

46. ***PhysicalCultural Resources.*** PCR of various types are present in the project area. It is considered unlikely that impacts to such resources will be significant; nonetheless, there exists the possibility that materials from damaged PCR sites could be stolen and used in home reconstruction, or that PCR could be otherwise present on private properties of participating households.

Potential mitigation measures include:

- The Participation Agreement (PA) with the participating households should include provisions to ban the use of any PCR in home reconstruction, as well as provisions that PCR present on beneficiary properties must be protected in accordance with national laws. This should be monitored by project field personnel before grant disbursements are made.
- The awareness of the beneficiaries and community will be raised through awareness program. This will include national legal requirements regarding PCR as well as ancient monuments.

4. POLICY FRAMEWORK ON ENVIRONMENTAL AND SOCIAL ISSUES

The ESMF is developed in line with relevant Nepali laws and regulations and World Bank Safeguards Policies as summarized below.

4.1 National Laws and Regulations:

47. The GoN has executed sectoral policies, enacted acts and regulations, developed guidelines and manuals, and has signed international treaties and conventions, some of which have provisions for social development and safeguards issues. The prevailing Acts, policies, regulations, conventions and guidelines related to social development and safeguards of Indigenous Peoples (IPs) and vulnerable communities including Dalits have been reviewed to streamline the safeguard requirements of the government for this project. Likewise, the ILO Convention No.169 on Indigenous and Tribal Peoples enacted in 1989 and the United Nations Declaration on the Rights of Indigenous Peoples (2007) both ratified by Nepal in 2007 have also been reviewed to identify the safeguard requirements for this project.

The policies and regulations related to safeguard in the context of this project can be categorized broadly into following four groups:

1. Policies and regulation related to land acquisition, compensation and resettlement
2. Safeguard of Indigenous Peoples(IPs) and other Vulnerable Communities (VCs)
3. Good governance, social accountability and public consultation
4. Legislative Measures, Frameworks and Directives related to Natural Disaster Management

48. The key acts related to environmental protection are Ancient Monument Preservation Act (AMPA), 1956; The Aquatic Animal Protection Act (AAPA), 1960; National Park and Wildlife Conservation Act (NPWCA), 1973; Forest Act (FA)1993 and Forest Regulation (FR), 1995; Environment Protection Act (EPA), 1997; and Environment Protection Regulation (EPR) 1997. These acts and regulations, as well as directives, guidelines and frameworks together, provide overall regulatory framework that defines both process and procedures for environmental protection, conservation and management. EPA/EPR defines requirements and procedures for an Environmental Assessment. The Forest, National Park and Wildlife Conservation, Aquatic Animal Protection, and Ancient Monument Preservation Acts require approval of the respective competent authority if a development project/activity happens to be in the territory of their jurisdiction. These laws emphasize protection and conservation of the natural resources.

Annex 2 provides a review on relevant Environment and Social Policies of Nepal. A policy gap analysis is also included in the Annex 2.

4.2 World Bank Safeguard Policies

49. It is expected that most of the potential sub-projects will require environmental and social studies and approvals for compliance to Nepali laws and regulations. In addition, the following World Bank policies will or are likely to be triggered by the potential sub-projects:

- *OP/BP 4.01 Environmental Assessment:* Given the nature of the proposed program, this policy will be triggered. The overall project is classified as Category B, based on the potential level of impact. Individual sub-projects will be screened at settlement/ community level and assigned the appropriate environmental categorization and environmental due diligence will be conducted in accordance with OP 4.01. At the level of shelter/ house construction, owner will be encouraged,

supported and required to follow appropriate environmental good practices, on case by case basis and as part of 'build back better' approach. Environmental good practices will be internalized in the siting, design and construction of houses/ shelters.

- *OP/BP 4.04 Natural Habitats:* Some of the households to receive housing grants through the project are likely to be located within the protected areas buffer zone, and many are in proximity to forests and other natural habitats. While individual home construction is unlikely to cause a significant impact on natural habitats, at a cumulative level there may be impacts to the quality of forest habitats due to increased pressures for timber extraction related to reconstruction. This policy is therefore triggered. Settlement/ community level screening will identify impacts, if any, and prepare mitigation measures suitable to the area.
- *OP/BP 4.36 Forests:* The project is likely to cause a cumulative induced negative effect on forests, as communities turn to forests for timber and other construction materials. This policy is therefore triggered.
- *OP/BP 4.11 Physical Cultural Resources (PCR):*PCR of various types are present in the project area. It is considered unlikely that impacts to such resources will be significant; nonetheless, there exists the possibility that materials from damaged PCR sites could be stolen by households and used in home reconstruction, or that PCR could be otherwise present on private properties of participating households. This policy is therefore triggered.
- *OP/BP 4.12 Involuntary Resettlement:*Land acquisition and involuntary resettlement are anticipated under the project, particularly for sub-projects involving location of house to a new site. For this reason, OP 4.12 will be triggered. Sub-projects will be screened for land-related impacts and resettlement action plans will be developed and implemented. ***A Resettlement Policy Framework was prepared for the project.***
- *OP/BP 4.10 Indigenous Peoples:* Field visits, initial discussions with experts of ethnic minorities in the region and desk review, have indicated that communities of Indigenous people are present in the project areas. ***An Indigenous People Planning Framework(Vulnerable Community Development Planning Framework) was prepared for the project.***

5. ENVIRONMENT AND SOCIAL MANAGEMENT: APPROACHES TO ADDRESSING ENVIRONMENTAL AND SOCIAL SAFEGUARD ISSUES

50. The project will following the following procedures for environmental and social impact screening, mitigation and management measures development, implementation, and monitoring:

- Step 1: Settlement-level screening for potential environmental and social safeguard impacts and determination of safeguards documents required according to Nepali regulations and World Bank policies;
- Step 2: Development of settlement-level Environment and Social Management Plans (ESMP) that includes mitigation measures/good practices
- Step 3: Specification of minimum environmental requirements into grant agreements with households;
- Step 4: Review and clearance of settlement level ESMPs and household level specifications
- Step 5: Consultation, Disclosure, and Awareness Raising and Dissemination
- Step 6: Implementation and Monitoring of settlement level ESMPs and household level specifications

Each of these steps is outlined in greater detail below. Additionally, the project will also incorporate measures to enhance environment and social sustainability in different stages of project cycle/stages (See Annex 5 for more details).

Step 1: Settlement-level screening for potential environmental and social safeguard impacts and determination of safeguards documents required according to Nepali regulations and World Bank policies

51. *Definition of Settlement.* The DL-PIU, for the purpose of environmental and social screening and preparing ESMP, will define a settlement using combination of criteria including the following:

- (i) Administrative boundary, such as a ward, or a VDC
- (ii) Name of the village/place (such as Tol)/ community
- (iii) Natural or topographical boundary,
- (iv) Contiguity.

Thus, it may be possible that a ward or a VDC may be considered as a settlement, or there could be more than one settlement in a ward as well. The GPS coordinates collected by the eligibility survey team would be used to define the boundaries for the settlement.

52. Once the settlements for reconstruction are identified, the district level PIU through environmental and social safeguard specialists, consultants or Partner Organizations/ Support Organization, will screen each settlement to determine the applicability of Nepali laws and regulations, World Bank safeguard policies and the corresponding safeguard requirements as well as opportunities for sustainability enhancement. The eligibility survey team will be oriented for the collection of initial

environmental and social data/information (Annex 1). The DL-PIU Screening team will use thus collected data/ information as well as other sources of information: validation through site visit may or may not be needed (the screening team will use its professional judgment to decide, on case by case basis,if field visit is necessary for the screening purpose).The screening checklist is provided in Annex 1.

53. The screening exercise will:

- Identify potential environmental (physical, biological, social –cultural) issues specific to the area (in and around the settlement).
- Identification of the need to obtain any regulatory clearances (such as from MOFSC for specific site/s like clearing/felling of trees, from DDCs and VDCs for approved quarry sites etc; and
- Establish the need to carry out any further investigation/survey/ assessment for preparation of safeguard document like ESMPs or any specific study.

54. The settlement level screening will also consider social impacts, including: (a) the need, if any, for land acquisition and involuntary resettlement (permanent or temporary); (b) basic socio-economic characteristics of the population living in the settlement, including that of vulnerable groups; (c) whether there is an Indigenous People community that would be affected by during the implementation of the project.

55. Screening Report will be prepared at VDC level containing settlement level information/ data.

Step Two: Development of settlement-level Environment and Social Management Plans (ESMP), Resettlement Action Plan and Vulnerable Community Development Plan, that includes mitigation measures/good practices

56. When a sub-project is expected to cause involuntary resettlement, the District-level PIU will follow the procedure as set in the project’s “Resettlement Policy Framework”. Further, when the indigenous communities are present in, or have collective attachment to the sub-project area, the project’s “Vulnerable Community Development Planning Framework” will be followed. Accordingly, settlement specific Resettlement Management Plan and Vulnerable Community Development Plan will be prepared. However, report will be prepared at VDC level containing settlement level RMP and VCDP.

57. Environmental and Social Management Plan (ESMP): The DL-PIU constituted ESMP team⁹ will carry out site visit to collect field data/ information for the purpose of preparing ESMP customized to the settlement. The ESMP will build on the findings from and guidance provided by the screening, assess potential impacts and recommend measures for avoidance, minimization and mitigation of adverse impacts (and enhancement of positive impacts) and identify/recommend issues that need monitoring.

58. The ESMP will, inter alia, contain the following;

- a. Maps – showing environmental and social features, and potential hazard map

⁹ Lead by DL-PIU’s environmental and social safeguard specialists, and supported, as needed, by consultants or environmental and social staff from Partner Organizations or Support Organization and/ or social and environmental officer/ mobilizer in the mobile team.

- b. Description of environmental and social features (status, importance, sensitivity)
- c. Description of potential impacts. (i) Settlement level impacts, and (ii) house level impacts
- d. Mitigation Measures and Good Practices as well as opportunities for environmental enhancement.
 - (i) Settlement level mitigations and good practices/ opportunities for environmental enhancement. This, for example, may include settlement area specific measures including catchment treatment for soil erosion/ landslide control, strengthening forest management, settlement level debris management, etc., to offset or reduce the settlement/subproject level impacts (direct and indirect, induced/ cumulative and long-term) to acceptable level (or to enhance the positive impacts). The ESMP will also identify domains for building back better through enhancement of the existing ecosystem, reclaiming of land through debris management for agriculture or any community infrastructures, increasing the forest coverage and conserving critical habitat, etc. The mitigations and good practices may serve to mitigate hazard impacts (e.g., forested slopes reducing flooding, reducing landslides and soil erosion) and provide livelihood resources and public amenities. Specific needs/ requirements may differ from settlement to settlement.
 - (ii) Household level mitigations and good practices/ opportunity for environmental enhancement. At the household level there are minimum standards/requirements which need to be complied. These are: Earthquake resistant and climate smart structures using locally sourced materials; Awareness of improving indoor air pollution which has effect on human health, especially women exposed to smoke during cooking (knowledge of options such as improved cooking stove, chimney etc and their provision in the house design/ plan); and awareness of household sanitation/ toilets (e.g., pit latrine and their provision in the house design and plan). The houses should not be located in or close to the risky spots in the area. The ESMP will identify the areas/zones in and around the settlement where house/ shelter location is not suitable. Recycling or re-use of stones and timber (construction material) is one of the most common mitigation that is likely to be recommended. Chapter 3, Annex 3 and Annex 6, describe possible impacts and mitigations, and good practices. These needs to be customized to the area as per the location of the site, geologically condition, terrain and topography, climatological condition, slope and soil type etc. Specific measures/ activities may differ from site to site. ESMP will also identify opportunities for and recommend options for building better houses/ shelter in the area/ sub-zones.
- e. Identification of programs/projects in the area for collaboration for synergy and building better. These may, for example, includes program on renewable energy/ improved stoves, water & sanitation, forest, soil conservation, etc.

During the settlement-level screening and preparation of ESMP, existing development initiatives at the community/ settlement may also be identified to explore possible linkages with the housing projects for promoting livelihood opportunities. The opportunities to link with other development projects (e.g., RWSSIP, PAF) will develop synergies and provide more comprehensive support to the earthquake-affected households.

The ESMP Report will be prepared at VDC level containing settlement level ESMP.

Annex 3 is a checklist of potential environmental good practices that should be promoted in the planning, design and construction of houses. Additionally, Annex 6 is recommended communications for building back better with a focus on sanitation facilities and improved cooking stoves.

Step 3: Specification of minimum environmental requirements into grant agreements with households

59. The screening at the settlement level will ascertain all the precautionary measures that need to be adopted during the construction of the individual houses. These measures need to be integrated in the selection of site, design and planning of individual houses. These should be specified in the grant agreement or participation agreement. The agreement should clearly mention that:

- Compliance with the minimum standards / requirements (e.g. earthquake resistant and climate smart structures is mandatory; awareness of improving indoor air pollution; and awareness of sanitation facility/ toilet with necessary provisions in the house design/plan) is recommended (which will also form the basis of payment certification);
- Individual house/shelter should not be located in the risky spots identified in the respective ESMP (settlement level hazard map and other recommendations should be annexed in the agreement); and
- Other ‘good practices’ identified/ recommended by the respective ESMP for building better in the area should be implemented as far as possible.

PA or MoU signed with project beneficiaries would include specific environmental and social safeguards measures. The forms/templates that would be used prior to releasing the funds in tranches, should also have specific provisions relating to social and environmental safeguards compliance.

Step 4: Review and clearance of settlement level Screening and ESMPs including household level customize requirements

60. DL-PIU will submit the Screening Report and ESMP to DDC and also make a briefing/presentation to the DDC. The DDC will provide clearance to the Screening and ESMP. DDC-EECCS will act as secretariat of DDC. DDC, in the process of providing clearance, may, if necessary, verify the Screening and ESMP Reports through field visit.

61. DL-PIU will prepare a summary of each settlement/subproject screening and ESMP, and submit the summaries to central PIUs. Central PIUs will conduct a post review sample of the Screening Reports and ESMPs, and may validate if necessary. The summaries of the Screening Reports and ESMPs will be shared with the World Bank. The World Bank will also conduct post review sample of the screening reports and ESMPs, and may also validate through site visit.

62. However, in cases where resettlement of households is required, the Resettlement Action Plan prepared for the settlement will be reviewed and approved by the World Bank and the central level PIU.

Step 5: Consultation, Communications and Awareness raising about E&S issues, management measures and good practices, and grievance management system with qualifying households, project implementing agencies and supporting organizations

63. Consultation with local people/other stakeholders, particularly the affected groups and the host population (if involved) will be carried out during various stages of the component preparation. This

includes consultations during selection of sites and identification of eligible households; housing designs and minimum standards; and for understanding any specific social-economic needs of the community. All such proceedings, decisions/community consents and resolutions will be properly documented, including written and visual means. The public will be informed about the ESMF requirements and the need for internalizing the environmental requirements in the design of the houses/project. This process will also empower beneficiaries/local community to supervise the quality of construction by raising/creating awareness on good construction techniques and practices. Specifically, the consultation with the community/ settlement, potential grant recipients and stakeholders (local level and district level) will be carried out during: (i) Screening, and as part of ESMP preparation, (ii) during selection of building/shelter site and design of house/ shelter, and (iii) during implementation.

64. The communication and awareness raising program of the project will cover: (i) minimum social and environmental requirements, (ii) good practices, (iii) building better opportunities in the area (including other programs/ projects that may be taped for building better and for environmental and social enhancement); and (iv) Grievance management system. The project implementing agencies, and support organizations/ partner organizations may also need orientations to raise awareness regarding environmental and social issues, responsibilities, procedures, and mitigations.

Step 6: Implementation and Monitoring of settlement level and household level ESMPs

65. The ESMPs requires detailed supervision and monitoring. In order to carry out this, DL-PIU will have specific arrangements made at district level and local level. This includes appointment of an Environment Specialist and Social Specialist for the project period at the district level, social mobilizer and environmental officer/mobilizer at clusters/ with mobile team, and agreements with Partner Organizations(s) and specialists for preparation, implementation and monitoring of safeguards management plans and compliance. The E&S specialists at the DL-PIU will periodically monitor the implementation of ESMPs at the settlement level and at house/shelter. The DL-PIU will prepare the monitoring report after each visit, submit this to DDC, and organize a briefing session with DDC. The DL-PIU, based on the overall progress and the monitoring of individual household and settlements, will prepare consolidated quarterly monitoring report, highlighting any major social and/or environmental issue and forward the report to the Central PIUs, which will share these reports with the World Bank. The central PIU and/ or World Bank may visit selected subproject/ settlements.

66. To monitor if all the customize E&S requirements are being implemented at the household level , the field level mobile team which constitute of environmental officer/ mobilizer /social mobilizer will be responsible for regular/day to day monitoring and support. The monitoring will be done jointly with or in coordination with civil work/ mobile team. The monitoring reports, prepared by environmental mobilizer and social mobilizer after each visit, will be forwarded to DL-PIU for review and comments. Accordingly corrective measures/actions will be taken by each household. DL-PIU will develop a checklist for monitoring by the mobile teams, and mobile team needs to be trained in order to carry out the monitoring tasks.

6. CONSULTATIONS AND INFORMATION DISCLOSURE

67. During this ESMF preparation, consultations were held with relevant departments and district-level offices of the government, project-affected groups, community based organizations, NGOs, women's groups, indigenous peoples' organizations, etc., at both national and local levels about the project's environmental and social aspects. The local consultations were held in all the three project districts, namely, Nuwakot, Dhading and Dolakha. For meaningful consultations, the concerned groups were provided with the draft documents in a timely manner prior to consultation and in Nepali language so that they are understandable and accessible to the groups to be consulted. The revised safeguards documents (ESMF, RPF and VCDF), taking into account feedback received during consultations, were (a) re-disclosed at the country level and at public places accessible to project-affected groups and local institutions; (b) officially submitted to the World Bank for clearance; and (c) submitted for disclosure on the public World Bank's Infoshop.

68. Information disclosure and public consultation are important and necessary during sub-project preparation and implementation as well. As such, during project implementation, meaningful consultation will be continuous. These enable sub-project affected people and other stakeholders to participate in and contribute to the sub-project planning and implementation, and thereby help minimize adverse impacts and maximize benefits.

69. Information to be disclosed will include, at a minimum: eligible beneficiaries and criteria for their eligibility; requirements for receiving grant payments (including E&S requirements); housing models and designs; information on the GRM; and other project information. Disclosure means could vary, but may include posters, booklets, newspapers, the internet, and community meetings. This ESMF, as well as the VCDF and RPF will be disclosed at a public place accessible to affected groups and other stakeholders prior to consultation to establish the basis for meaningful consultation. Potential disclosure place, for example includes: DDC office, District Office of Housing & Building, VDC, Municipality, local NGO, club, users groups, etc.

70. The task of rebuilding homes and communities after the disaster is challenging. A good communication strategy among the governments, agencies involved in reconstruction, and the affected population needs to be established to ensure that the project is implemented in sustainable manner. The aim of the communications initiative will be to empower the affected communities through participation and enhanced access to information on recovery and reconstruction. Information on government policies and activities, subsidies, entitlements, land status, and rehabilitation support needs to be made available to the beneficiaries using various tools. The communication and the information dissemination ability of the government are limited. The communication for this recovery project will be done through consultations, communications and information campaigns, public awareness programs, information dissemination through brochure, leaflets in local languages, FM radios, and mobilizing trained technicians/other personnel. The communication plan will be effectively implemented at the grassroots level through local NGOs partnering with local agencies/government.

71. These tools will support the beneficiaries in providing information about:

- (i) About the project, its objectives, methodology, environmental requirements, best practices and the opportunities available the local communities to participate and plan for enhancing the existing local environment etc.;
- (ii) Minimum standards requirements for the houses to be built and the environmental implications of making these standards mandatory. Providing information about the available approaches for obtaining support to meet the standards;

- (iii) Providing information to link beneficiaries with para-legal or legal opportunities/provisions for integrating environmental concession in the construction of houses; and
- (iv) Providing information to the community and stakeholders on the possibilities of enhancing the existing environmental resources/assets through mobilization of fund/support from the government and other agencies.

72. A Technical Assistance and Capacity Building program will be designed in the Component 2 of the project. The sub-component will support the government in overall project management, reporting, monitoring and evaluation, training, compliance with the environmental and social framework including implementation of identified safeguard mitigation measures, development of a grievance redress mechanism, and other activities. The TA and capacity building will include training and awareness raising of the local technicians on environmental and social requirements, and good practices, health & safety, waste management and pollution control, etc.

7. GRIEVANCE REDRESS

73. The Grievance Redress Mechanism for this ESMF will follow the same mechanism developed for the overall project. The mechanism would include (i) a recording and reporting system, including grievances registered/recorded both verbally and in writing, (ii) designated staff with responsibility at various levels of governments, and (iii) a specific protocol for handling grievances including the minimum time frame within which different types of grievances should be addressed.

7.1 Scope and Definition of Grievances

74. *Categories of Grievances:* The following general category of grievances will be considered to be within the scope of the project's GRM system.

- Eligibility related grievances: Requiring reassessment of survey data for non-eligible individuals or possibly a second visit by the survey team for data verification; Ownership/land issues for beneficiary identification and issuance/approval of building permits
- Compliance and certification related grievances: Dissatisfaction with inspection/verification results of the technical PO staff; Complaints regarding the timing or the manner of the verification visits
- Payment related grievances: Against the bank's local agent or the district branch office itself for delays, non-payment or partial payment; against the program/government for delayed release of payments;
- Program/process related grievances: Against the staff of the social and technical partner organizations (POs) (behavioral/ attitudinal/ absenteeism); Against DL-PIU or DUDBC personnel; Regarding availability/pricing of building materials and labor; Other grievances against the Program.

75. The grievances can be registered either orally to the PO, DL-PIU or VDC staff; in written form; or telephone call to the DL-PIU or PSP. A toll-free number will be provided during communication outreach which will be answered by GRM operator at DL-PIU. Additionally, grievances can also be lodged through SMS. Specified format for filing grievances will be developed and used while recording grievances received through any of the aforementioned media. The technological support system to establish and manage the grievances through these media will be provided to the DL-PIU at program implementation.

7.2 Institutional Structure

76. The institutional setup of the project's GRM system will align with and support the mechanism proposed in the MOFALD's Grievance Redress and Management Procedure (GRMP), 2072 document. The program will provide additional technical and human resources support at various points so as to support the grievance redress and communication needs specific to the project. The institutional structure and the roles and responsibilities as related to grievance recording, redress, communication and resolution will be as follows:

VDC/Municipality Grievance Management Committee (VGMC/MGMC)

77. The VDC and Municipality level GMC¹¹ includes the respective secretary or executive officer along with other staff from their respective offices. The VGMC meetings where NHRP related grievances are discussed may also include following additional groups and individuals:

- Grievance filer and other relevant or interested program beneficiaries/stakeholders
- WCF coordinators/members
- Representatives from the partner organization or the responsible party for the grievance
- Representatives from CSOs/NGOs and other organizations active in the VDC and other community leaders

78. The VDC secretary, or an assigned staff at the VDC office, will serve as the primary contact person for grievance reporting, documentation, and forwarding of unresolved grievances to higher level committee or responsible parties. The secretary may forward the grievance to responsible party at the VDC level and require response to the grievance. The contact person will also be responsible for facilitating the downward flow of information on grievance redress and resolution from the DDC or a higher-level committee to the grievance filer.

79. The VGMC will meet every other week to review grievances and complaints that cannot be resolved on an individual basis between the beneficiary and the responsible party at the local level. The VGMC may use public accountability tools like public hearings to resolve grievances at their committee meetings, where the responsible party at the local level will also be invited, and also to disseminate responses from DDC or higher-level committees on the forwarded grievances. The VGMC is required to keep minutes of the meeting. The DGMSC (see below) will periodically review the minutes to assess proper functioning of the VGMC.

DDC Grievance Management Sub-Committee (DGMSC)

80. The DDC level GMSC, as specified in the GRMP 2072 document, consists of

- DDC Planning, Monitoring & Administrative Officer – Coordinator
- DTO Engineer – Member
- DL-PIU Grievance and M&E Officer – Member Secretary

81. The DGMSC meetings where grievances related to NHRP are discussed will also include an engineer from the DUDBC Division Office in the district, a representative from the responsible parties

¹¹ The rest of the chapter will only refer to VDC level GMC and not municipalities, as the programme will most likely focus on rural houses in VDCs. It may be assumed that similar system will be implemented in municipalities given policy changes in the future.

(for example the payment service provider (PSP) for payment related grievances, district offices of partner organizations) and interested members of other NGOs, CSOs or civic groups active in the district.

82. The DL-PIU staff as member secretary will be the primary contact for all project-related grievances filed at or forwarded to the DDC office. The member secretary will also communicate with the PSPs' district offices to collect information on grievances filed directly to the PSP by the beneficiaries and the actions taken to resolve them and enter them into the central MIS database. S/he will be responsible for forwarding grievances to the responsible parties present in the district headquarters and requiring their presence in the following DGMSC meeting to present their case or action taken to address the grievances. S/he will also be responsible for following up on and monitoring the responsible parties' response to the decision by the DGMSC. S/he will also be responsible for ensuring periodic and timely entry, resolutions and updates of grievances into the MIS and preparing monthly reports to be forwarded to the district level GMC and PMU level Grievance Monitoring Committee at the center.

83. The DGMSC will meet biweekly on specified dates to assess grievances and their responses from the responsible parties. The sub-committee will approve or reject the case presented by the beneficiary and the responsible party and further instruct the responsible parties on actions to be taken by an agreed timeline. As required, the sub-committee will forward to other district-level bodies or PMU-level committees any case of non-compliance by the responsible party by the specific timeline and unresolved grievances requiring policy or programme-level intervention.

District Level Grievance Management Committee (DLGMC)

84. The DLGMC consists of

- Local Development Officer, DDC – Coordinator
- Head of District Technical Office – Member
- Planning Officer, DDC – Member Secretary

The Head of the DUDBC Division Office in the district will also be invited to the committee meetings where grievances related to EHRP are discussed. Other relevant stakeholders may also be invited as required to these meetings.

85. The primary role of the committee will be to support and facilitate the functioning of the DGMSC and respond to unresolved grievances and recommend appropriate action against non-compliant responsible parties forwarded by the DDC level sub-committee. The DLGMC will also monitor and review monthly reports sent by the DGMSC and provide recommendations as required.

PMU Grievance Monitoring & Recommendation Committee¹² (PGMC)

86. The PGMC will consist of following staff in the PMU office

- Programme Director – Coordinator
- Deputy Programme Director – Member
- Grievance and M&E specialist – Member Secretary

87. The PGMC will be responsible for monitoring the functioning of the GRM system as a whole and recommending any policy level or programmatic changes based on systemic patterns of grievances

¹² PGMC replaces the Departmental GMC as specified in the GRMP, 2072 document as the latter corresponds specifically to Department of Local Infrastructure Development and Agricultural Roads (DOLIDAR) under MOFALD. The structure and functions of the PGMC and the Central MOFALD level committee are subject to change after the proposed National Reconstruction Agency and corresponding Act come into effect.

received and resolved. The committee will review the monthly reports forwarded by the DGMSC and also analytic reports of grievance data entered into the MIS system prepared by the MIS specialist at the PMU/M-PIU.

Central Grievance Monitoring and Policy Reform and Recommendation Committee (CGMPRRC)

88. The ministerial level central committee will consist of:

- Secretary, MOFALD – Chairman
- Joint-Secretaries, MOFALD – Member
- Director General, DOLIDAR – Member
- Director General, DOCR – Member
- Joint Secretary, Monitoring & Evaluation Division – Member Secretary

The central committee will be responsible for monitoring the effectiveness of the GRM system and implementing policy and programmatic directives to ensure effectiveness of the programme's GRM system.

7.3 Grievance Redress and Management Process

89. The sections that follow describe the procedures for reporting and resolving different categories of grievances and also the social and technological support provided by the Programme at different stages of the grievance redress process.

Grievance Reporting and Documentation

90. Beneficiaries or non-beneficiaries may file grievances at one of following reporting points depending on the nature of the grievance and convenience to the grievance filer: (i) the VDC office, (ii) the local social assistance PO staff, and (iii) the technical assistance PO staff.¹³ The latter two may assist the grievance filers in reporting their grievance at the VDC office when required. However, beneficiaries will also have the right to report her/his grievances directly at the DL-PIU office itself. Beneficiaries may also resort to other judicial (courts system) or administrative means (the District Administrative Office or the District or Regional Office of the *(proposed)* Reconstruction Authority) at any point during the grievance process.

91. The grievance reporting and documentation procedure will include the following features:

- Grievance forms will have two copies, one for the beneficiary and another for programme staff (DL-PIU or PO) for entry into the MIS and archiving.
- Every reported grievance will have a unique case number, which will be linked to the beneficiary's identification number, and also the unique identification number of the SF or the AI team, in cases where they filed the grievance for the beneficiary.
- Beneficiary will be provided the case number and a copy of the paper grievance form filled out by himself or on his behalf. The case number can be used to trace status of the reported grievance or retract it at any point by the beneficiary.
- PSP agents or branch office staff must also use the same form to record grievances reported directly to them. The DL-PIU will require the PSP to provide bi-weekly updates on the reported grievances and results of the actions taken to resolve the grievances.

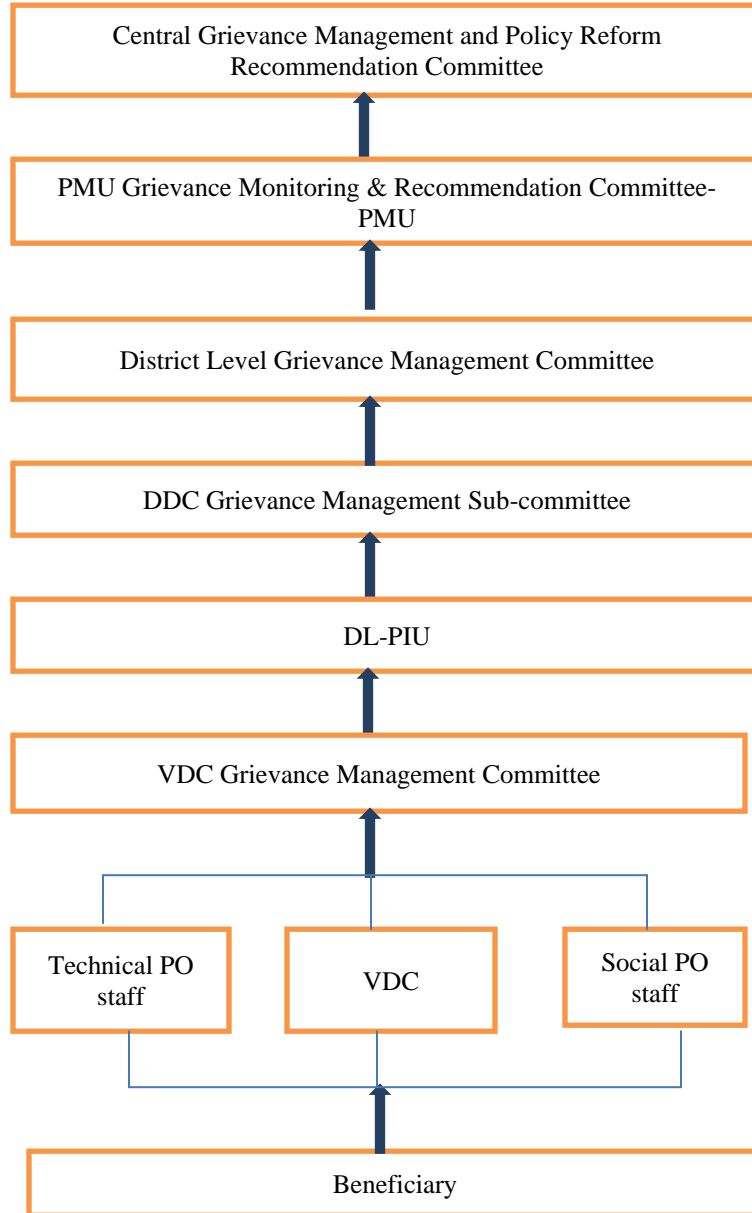
¹³ The SF and the AI team may or may not be under one PO.

- The PO staff at the VDC level will be responsible for entering and uploading grievance forms into the MIS database and also any documentation/photographs relevant to the grievances, except in cases where the VDC office forwards the grievances directly to the DL-PIU office.
- The assigned staff at the DL-PIU will be responsible for ensuring entry of the grievance forms into the central MIS database and updating the progress on their resolutions.

Upward Flow of Grievances

92. The institutional structure described above will be followed for the upward flow of grievances. Following the principle of decentralized resolutions, and also to reduce unnecessary load to the GRM structure, any grievance that can be addressed at a lower level of the GRM structure will not be forwarded to higher-level committee for resolution. The VDC office and the PO staff at the VDC level and the DL-PIU at the district level will provide technical and logistic support to manage the upward flow of grievances. The PO staff will be responsible for entering and uploading grievance forms into the MIS from the VDC (except in cases where the grievances are against the PO staff or when beneficiaries want to file their grievances anonymously). All reported grievances will be reviewed by the VDC secretary and/or assigned VDC staff, and categorized for local resolution or forwarding to the DL-PIU for district level resolution. The assigned staff at DL-PIU will be responsible for forwarding the grievances against responsible parties at the district level and also higher-level committee in cases of non-resolution.

Figure 2: Upward Flow of Grievance



PO: Partner Organization

DL-PIU: District Level
Programme
Implementation Unit

Downward Communication of Grievance Redress process

93. The DL-PIU will be responsible for communicating the resolutions/progress on the grievances reported to the grievance filers. The communication will be channeled through the VDC office and/or the partner organization staff. The VGMC may convene beneficiaries, relevant stakeholders and other members of the community and CSOs in the area for a public hearing to discuss results of grievance resolutions and further recourse if the beneficiary is still unsatisfied. Beneficiaries may call the DL-PIU office to get information on decision/update on their grievances.

94. Grievance Monitoring

Designated staff at DL-PIU will be responsible for following up with the responsible party, entering progress on the grievance handling into MIS and communicating resolution/update to the beneficiary via the VDC and WCF network or through the PO in the district and VDC level. Monitoring team from the DL-PIU and/or DUDBC division offices will also make periodic visits to ensure the resolutions provided and actions recommended are implemented or followed by responsible party and also to ensure that participation in the grievance process has not resulted in negative consequences for the beneficiaries.

7.4 World Bank Grievance Redress System

95. Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit www.worldbank.org/grs. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

8. PROJECT IMPLEMENTATION ARRANGEMENTS

96. The Government of Nepal (GoN) has overall responsibility for implementing this multi-sectoral and multi-ministerial project, including its social and environmental management. A high level Steering Committee comprised of officials from MOF, NPC, and both implementing agencies, MOFALD and MOUD under the PMU would be used to guide project activities. Beneath the PMU, MOUD would be responsible for implementing component one, while DoLIDAR/DUDBC would be the primary implementing agency for component two the provision of the grants with a Project Management Unit (PMU) located in each Ministry under the overall supervision of the NRA/MOF/NPC and the interim oversight mechanism pending its formation.

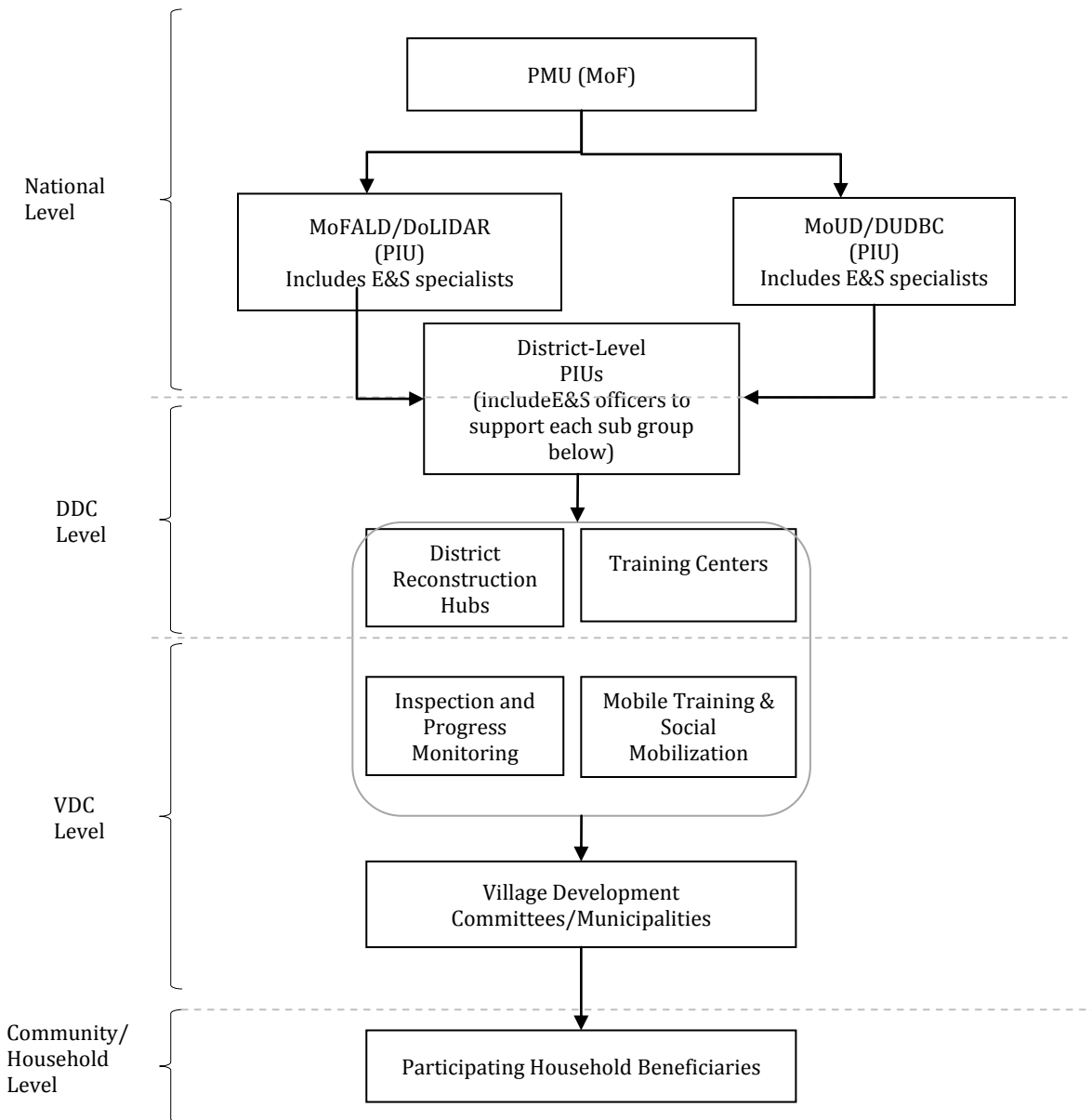
97. The PMUs would be overseen by a project director in one of the two implementing agencies, who would also sit on the steering committee, with project coordinators, who lead work in their respective ministries. Both the PIUs of the implementing ministries MOUD and MOFALD/DoLIDAR will also include E and S specialists that will be responsible for ensuring compliance with environmental and social issues relating to the project. The Environmental and Social Specialists at the PIU/PMU need to ensure that the required avoidance, minimization and mitigation measures are taken care of during site selection, project preparation and implementation/construction stages of the project. This will help facilitate project supervision and monitoring during the implementation stage as well. Similarly, the provision for recruiting E and S specialists will be made at the district level PIUs to provide E and S management support to monitoring/training/ activities.

98. Under the DoLIDAR-PIU, one or more District-Level Project Implementation Units (DL-PIUs) will be established to provide close technical support and supervision to project activities. The DL-PIUs will manage the majority of district level oversight and coordination tasks, including those relating to environmental and social safeguards issue. There will be an Environmental and Social Development specialist of the DL-PIUs that will be responsible for screening, preparation, implementation and monitoring of safeguards management plans prepared for each of the settlements. If required, the DL-PIUs might seek support from the POs and specialists.

99. At the local/community level, District Level –PIU, VDCs/Municipalities, the beneficiary households themselves will be responsible for the implementation and compliance with the safeguards documents developed for the project. However, a mobile team consisting of technicians, social mobilizer and environmental mobilizer/ officer will be available to support the beneficiaries with construction activities as well as for safeguard support and regular monitoring for safeguard compliance.

100. The overall project implementation arrangements, including arrangements for E&S management, are shown in Figure 2:

Figure 3: Project Implementation Arrangements



101. Overall project roles and responsibilities, as well as specific environmental and social roles and responsibilities, are outlined in Table 2 below:

Table 2: Responsibilities Relating to Environmental and Social Safeguards

Institutional unit	Core responsibilities	E&S-specific responsibilities
MoUD/DoLIDAR PIU	<ul style="list-style-type: none"> • Disaster-resilient housing solutions/designs and subsidy packages • TrainGoN officials and PO engineers and artisan master trainers • Train village artisans • Facilitate building material markets • Earthquake Housing Damage and Characteristics Survey (jointly with MoFALD) • Disseminate information on subsidy, eligibility, and criteria for losing eligibility (jointly with MoFALD/DoLIDAR) • Public Information campaign (jointly with MoFALD) • technical and social support to owners for own-construction (jointly with MoFALD/DoLIDAR) • M&E (jointly with MoFALD) • Grievance management (jointly with MoFALD, VDCs and municipalities) 	<p><u>Central PIU DoLIDAR E & S Responsibility</u></p> <ul style="list-style-type: none"> ✓ Provide overall oversight and guidance on E & S to district level PIUs. ✓ Monitor compliance with the ESMF, environmental and social requirements ✓ Provide technical support to DL-PIUs as needed. ✓ Report, quarterly basis, to PMU on E & S progress and challenges, and opportunities. ✓ Prepare consolidated annual E & S work plan ✓ Provide guidance to DL-PIUs on E & S matter including on mitigations, good practices, consultation, information dissemination, grievances handling/ management. ✓ Coordinate at central level on E & S matters, including working together with other programs/ projects and making use of opportunities for promoting good practices, building better opportunities, enhancing social and environmental sustainability etc.
MoFALD/DoLIDAR PIU	<ul style="list-style-type: none"> • Provide cash grants (through banks) • Earthquake Housing Damage and Characteristics Survey (jointly with CBS) • Disseminate information on subsidy, eligibility, and criteria for losing eligibility (jointly with MoUD) • Public Information campaign (jointly with MoUD) • technical and social support to owners for own-construction (jointly with MoUD)M&E (jointly with MoUD) • Grievance management (jointly with MoUD, VDCs and municipalities) • M&E (Jointly with DUDBC) 	<ul style="list-style-type: none"> ✓ Review quarterly monitoring reports received from DL-PIUs. ✓ Visit to sample sites to validate screening and ESMP, as well as monitoring reports, and to resolve complex issues, if any. <p><u>DL-PIUs roles and responsibility</u></p> <ul style="list-style-type: none"> ✓ Carry out Environmental and Social screening (at settlement level), prepare VDC level report, and get clearance from DDC-ENRC ✓ Prepare ESMP (settlement level), prepare VDC level report, and get clearance from DDC-ENRC ✓ Submit summary of approved screening reports and ESMPs to Central PIUs. ✓ Periodic (monthly) monitoring, and report & briefing to DDC-ENRM ✓ Consolidated report to Central PIU (quarterly).
National	Hazard Risk Mapping	Identify risk-prone areas

Seismological Centre under Ministry of Industries		
Partner organizations/service providers and VDCs/Municipalities	Progress and quality verification, reporting, payment authorization	To support PIU in social and environmental screening, preparing management plan, awareness raising, training/ orientation, information dissemination, consultation, as well as in compliance monitoring
World Bank	Supervise all aspects of the project	<ul style="list-style-type: none"> • Provide guidance and assist in the preparation of safeguards instruments; • Review the screening results, due diligence review report, and safeguard documents of proposed sub-projects; • Supervise the implementation of the safeguards instruments to ensure they are implemented in compliance with Bank policy requirements.

9. MONITORING

102. Monitoring of the environmental and social activities will be carried out at three levels – at the household levels, at DL-PIU level and at Ministry -PIU level and also by third party. Safeguard monitoring will occur as a regular activity, and will include regular, compliance monitoring, process reviews/audits, reporting of outputs, quarterly monitoring as well as third party monitoring and social auditing. In addition, supervision/monitoring will entail routine quality certification at various stages of construction, forming the basis of payment certification and other works. The three stages monitoring plan have been discussed in detail below:

Monitoring at the Household level

103. During the construction of the individual houses, a mobile team consisting of technical team (overseer), environmental officer/mobilizer and social monitor will regularly supervise whether the key social and environmental requirements are being considered in the construction. The monitoring will be focused at critical stages of construction like, site selection, excavation and foundation, casting or roofing etc. (which needs to be defined). The mobile team will visit each house in the settlement. The same team mobilized for the awareness and information dissemination will do the monitoring at the household level. This mobile team will submit environmental and social report to the DL-PIU after each visit.

104. The independent technical party, before it certifies a payment tranche, will receive E & S compliance report from the mobile team.

Monitoring by DL-PIU

105. The PIU at the District level will conduct periodic (monthly) monitoring of the ESMP implementation at the settlement level and at house/shelter. Environmental and social specialist will be recruited at DL-PIU level and support from the environmental division of DDC will be taken whenever required for monitoring. The DL-PIU will prepare the monitoring report after each visit, submit this to DDC-ENRC, and organize a briefing session with DDC-ENRC. Initially each settlement will be monitored by the DL-PIU monthly. As implementation progresses monitoring may be done through sampling, if visiting all settlements/ subprojects is not practical. The DL-PIU will be responsible for preparing consolidated quarterly monitoring report, highlighting any major social and/or environmental issue and forward the report to the Central PIUs, which will share these reports with the PMU as well as with the World Bank. The central PIU and/ or World Bank may visit selected subprojects/ settlements.

106. In addition, DL-PIU will also be responsible for identifying any adverse impacts/issues that is complex or have highly significant risks or impacts and hence needs to be treated separately or give special consideration for monitoring or other action

Monitoring by Central- PIU

107. Monitoring for overall compliance with existing environmental regulations, Environmental and social safeguards and Environmental and Social Management Framework (ESMF) provisions will be done by the PIU at the Ministry level. The central-PIUs will recruit environmental and social consultant, whose responsibility includes compliance monitoring. The central -PIU will also be responsible for overall oversight of social and environmental issues, providing guidance, developing policies (if necessary), coordinating with other programs/projects for synergy and good practices. The central PIU

may visit selected samples of subprojects/ settlements as needed (samples based on review of the consolidated quarterly reports submitted by DL-PIU and typically once in six-month).

Third party monitoring

108. The PMU will commission a third party project level monitoring. PMU will select a national agency to evaluate the level of compliance with the project's environment safeguard instruments independently. A comprehensive assessment report on environmental performance will be prepared by the third-party monitoring agency every six-month (half-yearly) for first two-years of implementation (or until project Mid-Term). Thereafter, third party monitoring may be done annually. The third-party monitoring reports will be shared with the World Bank.

10. CAPACITY BUILDING

109. Local capacity building will be critical to the implementation of the above safeguard-related activities. With the current institutional arrangements, local governments, particularly district governments, will need strong support in building up their capacity to fulfill their designated responsibilities. Capacity building will be required at different tiers of project implementation. The capacity building in environmental and social safeguards will contain four aspects.

110. First, the PIUs will determine the staffing needs/ expertise for each level and propose additional staff where required. Additional required support for PIU will be built through hiring of, specialized dedicated manpower and through need-based hiring of environmental and social specialists. At this stage, the minimum social and environmental staff/ expertise needs has been assessed as: (i) a senior Social Safeguard Specialist and a senior Environmental Specialist at central PIUs, (ii) a social safeguard specialist and an environmental specialist at district level PIU, and (iii) social mobilizer and environmental officer/mobilizer with mobile team. In addition, technical experts in the areas of disaster risk management, remote sensing, GIS, others will be needed to provide timely support to various project activities, which can be supported through TA. The support at PIU level will be required to internalize the environmental issues in the subproject planning & design in coordination with engineering design team to address the potential impacts as well as to promote good practices and building back better. The hiring consultants will be one of the first and most pressing tasks as the terms of references (TOR) must be developed as per the requirements of the project considering the project, technical expertise required, scope of work and budget.

111. Second, the government, with support from the World Bank, will develop a set of planning and implementation tools and guidelines for training of the officials on environmental and social safeguard. These will be used for training and reference for technical staff during implementation.

112. Third, a project-wide training program will be developed and implemented for all environmental and social staff. This will be implemented on a priority basis. The objectives of the environmental and social trainings include providing basic knowledge and information on the key environmental and social issues associated with the proposed interventions to the key project personnel including the other PMU staff, PIUs, VDC and municipalities' staff and project beneficiaries. Initially, the technical, environmental and social staff needs to be trained on the requirements of ESMF. The ESMF requires detailed supervision, monitoring and evaluation of the impact of the project on the environment and social aspects. Implementation of the provisions of ESMF will be new to these staff and hence several orientations and trainings are proposed as a part of this ESMF to build their capacity. The sensitization and capacity building of aforementioned key players will be required for ensuring that environment and social dimensions are used/mainstreamed in overall implementation of the project. Different level of assistance is required at different tiers. At the grassroots level the beneficiaries /communities will be trained to mobilize to set up support mechanisms to take care of the weak beneficiaries who lack capacities to undertake construction of houses without external help. Hence, the central PIU in consultation with district-PIU will prepare environmental and social training & awareness raising plan as part of annual work plan. These will, for example, include but not limited to orientations to: (i) the project staff (central and district) – central PIUs, PMU, District PIU; (ii) the technical/ working support team, (iii) Technical Assistance (TA)/ support agency, partner organization, (iv) District Coordination office/District Reconstruction Center, (v) Ilaka/ VDC Reconstruction Centre, (vi) mobile team, and (v) beneficiary.

113. Fourth aspect is capacity building of the beneficiaries through specific trainings related to the reconstructions like masonry, carpentry, electric wiring, welding and etc. The training of the locals will empower beneficiaries not only in construction but also to supervise the quality of construction by creating awareness on good construction techniques and practices. The skill of the local carpenters and

masons can be also further enhanced to address other disasters like flash floods, landslides and erosion which are changing in frequency and intensity. Training to local people on skills like Earthquake Resistant Building Technology (ERBT) appropriate to them will be highly useful. Some of the persons who have received Level-I skill training on carpentry, plumbing, mason etc could be given additional training on the ERBT. Furthermore, the existing vocational training facilities provided by various other agencies in the affected districts and projects may be linked to this project to provide these trainings. The skilled trainings will also provide the local with other opportunities after the phasing out of the project. Social and environmental aspects and considerations, requirements (minimum requirements and good practices) will be integral part of all of these training (to overseers, sub-overseers, beneficiaries, carpenter, mason, etc).

11. BUDGET REQUIREMENTS FOR IMPLEMENTATION OF ESMF

114. Some of the costs like minimum standards associated with ESMF implementation will be a part of the civil cost of the individual house. The budget for ESMP implementation and implementing good practices, enhancement measures for the surrounding area will have to be worked out in detail. The details will be worked out as part of each ESMP, and agreed with the PIU as per the site need and actual budget requirement. Further, efforts will be made to merge/link the existing environmental protection works/enhancement measures/with other sustainable programs being implemented by government agencies, organizations, NGOs, INGOs and local communities for augmenting the existing environmental resources.

121. The key elements of the environmental management cost of any project usually include the following:

- Cost of environmental and social personnel: All environmental and social personnel at central-PIUs, DL-PIUs, TA/ support agencies/ partner organization and in the mobile team will be part of overall human resources and logistic. Hence, no separate budget allocation is needed for the environmental and social staff.
- Cost of environmental and social mitigation measures: Two types of environmental and social mitigations are envisaged:
 - (i) at house/ shelter level mitigations – includes minimum requirements and good practices. The minimum requirements in each house will be part of each house/ shelter plan, design and construction. Hence this will not incur additional cost. The project will not invest directly in environmental good practices, but will make efforts to coordinate/ link with other ongoing activities/ programs. Hence this will not incur additional cost, except staff time for coordination and awareness, and support to beneficiary in accessing other opportunities.
 - ii) Settlement/ community / subproject level mitigations. Certain mitigations may be needed, on case by case basis, at settlement/ community level for example for mitigating induced/ cumulative impacts on forest and forest resources, catchment treatment to mitigate soil erosion and landslides risks or to mitigate increased hazards, settlement level pollution control/ mitigation (debris management), etc. Project needs to allocate resources for this purpose as well as coordinate/ link up with activities in the area by other agencies/ by other project. For this purpose, it is recommended to set aside about 0.5 % of the project cost (i.e. approximately USD 1.0 million or NRs 100 million).
- Cost of environmental monitoring. Monitoring by the DL-PIU, by mobile team/ environmental monitor or by central PIU etc is covered under the overall program site visit, supervision, and monitoring. External monitoring will be done annually. The total budget for the external monitoring is estimated to be about NRs 7Million. The cost of each external monitoring may be estimated after ToR is finalized for the external monitoring.
- Cost of environmental trainings, awareness and information dissemination. These activities will be combined with other trainings, awareness and information activities. PIUs, as part of annual work plan, will develop environmental and social training, awareness and communication/ information dissemination plan with cost. It is expected that this will incur about NRs 7 million additional cost (on top of regular training, awarenesscost).

ANNEX 1: DRAFT SCREENING FORM FOR POTENTIAL ENVIRONMENTAL AND SOCIAL SAFEGUARDS ISSUES AT THE SETTLEMENT LEVEL

The District Level_- Project Implementation Unit (DL_PIU) will use this Form to screen each district participating in the project.

1.	Project Title	
2.	Project District	
3.	Name of the VDC	
4.	Name of the Settlement, Ward No.	
5.	Number of eligible households:	
6.	Altitude of the Settlement (in meters)	
6.	Nearest road head/highway/headquarter	
7.	Settlement ID/no	
8.	Proposed Date of Commencement of Work: _____	
	Number of houses damaged	
	Number of houses to be reconstructed	
	Quantity of debris generated (by type)	
	Quantity of reusable materials (by type)	
	Quantity of debris that needs to be disposed	
	Quantity of construction materials needed (Timber, sand, gravel, stone, etc)	
	Any hazardous materials mixed with debris (e.g. from damaged health-posts, medicines, from agro-vet shops/ service etc)	

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 Category C
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 Category B
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?			OP 4.11

	Is the subproject located in, or in the vicinity of, cultural sites? Will the sub-project likely adversely impact physical cultural resources? ⁱ			
5.	Will the sub-project involve significant conversion or degradation of critical or non-critical natural habitats? ⁱⁱ			OP 4.04
5	Does the sub-project involve involuntary land acquisition or prior acquisition of land or demolition of existing structures?			OP 4.12
6	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
	Physical features			
1	Is the settlement/subproject located in an area susceptible to landslides, rock fall or erosion, flood prone areas and extreme climatic conditions, fogs, avalanche, snow-fall, etc? (show in map)			
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.			
4	Any history of erosion, flashflood, landslides, earthquake in the area/ vicinity?			
5	Current land use practice (agriculture, grazing, barren, forest, shrubs-----)			
6	Is the subproject located on prime agricultural land?			
7	Does the sub project 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?			
9	Are these any potential sites/land for debris management/ solid waste management/ reclamation for future use?			
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.?			

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

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

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?			
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?			
	Socio-economic and Cultural Features			
1	Is the subproject located in a densely populated area?			
2	How many people comprise a typical household?			
3	How many households are without any land/shelter, any squatters?			
4	Is the subproject located near to the sites of archaeological/historical or cultural importance?			
5	Presence of minority/vulnerable/indigenous population in the area?			
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?			
8	What are the typical building practices of the affected people and what are the different materials have they used in the past?			
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.?			
11	What is the current availability of water for drinking and personal hygiene,			
12	What is the current provision of social/infrastructure facilities (health posts, sub-health posts, schools, communications, road etc?)			
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.			
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?)			Provide list as an 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.			Provide list, and sketch map.
	Customized minimum requirements for the subproject/ settlements			Recommend.
	Identify programs/ activities for coordination and linking for 'building better' and / or synergy.			Identify and list them.

Screening Conclusions.

- (i) Main environmental issues are:.....
- (ii) Permits/ clearance needed are:
- (iii) Main social issues are.
- (iv) land acquisition and involuntary resettlement (permanent or temporary) if any;
- (v) Further assessment/ investigation needed and next step.
 - a. Need for any special study:.....
 - b. Preparation ESMP (main issue to be addressed by the ESMP):.....
 - c. Need for IPDP/VCDP:.....
 - d. Need for IEE or EIA:.....
 - e. Any other requirements/ need/ issue etc:

Screening Tool Completed and Reviewed by:

Signed by Environmental Specialist in the District Level -PIU:

Name: _____

Title and Date: _____

Signed by Social Specialist in District Level -PIU:

Name: _____

Title and Date: _____

Signed by Project Manager in District Level - PIU:

Name: _____

Title and Date: _____

Presentation/ Briefing to DDC – ENRC done on:

Advice, comments, and suggestions from the DDC-ENRC are:.....(Attachdetails/ minutes).

Screening cleared by DDC – ENRC on: (any condition and/ or suggestion made as part of clearance?).

One copy of this Form and accompanying documentation will be kept in the District Level-PIU, one copy will be sent to the DDC-ENRC, summary toCentral Level –PIU.

ANNEX 2: ENVIRONMENT AND SOCIAL POLICY SUMMARY OF NEPAL

Land Acquisition, Compensation and Resettlement

The proposed project has not been envisioned large scale involuntary resettlement and involuntary land acquisition. However an assessment of regulatory provisions and policy regime related to land acquisition and associated impacts would be beneficial if some reasons involuntary land taking occurred while implementing the project.

The Interim Constitution of Nepal (2007) guarantees the fundamental rights of a citizen. Article 19(1) establishes the right to property for every citizen of Nepal, whereby every citizen is entitled to earn, use, sell and exercise their right to property under existing laws. Article 19(2) states that except for social welfare, the state will not acquire or exercise authority over individual property. Article 19(3) states that when the state acquires or establishes its right over private property, the state will compensate for loss of property and the basis and procedure for such compensation will be specified under relevant laws.

Land Acquisition Act, 2034 (1977) is the only legal document to guide tasks related to land acquisition and resettlement activities in Nepal. The act clearly empowers the Government to acquire necessary land at any place in any quantity by giving the compensation pursuant to the Act for the land required for any public purpose or for operation of any development project initiated by government institution (Clauses 3 and 4). Besides, any institutions seeking land acquisition may also request GON to acquire the land under this act subject to be compensated by such institutions' resources. While acquiring land as per the provision of this act, GON forms a Compensation Fixation Committee (CFC) under the chairmanship of Chief District Officer (CDO) of the district. The other members to be included in the committee comprise of - Chief of Land Revenue, an Officer assigned by CDO, representative from District Development Committee (DDC), Concerned Project Director. In other words, CFC under the Act is formed for actual verification of land to be acquired, reviewing and fixing compensation rate, identification of proper owner(s), distribution of compensation, providing necessary administrative support addressing associated issues. However, there is also a provision under Clause 14 of the Land Acquisition Act 2034 (1977) to compensate land for land provided government land is available in the area.

The Land Reform Act (LRA) 2021 (1964) establishes the tiller's right on the land, which he/she is tilling. The LRA additionally specifies the compensation entitlements of registered tenants on land sold by the owner or acquired for the development purposes. The most recent Act Amendment (2001) established a rule that when the State acquires land under tenancy, the tenant and the landlord will each be entitled to 50 percent of the total compensation amount. Tenants are verified through a record of tenancy at the Land Revenue Office.

Land acquisition must also comply with the provisions of the Guthi Corporation Act, 2033 (1976). Section 42 of this Act states that Guthi (religious trust land) acquired for a development must be replaced with other land, rather than compensated in cash.

The Section 49 of the Forest Act 2049 (1993) prohibits reclaiming lands, setting fires, grazing, removing or damaging forest products, felling trees or plants, wildlife hunting and extracting boulders, sand and soil from the National forest without prior approval. Clause 68 (1) of the Forest Act 2049 (1993) states that the government may permit the use of any part of government-managed forest, leasehold forest or community forest, if there is no alternative for the implementation of a plan or project of national priority

without significantly affecting the environment. According to the clause 68 (2), if any loss to persons or community is involved while permitting use of such land, it is required to compensate the loss.

The Clause 258 in the Part – 5, General Provisions relating to Local Body Chapter – 3, Miscellaneous of the Local Self-Governance Act, 1999 has provision of land acquisition. The Clause states that in case the Local body has to acquire land to carry out any development and construction works within its area, it may acquire the land required for that work by following the requirements of the prevailing law and providing compensation to the concerned land-owner for the land.

The Town Development Act 1988 provides the legal basis for implementing town development plans. The Act has empowered both the central and local government agencies to carry out the land pooling projects. The Local Self Governance Act 1999 also provides the municipalities and the Village Development Committees to carryout town development plans but it is not comprehensive enough to carry out town planning as compared to the Town Development Act 1988.

According to Town Development Act 1988, clause 12.1.1, the government can acquire pieces of land to integrate them to add facilities and services and the Town Development Committee can reimburse its investment by selling the developed plots of land and transferring the remaining land to the original landowners. According to clause 5.2 of the Town Planning Directives 2005, there is a provision to distribute the plots to marginal and excluded communities, with certain conditions.

Assessment of adequacy of GoN's regulations related to LA and IR and recommendations to fulfill gaps

The review of the prevailing Acts and Regulations related to land acquisition, compensation and resettlement in Nepal indicates that Nepal does not have legislation that adequately addresses involuntary resettlement. The LAA is the only act for this purpose but does not cover non-titleholders, such as encroachers, informal settler/squatters, occupiers, and informal tenants and leaseholders without documents for resettlement assistance and compensation for loss of non-land assets. LAA also does not provide for replacement cost of the property acquired, and has no provision for resettlement assistance for restoration of livelihoods of displaced persons, except for legal compensation for land and structures. Also no provision of declaring cut- off date. Further, the property evaluation aspect is rested upon the Compensation Fixation Committee without any guidelines. It is not clear whether the evaluation criteria will be based on the current market price or on the prevailing rates of Land Revenue Office. In Nepal, Land Revenue Office rates are far lower than the current market price. Compensation payments are usually made only after deduction of depreciation, which is against the best practices, followed by many international donor agencies including ADB and World Bank. Nevertheless, resettlement has been addressed on a project specific basis as per the guidelines of World Bank since late 1980s and ADB since the beginning of 1995. Therefore, project specific resettlement policy and Resettlement Action Plan are required, if involuntary resettlement is unavoidable for this project.

In order to fulfill these gaps, the resettlement planning documents of this project must ensure compensation and assistance to all affected persons, whether physically displaced or economically displaced, irrespective of their legal status. The end of the census survey will be considered the cut-off date, and affected persons listed before the cut-off date will be eligible for assistance.

LAA has provision to issue a notice to the affected person/party in the prescribed form and manner, stating that the property is proposed for acquisition as per Section 1 (6) of the LAA. But the act has no explicit provisions to carry out meaningful consultation with affected/or displaced persons and ensure their participation in planning, implementation, and monitoring of resettlement program. Therefore, a

consultation plan involving all stakeholders (affected persons, government department/line agencies, local community including indigenous peoples and women etc.) required to prepare to bridge this gap. The consultation will be a continuous process at all stages of the project development such as project formulation, feasibility study, design, implementation, and post-implementation, including the monitoring phase.

Similarly, the LAA has no clear-cut provision of conducting socioeconomic survey and census survey of displaced persons and to utilize the finding for resettlement planning. The LAA only reflects the inventory of losses (IOL) for titleholders, which is more in physical terms. The World Bank Policy OP (4.12) required a detailed census through household surveys of displaced persons in order to assess the vulnerability and other entitlements. Thus, resettlement planning documents for this project need to be prepared conducting Social Impact Assessment (SIA) based on the data collected through conducting a census, a socioeconomic survey for the displaced persons, and an inventory of losses.

Safeguard of Indigenous Peoples (IPs) and other Vulnerable Communities

GON has not adopted yet any specific regulations or guidelines for social assessment (SA) but it is usually carried out as part of EIA. Similarly, Nepal does not have a standalone policy on Indigenous Peoples and other vulnerable communities to safeguard them from specific policy and planning initiatives, and project developments. The Interim Constitution of Nepal 2063 (2007), NFDIN Act 2002, Local Self-Governance Act, 1999, Forest Act (1993) and Forest Regulation (1995) and periodic Five Year Plans have been placed significant emphasis on delivering basic services to the disadvantaged and indigenous people, Dalits, women, disabled and other vulnerable groups. Besides, there are some provisions for the protection and promotion of Janajatis' traditional knowledge and cultural heritage.

The Interim Constitution of Nepal 2063 (2007), Article 35, Policies of the State (10) mentions that the State has compulsory obligation to pursue a policy of uplifting the economically and socially backward indigenous peoples, Madhesi, Dalit, marginalized communities, and workers and farmers living below the poverty line, by making a provision of reservation in education, health, housing, food sovereignty and employment.

Specific policy initiatives for the welfare and advancement of IPs (adivasi/janajati) were initiated in 1997, when a National Committee for Development of Nationalities (NCDN) was set up. In 2002, the Nepal Parliament passed a bill for the establishment of an autonomous foundation named "National Foundation for Development of Indigenous Nationalities (NFDIN)," which came into existence in 2003 replacing the NCDN. The NFDIN Act 2002 established the first comprehensive policy and institutional framework pertaining to adivasis/janajatis. The act defines indigenous groups or AdivasiJanajati in Nepali as "a group or community having its own territory, own mother tongue, traditional rites and customs, distinct cultural identity, distinct social structure and written or unwritten history". The government, through NFDIN, has identified and officially recognized 59 such indigenous communities. This list was updated in 2009 to include 81 groups for official recognition but yet to be approved by the GoN. The indigenous people in Nepal are not homogenous and there is vast disparities existed in terms of socio-economic standing among them. Therefore, Nepal Federation of Indigenous Nationalities (Adivasi/ Janajati) (NEFIN) has grouped 10 of the 59 Adivasi/ Janajati as "endangered", 12 "highly marginalized", 20 "marginalized", 15 "disadvantaged" and 2 as "advanced" or better off on the basis of a composite index consisting of literacy, housing, landholdings, occupation, language, graduate and above education, and population size.

The Labor Act, BS 2048 (1992) classifies those persons younger than 15 years as children and those between the ages of 15 and 18 as 'Nabalik.' The act specifies that working hours for Nabalik and women must be between 6 a.m. and 6 p.m. and prohibits night working hours for women. Children are prohibited

from working. The Act also states that equal opportunity shall be given to women as that of men. Regular work hours for other employees must not exceed 8 hours in a day and 48 hours in week. For work conducted beyond that period, over time allowances must be paid at the rate of 150% of the normal hourly wages, not to exceed 4 hours each day. According to this act, employee wage rates shall not be less than the rate fixed by the concerned GoN offices.

These constitutional and legal provisions are supplemented with the provisions under the United Nations Declaration on the Rights of Indigenous Peoples (2007) and International Labor Organization (ILO) Convention (169), 1989 in 2007 since Nepal is a signatory to these international legal instruments. The ILO Convention no. 169 of 1989 is the most comprehensive legally binding treaty on the rights of indigenous peoples. The Convention includes provisions on cultural integrity, land and resource rights and non-discrimination, and instructs states to consult indigenous peoples in all decisions affecting them. Articles 1-4 of the United Nations Declaration on the Rights of Indigenous Peoples (2007) ensures the individual and collective rights of indigenous peoples, as well as their rights to culture, identity, language, employment, health, education and other issues while implementing any development activities in the traditional territory of the IP.

Assessment of adequacy of GoN's regulations related to IPs and VCs and recommendations to fulfill gaps

A thorough assessment of these regulatory provisions related to IPs and other vulnerable communities (VC) show that the existing policies are silent about safeguards or protection of IPs and VCs from project-related impacts and corresponding planning for impact mitigation. Similarly there are no explicit provisions of need for consultation with affected IP and VC groups and formulation of culturally appropriate mitigation packages, the World Bank Policy (OP 4.10), on the other hand, give more emphasis on assessment of differential impacts and vulnerability, conducting meaningful consultation, obtaining consent of IPs, and formulation of culturally appropriate responses.

An Indigenous Peoples and Vulnerable Community (IPVC) Plans as a part of resettlement planning document or standalone document is required to prepared exploring possible options to avoid or mitigate adverse impacts to IPs and VCs. Possible measures need to be explored for protection of IPs and VCs and their inclusion in project benefit, both direct and indirect, Similarly, all possible options to address impacts to IPs and VCs sought to explore through meaningful consultative process, consent-seeking (broad community support) and culturally sensitive response. Therefore, project specific IPs and Vulnerable Community Development Plan required be prepare and implement to ensure that project provide opportunities for Indigenous Peoples and other vulnerable communities including Dalits to participate in, and benefit from, the project activities in ways that do not threaten their unique cultural identities and well-being.

1. Good Governance, Social Accountability and Public Consultation

Good governance and social accountability measures are meant to make public officials answerable for the services they provide to the beneficiaries and common people. For this reason implementing agencies of this project should have in place policies for community consultation and participation and pro-poor development activities through active and meaningful involvement of stakeholders including IPs, women and Dalits.

There are numbers of GoN acts having provisions to ensure good governance, accountability and meaningful public consultations:

The clause 30 of the Good Governance (Management and Operation) Act, 2064 (2008) has a provision of public hearing. The Chief office-holder at regional, zonal, district and local level involved in delivery of service, shall conduct Public Hearing as prescribed, with the purpose of making the activities of the office fair, transparent, and objective and addressing the lawful concerns of general people and stakeholders. The act also mentions that subject matter expert, stakeholders, and representatives of civil society and officials of the local bodies shall be the participants of the public hearing. Similarly, the clause 31 of the act describes grievance redress mechanism and process.

The Right to Information Act, 2064 (2007) intends to make the access of citizens simple and easy to the information of public importance held in public bodies and to protect sensitive information that could make adverse impact on the interest of the nation and citizen. The clause 3 of the act ensures right to information and e access to the information held in the public Bodies unless confidentiality has been maintained by laws. The clause 4 of the act describes the responsibility of a Public Body to disseminate information. It mentions that each Public Body has to respect and protect the right to information of citizen. The clause 7 of the act prescribes the Procedures of Acquiring Information.

Similarly, the Environment Protection Rules (EPR), 1997 provides the detail provisions to conduct public consultation and feedback. The clauses 4, 5, 7 and 11 of EPR, 1997 have specific provisions related to the public consultation and disclosure.

The community based forestry program being implemented under the Forest Act (1993) and Forest Regulation (1995) can be considered as a model of direct democracy at the local level regarding forest management. Nepal's community based forestry program is probably the largest sectoral domain of governance in terms of the number of citizens directly engaged, surpassing even the largest political party in Nepal.

Assessment of adequacy of GoN's regulations related to public consultations and disclosures and recommendations to fulfill gaps

The above discussions show that there are some legal provisions in line with FPIC requirements as prescribed by WB, UN and ILO. But FPIC procedures are not followed in true sense. Therefore, project specific information disclosure and consultation and participation plan needs to be developed. The plan should have mechanisms to engage with communities, groups, or individuals affected by projects, and with civil society and other stakeholder following FPIC process and procedures so that they can provide meaningful inputs on project design and mitigation measures.

2. Legislative Measures, Frameworks and Directives related to Disaster Management

1. Natural Disaster (Relief) Act, 2039 (1983)

The Act was promulgated with the objective of rescuing the life and properties of the common citizens of the country suffered by the natural disaster. The Act is triggered for all types of natural disasters like earthquake, fire, flood, landslides, over rain, droughts, typhoon, famine as well as the industrial outbursts / accidents caused by toxicities. Clause 3.1 of the Act states that the Government, if deemed necessary, may declare the emergency area defining the boundaries of disaster with notification in the gazette. The Government may extend the time of emergency if the situation could not be brought under control in the time limit. According to Clause 5 (Ka) of the Act, the Government, after notification in the gazette, may constitute a National Natural Disaster Rescue Committee to develop the policies, plans and implementation mechanism to handle and manage the disaster. Chaired by the Home Minister, the committee comprises members representing different ministries and other various sectors/ sub-sectors

with their roles and functions mentioned in the notice published in the gazette. The roles and duties of the national committee are specified clearly in Clause 6 of the Act. Clause 7 of the Act states the formation of other committees to handle the natural disaster. The Government may form Regional, District and local level committees to manage the disaster giving notification in the gazette, also spelling out the roles and responsibilities of each committee.

2. National Disaster Response Framework, 2070 BS (2013)

This National Disaster Response Framework has been developed to handle the national scale disaster ensuring the role of all government and non-government agencies involved for the management of all cycles of the disaster risks in coordination of all as stated in the National Disaster Management Strategy 2066 BS (2009) and National Disaster Act 2039 BS (1983). Besides others, the framework also outlines about international assistance from the donor communities for disaster response including customs and taxes applied for life saving instruments, search and rescue equipment and medicines that are supplied by international communities on humanitarian ground. The emergency response framework (Clause 8) identifies several activities to be performed to cope and manage the disaster within a given time frame including resettlement of the earthquake displaced households (Clause 8, 49).

3. Disaster Victim Resettlement Implementation Procedure, 2071 BS (2014)

A Disaster Victim Resettlement Implementation Procedure has been developed in accordance to Natural Disaster (Relief) Act 2039 BS (Article 5) and approved by the Ministerial Level decision in 2071 BS. The internal working procedure has been issued with the purpose of implementing resettlement arrangement for the people whose house and land is destroyed by the disaster becoming no more useful for settlement. Chapter 2, Clause 4 (1) of the Procedure states that the disaster victim, in order to resettle to other site, should appeal to the concerned Office of the District Administration giving application along with the recommendation of local body (VDC/Municipality) and deed of agreement of local police office stating that she/he does not have any house or land to settle in other place. The Chief District Officer (CDO), upon verification of the application made by the victim for resettlement, shall call a meeting of the District Committee to reach decision on the same.

Various committees have been provisioned for the implementation of resettlement of natural disaster victims in the Procedure. A technical committee is formed from different line agencies at the district level which initiates the resettlement task. The other committees are Resettlement Recommendation Committee formed and coordinated by the Joint Secretary (Disaster Management), Ministry of Urban Planning and Resettlement Implementation Committee and a Construction Support Committee which will be coordinated by the representative of the victims. Clause 11 of the procedure specifies about implementation of resettlement, land limit for different ecological belts i.e. Mountain, Hill and Terai, and the design of the houses to be built using different construction materials viz boulders, mud, timber, bamboo, G I sheet, slate etc for wall and roof in different belts.

4. Prime Minister Natural Disaster Relief Fund Regulation, 2063 BS (2006)

This regulation has been prepared by the Government of Nepal using the authority provided in the bylaw (2) of Administrative Procedural Act 2013 BS (1956) and first amended in 2064 BS (2007). The fund is established from the amount contributed by Prime Minister, Ministers of the cabinet, constitutional officials, parliamentarians, government officials, army and police. Beside others, the fund will include the contribution directly transferred by the international communities and agencies. Clause 4 of the Regulation specifies the use of fund for various purposes as follows.

- Rescue of disaster victim and protection of his/her properties;
- Setting of temporary camp for immediate relief of the disaster victim;
- Purchase of basic needs items for maintaining immediate livelihoods such as food-grain, clothes, medicines, educational materials;
- Treatment of the victims injured by the disaster;
- Funeral expenses of deceased person or financial assistance to the members of the deceased family;
- Disposal of waste and pollution caused by the disaster;
- Construction of temporary shelter or resettlement for disaster victim;
- Construction of residential structure for the victim or financial assistance to repair/maintain the tools/ equipment related to the profession of the victim; and
- Conduct early awareness programme about natural disaster, early carefulness or preparedness about disaster.

5. Rescue and Relief Standards for Disaster Victim, 2064 BS (2007)

The Rescue and Relief Standards outlines, beside others, several relief measures, mostly in the form of cash to the disaster victim. The relief measures include Rs 40000 per deceased person. Besides, each family is entitled Rs 5000 as immediate relief against loss of house/food grain. The family, if losses everything via food grain, clothes, house is entitled to receive Rs 20000 against longer term relief and will also be liable to receive additional Rs 15000 on recommendation of the district disaster committee.

On top of the above, the victim of natural disaster is entitled to receive all cost for treatment in the hospital and Rs 1000 as cost against travel back to the home after treatment. The District Disaster Committee is liable to pay the relief amount within 30 days of the incident happened and informed.

6. District Disaster Management Planning Directive, 2068 BS (2012)

Besides several other disaster, Nepal ranks in 11th position out of 198 countries in the world in terms of earthquake disaster risk. This Directive has been prepared and endorsed by the government in response to the need to address the natural disaster of all kinds in accordance to core spirit of National Disaster Risk Management Strategy 2066 BS (2009) and as per the Local Governance Act, 2055 (1998). The main objective of this Directive is to mainstream the disaster risk management procedure in the periodic and annual planning at the local level of the districts.

Clause 6.2 of the Directive is related with the assessment of social and economic risk of the disaster. Under this Clause, various informationis to be collected with respect to disaster risk management using the various information collection tools given in the Directive. Among others, it is mandated to collect socio-economic information on agriculture, forest and environment, physical infrastructure, education and social as well as industry, water resource, tourism etc for risk assessment of the district along with five basic livelihoods capitals of the people and analyzing the future socio-economic implications of the disaster. The Clause also states risk classification of the Municipality or the VDC within district based on the socio-economic information collected and analyzed as above and in the format given and using the information for preparing the local level disaster risk management plan.

Environment Protection Act 1997, Environment Protection Rule, 1997 & as amended (1999, 2007, 2009 and 2010)

The Environment (Protection) Act, 1997 is the umbrella legislation followed by Environmental Protection Regulations 1997 and as amended (1999, 2007, 2009 & 2010) which will provide a holistic framework

for the protection and improvement to the environment during the project/proposal implementation. Section 3 of the Act requires the proponent to conduct an IEE and EIA in relation to the prescribed proposals. The proposals (is the proposed project) requiring IEE/EIA studies are broadly listed in Schedule 1 and Schedule 2 under Rule 3 of the EPR enforced under the provisions of EPA.

The EPA/EPR 1997 prohibits buy, sell, demolish, operate hotels/huts, excavate mines/quarry inside the environment conservation zones, however schedule 2 of EPR also states that any proposals inside the conservation area/zones can be implemented after undergoing an EIA procedures irrespective of the size of the project and will need approval from the concerned Ministry.

National Forest Policy, 1998 (Revised 2000)

The revised National Forest Policy (2000) emphasizes the protection of soil, water, flora and fauna constituting the main element of forestry to sustain biodiversity. It recognizes that sustainable forests management is only possible when it gives adequate attention towards meeting the basic needs of the people, sustainable utilization of forest resources, participation in decision making and sharing of benefits and above all on socio-economic growth. This policy leverages the sustainable use of the forest resources for meeting the basic needs of the locals.

Soil and Watershed Conservation Act, 1982

Section 3 of this Act empowers GoN (formerly HMG) to declare any area a protected watershed area and to implement/construct activities related to management watershed.

National Parks and Wildlife Conservation Act, 1973

Nepal has fairly a well-established legal system to address forest related issues through EA process for implementation of development projects. This Act is attracted as some of the shelters/houses/settlements affected are inside or in the vicinity of the PAs like Langtang, Gaurishankhar, Sagarmatha, Shivpuri which have been affected by earthquake and may need consideration of reviewing the provisions for this recovery project. In Nepal, all wildlife species, ecologically valuable areas and indigenous wildlife within National Parks are protected from exploitation through the National Parks and Wildlife Protection Act, 1973. Ecologically sensitive areas, wild life sanctuaries and national parks should be avoided while selecting sites for project components An EIA and approval from Ministry for Forests and Soil Conservation must be obtained in the case of any plans to be implemented within the PAs.

Buffer Zone Management Regulation, 1996

Considering that some of the houses/shelters will have to be built inside the buffer zone, the provision in Buffer Zone Management Regulation, 1996 reviewed in context to project. The fourth amendment of the National Park and Wildlife Conservation Act in 1992 made the provision of buffer zone for protected areas considering buffer zone, an area of 2km in the vicinity of the park could benefit from park revenue (30-50 percent) and in return the community is supposed to participate and assist in park management activities. This regulation gives the emphasis on the natural resource management where need of eco-friendly land use practices and peoples participation in conservation for long term sustainability are encouraged. This regulation gives the liberty of forming users' committees in co-ordination with the local bodies to assist community development and balanced utilization of forest resources. This committee after registration has the authority to implement projects and prescribe the type, quantity, the area to be used, method, time and fees for forest resources (including grazing areas) necessary for the daily use of local people, conduct afforestation programs and keep the record of migrant and immigrant of the area. This regulation provides the committee to prepare the work plan for the works to be done for community development, natural resources conservation and utilization of forest resources within the buffer zone in its own area and get it approval by the users. However, this regulation also prohibits any person without the permission from the Warden for occupying any land without legal ownership or cut trees, clear forests or cultivate forestland, any activities damaging forest resources or to set fire in the forests, excavate stone, earth, sand or mine or remove any minerals. On the other hand, it is recommended to assess/identify the

impact of activities of the project on the Buffer zone and design management program accordingly for the enhancement of the BZ.

Ancient Monument Preservation Act 1956.

This act promulgated with explicit objective to protect ancient monument, restrict trade in archeological objects as well as excavations in places where ancient monuments are located. The act empowers government to declare any place or area as monument site/area, and it prohibits development works, which may impact ancient monuments, without prior approval of the concerned authorities. The act restricts transfer, transaction, export or collection of ancient monument and archaeological object or curio without prior approval of the government. All objects more than 100 years of age are restricted for transfer from site and trade. Clause 28 of EPR states that physical and cultural resources shall not be disturbed or damaged without the prior approval of concerned authority. These national regulation is applicable for matter related to physical cultural resources including ancient monument and 'Chance Find' during construction/ excavations or other works as well as other cultural issues encountered during works on physical cultural resources. The Department of Archeology is the competent authority with regard to ancient monument. At district level, Chief District Officer is the contact point for reporting if any ancient monument or object is found.

GoNGuidelines and requirements related to Quarries, mining of construction materials (sand, gravel, stones) and good practices

Extraction of Construction Materials

Government Policy Regarding Extraction of Construction Materials: The local self-government regulation, 1999 has given authority to DDC and DFO (if the area lies within the forest boundary) to award license for extraction of riverbed materials. The EPR criterion requires IEE/EIA of such activities and approval from concerned ministry. The Mines and Mineral Act, 1985 requires that the extractable quantity of materials should be estimated, before tendering. There are no legal documents stating the specific conditions for protecting riverbed and surrounding environmental condition. Clause 33 of Mines and Mineral Regulation 1996 states measures to be done to protect environment of the area. For extraction of material from other areas including hill slopes, license should be obtained from Department of Mines and Geology, after meeting EPR criteria. The Forest Regulation, 1995 and National Park and Wildlife Conservation Act, 1972 also prohibits operation of quarry sites inside forested area, including community forestry.

Government policy regarding extraction of construction materials also instructs that extraction should be at least 15 m away from riverbank, extraction site should be 100 m upstream and 100 m downstream from bridges, materials should be extracted in pits at regular interval, the quarry site should be 50 m far from road and 500 m away from settlement.

However, the provision made in the Public Work Directives, 2002 leverages the contractor to choose any quarry site for construction material provided that the material conforms to the specifications. This type of overlapping of policies Project manager should examine the operation condition, legal status, quality and potential yield of these sites. The contractor should obtain license from coordination with Department of Mines and Geology, DDC, DFO, Municipality and VDC. The directive also mentions that quarry site in environmentally sensitive area cannot be accepted.

Nepal National Building Code (NBC)

Nepal national building code (NBC) was first drafted in 1994 following the lessons learned from the 1988 M6.8 earthquake which killed more than 700 people in Nepal. This NBC consists of various building codes which contains guidelines and specifications starting from building materials (timber, cement, aggregates etc) to sanitary wares. The NBC was approved by the government in 2003 and is a legally binding document in all 130 municipalities. These codes and regulation are not applied to towns and villages, which fall under village development committees (VDCs). Nonetheless, because of the lack of resources, monitoring of implementation of the code has been a big challenge since it was first legally enforced in 2005. Some municipalities have done better in adopting and implementing than others. Noteworthy is that some VDCs around Kathmandu valley have voluntarily adopted the code. In practice, however, for reinforced concrete structures, the NBC 201 and NBC 205 that stipulate mandatory rules of thumb are widely used.

ANNEX 3: CHECKLIST OF POTENTIAL SOCIAL ENVIRONMENTAL GOOD PRACTICES

1. Selection of safe site for housing/ shelter (landslide risks, flood risks etc)
2. Climatic considerations (with altitudinal difference, climatic conditions are different) –appropriate orientations, openings, green buildings etc
3. Earthquake resistant design and detailing
4. Disable friendly designs and detailing for house reconstruction
5. Reduce pressure on the forests by re-using the salvaged materials (particularly timber) and through use of pre-fabricated parts (such as steel/ aluminum truss etc where possible).
6. Use of solar energy
7. Use of bio-gas (where appropriate),
8. Rainwater harvesting (where appropriate)
9. Install improved/ smokeless stoves (if bio-mass fuel is used indoor)
10. Good drainage to avoid disease vector breeding sites, awarenessof sanitation facilities/ on-site latrine, composting, etc, to improve environmental health
11. Improved sheds for livestock shed / poultry/ piggery etc
12. Ensure that the housing designs are appropriate to local culture, practices and values.

ANNEX 4: DETAILED PHASE-WISE PROJECT DESCRIPTION

Preconstruction phase: Earthquake Household Damages and Characteristics Survey, preparation of multi-hazard resistant designs, and capacity building

A. Earthquake Household Damages and Characteristics Survey

1. Experiences in post-disaster recovery have underlined the critical importance of building level damage and household survey. A single comprehensive assessment is necessary to ascertain the damage to the building/ housing stock against uniformly applied engineering criteria, and to verify the eligibility of beneficiaries. Such surveys also play a significant role in reassuring the public (by reducing their uncertainty about the future), ensuring public safety (against the risk of compromised buildings), assisting with the social and economic recovery (by encouraging the reoccupation of safe buildings, supporting recovery planning (by providing the essential data to formulate and budget recovery plans), supporting the implementation and monitoring of recovery (by linking assessments to follow-up recovery actions by households), and promoting long-term risk reduction (by informing the development of resilient reconstruction practices).

2. This comprehensive EHDC Survey builds on the ongoing Rapid Visual Damage Assessment work being carried out under the guidance of Department of Urban Development and Building Construction (DUDBC). This project will adopt and scale up the assessment methodology as necessary.

3. The main objectives of the EHDC survey is: to ascertain the complete scope of damages to the housing stock; ascertain the list of beneficiaries to receive housing recovery assistance, in a manner that is uniform, equitable and inclusive; ascertain site safety to ensure that rebuilding at a specific site is safe and promote public reassurance that recovery is under way.

4. A Participation Agreement form is being developed, outlining the compliance requirements to be eligible for the release of tranches (e.g. holding/opening a bank account, reconstructing following multi-hazard resistant practices etc.) to be signed by beneficiary households who opts to participate in the Project and government representative. It will also include the number and size and conditions for each tranche, total size of the grant, the commitment to complete housing units before project closing date. The first tranche will be released upon the beneficiary's signing of the Participation Agreement.

B. Multi-hazard resistant housing solutions

5. A menu of housing design templates and construction procedures will be made available to the affected communities so that reconstructed houses are multi-hazard resistant. These designs and constructions techniques will be aligned with local construction practices for ease of adoption. In spite of these differences, the housing grant under the Project will be equivalent across all beneficiaries. Basic ingredients of the design of the core housing unit will include multi-hazard safety aspects and thereby certain essential features in the construction, area of house, layout, and material of construction, etc. Flexibility of expansion beyond the core house will ensure effective participation and ownership.

C. Training

.Given the scale of reconstruction required, there is a need to train a large number of local artisans to ensure that the each households rebuilt to earthquake resistant standards using local construction technologies Therefore training materials and curricula will be developed for various target groups of local artisans such as masons, carpenters, steel-fixers, etc The training will focus on introducing multi-hazard resistant construction techniques. Model houses and demonstration structural details will be set up as part of the training. Training Centers and Technical Assistance support will be set up in collaboration with civil society partner organizations/service providers (NGOs, private sector, academia, etc.), which will be responsible for training master artisan trainers, trainer of trainers, artisans, home-owners, etc. These Training Centers will also have mobile teams which will go from village to village providing technical assistance during reconstruction of various stages.

D. Facilitate building material markets

6. Scaling up material supply chains will be important to counter potential shortages in availability of building materials, price increases and difficulties in accessing materials in remote areas (leading to high transportation costs). In consultation with the GoN, the private sector will be engaged to restart the building materials supply chain and materials hubs. This will ensure consistent and fair-priced supply of required materials across the affected area. The hubs will be an expansion of the existing private sector so that they do not distort markets and will be facilitated by the government. If feasible, existing organizations can be leveraged to organize bulk-purchase and material banks.

E. Disseminate information on subsidy, eligibility, and criteria for losing eligibility

7. A sustained communication program will be set in place to disseminate information on subsidy, eligibility and criteria. The objective is to avoid misinformation and minimize potential grievances.

Implementation phase: cash grants, reconstruction, quality control and monitoring

A. Cash Grants

8. A multi-tranche grant payment mechanism will be developed that is closely tied to stage of construction as well as the inspection and certification. The tranches will be disbursed through the banking system and direct electronic transfers to the beneficiaries. The first tranche would be released upon beneficiary verification and signing of the Participation Agreement whereby the beneficiary opts to participate in the project. The beneficiary would commit to the use of grant proceeds in accordance with the housing reconstruction guidelines, including the architectural standards, technical, and earthquake resistant specifications, environmental and social safeguards standards etc. Subsequent releases would be dependent upon them meeting reconstruction criteria and satisfactory achievement of pre-agreed milestones. This process will require tying up with commercial banks and/or other financial entities and mobile companies to facilitate smooth transfer of grants.

B. Housing Reconstruction

9. Housing reconstruction will follow the disaster-resilient housing solutions, which will include models and a menu of options for beneficiaries to adapt to their respective conditions. Demonstration activities will be organized and model houses built in places where most beneficiaries can have access.

C. Monitoring and Evaluation

10. A strong management, reporting, monitoring, and evaluation system will be in place to monitor, standardize and compile all data streams related to reconstruction data, multi-hazard resilience compliance, and technical support activities. This will provide key outcomes and the information will be used for analysis, planning, and course corrections. The monitoring and evaluation system will be built upon the information collected during the EHDC survey.

11. The management plan will ensure that all aspects of the reconstruction are being monitored and reported, that responsibilities are clear, and that appropriate levels of information are shared with government, the community, beneficiaries, etc. A robust IT system will be set in place to support the various databases and data streams. The comprehensive EDHC survey will serve as the first critical piece of that data.

ANNEX 5: ESMF RECOMMENDATIONS LINKED WITH PROJECT ACTIVITIES AND/OR STAGES

	Project activity/Stage	ESMF Recommendations
1.	Earthquake Household Damages and Characteristics (EHDC) Survey	<ul style="list-style-type: none"> i. Collection of gender and caste/ethnicity disaggregated data; ii. Roll-out plan for the survey that would help ensure that all the households (including those belonging to vulnerable groups) are included/surveyed. iii. Training of enumerators on social issues, and socially-sensitive administering of survey. iv. collection of initial environmental and social data/information (ESMF Annex 1)
2.	Partnership agreement or MoU with beneficiaries	<ul style="list-style-type: none"> i. Specify the minimum levels to be attained in the shelter/house (e.g., should not be located in the risky spots identified in the ESMP, attentive to the settlement level hazard map, should not be located in area having ground slope of more than 30 degree,) and other recommendations as specified in the ESMF). ii. Specify the use of salvaged timber, stone and other construction materials for reconstruction. iii. Ban the use of any PCR in home reconstruction, as well as provisions that PCR present on beneficiary properties must be protected in accordance with national laws. iv. Joint ownership with females (to be encouraged) v. Clauses/ checklist related to the safety of work site, safety of workers and safety of community will be added in contract or MoU for demolition, debris removal and construction activities.
3.	Housing design templates and construction procedure, Technical manuals	<ul style="list-style-type: none"> i. Develop design prototypes for house/shelter that are earthquake resistant ii. Develop guidelines for improved cooking stove if using bio-mass energy source for cooking & heating indoors iii. Develop designs for sanitation facilities (e.g., toilet) iv. Disability-friendly housing designs v. Climate considerations in house designs vi. Disaster considerations (e.g. flood, landslides, avalanche etc) in house site selection and designs vii. Target vulnerable groups while providing trainings to construction workers, supervisors, social mobilizers viii. Develop training manuals such as the 'Project Guidelines for Resilient Reconstruction' that are sensitive to the needs of women and vulnerable groups ix. Contain environmental health & safety procedures/ guidance x. Define personal protective equipment appropriate to the work situation, and xi. Contain checklist related to the safety of work site, safety of workers and safety of community
4.	Building materials supply chain and material hub	<ul style="list-style-type: none"> i. Specify that it complies with existing forest rules, forest management plans, protected area rules, and buffer zone management plans. ii. Quarrying for construction materials will be done only from designated and approved sites. iii. Safe storage of construction materials iv. Support women-led and community-based enterprises, if applicable
5.	Training & orientation	<ul style="list-style-type: none"> i. Orientation/training to the survey team on the social and environmental issues relating to the project, specifically, the screening checklist and initial data/ information collection (Annex 1 ESMF).

		<ul style="list-style-type: none"> ii. Orientations on ESMF, approach and requirements targeted to: <i>Implementing Agencies/ staff at center, districts and clusters, Support/ partner organizations, communities, and beneficiaries</i>. Social and environmental aspects and considerations, requirements (minimum requirements and good practices) will be integral part of all of the training to overseers, sub-overseers, beneficiaries, carpenters, masons, etc. iii. Trainings to mobile teams (including social mobilizer and environmental officer) on environmental and social monitoring tasks iv. Environmental Health & Safety (EHS) training to workers as part of skills training v. Orientations on sanitation and hygiene at work sites, as well as environmental pollution vi. Settlement level awareness/ orientations regarding disasters like flash flood, landslides, avalanche (as relevant to the settlement) and basic preparedness and response vii. Target women and vulnerable groups for skills training (e.g., masonry, carpentry, artisan) viii. Training skilled local workers on Earthquake Resistant Building Technology ix. Training skilled local workers on improved cooking stoves –ICS - if bio-mass is used indoor for cooking and heating. x. Orientation to house owners or persons involved in quarrying operations regarding safe quarrying. xi. Awareness and orientation to owners/beneficiaries on safe storage of construction materials, and managing construction wastes
5.	Communication, Information dissemination & awareness	<ul style="list-style-type: none"> i. Free, prior, and informed consultation, with the affected Indigenous Peoples' communities and other vulnerable groups on the potential adverse and positive benefits from the project Minimum social and environmental requirements ii. About programs, subsidies and concession available for adopting environmental and social good practices (ICS, sanitation, bio-gas, solar, water-supply, rain-water harvesting, composting, micro-hydropower, soil conservation/ erosion control, flood protection/ river training, etc) iii. Building better opportunities in the area (including other programs/ projects for building better and for environmental and social enhancement) iv. Communication strategy that includes specific measures for targeting difficult to reach groups (e.g., women, vulnerable groups) v. Translation of communication, IEC materials into Nepali, and local languages where applicable vi. National legal requirements regarding PCR as well as ancient monuments vii. Grievance management system
6.	Forms/templates for disbursement of grants in tranches	<ul style="list-style-type: none"> i. Specific provisions relating to social and environmental safeguards compliance
7.	Certification for a payment tranche by an independent third party	<ul style="list-style-type: none"> i. E&S compliance report for house/shelter from the mobile team as a requirement before the independent technical party certifies a payment tranche ii. Utilization of social accountability tools during supervision and certification of compliance with multi-hazard resistant standards and completion of housing units

ANNEX 6: BUILDING BACK BETTER COMMUNICATIONS: SANITATION FACILITIES AND IMPROVED COOKING STOVES

INTRODUCTION

The Nepal Earthquake Housing Reconstruction Project (EHRP) has embedded into its Environmental and Social Management Framework (ESMF) two specific principles to be incorporated as part of the building back better framework. The ESMF requires an extensive communications strategy to be developed such that beneficiaries are made aware of the necessity of sanitation facilities and improved cooking stoves. Technical design guidelines will be developed and disseminated and incorporated within the stages of inspection. In addition, beneficiaries will be informed how to access financing and provided with detailed information on organizations providing these facilities. Access to adequate sanitation and improved cooking stoves is an important aspect of the nation's overall development agenda and the EHRP has been designed to be aligned accordingly.

BACKGROUND

According to the Nepal Census 2011, access to sanitation in Nepal is 61% (see Table below). The Joint Monitoring Program (JMP) database indicates that the country has achieved the Millennium Development Goal (MDG) target for access to improved water supply (Actual 2011 = 88%, Target 2015 = 84%) but is off target for access to improved sanitation (Actual 2011 = 35%, Target 2015 = 54%).

Table: Access to Improved Water and Sanitation

Population Category	Access			Estimated Gap in Access	
	Estimated Population	% of People with access to Safe Water	% of People with access to Latrine	People without access to Safe Water	People without access to latrines
Urban Population	4,523,820	87	91	585,382	411,668
Rural Population	21,970,684	85	55	3,295,603	9,908,778
Combined	26,494,504	85	61	3,880,985	10,320,446

Source: Project Appraisal Document, Nepal Rural Water Supply and Sanitation Improvement Project, 2014

The situation in rural areas may be worse than indicated above, as surveys conducted by the National Management Information Project (NMIP). The Water and Sanitation and Hygiene (WASH) Sector Status Report (SSR) published by Ministry of Urban Development in May 2011 reinforces this picture and estimates that about 5.5 million people have inadequate water service and 16 million lack adequate sanitation facilities. The national target is for universal access to water and sanitation by 2017.

The lack of adequate sanitation facilities has significant consequences, every year *7,900 children die from diarrhoeal diseases caused by dirty water and poor sanitation*. This accounts for a third of all child deaths overall. Access to adequate sanitation facilities is a challenge which needs to be fully incorporated and mainstreamed into the development dialogue.

In Nepal, biomass energy: fuelwood, agri-residue and animal dung is used for cooking and heating purposes. Use of traditional stoves such as "*agenu*" (*open fireplace*) and "*chulo*" (*rudimentary stoves*) consumes more fuel wood and increases the burden on women. Women are mainly responsible for cooking and collection of biomass, mainly fuelwood from the forest. Use of biomass energy and low-grade biomass fuels lead to excessive levels of indoor smoke/air pollution. Women and children in

particular are exposed to the smoke emission. This is one of the reasons for higher rates of infant mortality and morbidity and other unhealthy living conditions. Release of incomplete carbon gas and other harmful particles in the atmosphere due to poor combustion of biomass fuels in rudimentary stoves results in the emission of Green House Gas (GHG). More than 80% of the energy needs are met by fuelwood thus exerting immense pressure on the forest resources of the country with negative impacts on environment.

In order to address these challenges, the Nepal Earthquake Housing Reconstruction Project, has embedded into the Environmental and Social Management Framework the communications and awareness raising requirements which is further described below.

ADDRESSING ENVIRONMENTAL AND SOCIAL SAFEGUARD ISSUES

As part of the Nepal Emergency Earthquake Reconstruction Project the Environmental and Social Management Framework (ESMF), the following six steps will be adopted for addressing environmental and social issues related to the project.

- Step 1: Settlement-level screening to identify potential environmental/social issues, determine if there is a need for land acquisition/involuntary resettlement, determine if specific assessments and safeguards documents are required, and if any permits need to be obtained from concerned authorities.
- Step 2: Development of settlement-level Environment and Social Management Plans (ESMP). ESMP will describe settlement specific environmental and social settings/features; their status, importance and sensitivity; and identify potential impacts at (i) settlement level, and (ii) house-level. Accordingly, customized mitigations and good practices relevant to the settlement and houses, including opportunities for “building back better” will be developed. Resettlement Action Plan, and Vulnerable Community Development Plan, will also be prepared, if required.
- Step 3: Specification of minimum environmental/social requirements in the grant agreements with beneficiaries. The minimum standards/requirements will include: houses that are earthquake resistant; beneficiaries’ access to bank accounts; awareness of access to sanitation/ toilet facilities and ICS for reducing indoor pollution (if bio-mass is used indoor); and reconstructed house location not in risky spots (i.e., areas that are prone to floods, landslides, etc).
- Step 4: Review and clearance of settlement level ESMPs and household level specifications. District level Project Implementation Unit (DL-PIU), with support from partner organization (PO)/consultants, will prepare and submit the screening checklist and the ESMP to DDC for approval. Summaries of each settlement/subproject screening and ESMP will be sent to central PIUs, which may conduct a post review on sample basis. Resettlement Action Plan and EIA/ IEE, where required/prepared, will be reviewed and approved by the World Bank and the central level PIU.
- Step 5: Consultation, Disclosure, Awareness Raising, Dissemination and Grievance Management Consultation will be carried out throughout the life of the project. Communication, awareness raising and grievance management will be targeted to various stakeholders including implementing agencies, support/partner organizations, local government officials, and beneficiaries, particularly, vulnerable groups.
- Step 6: Implementation and monitoring. DL-PIU will be responsible for supervision and monitoring of respective ESMPs. The SA/PO and mobile teams will support in implementing and monitoring social and environmental activities. Prior to certifying a payment tranche, the independent assessors will receive the Environmental and Social compliance report for the house from the mobile technical support teams.

ANNEX 7: RECORD OF CONSULTATIONS

A. Notes from the Discussions with Project Team (25 August 2015)

Participants:

Government: Ganesh Osti (Deputy Director General, DOLIDAR), Laxmi Prasad Bhandari (Engineer, DOLIDAR), Suman Salike (Senior Divisional Engineer, MoUD), Guru Prasad Sharma (Senior Divisional Engineer, DOLIDAR), Bam Bahadur Thapa (Social Specialist, DOLIDAR)

World Bank: Drona Raj Ghimire (Environmental Specialist), Annu Rajbhandari (Environmental Specialist), Asmita Tiwari (Disaster Risk Management Specialist), Avani Mani Dixit (Disaster Risk Management Specialist), Bandita Sijapati (Social Development Consultant), Ishwor Neupane (Social Development Consultant), Hari Prasad Bhattarai (Social Development Consultant), Girija Prasad Gorkhaly (Consultant), Jyoti Maya Pandey (Operational Analyst), Sabrina Shakya (Consultant), Sulochana Nepali (Team Assistant).

The meeting started with Mr. Mr. Laxmi Prasad Bhandari, Engineer, DOLIDAR, making a presentation of the draft ESMF, followed by discussions on the content of the draft. The following are summaries of the issues raised:

1. Screening

What should be the boundary for the screening? How should the settlement be defined? Should the screening be done at the VDC level, ward level or settlement level? While it was agreed that settlement would be appropriate given the nature of the project, questions about how to define the boundaries of the settlement, and at what stage of the project the screening should be done was raised.

Suggestions:

- The survey team should do the initial screening, with some trainings provided on the screening methodology.
- The GPS coordinates collected by the survey team would be used to define the boundaries for the settlement.
- Basis for settlement definition could be: administrative boundary, natural boundary, community/village, contiguity.

2. Safeguards Mitigation Plans

Given the large number of settlements likely to be covered under the project, developing site-specific management plans at the settlement level could be too cumbersome. Concerns were also raised about troubling community members multiple times for the different requirements under the project.

Suggestions:

- The eligibility survey would help identify potential risks during the survey process, based on which management plans would be developed.
- Instead of preparing site-specific management plans, general guidelines would be developed which would be required to be followed by all.

3. Communication and GRM

Importance of a robust communication strategy and grievance redress mechanism was stressed. It was pointed out that the Operations Manual developed for the program contains details of these mechanisms.

Suggestions:

- Documents/plans developed under the project needs to be translated into Nepali and made available at the VDC and DDC levels in addition to the central level.

- Communication material/strategy needs to add in ESMF requirements.

4. Monitoring

Questions were raised about monitoring mechanisms, especially at the local level. It was pointed out that for the VDC level monitoring, the mobile teams would be involved. The technical team also inquired whether engineer or overseer in the three-member mobile team could replace/perform the task of an environmental expert.

Suggestions:

- Need to develop a checklist for monitoring at the VDC level by the mobile teams (with DL-PIU guidance).
- Mobile team needs to be trained in order to carry out the monitoring tasks.
- The engineer or overseer needs to be trained on the environmental aspects/issues for monitoring

5. Integration of safeguards issues

The importance of integrating safeguards issues in the different phases of implementation was emphasized.

Suggestions:

- MoU signed with project beneficiaries would include specific environmental and social safeguards measures/requirements. The forms/templates that would be used prior to releasing the funds in tranches, should also have specific provisions relating to social and environmental safeguards compliance.

6. Livelihoods

The possibility of providing livelihood opportunities to earthquake affected households (besides the housing grants) under the project was raised. It was pointed out that top-up-grants which was envisaged earlier was dropped thus limiting the possibilities for such support.

Suggestions:

- During the settlement-level screening, existing development initiatives at the community would be identified to explore possible linkages with the housing projects
- Opportunities to link with other development projects (e.g., RWSSIP, PAF) will be explored to develop synergies and provide more comprehensive support to the earthquake-affected households.

B. Notes from Central and District Level ESMF, VCDF and RPF Consultations

1. Background:

Central consultation: On 5 October 2015, the DUDBC and DOLIDAR – PIU organized a half-day central level discussions and consultations at Hotel Yak and Yeti, Kathmandu on the draft Environmental and Social Management Framework (ESMF), the Vulnerable Community Development Framework (VCDF) and the Resettlement Planning Framework (RPF) prepared for managing social and environmental issues relating to the Earthquake Housing Reconstruction Project (EHRP).

District consultations: Similarly, on Jan 06 and 07 2016, district level draft ESMF, VCDF and RPF consultations was organized by CL- PIU (MOFALD/MOUD) in Nuwakot and Dhading district and on 24 Jan 2016 in Dolkha district. The objective of the consultations was to collect feedback and suggestions from various stakeholders for the finalization of the safeguard documents, and also make them aware of the EHRP.

2. Overview of the consultation program:

At the central level, the discussions were facilitated by DOLIDAR- DUDBC staffs, and the attendees were 16 participants representing various government institutions including the Department of Local Infrastructure Development and Agriculture Roads (DOLIDAR), Department of Urban Development and Building Construction (DUDBC), Department of Water Supply and Sanitation (DWSS), Ministry of Industry, Department of Mines and Geology (MOI,DMG), JICA- Nepal, Rural Water Supply and Sanitation Fund Development Board (RWSSFDB) and Habitat For Humanity International. During the central level consultations, Mr. Bam Bahadur Thapa, Sociologist, DOLIDAR, made a powerpoint presentation on the overall contents of the draft ESMF, RPF and the VCDF. After the presentation, the floor was opened for discussions and feedback.

The three districts level consultation programs in Nuwakot, Dhading and Dolkha was chaired by the Local Development Officer and closing remarks was given by him/her of the respective districts. In all programs the chief guest was Chief District Officer. Among the participants, there were representatives from the District Forest Office, District Technical Office, VDC secretaries, District Land Survey Office, earthquake affected people, district level political parties and local NGOs. Altogether there were 59, 69 and 42 participants respectively in the Nuwakot, Dhading and Dolkha district consultation programs. Additionally, smaller group discussions were also organized with the earthquake affected people, representatives from women's organizations, indigenous people's organizations and Dalit groups.

In all the program districts, Mr. Guru Sharma- Deputy Project Director, DOLIDAR welcomed the guests and participants as well as highlighted the overall project design, implementation mechanisms and procedures for the housing support. Mr. Prakash Dahal, Under Secretary – MOFALD together with Mr. Guru Sharma responded to the queries from the participants. The presentation material was presented by Bom Bahadur Thapa, Sociologist- DOLIDAR in Nepali language.

Additionally, Mr. Drona Raj Ghimire, Sr. Environmental Specialist, Mr. Dron Pun, Consultant - Environmental specialist and Mr. Rajib Khanal from JICA were present during the consultations held in Nuwakot and in Dhading, Dron Pun and Rajib Khanal, and in Dolkha, Dron Pun attended the consultation programs.

3. Summary of Comments, Questions and feedback received:

The table below is a summary of the feedback provided by all participants and issues raised during small group discussion at the central level (Kathmandu) and the three project districts, namely, Nuwakot, Dhading and Dolkha districts.

Table-1 Summary of Key issues raised by stakeholders and response

SN	Issues	Stakeholders comments/feedback	Response from DoLIDAR-DL/PIU
1	Program operation modalities:	It is too late to introduce the program in the districts. We do not know about the mechanism of program.	Briefed the stakeholders on the project mechanism and informed that from Magh 02, 2072 (16 Jan 2016), DL-PIU will be established.
		Who will pay the fee for design engineer?	Ministry has initiated the process for resolving these issues.
		If the houses are constructed before visit from the monitoring team then will such households qualify to receive the grant?	
		Is the provision of Rs 300,000 and ESMF policy for the 14 severely affected districts or for all districts across Nepal?	The ESMF is part of the program policy. Different donor agencies have provided support so to comply with their policy, the ESMF is necessary. Commercial Banks will provide NRS.300000 loan to beneficiaries in 2% annual interest.
		Settlement areas where Buddhist monks are living has been made vulnerable due to the earthquake. What is provision for the monks in the ESMF as well as for squatters?	Measures for addressing these concerns will be incorporated in the government policy for resettlement of earthquake affected households/settlements.
		Some area of Vedup VDC has not been mapped by the government since it is under Guthi. What is the provision for such land area under this earthquake program?	
		Affected people have no houses in permanent addresses and they are living in temporary addresses. Are they eligible for house reconstruction?	
		Policy for the housing program needs to have provisions for people who do not have documents (e.g., citizenship) and are squatters	
		Affected family is in overseas and house is in his name. What	
		is the policy to give grant to other family member	This problem will be conveyed to NRA.
		After the earthquake, a woman was divorced and she is currently staying with father. How her problem be addressed in terms of the grants?	
		In Lapang VDC (Dolkha), a woman was entitled to receive earthquake relief fund of Rs. 15000. Her husband is a drunkard and has submitted an application to the VDC asking that his wife be rejected from receiving any grants. How can such problems be addressed?	

SN	Issues	Stakeholders comments/feedback	Response from DoLIDAR-DL/PIU
		The ESMF and other safeguard documents are prepared at Central level effort without consultation with district level stakeholders. It is important that their opinion is incorporated before finalization of ESMF and other documents.	District level consultation program would be organized to incorporate feedback before finalization of ESMF
		There should be provision of GRM Specialist	There are provisions for the monitoring, GRM and engineers in the mobile teams and DL-PIU
		The ESMF, RPF and the VCDF focuses on monitoring of settlement and household at cluster level. It is advisable that the monitoring is done at the VDC level.	
		There should be VDC wise provision of Engineer, sub engineer and Asst. Engineer	
		Implementation of the ESMF, VCDF and RPF are important in housing reconstruction activities	Mobile teams will monitor in situ to ensure that the ESMF and other safeguard measures are being implemented effectively.
2	Design aspects:	It has been 9 months since the affected people have been demanding design, who will provide design and approve it.	It is not clear whether NEC registered engineer approves design of already constructed houses are valid. This is still being discussed.
		The designs for houses are not available yet. Could VDC approve housing design?	
		Can Nepal engineering Council (NEC) registered Engineer alone approve housing construction design?	With the recommendation of NEC registered engineer, the housing construction would be approved by the district technical engineer.
		Housing design should address minimal use of wood materials in housing construction.	
		Need disability friendly house reconstruction designs. Rural house construction designs also need to develop designs to attract the tourists.	
		What is meaning of Smart house? Does it cover local perspective in design? For example: room for grain and dry vegetable storage and child care.	17 design are approved Upon the fulfilling conditions for reconstruction, the tranches for the grant will be provided.
		Housing construction design should be exhibited/displayed in computer in the affected VDCs	
		Similar designs for house construction need to be designed for each district so that it would be attractive to tourists in the village.	
		Housing design should be similar in VDCs/wards otherwise it shall create design discrimination among the people in VDCs and Wards.	
		It is difficult to implement Nepal Building Code (NBC) in rural area.	
		As per the norms of DoR, rural roads have 7.5m RoW. But this is only a directive and not an act. House owners are concerned about how much land they need to leave aside from the main road.	Survey team will visit the area first and geologist.
3	Grant aspects:	We don't know the process for receiving grant and the eligibility criteria.	Highlighted on criteria for grant receiving process.
		There should be clear guidelines/policy from the Government of Nepal linking environmental best practices approaches in housing reconstruction.	DOLIDAR – DUDBC/PIU will help to coordinate relevant GoN agencies. For example

SN	Issues	Stakeholders comments/feedback	Response from DoLIDAR-DL/PIU
			GoN mechanism and facilities provided to beneficiary for establishment of solar power equipment, smoke less cooking stoves and sanitation respectively.
		The final payment against house reconstruction should be provided to the beneficiary/house owner only if environmental best practices such as smoke less stoves and sanitation aspects are incorporated in re construction.	Environmental best practices will be incorporated in reconstruction design, and also recommended.
		Beneficiary need safety for carrying cash amount from district headquarter to their home.	There would be branchless banking system and 6 banks are interested to join the program. The service cost per household is estimated to be Rs 50, though this is yet to be finalized.
		The grant amount should be provided as lump sum amount instead of tranche.	
		Will the grant transfer be in Bank's account or affected people's account?	
		People/households that have already completed their house construction should receive the Rs 200,000 grant	Design should be approved from engineer registered under NEC.
		Rs 2 lakh is insufficient for demolition as well as construction of houses.	
		Will the person serving as a witness/guarantor in the community for additional loan (Rs 300,000) himself/herself be eligible to receive grant?	Yes the guarantor in community is eligible to receive grant and loan.
4	Survey and Data Collection:	There are a lot of discrepancies in the available data on the number of affected household. Which one data is correct? Carrying a new survey will take another few months which would be late for housing construction.	The survey being administered by the CBS would help in determining the actual numbers of affected households and the level of damage
		People who are actually affected by the earthquake are not registered in the record of affected households, instead, artificial names have been recorded. There is a need to investigate this issue.	
		Complete damage is being categorized as partial damage by technical teams that are assessing damages.	
		Need to check conditions of houses if it requires only maintenance then it should be recommended as such by geologists.	
		Land use survey team should be deployed according to the National Land Use Policy. Land use planning should be VDC and Ward wise	
5	Issues Relating to Raw Materials:	Supply of reconstruction materials might have an impact on quarry sites, river and forests. Mitigation measures should be applied.	These are included in the ESMF
		Due to the current trend of setting up brick and stone crushers for supplying raw materials to affected houses, the environment is being polluted alongside impacts on productive paddy land.	
		Cost of transporting raw materials could be different from district headquarter to project affected target place (for example: Setung	Government will establish common raw material storage

SN	Issues	Stakeholders comments/feedback	Response from DoLIDAR-DL/PIU
		<p>and TipleVDCs) and grant money is the same for both the places. How will this issue be addressed?</p> <p>How will the demand for wood be managed?</p> <p>Need to conduct raw material quarry site survey and for this purpose a team should be deployed. Any requirements for IEE and EIA should be made easy or relaxed by the government</p> <p>Need calculations/estimates on demand for wood, cement, and aggregates for the reconstruction of houses</p>	hub in district.
6	Forest/river/streams:	<p>There is a possibility of degrading the streams, river and forest during the mass level housing construction activity. Who will be responsible for conserving this?</p> <p>Demand of wood is higher than supply. Now it is available only 125000 cu fit which is insufficient to meet the demand. (Nuwakot)</p> <p>There is chance of forest encroachment by household living nearby forest areas. Since the government has relaxed forest regulations for 6 months in earthquake-affected districts, the impact on forest resources are likely to have been significant.</p> <p>In the earthquake damaged houses, reusable/salvaged woods are either used for firewood or sold by affected people.</p> <p>Establishment of saw mills in forest area would be better in terms of selecting and refining wood supply for affected houses.</p> <p>The proposed BudhiGandaki Hydropower Plant is submerging 3 – 4 hectare of forest area. The trees from that area can be used for housing construction.</p> <p>Need to develop checklist for the use of wood from community forest.</p> <p>Use of forest wood is free for 6 months in Dhading, there is a chance of wood smuggling from nearby cities such as Chitwan.</p> <p>Provision of wood treatment plant might help use weak wood such as pine tree and others.</p> <p>The Timber Corporation of Nepal has stock of logs and timber. These stocks can be used for reconstruction purpose.</p>	Most of these issues are already in the ESMF. If not, they will be incorporated and appropriate measures developed accordingly
7	Training aspects:	<p>Need house construction training.</p> <p>Reduce training duration from 3 months if the potential trainees are semi- skilled and available in village.</p> <p>Make roster of artisans available in the village.</p>	
8	Land/settlement related aspects:	<p>There are areas where entire settlements are cracked. For resettlement purposes, there is lack of public and private land available in nearby areas. There is also a chance of increased land price due to the project. Who will be responsible for buying land? The government or the individual?</p> <p>28 – 29 settlements in Bagewsori ward no 6 is vulnerable and at risk due to cracks and fissures in the land.</p> <p>There should be integrated model for settlements to avoid future damages from earthquake and make the rehabilitation process</p>	Land acquisition will be based on a swap model.

SN	Issues	Stakeholders comments/feedback	Response from DoLIDAR-DL/PIU
		<p>easy.</p> <p>Some settlements need to be relocated (Dhading district)</p> <p>Jharlang, Jogimara, Bhusang VDC (Dhading district) is more than 30⁰ slope. Should the affected people live there?</p> <p>There should be common resettlement with all facility such as drinking water supply</p> <p>It should be made compulsory to have VDC wise similar design and it should be a sample settlement</p> <p>Legal aspects on voluntary land donation should be settled from central level</p> <p>Resettlement concept is feasible in industrialized country where people can get access to income generation activities. But in our case, this is not feasible/viable. People are dependent on agriculture and forest activity for their livelihood, and if there is resettlement, then these facilities will not be available.</p> <p>Resettlement Plan should support ethnic (Janajati) wise reconstruction houses.</p> <p>Jirel, Dhami, Surel Janajati are affected people in this district and they should be taken care of during housing reconstruction.</p>	
9	Political aspects:	Why there is no authority to political parties in reconstruction program monitoring.	District level political parties and leaders have authority to monitor the program without their involvement program could not success.
10	Other:	<p>Construction season needs to be carefully planned since it would leave to further delays during reconstruction.</p> <p>Geological investigation is required to confirm status of soil condition.</p> <p>There is a need to develop a field visit calendar to monitor construction process in order to avoid unavailability of house owner when the mobile team visits houses for monitoring.</p> <p>Illiterate, old and women people need help on housing construction process.</p> <p>Youths are not available in village since they are working in overseas countries. How will the labor demand managed?</p> <p>Need to do land use mapping and define vulnerable land area.</p> <p>GLOF area need to be identified.</p> <p>Capacity of District Technical Office (DTO) need to be analysed. Existing manpower is not sufficient to handle the program, and additional manpower is required.</p> <p>Only talking of house reconstruction is not sufficient and support foreconomic activities and livelihood support should be incorporated</p> <p>Villagers should be given message/awareness to at least collect and stock housing reconstruction raw materials</p>	These problems will be conveyed to relevant authority of government and NRA

SN	Issues	Stakeholders comments/feedback	Response from DoLIDAR-DL/PIU
		<p>Villagers have specific questions about building earthquake resilient houses. The NRA should disseminate information about wood requirements for reconstructing houses.</p> <p>NRA should coordinate with the foreign employment department to make available outgoing manpower for housing reconstruction</p> <p>Because of transportation issues, distribution of relief materials was misused and people living near highways benefitted more than those living in remote areas</p> <p>Distribution of relief materials was not proper—sanitary napkins were distributed to men who then sold them in pharmacies, and women received shaving cream</p>	

PHOTOLOG:
Nuwakot District: (All participants and Small Group Discussions)



Dhading District: (All participants and Small Group Discussions)





Dolakha district (All participants and Small Group Discussions)



