

**Earthquake Housing Reconstruction Project  
(EHRP)**

**ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK  
(ESMF)**

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**Government of Nepal  
Nepal Reconstruction Authority**

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## ABBREVIATIONS AND ACRONYMS

AAPA	Aquatic Animal Protection Act
ADB	Asian Development Bank
AEPC	Alternative Energy Promotion Center
AWPB	Annual Work Program and Budget
BS	Bikram Sambat
BZUGS	Buffer Zone User Groups
CBOs	Community Based Organizations
CDO	Chief District Officer
CFUGS	Community forest User Groups
CFC	Compensation Fixation Committee
CL-PIU	Central Level Project Implementation Unit
DFO	District Forest Office
DLGIC	District Level Grievance Management Committee
DL-PIUs	District-Level Project Implementation Units
DMG	Department of Mines and Geology
DoR	Department of Roads
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
DWSS	Department of Water Supply and Sanitation
E&S	Environmental and Social
EIA	Environmental Impact Assessment
EHDC	Earthquake Household Damages and Characteristics
EHRP	Earthquake Housing Reconstruction Project
EHS	Environmental Health & Safety
EMP	Environmental management Plan
EPA	Environment Protection Act
EPR	Environment Protection Rule
ERBT	Earthquake Resistant Building Technology
ESIA	Environment and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environment and Social Management Plan
ESSR	Environmental and Social Screening Report
EU	European Union
FA	Forest Act
FR	Forest Regulation
FY	Fiscal Year
GHG	Green House Gas
GIS	Geographic Information System
GLOF	Glacial Lake Outburst Flood
GMC	Grievance Management Committee

GMALI	Grant Management and Local Infrastructure
GoN	Government of Nepal
ESMP	Environmental and Social Management Plan
GRM	Grievance Redress Mechanisms
GRMP	Grievance Redress and Management Procedure
GRS	Grievance Redress Service
HH	Households
IA	Implementing Agency
IBRD	International Bank for Reconstruction and Development
ICB	International Competitive Bidding
ICS	Improved Cooking Stove
IDA	International Development Association
IEE	Initial Environmental Examination
IFR	Interim Financial Report
ILO	International Labor Organization
INGO	International Non-Governmental Organization
IOL	Inventory of Loss
IPs	Indigenous Peoples
IPDP	Indigenous People Development Plan
IPF	Indigenous People's Framework
IPR	Implementation Progress Report
IPVC	Indigenous People and Vulnerable Community
ISP	Implementation Support Plan
IT	Information Technology
JMP	Joint Monitoring Program
LAA	Land Acquisition Act.
MBT	Main Boundary Thrust
MCT	Main Central Thrust
M&E	Monitoring & Evaluation
MDG	Millennium Development Goal
MIS	Management Information System
MoFAGA	Ministry of Federal Affairs General Administration
MoFSC	Ministry of Forest and Soil Conservation
MoI	Ministry of Industry
MoU	Memorandum of Understanding
MoUD	Ministry of Urban Development
NBC	Nepal National Building Code
NCB	National Competitive Bidding
NEC	Nepal Engineering Council
NFDIN	National Foundation for Development of Indigenous Nationalities
NEFIN	Nepal Federation of Indigenous Nationalities
NGO	Non-Governmental Organization
NMIP	National Management Information Project
NPC	National Planning Commission
NPWCA	National Park and Wildlife Conservation Act

NRA	National Reconstruction Authority
NTFP	Non Timber Forest Product
OP	Operational Policy
PA	Participation Agreement
PAF	Poverty Alleviation Fund
PCR	Physical Cultural Resources
PDNA	Post-Disaster Needs Assessment
PDRF	Post Disaster Recovery Framework
PDO	Project Development Objective
PIU	Project Implementing Unit
PMU	Project Management Unit
PO	Partner Organization
POM	Project Operations Manual
PP	Procurement Plan
PRAMS	Procurement Risk Assessment System
QCBS	Quality and Cost Based Selection
RAP	Resettlement Action Plan
RMP	Resettlement Management Plan
RoW	Right of Way
RPF	Resettlement Policy Framework
RWSSIP	Rural Municipality Grievance Management Committee
RWSSFDB	Rural Water Supply and Sanitation Fund Development Board
SA	Social Assessment
SAP	Safeguards Action Plan
SORT	Systematic Operational Risk-Rating Tool
TA	Technical Assistance
TCN	Timber Corporation of Nepal
ToR	Terms of Reference
UN	United Nation
UNDP	United Nation Development Program
VC	Vulnerable Community
VCDF	Vulnerable Community Development Framework
VCDP	Vulnerable Community Development Plan
WASH	Water and Sanitation and Hygiene
WB	World Bank

## **CHAPTER ONE: PROJECT BACKGROUND**

### **1.1. INTRODUCTION AND OBJECTIVES**

This document presents the revised Environmental and Social Management Framework (ESMF) for the Earthquake Housing Reconstruction Project (EHRP). Considering the limited environmental and social impacts, the emergency nature of the project, and difficulties due to the complicated safeguard arrangements, the original ESMF has been revised to make it proportionate to environment and social risks and impacts. The revised ESMF takes into account the changing context of new federal system, institutional mechanisms and government policies, directives and programs on earthquake housing reconstruction, and experiences from implementing the original ESMF in the three original project districts.<sup>1</sup> The objective of this revised ESMF is to serve as a practical tool during project formulation, design, planning, implementation and monitoring, to ensure that environmental and social aspects are duly considered in the planning and implementation process. In addition, the ESMF describes the principles and approaches to be followed for selecting, avoiding, minimizing and/or mitigating adverse environmental and social impacts that are likely to arise during the project. It 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 impacts cannot be avoided, that these impacts are identified and that necessary mitigation measures are developed and implemented, in accordance with relevant Nepali laws and regulations and with World Bank's safeguards policies. The ESMF provides information about the project, its environmental and social context, risks and mitigation measures, institutional arrangements, monitoring indicators, and capacity building requirements to ensure that the potential negative environmental and social impacts of project activities are minimized or mitigated, and that positive impacts are encouraged and enhanced.

The ESMF is a 'live document', enabling updates and revisions whenever required. Any unexpected circumstances and/or changes in project design is assessed, and appropriate management and mitigation measures are incorporated. This revised ESMF covers changes or modifications in safeguard procedures introduced in the original ESMF and any legal, regulatory and/or institutional regime changes. A project level Environmental and Social Management Plan (ESMP) is prepared as a part of this ESMF which requires review, verification and validation through the local level consultation and approval from local body i.e. Municipality and Rural Municipality and preparation of a separate site specific ESMP for special cases on environmental and social issues. The revision of the original ESMF was completed in mutual agreement between the World Bank and the GoN. The revised ESMF will be cleared by the World Bank and re-disclosed locally and in the World Bank Info Shop.

### **1.2. DESCRIPTION OF THE PROJECT**

#### **Project Background**

On April 25, 2015, a major earthquake of shallow depth measuring 7.6 magnitude 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 were also destroyed or damaged in addition to the loss of a rich set of historical monuments and cultural icons. Further, the earthquake caused significant damage to essential services whilst also disrupting telecommunications and energy infrastructure.

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<sup>1</sup> Dolakha, Dhading and Nuwakot

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

The PDNA found that total damages and losses resulting from the earthquake amounted to approximately US\$7 billion, and reconstruction needs amounted to approximately US\$6.7 billion. The earthquake 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 temporarily uninhabitable. The largest single need identified in the PDNA was housing and human settlements, accounting for US\$3.27 billion of needs (or almost half of the total needs). Based on the findings of the PDNA, the World Bank, together with other development partners, agreed on providing assistance for disaster recovery and future risk reduction to Nepal.

### **Project Description - Earthquake Housing Reconstruction Project**

The main objective of EHRP is to restore earthquake-affected houses with multi-hazard resistant core housing units in 14 severely earthquake-affected districts. (the three original financing districts of Dhading, Dolakha and Nuwakot, and the eight additional financed districts of Okhaldhunga, Sindhuli, Ramechhap, Sindhupalchowk, Kavrepalanchowk, Rasuwa, Makwanpur and Gorkha and additional financing 18 districts (Sankhuwasabha, Dhankuta, Bhojpur, Khotang, Solukhumbu, Lamjung, Tanahu, Syangja, Kaski, Parbat, Eastern Nawalparasi, Western Nawalparasi, Palpa, Arghakhachi, Gulmi, Baglung, Myagdi and Chitwan) to enhance the GoN's ability to improve its long-term resilience to disasters. The project's direct beneficiaries are expected to be approximately 240,880 households (55,000 from Original Financing (Credit No. 5706-NP), 96,000 households from Additional Financing (Credit No. 6164-NP), 86,680 households from the Second Additional Financing (Credit No. 6530-NP) and 3,200 households from the Multi Donor Trust Fund (MDTF), who 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 GoN's overall housing reconstruction program which would benefit all eligible housing reconstruction beneficiaries identified in all 32 earthquake-affected districts.

### **Project Components**

The project comprises the four components outlined below:

#### ***Component 1: Housing Reconstruction- US\$ 718.90 million<sup>2</sup>***

The first component finances:

- a) The provision of housing grants for the construction of approximately 240,880 households, (including 237,680 from IDA Credit and remaining from MDTF financing) multi-hazard resilient core housing units. Eligibility was determined based on 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

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<sup>2</sup> Includes US\$ 39.40 million counterpart funding i.e. first instalment paid by Government of Nepal

housing units; v) implementation of the ESMF including identified safeguard mitigation measures; vi) development of a grievance redress mechanism (GRM); and vii) other enabling activities.

Activities under this component inform operational modalities for the development of the GoN'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 local and easily accessible materials and familiar construction methods; and v) provision of a uniform reconstruction assistance package 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 administered in the 32 earthquake-affected districts.

Individual housing reconstruction grants are disbursed in three 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 is determined by the GoN and may be adjusted if needed during implementation (the amount would be stated in the Operations Manual). At the time of revising of this ESMF, the grant amount is NRs 3,000,00 per household (approximately US\$3,000).

Households receiving grants and technical support under this component are geographically targeted in selected districts with rural characteristics in the affected areas. The districts are selected based on the extent of damages in the village and readiness to implement the project. These criteria are assessed through the EHDC Survey which: i) ascertains the damage to the housing stock at the district against uniformly applied engineering criteria, building on data already collected by District Disaster Relief Committee (DDRC); ii) verifies household eligibility through the EHDC Survey including willingness to adhere to project guidelines for resilient construction and timelines; and iii) collects information to open bank accounts for affected households (or other assistance transfer mechanism), which is in the name of the beneficiary, to ensure timely and transparent fund transfers. Final certification of completion of multi-hazard resilient core housing is carried out in accordance with the Operations Manual.

#### ***Component 2: Disaster Risk Management Systems - US\$15million***

The objective of this component is to support the GoN to establish systems to provide better disaster risk reduction, preparedness, and disaster response, in line with global best practices. The component finances, 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\$15.5million***

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 strengthen 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, this component will also finance consultancies/service providers required for the preparation and supervision of specific activities, monitoring and evaluation.

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



Following an adverse natural event that causes a major natural disaster, the GoN may request the World Bank to re-allocate project funds to support emergency response and reconstruction. This component would draw resources from the unallocated expenditure category and/or allow the GoN to request the World 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.

### **Project Cost and Financing**

Total financing through the International Development Association (IDA) credit for EHRP will amount to USD\$710 million. A summary of project costs, IDA financing, percentage IDA financing contribution to project costs, and MDTF, is provided in the table below.

**Table 2: Component-wise Summary of Costs**

<b>Current Component Name</b>	<b>Proposed Component Name</b>	<b>Current Cost (US\$, millions)</b>	<b>Proposed AF Cost (US\$, millions)</b>	<b>Counterpart Financing (US\$, millions)</b>	<b>MDTF Funding</b>	<b>Total Cost (US\$, millions)</b>
Housing Reconstruction	Housing Reconstruction	472.50	<b>197.00</b>	<b>39.40</b>	<b>10</b>	<b>718.90</b>
Disaster Risk Management Systems	Disaster Risk Management Systems	15.00	<b>0.00</b>	<b>0.00</b>		<b>15.00</b>
Project Implementation Support	Project Implementation Support	12.50	<b>3.00</b>	<b>0.00</b>		<b>15.50</b>
Contingency Emergency Response	Contingency Emergency Response	0.00	<b>0.00</b>	<b>0.00</b>		<b>0.00</b>
	<b>Total:</b>	500.00	<b>200.00</b>	<b>39.40</b>	<b>10</b>	<b>749.40</b>

### **1.3. RATIONAL FOR ESMF SIMPLIFICATION**

Safeguard assessments carried out in the three original project districts (934 settlements) revealed limited environmental and social impacts arising from project activities. Commonly encountered issues were related to health and safety, solid waste management, use of forest resources, landless earthquake victims and support for vulnerable groups. Highly sensitive environmental and social issues were not observed except for a few exceptional cases such as community relocation.

Furthermore, the GoN has provisions to address many of these issues. For example, to address the issue of landless earthquake victims, in 2017 the GoN introduced a provision of additional grant funding 200,000.00 NPR (equivalent to approximately US\$2,000), in addition to the private housing grant, to purchase habitable land. Similarly, a directive introduced in 2016 for harvesting, supply and management of wood for earthquake victim provides special provision for supply of wood to earthquake victims for reconstruction.

Additional support equivalent to 50,000NRs (approximately US\$500) is also available for vulnerable groups identified by NRA<sup>3</sup> through Partner Organizations (PO).

While implementing safeguard works in the first half of the project, the EHRP project team experienced difficulties due to complicated safeguard arrangements, and political and institutional changes. The Nepal Safeguards Thematic Review team<sup>4</sup> also suggested to review and update safeguard arrangements to make them proportionate to the environment and social risks and impacts of the project. Consequently, based on these previous experiences, the project team and World Bank team have agreed to simplify the process.

#### 1.4. SCOPE OF EHRP AND SAFEGUARDS

The GoN, through EHRP, provides grants to households for the reconstruction of residential houses, following an ‘owner-driven’ housing construction model.

The EHRP approach includes the following aspects:

- Housing grants will be provided to 11<sup>5</sup> out of the 14 severely earthquake-affected districts and additional Financing<sup>6</sup> 18 districts.
- Beneficiary households will build their houses on their own land. Land acquisition and resettlement is not envisaged under the project
- Residential houses will be small and constructed by the beneficiary household themselves using EHRP's design criteria
- Not all the houses will be constructed at the same time. Beneficiary households are expected to build their houses on their own pace
- Community members can also come together to help each other to build their houses, and community help is also provided to the vulnerable households.
- Support to and inclusion of gender and vulnerable groups will be done through the socio-technical support provided through the project

EHRP will not support housing reconstruction in following categories. Consequently these categories are not-within scope for this ESMF:

- Community relocation
- Integrated settlement development
- Urban areas
- Areas supported by other donors or International/National Non-Government Organizations (I/NGO);
- Reconstruction of heritage/cultural sites and other physical and social infrastructure and services.

The ESMF will be applicable in additional financing districts as per the nature of funding and works. The ESMF will effectively cover the reconstruction of approximately 240,880 houses, built by the owners themselves on their own land.

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<sup>3</sup>Households were identified by the NRA on the basis of four vulnerability criteria: senior citizens above 70 years, single women above 65 years, people living with disabilities (red or blue card holders), and minor-head households (under 16 years).

<sup>4</sup>This review was led by the South Asia Regional Safeguard Secretariat, and the report was shared in July 2018.

Three original financing districts-Dhading, Dolakha and Nuwakot - and eight additional financed districts- Okhaldhunga, Sindhuli, Ramechhap, Sindhupalchowk, Kavrepalanchowk, Rasuwa, Makwanpur and Gorkha.

<sup>6</sup> Sankhuwasabha, Dhankuta, Bhojpur, Khotang, Solukhumbu, Lamjung, Tanahu, Syangja, Kaski, Parbat, Eastern Nawalparasi, Western Nawalparasi, Palpa, Arghakhachi, Gulmi, Baglung, Myagdi and Chitwan.

### **1.5. GOVERNMENT PROGRAMS RELATED TO EARTHQUAKE AFFECTED BENEFICIARIES:**

The GoN has developed the EHRP to support the earthquake-affected households. The following table presents the GoN's overall program and approach for earthquake disaster recovery in Nepal.

**Table3: The GoN's overall program and approach for earthquake disaster recovery in Nepal**

<b>Name of Program</b>	<b>Provision Made Under Program</b>	<b>Eligibility Criteria</b>	<b>Time Frame/Duration</b>	<b>Methods of approach</b>	<b>Responsible Agency</b>
1. Housing Grant	Enlisted beneficiary households are entitled to receive NRs. 3,00,000 to reconstruct earthquake resilient new houses. Previously the grant amount was NRs. 200,000. It has now been increased to NRs. 300,000.	The Central Bureau of Statics identified eligible households based on damage assessment, which has been verified by the NRA executive committee. Any individual or family who does not own another house elsewhere, aside from the damaged house, will be eligible to get the housing grant.	The NRA will provide this amount throughout the project period. The grant amount shall be paid in three tranches to the beneficiaries.	The concerned local authorities shall allocate the amount of grant assistance based on identified beneficiaries and participatory agreements: (1) The authority will release money for subsidy to the DL-PIU through the PIU of MoFALD (now CL-PIU, GMALI); (2) The DL-PIU will provide the list of beneficiaries to the respective banks and local bodies. Local bodies will undertake a participatory agreement (PA) with the beneficiaries; (3) The grant amount shall be paid in three tranches to the beneficiaries.	NRA/PMU, CL-PIU-GMALI/Building, DL-PIU-GMALI/Building
2. Hazardous Settlement and Reconstruction	Relocation to safer land, either from project side or beneficiaries themselves. The eligible beneficiary is entitled for additional cash assistance of up to NRs 200,000.	Beneficiaries should be from hazard-prone settlement areas, as identified by the NRA. Beneficiaries should not hold any residential land.	The proposed program was initiated following the original ESMF guideline preparations and remain effective during the project period.	The NRA will encourage eligible beneficiaries to relocate themselves by providing cash assistance of up to NRs. 200,000.  If relocation is required, the NRA will relocate the beneficiaries to either public/ forest/ government land, or to private land fulfilling required process.	NRA/PMU, CLPIU-GMALI, DLPIU-GMALI

<b>Name of Program</b>	<b>Provision Made Under Program</b>	<b>Eligibility Criteria</b>	<b>Time Frame/Duration</b>	<b>Methods of approach</b>	<b>Responsible Agency</b>
3. Grant to Purchase Habitable Land	Additional NRs. 200,000 grants for purchasing safer land	Beneficiaries from hazard-prone settlement areas, as identified by the NRA, and who are willing to relocate themselves. Beneficiaries who were residing on government land, forest land and public land. Beneficiaries should not hold any residential land.	Effective during project period	The beneficiary must apply to the Secretariat of the NRA District Coordination Committee (now DL-PIU GMALI) or authorized office, providing the details of the proposed land, if they want to purchase a plot of land for relocation.	NRA/PMU, CLPIU-GMALI, DLPIU-GMALI
4. Assistance to households falling under NRA's vulnerable criteria.	Additional support of NRs. 50,000 or equivalent in kind, per beneficiary, through POs.	Four vulnerability criteria: <ul style="list-style-type: none"> <li>• Senior citizens above 70 years</li> <li>• Single women above 65 years</li> <li>• People living with disabilities (red or blue card holders)</li> <li>• Minor-headed households (under 16 years)</li> </ul>	Effective during project period	The NRA will mobilize different POs to provide additional support to vulnerable households.	NRA/PMU POs
5. Timber Production, Supply and Management	100% collection of allowed annual growth as per Approved Work Plan for Community Forest User Groups (CFUGs). Timber Sale from the depot of the Timber Corporation of Nepal (TCN) and	Member/Non-Member of CFUGs and proof of earthquake victim, as well as recommendation from Local Body for Non-Member of CFUGs; approval from the District Forest Office (DFO) to fell timber from private land, in case of trees banned by the Forest Act.	Approved on 2072/10/21 BS (04/02/2016) and will remain effective throughout the reconstruction period	Proof of earthquake victim and recommendation from local body	DFO, CFUGs, Local Body, TCN, District Forest Resource Supply Committee

<b>Name of Program</b>	<b>Provision Made Under Program</b>	<b>Eligibility Criteria</b>	<b>Time Frame/Duration</b>	<b>Methods of approach</b>	<b>Responsible Agency</b>
	District Forest Resource Supply Committee (at maximum 75cft/HH in case of logs and 50 cft/HH in case of sawn timber. Timber from private land				
6. Integrated Settlement Development <sup>1</sup>	There should be a minimum of 10 households from vulnerable settlements, owner-driven as well as provisioned by NRA; provision of infrastructural assistance per household amounting to NRs. 5,00,000 for Mountain Region households, 4,00,000 for Hill Region	Earthquake reconstruction beneficiary	2074 BS and effective during reconstruction period	Formation of Committee; identification and purchase of safe and habitable land; request along with detail proposal for integrated settlement with recommendation of local body to NRA; preparation of the Detailed Project Report (DPR) by the NRA	NRA/PMU, CL-PIU Building, DL-PIU Building, Local Body

<sup>1</sup> This ESMF is not applicable to integrated settlement development activities but method/approach highlighted are only for reference to users.

<b>Name of Program</b>	<b>Provision Made Under Program</b>	<b>Eligibility Criteria</b>	<b>Time Frame/Duration</b>	<b>Methods of approach</b>	<b>Responsible Agency</b>
	households, and 3,00,000 for Terai Region households				

## **CHAPTER TWO: GOVERNMENT POLICY FRAMEWORK ON ENVIRONMENTAL AND SOCIAL ISSUES**

### **2.1. NATIONAL LAWS AND REGULATIONS**

The GoN has executed policies, enacted Acts and regulations, developed guidelines and manuals, and has signed international treaties and conventions, some of which have provisions for environmental and social development issues. The prevailing Acts, policies, regulations, conventions and guidelines related to social development and safeguards of Indigenous Peoples (IPs) and marginalized and disadvantaged communities including Dalits have been reviewed to streamline the safeguard requirements of the GoN 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 safeguards in the context of this project can be categorized broadly into following four groups:

1. Policies and regulations 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

The key acts related to environmental protection are: the *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 the overall regulatory framework that defines the processes and procedures for environmental protection, conservation and management. EPA/EPR defines the requirements and procedures for conducting an Environmental Assessment. The FA, NPWCA, AAPA, and AMPA require the approval of the respective competent authority if a development project/activity takes place in the territory of their jurisdiction. These laws emphasize the protection and conservation of the natural resources.

#### ***Further guidelines developed since the commencement of the EHRP***

Since the commencement of the EHRP, the NRA has introduced several guidelines to address identified earthquake housing reconstruction needs. In particular, the *Procedures for Relocation and Rehabilitation of Hazard Prone Settlements 2073 (2017)* outlines the mechanisms for identifying households requiring resettlement as a result of living in areas identified as at risk of geo-hazards. The *Criteria for purchasing habitable lands for earthquake victims* provides that families living in high-risk areas and requiring resettlement are entitled to receive an additional NRs 200,000 to purchase land. Procedures also outline mechanisms for the development of integrated settlements for user groups comprising minimum number of households, with support provided by the NRA to develop physical infrastructure in integrated settlement areas. In addition, the revised *Guidelines on Grant Distribution for the Reconstruction of Private Houses* provide for landless earthquake victims who have been deprived of the housing reconstruction grant due to lack of land ownership certificates to receive additional grant assistance of NRs 200,000. In addition, to address the demands for timber,100% collection of timber from annual growth as per the Approved Work Plan of Community Forest User Groups and the availability of maximum 75cft/HH timber supply from Timber Corporation of Nepal have been provisioned for earthquake victims in the reconstructing their own houses. The NRA has also introduced guidelines regarding the management of grievances received from earthquake-affected households.



Separately, the NRA has identified that there are certain households who, due to their vulnerability, are struggling to rebuild their earthquake-damaged homes. Consequently, in March 2018, the NRA released a list of 18,505 households that have been identified as vulnerable and requiring additional support for their housing recovery.

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

**Table 4: Earthquake related legislation/guidelines/policies obligation and procedures**

<b>Applicable Laws/guidelines/Directives/Polices</b>	<b>Obligation</b>
1. Earthquake Affected Infrastructure Reconstruction Act 2072	An Act made to provide for the reconstruction of earthquake-affected structures, 2072 B.S. It provisioned the establishment of the National Reconstruction Authority in order to promptly complete the construction of houses damaged due to the earthquake in a sustainable, resilient and planned manner, to promote national interests, and to provide justice by allowing for the resettlement and translocation of persons and families displaced by earthquake.
2. Community Rebuilding Committee Related Procedures 2073	To facilitate reconstruction activity at the local level. To promote the participation and ownership of local communities in rebuilding.
3. Hazardous Settlement and Reconstruction Guideline 2073	The district administration office listed vulnerable settlements based on the geological hazards. These lists were collected at the NRA office and a separate geological study team was mobilized for the assessment. Based on the geological assessment report, the settlements or the families residing in the settlements shall be categorized in three categories as per following: <ul style="list-style-type: none"> <li>i. Do not need to be relocated</li> <li>ii. Require protection and improvements.</li> <li>iii. Need to be relocated.</li> </ul>
4. Integrated Settlement Development Policy 2074	A minimum of 10 households from vulnerable settlements can form their own consumer committee that will identify safer locations to develop an integrated community settlement. Infrastructural development of the integrated settlements will be undertaken through the consumer committee.

Applicable Laws/guidelines/Directives/Policies	Obligation
5. Criteria for Purchasing Habitable Land for Earthquake Victims, 2074	<p>Beneficiaries from geologically vulnerable settlements are entitled to purchase private land. The NRA has provisioned NRS. 200,000 for the purchase of land. This mitigation measure also addresses those households whose houses were destroyed on public land, forest land and government land. The geological study team from the NRA is responsible to identify the vulnerable settlement.</p> <p>Beneficiaries or their families who own habitable land elsewhere shall not be eligible for this grant. Beneficiaries or their families who do not own land or habitable land elsewhere in Nepal must sign a statement saying that they or their families do not own safe habitable land before purchasing the land. The land purchased following this procedure shall be jointly owned by husband and wife, and ownership cannot be transferred for 10 years from the date of purchase.</p> <p><b>Note:</b> Those households who are not listed in beneficiary list and who are residing in identified vulnerable settlements are also entitled to this grant. Retrofit beneficiaries from government land, public land and forest areas are also entitled this grant and are required to reconstruct their houses on private land. Whilst they are listed as retrofit beneficiaries, they will be considered as reconstruction beneficiaries and will be entitled to receive NRs. 300,000 for the reconstruction of their house. However, households who have existing safe residential land in any area will not be entitled to receive this amount.</p>
6. Land Acquisition Guideline for Reconstruction 2072	<p>Whilst the NRA itself discourages land acquisition and involuntary resettlement for the private housing component, there are procedures for land acquisition if any land acquisition for the reconstruction of earthquake affected houses is required.</p>
7. Reconstruction Grievance Management Guideline 2074	<p>The reconstruction grievance management guideline is intended to address grievances related to:</p> <ul style="list-style-type: none"> <li>• Eligibility</li> <li>• Compliance and certification</li> <li>• Payment</li> <li>• Program/process</li> </ul>
8. Timber Production, Supply and Management Directive 2072	<p>This directive is applicable only for work regarding the supply of timber to earthquake victims. It aims to facilitate the management and supply of timber required for reconstruction. It identifies the need for the management, distribution and production of timber from within a district, from other district, from</p>

Applicable Laws/guidelines/Directives/Policies	Obligation
	personal land and/or from another other forest area. This directive will be in effect during the reconstruction period according to the Earthquake Affected Infrastructure Reconstruction Act 2072.
9. Grant disbursement procedures for private for Houses 2073	Procedures for the reconstruction program of earthquake affected private houses, in order to simplify and manage the grant agreement provided for the reconstruction and retrofitting of earthquake-affected houses.
10. Earthquake affected Vulnerable Community identification guideline 2074	The Earthquake-affected vulnerable community identification guideline has been prepared to address vulnerable households who are unable to build their houses due to their circumstances of vulnerability.
11. Constitution of Nepal 2015	Article 30 of the Constitution of Nepal provides for the right to a clean environment, under Part 3 Fundamental Rights and Duties.
12. Environment Protection Act and Rule 1995	The Environment (Protection) Act 1995 is the umbrella legislation followed by Environmental Protection Regulations and as amended (1999, 2007, 2009 & 2010), which provides a holistic framework for the protection and improvement to the environment during project implementation. The NRA has formulated an environmental assessment guideline for the reconstruction of earthquake-affected infrastructure (2072) which addresses provisions made for preparation of environmental documents requiring and Initial Environmental Examination (IEE) and Environmental Impact Assessment (EIA) level of assessment, procedures and approval mechanism. The NRA has the authority to approve IEE and EIA documents, instead of approval by concerned Ministries.
13. Forest Act and Rule 1993	The Forest Act requires decision makers to take account of all forest values including environmental services and biodiversity, not just the production of timber and other commodities. The Forest Rule elaborates legal measures for the conservation of forests and wildlife and provides procedural guidelines for the implementation of the Forest Act. It stipulates that where the execution of any project having national priority in any forest area causes any loss or harm to any local individual or community, the proponent of the project itself shall bear the amount of compensation to be paid.
14. Solid Waste Management Act 2011	This Act enables local government to manage waste at local level.

<b>Applicable Laws/guidelines/Directives/Polices</b>	<b>Obligation</b>
15. Local Governance Operation Act 2017	This Act has been enacted to implement the rights and responsibilities of local level governments, as conferred by the Constitution of Nepal 2015. The Act also provides easy and quality service delivery by ensuring public involvement, responsibility and transparency through strengthened cooperation, coexistence and coordination between federal, state and local levels.

Further details on the above policies and guidelines are detailed in Annex4.

## 2.2. WORLD BANK SAFEGUARD POLICIES

It is expected that most of the potential sub-projects will require environmental and social studies and review of compliance with 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 will be assigned the appropriate environmental categorization. Environmental due diligence will be conducted in accordance with OP 4.01. At the level of house construction, the owner will be encouraged, supported and required to follow appropriate environmental good practices, as part of the ‘build back better’ approach. Environmental good practices will be internalized in the siting, design and construction of houses.
- *OP/BP 4.04 Natural Habitats:* Some households receiving housing reconstruction grants through the project are likely to be located within the buffer zones of protected areas, 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, there may be impacts at a cumulative level to forest habitats given the increased demand for timber extraction for reconstruction. This policy is therefore triggered. Project level ESMP review and verification/validation will identify municipal level/settlement impacts, if any, and will 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 resort to forests for timber and other construction materials. This policy is therefore triggered.
- *OP/BP 4.11 Physical Cultural Resources:* Physical Cultural Resources (PCR) of various types are present in the project area, however it is considered unlikely that impacts to such resources will be significant. Nevertheless, as there is 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:* Whilst activities under the EHRP are not expected to cause involuntary resettlement in of itself, land acquisition and involuntary resettlement are still anticipated under the project. This would occur, for example, where households are in areas identified to be at risk of geo-hazards and are subsequently required to relocate. For this reason, OP 4.12 needs to be addressed. 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 (and other disadvantaged and marginalized groups) are present in the project areas. ***An Indigenous Peoples Plan (Vulnerable Community Development Plan) is prepared as part of project level ESMP for the project.***

## CHAPTER THREE: PROJECT LEVEL ENVIRONMENTAL AND SOCIAL ISSUES AND MITIGATION MEASURES

Houses to be supported under the project will be small and owner-built, constructed in-situ and/or at alternative nearby locations owned by the beneficiary. The civil works are of small scale, largely labor-based, site-specific, and take place at different locations over a large geographical area. Therefore, significant environmental and social impacts are not anticipated. Experience from the initial phase of the project indicates that environmental and social impacts are minor, common, and are site-specific.

Based on experiences and lessons learnt to date, common project-level environmental and social issues and mitigation measures are outlined below:

### **I. Increased pressure on degradation or loss of tress (Community Forest) Due to Timber Requirement:**

The total area of forest in 32 earthquake affected district is 2,459,401.14 Ha (Forest cover Maps of local levels (753) of Nepal, Department of Forest Research and Survey, June 2018)) and most of these are managed by community. The construction of housing units in 32 districts based on different available housing alternative design requires about 10 million cubic meters of timber for construction of window pane, gate, roof and other necessary features. The major species available to use in house reconstruction in the hilly districts are Pine (*Pinus roxburghii*), Chilaune (*Schima wallichii*) and partially Sal (*Shorea robusta*) trees. The nearest source for the supply of timber to settlement are CFs and local markets. The huge demand of timber for settlement level house reconstruction has significantly increased pressure on community forest.

Sagarmatha National Park, Makalu-Barun National Park (NP), Langtang NP, Shivapuri-Nagarjun NP, Gaurishankar Conservation area (CA), Manaslu CA, and Annapurna CA covering about area of 15,988 km<sup>2</sup> lies in the few project affected districts. The most severely affected were Langtang NP, Sagarmatha NP, Manaslu NP, Gaurishankar CA, and two Ramsar sites: Gosainkunda and Gokyo lakes. The impact on protected areas and Ramsar site is considered insignificant due to legal prohibition of use of resources from conservation area.

#### **Mitigation Measures:**

- Reuse of timber from demolished house;
- Use trees fallen by the wind or other factor, tree along forest path without disturbing the core forest area;
- Cut down tree based on density and distribution, do not cut down tree from sparse area of the forest;
- Use trees owned by beneficiaries in their farm as District Forest Office (DFO) has already given priority to use own timber planted in farm
- Use of the annual harvest of timber from community forest;
- Replantation support for affected community forest through mobilization of Community Forest User Group (CFUG)

### **II. Impact on quarry site (sand, aggregate, slate, stone)**

The reconstruction of houses requires various materials including timber, sand, aggregate, stone, slates, bricks and boulders. Based on the Environmental and Social Screening Reports (ESSR) administered for 934 settlements, it was estimated that approximately 25 cubic meters of stone, 176 cubic meters of timber, and 55 cubic meters of sand is required for a reconstruction of house. Based on this norm, approximately 4 million cubic meter of stone, 28.16 cubic meters of timber and 8.8 million cubic meters of sand will additionally require for the reconstruction of 160,000 damaged houses after deducting the re-useable quantity in project districts. This demand for construction materials needs to be fulfilled from existing quarries and forests, causing impacts to these resources. Generally speaking, vendors collect stone and aggregates from approved quarry sites and crushers plants, and the beneficiary households collect the same from nearby vendors. Since the quarries and crusher operations are bound by Environmental Protection Acts and Rules, they are required to prepare environmental assessment reports. The respective local body is responsible for monitoring the implementation of mitigation measures proposed in environmental reports. Although cumulative impacts seem significant, the nature of the works is scattered to a large extent in a micro unit. The construction of small residential individual

houses requires only a small quantity construction materials therefore the magnitude, extent, duration and reversibility of the impact is considered nominal or insignificant.

#### *Mitigation measures*

- When individual households are quarrying from local quarry sites it should be reinstated, if the site is prone to erosion. To ensure that the selected quarry spot is safe after the extraction of materials,
- Avoid road and bridge sides, hill slopes, and cattle grazing areas for quarry site

### **III. Debris Management (House Demolition)**

Upon consultation with the technical officers at the local level, the quantity of demolished materials from earthquake-affected houses is reported to be minimal. It was found that nearly 55% of stone and 35% of wood frame (timber) of total debris collected can be re-used in house reconstruction. The remaining parts of stone, timber, mud, rags are disposed and managed in-situ. The debris collected after salvaging from each house for re-use was small and in most of the case managed in-situ during the early stage of earthquake period and now it is almost three year of earthquake therefore in most cases, debris generated was managed through leveling the ground within the damaged buildings premises. However in urban areas it was noticed that unused quantity was either dumped in potholes of nearby roads or within the public space available in settlement area. These practices have minimal impact.

#### *Mitigation Measures*

- Metal scarps and empty cement bags need to be collected safely and sold to scrap dealers
- The 3R Principle (Reduce, Recycle and Reuse) should be applied to reduce additional demand pressures on reconstruction raw materials
- While selecting space for storage of debris materials floodways, natural drainage paths, water bodies, and farmlands should be avoided
- Spoil generated from the excavation of foundations should use for filling or reclamation of shallow areas.

### **IV. Occupational Health and safety**

The reconstruction of residential houses will involve small-scale civil works, which gives rise to health and safety risks of minor accidents and injuries. Settlement-level house reconstruction may or may not use contractor. If contractors are mobilized for reconstruction works, there may be issues related to labor camp sanitation and occupational health and safety of the labors.

#### *Mitigation measures*

- Masons and carpenters are trained on relevant safety measures, and owners are made aware of safety risks and how to manage these risks
- If the reconstruction work is contractor-based, hygiene and sanitation of any labor camps is maintained
- Personal protection equipment's (PPEs) is provided to laborer during reconstruction
- First-aid kits are available for treating reconstruction works related injuries.

### **V. Safety Issues of Existing Temporary Structures in Use (special case)**

The majority of earthquake victims need to reside in the temporary shelters until the reconstruction of their permanent houses is completed. As these temporary structures are usually constructed during times of emergency, they do not meet adequate safety standards and consequently pose safety issues in terms of location and structural design. The structures are usually constructed using corrugated sheets covering bamboo frames which may pose risk of injury, particularly during monsoon season.

#### *Mitigation Measures:*



- Adopt measures to continue maintenance of structures
- Structures should be safely demolished when shifting to a newly-constructed house; and
- Materials should be re-used for construction of toilets, cattle sheds, green houses for farming vegetables, storage etc.

#### **VI. Water availability for reconstruction (special case)**

Reconstruction requires water, however settlements in remote locations, particularly in hill tops, face water scarcities. Water scarcity is not a project-induced issue. Significant number of beneficiaries living in remote locations/ higher altitudes are facing water deficiencies for house reconstruction during dry season. Ensuring the continued availability of water during the reconstruction period is an important issue and poses a challenge to reconstruction.

##### *Mitigation Measures*

- Avoid excess water usage and focus on collection and storage of night water discharge
- Ensure that construction is scheduled in accordance with water demand and availability
- Use/install alternative mechanism to collect existing discharge water in large quantity
- Develop coordination and link activities with district and local level Government agencies and I/NGO working for drinking water and sanitation in the district

#### **VII. Slope instability and landslides (special case)**

Some houses or settlements may be prone to landslides and erosion. Detailed geo-tech investigation is not the responsibility of CLPIU-GMALI. However, control of landslide/erosion will help to mitigate risk of damage to houses and to human life and to avoid involuntary resettlement and relocations with minor investment on mitigative activities.

##### *Mitigation measures:*

- For severe cases of slope instability/erosion, carry out geotechnical investigation from expert available in NRA
- For minor cases of slope instability/erosion, adopt mitigation measures with the consultation of experts
- Explore idea to coordinate and making linkage between district level/local government level organizations for the implementation mitigation measures.

#### **VIII. Resettlement and Relocation (special case)**

The earthquake resulted in population displacement, landlessness, damage to land due to cracks/fissures making the land inappropriate for house reconstruction, and increased vulnerability of those previously landless. Additionally, there is also the risk of exclusion of households and individuals living in squatter settlements, Guthi land, monasteries, rented land and those without appropriate papers (for example, citizen certificates, land titles), and the risk of omitting of households from project support where the household head is a migrant or absentee.

The GoN has developed a policy for households rendered landless, or those who were previously landless and whose houses were destroyed due to the earthquake. The NRA has mobilized different study teams to identify geographically vulnerable households and settlements. Based on a Department of Mines and Geology (DMG) report, the NRA identified 3,140 households for relocation from the 14 severely affected districts, from which 1,069 households have already purchased land under NRA's private land purchase policy and relocated.

There is also a chance of involuntary resettlement due to the limited availability of land for resettlement and/or increase in land prices, making it unaffordable for resettlement planning.

##### *Mitigation measures*

- The first preference is for households to rebuild their houses on their original land
- Land purchased by:

- Accessing additional cash assistance up to NRs. 2,00,000 as a part of purchasing Habitable Land for Earthquake Victims rendered landless due to earthquake.
- Households whose houses were destroyed in public land, forest land and government land are entitled to additional cash assistance up to NRs. 2,00,000 to purchase land.
- GoN land in the same area and Barren land/land patches of community forest as per the NRA land acquisition Guideline for Reconstruction 2072 and RPF.

**IX. Labor Influx and use of child labor (common case)**

Housing reconstruction is owner driven however, there are cases where the house owners hire local as well as migrant workers for house reconstruction. Although there is influx of laborers from outside adverse impact due to the influx of labor in local community has not been observed and recorded. Instance of child labor is also not observed. However, measures to tackle impacts and risks associated with labor influx and to avoid child labor should be implemented.

**Mitigation measures:**

- Project awareness program on labor influx and child labor and code of conducts of labor
- Stick adherence to prohibition of child labor and any form of forced labor
- Maintain labor camp sanitation and hygiene

**X. Marginalized and disadvantaged groups (common case)**

There is a significant presence of disadvantaged and marginalized groups in the earthquake-affected area who are at risk of further marginalization and deprivation with respect to the GoN support provided for reconstruction and rebuilding. Whilst some of the disadvantaged groups include indigenous peoples, other groups including Dalits, people with disabilities, female-headed households, the elderly and orphans are considered equally vulnerable and disadvantaged. The NRA also recognizes the need to provide additional support to the most vulnerable households, and has defined four vulnerability criteria to identify the most vulnerable households being: senior citizens above 70 years, single women above 65 years, people living with disabilities (red or blue card holders), and minor-head households (under 16 years). Households which meet this criterion would be eligible for additional support equivalent to NRs 50,000. However, the NRA vulnerability criteria does not cover other disadvantaged and marginalized groups, which also require additional and targeted social and technical support.

- **Indigenous Peoples:** Indigenous Peoples (IPs), also known as Adivasi Janajati in Nepal, account for about 41% of the earthquake affected households in the 32 severely affected districts<sup>1</sup>. Therefore any development interventions carried out in all or any of these districts are expected 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 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, there are also risks that these marginalized and excluded communities will not be adequately consulted, risks that these communities will be excluded when housing assistance is being distributed, that the assistance provided (for example, housing designs) is not being ‘culturally appropriate’, and the likelihood that there will be negative impacts on livelihoods, especially for forest-dependent and agricultural-dependent communities.

Possible mitigation measures include:

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<sup>1</sup> Survey Data 2016-17, NRA MIS

- Designing housing designs that are culturally sensitive and appropriate
  - Developing communication strategies that focus on using local languages
  - Providing support in setting up bank accounts and accessing low-interest loans
  - Targeting indigenous people while providing training opportunities
  - Facilitating access to additional support equivalent to NRs 50,000 to eligible vulnerable households set by the NRA
- **Dalits:** In the context of Dalits, approximately 6% of the earthquake affected households in the 32 severely affected districts<sup>2</sup>. Statistics show that the Dalits are the most deprived social groups in Nepal. Dalits suffer from discrimination and disadvantages across all spheres of social life. Almost half of Nepal's Dalits live below the poverty line and are landless and much poorer than the dominant caste groups. Dalit women are also worse off than Dalit men. Their social status means that Dalits are some of the worse-affected social groups, and are at risk of being marginalized and excluded from project benefits.  
Possible mitigation measures include:
    - Targeting socio-technical assistance through the NRA to the Dalits
    - Ensuring that Dalits participate during consultation processes
    - Developing targeted communication strategies since Dalits tend to have lower levels of literacy
    - Supporting Dalits in the opening of bank accounts and exploring provisions for low-interest loans to assist them in purchasing land for a home in district centers
    - Targeting Dalits for trainings opportunities (for example, construction workers, enumerators, supervisors, social mobilizers)
    - Facilitating access to additional support equivalent to NRs 50,000 to eligible vulnerable households set by the NRA.
  - **Women:** It is estimated that 21% of households (approximately, 173733 households)<sup>3</sup> in the 32 severely affected project districts are female-headed. There is the risk that women without landownership or access to bank accounts will not be able to receive the housing grant. The limited mobility of women, due to patriarchal norms and their household responsibilities, also means that they risk being excluded from consultations and hence remain unaware of the project benefits. The high rates of female-headed households also require that the project provides them with more assistance in finding building materials, accessing masons, and obtaining information about multi-hazard designs. Findings from the PDNA also indicate that there is a high risk of sexual violence for women and girls, especially from female-headed households where the risk has increased as they are now sleeping in highly unsecured shelters.  
Possible mitigation measures include:
    - Target female-headed households during the social mobilization process and provide them with additional technical assistance during the construction period (for example, access to masons, porters, carpenters)
    - Distribute targeted communications and awareness to women, especially as literacy rates amongst women are lower. This could include organizing consultations during times when women are not busy with their household chores, holding consultations in areas accessible to women

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<sup>2</sup> Survey data 2016-17, NRA MIS

<sup>3</sup> NRA MIS

- Facilitate the opening of bank accounts (this may necessitate relaxing requirements for some identification documents)
- Create awareness-raising campaigns on issues of sexual violence, especially of women and girls
- Support joint ownership, if not complete female ownership, of houses supported through housing grants
- Facilitate access to additional support equivalent to NRs 50,000 to eligible vulnerable households set by the NRA.
- ***People with Disabilities and Elderly:*** Disasters make the situation worse for people living with disabilities, with regard to accessing essential services. 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 housing grants provided through the project will have positive impacts on these individuals. Targeted measures taken for consultations, communications strategy, and additional support provided during construction will ensure that these groups will not be excluded from direct benefits.  
Possible mitigation measures include:
  - Target socio-technical assistance through the NRA
  - Hold consultations in easily accessible areas
  - Facilitate the opening of bank accounts (this may necessitate relaxing requirements for some identification documents)
  - Provide them with additional technical assistance (mason, porters, carpenters) when building houses
  - Design houses that are sensitive to the needs of elderly and people with disabilities (for example, avoiding raised platforms)
  - Facilitate access to additional support equivalent to NRs 50,000 to eligible vulnerable households defined by the NRA.

Sub Project level- Bio-physical environment and socio-economic baseline of project area and major environment and social issues is presented in Annex 1.

## **CHAPTER FOUR: PROJECT-LEVEL ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP)**

Environmental and social safeguard assessments (settlement level screening and ESMPs) carried out in the three original project districts (Nuwakot, Dhading and Dolakha, comprising 934 settlements) revealed limited environmental and social impacts resulting from project activities. Commonly encountered issues related to increased pressure on degradation or loss of community forest trees, impact on quarry sites, safety issues with existing temporary structures in use, and support for landless victims and disadvantaged and marginalized groups. Highly sensitive environmental and social issues were not observed except in a few exceptional cases such as water availability for reconstruction, settlements prone to landslide and erosion, and community relocation, however World Bank resources are unlikely to fund such cases.

Based on the experience of managing environmental and social issues in the three original districts, a project level Environmental and Social Management Plan (ESMP) has been prepared as part of the revised ESMF. It provides project level common and special environmental and social cases recorded in the settlement level screening reports and observed on-site during implementation in the original three districts. This ESMP will be the main planning document for managing common issues that are small and site specific.

The project level ESMP providing issues, mitigation measures and costs is presented as below in Table 5. Environmental and social issues presented in this project level ESMP are based on assessments done for three original projects districts. Mitigation measure cost presented in the Project level ESMP are tentative for the purpose of estimation. Each of these issues and cost must be verified at municipality level before implementation of the project level ESMP using verification tool (Annex3). As required, guidance (for example; slope stabilization, reinstate of quarry sites and water availability works) will be sought from relevant technical expert and verified at site. Final mitigation measure and cost must be endorsed from relevant agencies with implementation plan and approved from NRA. Final safeguard documents involving special cases such as slope stability/landslide, reinstate of quarry sites, water availability for reconstruction will be shared with Bank for clearance. Priority for implementation of mitigation measure will be given for development of linkage and coordination activities from DLPIU and CLPIU. At the central level NRA will play a lead role for such cases. For example; water availability for reconstruction works. The project level indicative budget for mitigation measures is provisioned approximately NRs. 533.4 million<sup>4</sup> as depicted below in table-5.

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<sup>4</sup> Cost of socio-technical assistance will come from the overall project cost.

**Table- 5. Project Level Environmental and Social Management Plan (ESMP)**

SN	Issues	Explanation/description/Extent, nature of risk	Mitigation measures	Mitigation measure Cost	Implementation Responsibility	Remarks
<b>Common Environmental and Social Cases:</b>						
1	Increased pressure on degradation or loss of tress (Community Forest) due to timber requirement	Pressure on nearby community forests due to increased demand of timber for construction of housing units in 32 districts viz, about 28.16 million cubic meters of timber for construction of window pane, gate, roof and other necessary features. The magnitude and extent of cumulative impact is considered as significant.	<ul style="list-style-type: none"> <li>• Reuse of timber from demolished house</li> <li>• Use trees fallen by the wind or other reason, trees along the forest path without disturbing the core forest area</li> <li>• Fell trees based on density and distribution, do not fell trees from sparse areas of forest</li> <li>• Use trees owned by beneficiaries in their farms, as District Forest Office (DFO) has already given priority to use own timber planted in farm</li> <li>• Use of the annual harvest of timber from community forest</li> <li>• Replantation support for affected community forest</li> </ul>	NRs 57.6 million	<b>Community Forest User Group /DLPIU</b>	Prepare plantation plan and endorse by Forest User Group and local government. Need coordination within relevant forest authority and Community Forest User Groups.
2	Impact on quarry site (sand, aggregate, slate, stone, etc.)	Sand, aggregate, slate, stone, etc. sourced from river bed and nearby stone quarry site. Extent and nature of risk observed are site specific and manageable.	<ul style="list-style-type: none"> <li>• The reuse of salvaged building materials will minimize pressure on the quarry site and nearby market</li> <li>• While quarrying for small amounts by the individual HHs, the erosion prone areas and nearby sites of community structures, services, utilities and facilities should be avoided for quarry operation</li> <li>• To ensure that the quarry spot is safe after the extraction, the area needs to be restored by proper leveling with well-maintained drainage; and</li> </ul>	NRs 12.8 million	<b>Beneficiaries (House owner)</b>	Technical verification for reinstatement of quarry sites will be assessed. It will not cover the commercial quarry site.

			<ul style="list-style-type: none"> <li>• Avoid road and bridge sides, hill slopes, cattle grazing area for quarry site</li> <li>• Reinstate the quarry sites used by individual HHs based on identification of vulnerability/ erosions/landslides spots. (technical verification/expert option is required)</li> </ul>			
3.	Debris Management (House Demolished materials)	Most of the case, unused quantity of debris was dumped in the potholes nearby roads within the settlement.	<ul style="list-style-type: none"> <li>• The debris containing metal scarps, empty cement bags needs to be collected safely and sold to scarp dealers;</li> <li>• Application of 3R principle (Reduce, Recycle and Reuse) to reduce additional pressures on demand of re construction raw materials.</li> <li>• Create awareness on debris management.</li> </ul>	NRs. 14.4 Million	<b>Beneficiary/DL PIU-GMALI</b>	Priority will be given to develop coordination and linkage with other similar agencies for awareness creation and debris management activities. (program will be applicable on site specific condition and need basis only)
4.	Occupational health and safety	Construction of residential buildings will involve small scale civil works and there is health and safety risks of minor accidents and injuries. If a contractor is mobilized for settlement level reconstruction, there may be issues related to labor camp's hygiene and sanitation.	<ul style="list-style-type: none"> <li>• Masons and carpenters are trained on relevant safety measures, and owners will be made aware of the safety risks and management.</li> <li>• If the reconstruction work is contractor based, maintain hygiene and sanitation of labor camp</li> <li>• Provide personal protection equipment (PPEs) to laborer during reconstruction</li> <li>• Provide tool kits for primary treatment in case of injury.</li> </ul>	As a part of Awareness and Training Component	PIU/CLPIU/DLP IU and contractor for the cases of PPEs and tool kits where contractor is mobilized	Awareness training cost is internalized within the overall cost of Mason training provided by DLPIU-Building. DLPIU/CLPIU will develop and facilitate coordination and linkage activities.

5.	Labor influx and use of child laborer any form of forced labor	Although it is owner driven, housing construction might entail hiring of migrant workers.	<ul style="list-style-type: none"> <li>• Project awareness program on impact of labor influx, child labor</li> <li>• Strick adherence to prohibition of child labor or any form of forced labor</li> </ul>	As a part of Awareness and Training Component	<b>GMALI/Contractor</b>	Contractor will be awarded/informed about issues on child labor.
6.	Marginalized and disadvantaged groups (Indigenous Peoples, Dalits, Women, people with disabilities and elderly)	Marginalized and excluded communities who are at risk of not being adequately consulted, risk being excluded from housing assistance and other project benefits, risk that assistance (e.g., housing designs) is not 'culturally appropriate'	<ul style="list-style-type: none"> <li>• Facilitate access to housing grants to vulnerable, marginalized and disadvantaged households</li> <li>• Provide socio-technical support that would especially target marginalized and disadvantaged groups to expedite construction of houses.</li> <li>• Encourage different partner organizations to provide additional support to households that fall under NRA vulnerability categories.</li> <li>• Encourage training, capacity building and income generating activities through line agencies and POs.</li> </ul>	NRs. 327 million	<b>NRA-PMU/GMALI Community</b>	Socio-technical support is part of EHRP project cost.
<b>7.</b>	<b>Special Environmental and Social cases :</b>					
7.1	Safety issues of existing temporary structures in use	The majority of earthquake victims have to reside in temporary shelters until the reconstruction of their permanent houses is completed. Since these temporary structures are usually constructed at times of emergency, they do not meet adequate safety standards and hence pose safety issues in terms of location and structural design. The structures are usually made up of corrugated sheets covering bamboo frames	<ul style="list-style-type: none"> <li>• Construct temporary sheds until the reconstruction of permanent house.</li> <li>• Adopt measures to continue maintenance of structures</li> <li>• Structures should be safely demolished when shifting to newly constructed houses</li> <li>• Re-use materials for construction of toilet, cattle sheds, green house for farming vegetables, store etc.</li> <li>•</li> </ul>	As a part of Awareness and Training Component	<b>Beneficiaries/D LPIU</b>	



		that are at risk of causing injury during the monsoon season.				
7.2	Water availability for reconstruction	However, the water scarcity is not a project induced issues but significant number of beneficiaries living in remote location in project financing hilly district are facing water deficit for house reconstruction during dry season. To ensure availability of water without interruption of the reconstruction work is an important issue and challenge to reconstruction.	<ul style="list-style-type: none"> <li>• Avoid excess water usage and focus on collection and storage of night water discharge</li> <li>• Ensure that construction is scheduled in accordance with water demand and availability</li> <li>• Use/install alternative mechanism to collect existing discharge water in large quantity</li> <li>• Develop coordination and link activities with district and local level Government agencies and I/NGO working for drinking water and sanitation in the district</li> </ul>	NPR. 19.2 million	<b>Concerned agencies working in district.</b>	DLPIU/ will report to CLPIU and through CLPIU, NRA will play coordination and linkage role with line agencies working in the sector for implementation of mitigation measures .Low cost option will be adopted.
7.2	Slope Instability and Landslides	In some exceptional cases, mitigation of existing landslides that may render houses vulnerable to damage is required. Control of slope instability and landslide will help check involuntary resettlement and relocations with minor investment on mitigative activities.	<ul style="list-style-type: none"> <li>• Provide feedback to NRA about the in-situ situation of houses/settlements</li> <li>• Carry out geo-tech investigation from CLPIU-Building and the NRA</li> </ul> <p>Bio-engineering works such as retaining walls, gabion walls, plantations to check slide and aid slope stabilization</p>	NRs 96 million	<b>NRA/CLPIU</b>	Detailed geo-tech investigation will be done by NRA. Bio engineering cost will be shared with other agencies working with local body. If bio engineering work is required, DL-PIU-Building will prepare the design report/Master Plan.

7.3	Resettlement and Relocation (Involuntary Resettlement)	In exceptional cases, involuntary resettlement of households or community may be required. Involuntary resettlement activity could result in physical and economic displacement of the households and communities.	<ul style="list-style-type: none"> <li>• A site specific Resettlement Action Plan (RAP) to be prepared in line with Resettlement Policy Framework (RPF – Annex 5)</li> </ul>	NRs. 6.4 million	<b>CLPIU-GMALI</b>	
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For reference, detailed Environmental and Social Impact/Risk Refer to Annex- 2 and Annex- 3 for Project Level ESMP verification tools.

## **CHAPTER FIVE: ENVIRONMENT AND SOCIAL MANAGEMENT -APPROACHES TO ADDRESSING ENVIRONMENTAL AND SOCIAL ISSUES**

The project level Environmental and Social Management Plan (ESMP), prepared as a part of the ESMF, is the main management plan (see table 5). The ESMP will be adapted during implementation at the municipality level. A two-step process and procedure will be used when adapting and implementing the project level ESMP in municipalities:

Step 1: Review and Verification/ Validation project level ESMPs at the Municipal level, through local level consultation and site visits. Prepare a separate ESMP for special environmental and social cases not covered by the project level ESMP which are identified during verification/validation. Special environmental and social cases include, for example, unavailability of water for reconstruction, safety issues relating to existing temporary structures in use, slope instability and landslides, and community resettlement. Municipal level consultations and validation will be a part of implementing project level ESMPs.

Step 2: Supervision and implementation monitoring of ESMPs (both project level and special cases) in Municipalities covering settlement level issues and mitigation measures.

Each of these steps is outlined in greater detail below. Additionally, the project will also incorporate measures to enhance environment and social sustainability at different stages of the project cycle.

### **Step 1: Review and verification/validation of project level ESMP at the Municipal level and preparation of specific ESMPs for special environment and social cases**

Definition of Settlement: The DL-PIU, for the purpose of verification of project level ESMP and for the preparation of a separate ESMP in the cases of exceptional environmental and social issues, will define settlement using a combination of criteria including the following:

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

Therefore it may be possible that a Municipality/Rural Municipality comprised of a ward 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.

A Municipality/Rural Municipality is the collection of settlements having similar topographic features, contiguity, socioeconomic and environmental settings. Wards are the lowest administrative unit. Municipalities/Rural Municipalities are the higher administrative units and are a collection of wards.

The DL-PIU, through environmental and social safeguard specialists, consultants or service providers/Partner Organizations/Support Organizations, will verify project level ESMPs using the Municipality level Environment and Social Verification and Mitigation tool (see Annex 3) to determine the site specific issues, mitigation measures and applicability of Nepali laws and regulations, World Bank safeguard policies, and the implementation of corresponding safeguard mitigation measures or requirements, as well as opportunities for sustainability enhancement. Municipality level review and validation/verification of the project level ESMP (table 5) will be undertaken through site visits and consultations with local bodies and beneficiaries. The DL-PIU will identify special environmental and social issues and risks that are not common and consequently not covered by the ESMP (table 5). In such situations, the DL-PIU may recommend the preparation of a separate specific ESMP if necessary. The review and verification/validation of project level ESMPs will be done through local level consultation. For special environmental and social issues identified from verification and consultation program, a separate ESMPs (and Resettlement Action Plans (RAPs) if necessary), where necessary will

be prepared. Municipal level consultation and awareness will be a part of implementing project level ESMP.

The special ESMP, inter alia, contains the following;

- a. Maps – showing environmental and social features, and potential hazard map
- b. Description of environmental and social features (status, importance, sensitivity)
- c. Description of potential impacts (i) Settlement level impacts
- d. Mitigation Measures and Good Practices as well as opportunities for environmental enhancement:
  - (i) *Mitigations and good practices/ opportunities for environmental enhancement:* This, for example, may include 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 levels (or to enhance the positive impacts). The ESMP also identifies domains for building back better through the enhancement of the existing ecosystems, 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 (for example, forested slopes reducing flooding, reducing landslides and soil erosion) and may provide livelihood resources and public amenities. Specific needs and requirements may differ across settlements.
  - (ii) *Household level mitigations and good practices/opportunity for environmental enhancement:* At the household level there are minimum standards/requirements with 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 effects 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 and toilets (for example, pit latrine and their provision in the house design and plan). Houses should not be in or close to the risky spots in the area. The ESMP identifies the areas and zones in and around the settlement whereas house 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. These need 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 and activities may differ from site to site. The ESMP will also identify opportunities and recommend options for building better houses in the area/sub-zones.
- e. Identification of programs/projects in the area for collaboration for synergy and building better. These may, for example, include programs on renewable energy/ improved stoves, water and sanitation, forest, and soil conservation.

During the preparation or verification of ESMPs, existing development initiatives at the community/ settlement level may also be identified to explore possible linkages with the housing projects for promoting livelihood opportunities. The opportunities to link with other development projects will develop synergies and provide more comprehensive support to the earthquake-affected households. The DL-PIU will submit the reviewed and validated Municipal level ESMP (Environmental and Social (E&S) verification and mitigation tool) to CL-PIU for implementation. The review and verification of information on ESMPs will be jointly carried out by the DL-PIU/CL-PIU-GMALI through local level consultation (RM/M/Ward authority). The World Bank will also conduct a post-

review sample of the ESMPs and may also validate the review through site visits. The prepared ESMP report will be shared with CL-PIU and World Bank for necessary feedback and clearance.

When a sub-project is expected to cause involuntary resettlement, the DL-PIU will follow the procedure as set in the project's Resettlement Policy Framework (RPF) (see Annex 5). Settlement-specific RAP prepared will be shared with the World Bank for review and clearance.

**Step 2: Supervision and monitoring implementation of ESMPs (both project level and exceptional cases) in Municipalities covering settlement level issues and mitigation measures**

The DL-PIU Environment Specialist and Social Specialist, with support from the respective local body (RM/M ), will periodically monitor the implementation of ESMPs. The DL-PIU will prepare the quarterly monitoring report and organize a briefing session in the Municipality/Rural Municipality. The CL-PIU prepares consolidated quarterly supervision and suggestion report, based on the overall progress and the monitoring report of individual household and settlements, highlighting any major environmental and social issues, and then forwards the report to the respective NRA division/department. The NRA will share a copy of report with the World Bank. The NRA and the World Bank may visit selected subprojects/settlements to monitor if all the customized E&S requirements are being implemented at the household level.

## **CHAPTER SIX: CONSULTATIONS AND INFORMATION DISCLOSURE STRATEGY**

Information disclosure and public consultation is important and necessary during sub-project planning and implementation. As such, during project implementation, meaningful consultation will be continued. This will enable sub-project affected people and other stakeholders to participate in and contribute to the sub-project planning and implementation, and thereby help to minimize adverse impacts and maximize benefits.

Information to be disclosed 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. Methods for disclosure could be vary but may include via posters, booklets, newspapers, the internet, and community meetings. This ESMF, as well as 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 include, for example, DCC office, DL-PIU, NRA, rural Municipality, Municipality, local NGOs, clubs and users' groups.

The communication and awareness raising program of the project covers: (i) minimum environmental and social 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's implementing agencies, and support organizations/ partner organizations may also require orientations to raise awareness regarding environmental and social issues, responsibilities, procedures, and mitigations.

The task of rebuilding homes and communities after the disaster is challenging. A good communication strategy among the government, agencies involved in reconstruction, and the affected population need to be further enhanced to ensure that the project is implemented in sustainable manner. The aim of the communications initiative is 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 for this recovery project is 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.

These tools support the beneficiaries in providing information about:

- (i) 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
- (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 funds/ support from the GoN and other agencies.

## **GRIEVANCE REDRESS**

The grievance redress mechanism (GRM) developed as part of this ESMF will follow the same mechanism developed for the overall project.<sup>1</sup>The mechanism would include: (i) a recording and reporting system, including grievances registered/recorded in writing; (ii) designated staff with responsibility at various levels of government; and (iii) a specific protocol for handling grievances including the minimum time frame within which different types of grievances should be addressed.

### **Scope and Definition of Grievances**

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

- *Eligibility related grievances:* Requiring reassessment of survey data for non-eligible individuals or possibly additional visits 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 World 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 the DL-PIU or the Department of Urban Development and Building Construction (DUDBC) personnel; regarding availability/pricing of building materials and labor; other grievances against the program.

The grievances can be registered orally, in written form, or via telephone, SMS to the ward, Rural Municipality/Municipality and ward offices, DLPIU and to the NRA. The specified format for filing written grievances has been developed and will be used when recording grievances received in written form. A proper Management Information System (MIS) has been developed by the project to record all grievances related to project.

### **Institutional Structure**

The institutional setup of the project's GRM system will align with and support the mechanism proposed in the NRA Grievance Redress and Management Procedure (GRMP) 2072 document. The program will provide additional technical and human resources support at various points 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:

#### **a. Ward Level**

The ward-level Grievance Management Committee(GMC)<sup>2</sup> includes the respective Secretary along with other staff from their respective office. The ward-level GMC meetings where NRA, GMALI-related grievances are discussed may also include the following groups and individuals:

- Chairperson of Ward office – Coordinator
- Technical person (Engineer or sub-engineer deputed by NRA) – Member
- Ward secretary – Member Secretary

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<sup>1</sup> Revised procedure for handling of grievances related to reconstruction, NRA, 2017/2074

<sup>2</sup>The rest of the chapter will only refer to Rural Municipality level GMC and not municipalities, as the program will most likely focus on rural houses in rural municipality. It may be assumed that similar systems will be implemented in municipalities given policy changes in the future.

The assigned staff member at the ward 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 ward Secretary forwards the grievance to the responsible party at the RM/M level and requests response to the grievance. The contact person is also responsible for facilitating the downward flow of information on grievance redress and resolution.

***b. Rural Municipality Grievance Management Committee (RMGMC) /Municipality Grievance Management Committee (MGMC)***

The RMGMC 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 RMGMC may use public accountability tools such as public hearings to resolve grievances at their committee meetings, where the responsible party at the local level will also be invited, and to disseminate responses from higher-level committees on the forwarded grievances. The RMGMC is required to keep minutes of the meeting. The RMGMC meetings, where NRA, GMALI-related grievances are discussed, may include following groups and individuals:

- Chairperson of RM/M office – Coordinator
- Deputy Chairperson of RM/M office – Deputy Coordinator
- Technical person DLPIU-Building (deputed by NRA) – Member
- Police Officer of nearest post – Member
- Executive Officer of RM/M – Member Secretary

***c. NRA Central Grievance Management Committee (CGMC)***

The CGMC will be responsible for monitoring the functioning of the GRM system as a whole and for recommending any policy level or programmatic changes based on systemic patterns of grievances received and resolved, to ensure effectiveness of the GRM system. The CGMC will review monthly reports forwarded by the RMGMC and analytic reports of grievance data entered into the MIS system prepared by the MIS specialist at the NRA/CL-PIU. The CGMC will consist of following staff in the PMU office:

- Designated Executive committee member NRA – Coordinator
- Chief of Grievance Section NRA - Member
- Under Secretary (Technical, CLPIU-Building) NRA –Member
- Chief of Information & Communication Section, NRA – Member
- Under Secretary of Social Mobilization and Grievance Management Section – Member Secretary

**Grievance Redress and Management Process**

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

***Grievance Reporting and Documentation***

Beneficiaries or non-beneficiaries may file grievances at one of the following reporting points, depending on the nature of the grievance and convenience to the grievant: (i) Ward office of RM/M; (ii) Rural Municipality/Municipality office; (iii) NRA office. Beneficiaries may also resort to other judicial (courts system) or administrative means (the District Administrative Office), and directly to the World Bank at any point during the grievance process.

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

- Grievance forms will have two copies, one for the beneficiary and another for office staff for entry into the MIS and archiving

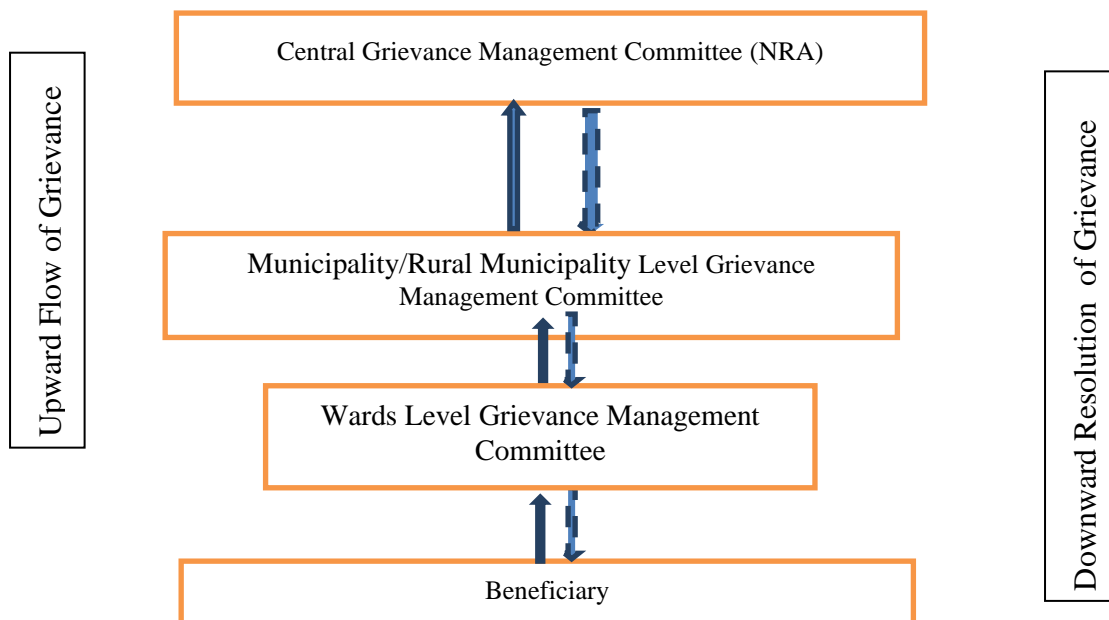


- Every reported grievance will have a unique case number, which will be linked to the beneficiary’s identification number, and also the unique identification number
- The beneficiary will be provided with the case number and a copy of the paper grievance form filled out by himself/herself or on his/her behalf. The case number can be used to trace the status of the reported grievance or retract it at any point by the beneficiary.
- Office staff must also use the same form to record grievances reported directly to them.
- The office staff at the Rural Municipality/Municipality is responsible for forwarding the grievances directly to the NRA office for entering and uploading grievance forms into the MIS database and also any documentation/photographs relevant to the grievances.

**Flow of Grievances**

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 a higher-level committee for resolution. The Rural Municipality/Municipality office provides technical and logistic support to manage the upward flow of grievances. The NRA office staff is responsible for entering and uploading grievance forms into the MIS from the Rural Municipality/Municipality (except in cases where the grievances are against the office staff or when beneficiaries want to file their grievances anonymously). All reported grievances will be reviewed by the assigned Rural Municipality/Municipality staff and categorized for local resolution. The assigned staff at Rural Municipality/Municipality will be responsible for forwarding the grievances against responsible parties at higher-level committee in cases of non-resolution. All the grievances are fed into the MIS system and updated accordingly. The redress and resolution of grievance follows the top-down approach as outlined in the figure below.(Details about grievance handling can be found in ‘Working Procedure for Reconstruction Related Grievance Management’ 2074 BS)

**Figure 1: Flow of Grievance**



**Grievance Monitoring**

Designated or assigned staff of the NRA are responsible for the monitoring of overall progress on grievances, for entering progress on the grievance handling into the MIS, and for communicating

resolution/updates to the beneficiary via concerned offices. The monitoring team from NRA will also make periodic visits to ensure that the resolutions provided, and actions recommended are implemented or followed by the responsible party, and to ensure that participation in the grievance process has not resulted in negative consequences for the beneficiaries.

### **World Bank Grievance Redress System**

Communities and individuals who believe that they are adversely affected by the World Bank-supported project may submit complaints to existing project-level GRM or to the world bank'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 world bank's independent inspection panel which determines whether harm occurred, or could occur, as a result of World Bank 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](http://www.worldbank.org/grs). For information on how to submit complaints to the world bank inspection panel, please visit [www.inspectionpanel.org](http://www.inspectionpanel.org).

## **CHAPTER SEVEN: PROJECT IMPLEMENTATION ARRANGEMENTS**

### **1. Overview of project implementation arrangements**

Overall responsibility for policy formulation, guidance, planning, coordination and oversight will be with the NRA, whilst the project will be implemented by the CL-PIU – GMALI and CLPIU-Building. The NRA will oversee the program and will facilitate broad communication and coordination across the GoN. For this purpose the NRA has established the Housing and Local Infrastructure Development Division (HLID) within its organizational structure. This division is headed by a Joint Secretary. Under this division there are three sections: i) Housing Section (HS), ii) Settlements Development & Local Infrastructure Section, and iii) Geological Studies and Land Management Section.

Overall project management, implementation, liaison/coordination, capacity building, internal monitoring and coordinated project reporting will be the responsibility of the PMU housed under Housing, Settlement Development and Local Infrastructure Division (HSDLID). The Joint Secretary of HSDLID will be the Project Director and the two Under Secretaries will be the Deputy Project Coordinators. The Project Director will be supported by a pool of specialists including, but not limited to, financial management, procurement, environmental and social safeguards, monitoring and evaluation (M&E), and project management. Further, the PMU may augment designated staff with additional short-term resources from the market on a needs-basis to cater for specific technical expertise, specializations and skillsets.

As the EHRP has been being implemented by PMU – NRA, two CL-PIUs have been established in Kathmandu ( CLPIU- Buildings and CLPIU- Grant Management and Local Infrastructure) along with DLPIUs.

As an implementing arm of the NRA, the CL-PIU-Building is responsible for technical support for housing reconstruction standards, housing inspections, developing and overseeing the implementation of technical training and providing overall technical inputs to the housing reconstruction program. CLPIU-GMaLI is responsible for the enrollment of beneficiaries, disbursement of housing cash grants, monitoring and evaluation of the cash transfer system, addressing social and environmental issues, development and implementation of the ESMF/ESMP and RAPs.

### **2. Core functions of institutional units**

#### **a) Project Steering Committee (PSC)**

The main function of the PSC will be to direct and facilitate the PMU to ensure effective project management. The PSC will formulate policy and rules and will supervise/monitor the PMU and provide direction for effective implementation. The PSC is expected to support and prompt the PMU to implement decisions and to facilitate the resolution of issues raised by the PMU in the course of project implementation. The Secretary of the NRA will chair the PSC, whilst the PMU Project Director will act as Member Secretary of the committee. Other members will include Joint Secretary of Budget and Development Cooperation Coordination Division, chiefs of CLPIU-Grant Management and Local Infrastructure and CLPIU-Buildings, representatives of the Ministry of Finance and of the National Planning Commission (NPC).

**b) PMU-NRA**

As the central coordinating unit for EHRP, the PMU at the NRA will mainly be responsible for:

- i Facilitating the NRA in assessing damage and losses due to earthquake.
- ii Liaising with the World Bank
- iii Ensuring the implementation of the EHRP in accordance with the Financing Agreement, Project Appraisal Documents, Project Operational Manual and other related documents
- iv Prepare the Annual Work Program and Budget (AWPB), in accordance with the PDNA, Post Disaster Recovery Framework (PDRF), and annual policy/program, and in consultation with CL-PIUs
- v Acting as an interface for EHRP between the NRA including other relevant GoN entities and the World Bank
- vi Developing and consolidating procurement plans and procurement of works, goods, services and non-consulting services for the project activities in accordance with legal agreements.
- vii Extending necessary facilitation and cooperation to GMLI and Building CLPIUs effective and efficient implementation of project activities
- viii Monitoring implementation progress of GMALI and Building CLPIUs towards achievement of project objectives and provide project objectives to the World Bank
- ix Providing technical inputs for improving earthquake resilient housing framework while ensuring its incorporation into the Nepal Building Code
- x Developing and regularly update the project MIS for the housing reconstruction program
- xi Preparing and submitting physical and financial progress reports to the NRA, World Bank and other concerned entities
- xii Conducting overall financial management comprising accounting, auditing, internal control, asset management reporting, disbursement (fund flows), preparation and timely submission of consolidated trimester Implementation Progress Reports (IPR), unaudited and audited financial report
- xiii Managing and monitoring key governance and transparency requirements of the project, particularly fiduciary, procurement and safeguard, and
- xiv Undertaking trouble shooting including identifying and reporting problem areas during implementation and facilitating solutions as necessary.

**c) CLPIU-GMALI Infrastructure**

As the central level unit, the CLPIU-GMALI is comprised of various sections including: i) Planning, Monitoring and HRM; ii) Local Infrastructure; iii) Financial Administration; iv) Earthquake Housing Reconstruction; and v) Earthquake Monastery Reconstruction. For EHRP, its prime responsibility to project implementation would be to the Earthquake Housing Reconstruction section. It will mainly be responsible for:

- i Updating the list of beneficiaries and house owners,
- ii Registering the list of beneficiaries for housing program,

- iii Developing housing reconstruction plan of the concerned district,
- iv Submitting a request to the concerned agencies for approval of budget and program,
- v Mobilizing technicians necessary for reconstruction,
- vi Concluding construction agreement with the concerned persons and agencies,
- vii Supervising and overseeing reconstruction work,
- viii Obtaining progress reports of construction, and
- ix Depositing grant amounts into the bank accounts of beneficiaries.

Overall responsibility of environmental and social safeguard activities.

**d) DLPIU-GMALI**

At the district level, the combined DL-PIU of NRA and GMLI will be established with specialized sections. For EHRP, the prime responsibility to project implementation would be that of Earthquake Housing and Monastery Reconstruction Section and will mainly be responsible for;

- i Providing beneficiaries with the standards including earthquake-resistant technology approved by NRA
- ii Implementing or causing to be implemented the projects related to housing and settlement to be reconstructed
- iii Overseeing, supervising and monitoring housing and settlement reconstruction work
- iv Sending reconstruction progress reports of districts to CL-PIU on a monthly, four-monthly and eight-monthly basis
- v Implementing programs subject to the procedures and authority given to DL-PIU.

**e) CLPIU-Building**

As the central level unit, the CL-PIU Building is comprised of various sections including: i) Private Housing Development and Infrastructure and Human Resource Management ; ii) Financial Administration; iv) Health Institution Building Reconstruction; and, v) Public Building Reconstruction and Planning & Monitoring. For EHRP, the prime responsibility to project implementation would be that of the Private Housing and Settlement Development section and will mainly be responsible for:

- i Performing activities related to the construction of training centers and resource centers
- ii Implementing and coordinating the activities related to the enforcement of the Building Code
- iii Developing model designs of rural/urban housing
- iv Extending necessary support to, and coordinating with, DL-PIUs in relation to technical assistance, supervision and certification of housing reconstruction
- v Performing activities relating to housing reconstruction to be carried out with the assistance of the World Bank
- vi Preparing the Integrated Settlement Development Plan and infrastructure development
- vii Coordinating and monitoring the housing reconstruction work to be carried out with the assistance of other development partners, INGOs/NGOs.
- viii Supervising and facilitating the consultancy service
- ix Implementing and coordinating various capacity development programs.
- x Coordinating with, supporting and monitoring DL-PIUs.
- xi Managing daily administrative business of this section.

**f) DLPIU-Building**

At the district level, the DL-PIU-Building will be established with specialized sections. For EHRP, the prime responsibility to project implementation would be that of Private Housing and Settlement Development Section. In addition to the responsibilities as laid out for CLPIU-Building to be implemented at district level, the DL-PIU-Building will mainly be responsible for extending necessary

support to, and coordinating with, DL-PIUs in relation to technical assistance, supervision and certification of housing reconstruction.

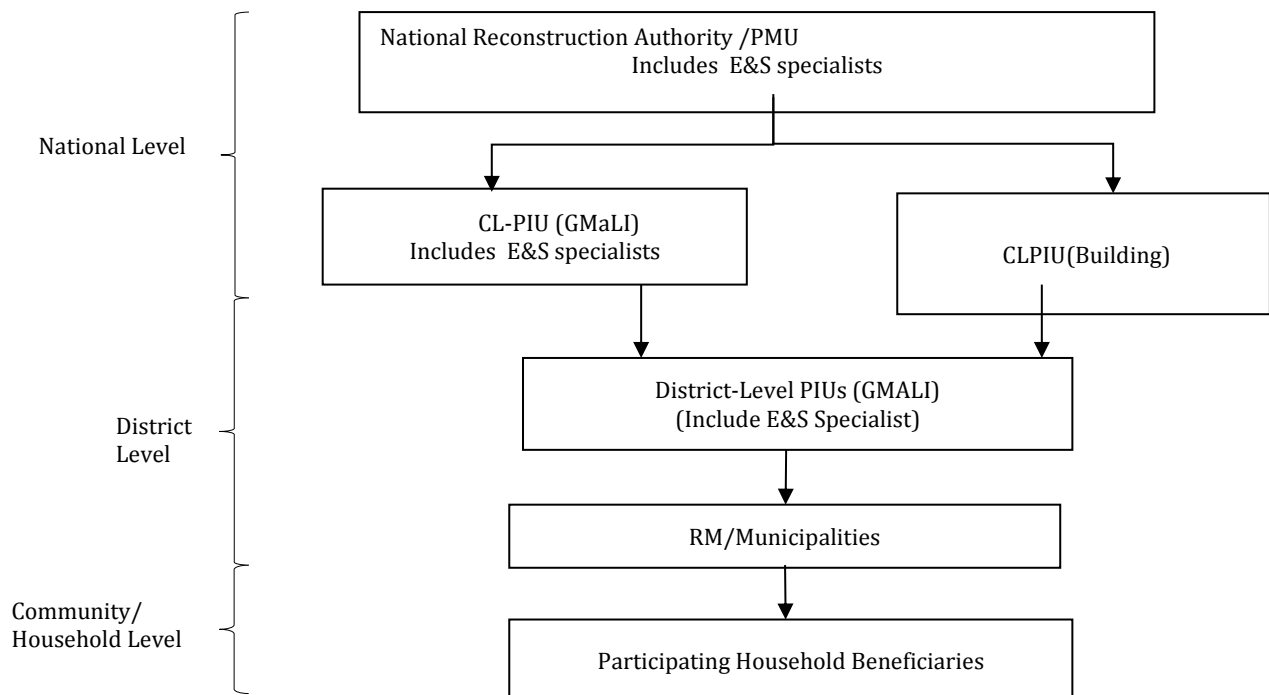
The GoN has overall responsibility for implementing this multi-sectoral and multi-ministerial project, including its environmental and social management. A high level Steering Committee comprised of officials from MOF, NPC, and both implementing agencies, CL-PIU GMALI and CL-PIU Building under the NRA, guides project activities. CL-PIU GMALI/CL-PIU Building would be the primary implementing agency for the provision of grants with a Project Implementation Unit (PIU).

The PIUs would be overseen by project directors in each implementing agencies. CLPIUs GMALI as implementing agencies will also include E&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 NRA 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&S specialists as needed for 32 earthquake affected districts have been made at the district level PIUs to provide E &S management support for the preparation of environmental and social safeguard documents, implementation, monitoring and awareness programs.

Under the NRA CL-PIU, one or more DL-PIU-Building is established to provide close technical support and supervision to project activities. The DL-PIU-GMALI manages the majority of district level oversight and coordination tasks, including those relating to environmental and social safeguards issues. As needed an Environmental and/or Social Development specialist will be recruited by the DL-PIUs that will be responsible for preparation, implementation and monitoring of safeguards management plans prepared for each of the district level settlements. If required, the DL-PIUs GMALI might seek support from service providers organizations and POs .

At the local/community level, DL-PIU, Rural Municipality/Municipalities, and the beneficiary households themselves will be responsible for the implementation and compliance with the safeguards documents developed for the project. The overall project implementation arrangements, including arrangements for E&S management, are shown in Figure 2:

**Figure 2: Project Implementation Arrangements**



### 3. Core responsibilities and responsibilities relating to Environmental and Social Safeguards

Overall project roles and responsibilities, as well as specific environmental and social roles and responsibilities, are outlined in Table 6 below:

**Table 6: Core responsibilities and responsibilities relating to Environmental and Social Safeguards**

Institutional unit	E&S-specific responsibilities
NRA/PMU	<ul style="list-style-type: none"> <li>Oversee the environmental and social management processes for the project and to ensure the E&amp;S performance of the project is in line with GoN and World Bank requirements.</li> <li>Monitor overall compliance of ESMF, RAP and ESMP and other safeguard documents</li> <li>Support and prompt the PMU to implement decisions and to facilitate the resolution of issues raised by the PMU in the course of project implementation.</li> <li>Implement socio-technical support package to beneficiaries</li> </ul>
CLPIUGMALI	<ul style="list-style-type: none"> <li>Monitor overall compliance of the ESMF and other safeguard document.</li> <li>Guide and supervise DLPIU in environmental and Social safeguard planning, implementation.</li> <li>Review of E &amp; S safeguard document submitted by DLPIU</li> <li>Review of training and awareness materials, planning and budgeting submitted by DLPIU.</li> <li>Review and clearance of ESMPs and RAPs prepared for special cases by DLPIU</li> <li>In consultation with DLPIUs, prepare plans with a ‘build back better’ approach for coordination and linking with other agencies working in district and awareness raising, as part of their annual work plan</li> <li>Prepare supervision monitoring reports for each districts and provide feedback for implementation of ESMF/ESMP</li> </ul>

DLPIU -GMALI	<ul style="list-style-type: none"> <li>• Prepare, implement and monitor environmental and social safeguards management plans (ESMPs) prepared for each RM/M level.</li> <li>• Prepare district level special cases ESMPs and submit to the CLPIU-GMaLI for final approval</li> <li>• Prepare quarterly monitoring reports and organize a briefing session in Municipality/Rural Municipality</li> </ul>
Rural Municipality /Municipalities (RM/M)	<ul style="list-style-type: none"> <li>• At the local/community level, DLPIU /Rural Municipality/Municipalities will be responsible for the review, verification/update of Project Level ESMPs implementation planning, budgeting and compliance monitoring with the safeguards documents developed for the project.</li> </ul>
World Bank	<ul style="list-style-type: none"> <li>• Provide guidance and assist in the preparation of safeguards instruments</li> <li>• Monitor the implementation of the safeguards instruments to ensure they are implemented in compliance with World Bank policy requirements</li> </ul>

## **CHAPTER EIGHT: MONITORING**

Monitoring of environmental and social activities will be carried out by the DL-PIU and CL-PIU GMALI and also by third parties. Safeguard monitoring will be undertaken 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 and monitoring will entail routine quality certification at various stages of construction, forming the basis of payment certification and other works. The three stages of monitoring plans have been discussed in detail below:

### **i Monitoring by DL-PIU**

The PIU at the district level will conduct regular monitoring of ESMP implementation at sub project level. Environmental and Social Specialists recruited at the DL-PIU level and support from the local body (Municipalities/Ward ) will be sought whenever required for monitoring. The DL-PIUs will prepare monitoring reports as an integral part of monthly Evaluation and Monitoring report. The DL-PIUs will be responsible for preparing consolidated quarterly monitoring reports, highlighting any major environmental and social issues, and forwarding the report to the CL-PIUs, who will share these reports with the NRA as well as with the World Bank.

In addition, the DL-PIUs will also be responsible for identifying any adverse impacts or issues that are complex or have highly significant risks or impacts and hence need to be treated separately or given special consideration for monitoring or other action.

### **ii Monitoring by CL-PIU**

Monitoring for overall compliance with existing environmental regulations, environmental and social safeguards and ESMF provisions is carried out by the CL-PIU GMALI. The CL-PIU will also be responsible for overall oversight of environmental and social issues, providing guidance, developing policies (if necessary), coordinating with other programs/projects for synergy and good practices. The CL-PIU may visit selected samples of subprojects/settlements as needed (samples will be based on a review of the consolidated quarterly reports submitted by DL-PIU and will be typically undertaken every six months).

### **iii Monitoring by PMU**

The PMU will make necessary arrangements of environmental and social implementation compliance monitoring in sites as and when required on sample based on the quarterly monitoring reports submitted by CLPIU and provided suggestion/feedback on quarterly reports.

### **iv Local Body (Gaopalika/Municipality)**

With transition to federalism, engagement of the local body in the project cycle will have significant implication. Thus, in coordination with the DLPIU the Local body will regularly monitor the implementation of project level ESMP including verification, validation process.

#### **iv. Third party monitoring**

The CLPIU GMALI has commissioned a third-party project level monitoring. The Third Party Monitor evaluates 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 once a year . The third-party monitoring reports will be shared with the World Bank.



## **CHAPTER NINE: CAPACITY BUILDING**

Local capacity building will be critical to the implementation of the above safeguard-related activities. With the current institutional arrangements, local governments, particularly Rural Municipalities/Municipalities, will need strong support in building up their capacity to fulfill their designated responsibilities.

The support at the local level will be required to internalize the environmental and social issues in the EHRP project planning and design in coordination with the engineering design team to address the potential impacts as well as to promote good practices and building back better.

CLPIU has already conducted local level awareness program on environmental and social safeguard in fourteen districts to representatives from 131 Rural Municipality and Municipality. The objectives of the environmental and social trainings were to provide basic knowledge and information on the approach and requirement of ESMF and key environmental and social issues associated with the proposed interventions. At the grassroots level, the beneficiaries and communities will be supported through DLPIU safeguard team 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. The CL-PIU in consultation with DL-PIUs will prepare site specific demand basis relevant environmental and social training and awareness raising plans as part of annual work plans .

## **CHAPTER TEN: BUDGET REQUIREMENTS FOR IMPLEMENTATION OF THE ESMF**

The budget provided in this Project level ESMP is only indicative. The cost indicated in Project Level ESMP will be reviewed and verified for each issues and mitigation measures through the consultation with local body and will be agreed with the local body, DLPIU/CLPIU and NRA for actual budget requirements and mitigation measure implementation mechanism. Priority will be given to linking and coordination with the existing programs being implemented by government agencies, organizations, NGOs, INGOs and local communities for mitigating site specific environmental and social issues.

The key elements of the environmental management cost of any project usually includes the following:

- *Cost of environmental and social personnel:* All environmental and social personnel at the NRA, CL-PIUs, DL-PIUs and TA will be part of overall human resources and logistics. Therefore 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 for each house will be part of each house/ shelter plan, design and construction, therefore 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 and programs. Hence this will not incur additional cost, except staff time for coordination and awareness, and support to beneficiaries in accessing other opportunities. The requirement for alternative energy/toilet during last tranche is an example.
  - ii) Project Level site specific mitigations: Certain mitigations may be needed, on case-by-case basis, at RM/M (settlement/ community) level. For example, for mitigating induced impacts on increased pressure on degradation or loss of tress (Community Forest) due to timber requirement, impact on quarry site (sand, aggregate, slate, stone, etc.) and slope instability/ soil erosion and landslides risks ). Project level ESMP budget has been set aside for this purpose and priority of works has been given to coordinate/ link up with activities in the area by other agencies/ by other project. Project level indicative budget for mitigation measures has been provisioned approximately NRs 533.4 million.
- *Cost of environmental monitoring:* Monitoring by the DL-PIU, or by CL-PIU or by NRA is covered under the overall program site visit, supervision, and monitoring. Third Party monitoring will be done annually. The total budget for the third party monitoring is estimated to be approximately NRs 3.0 million
- *Cost of environmental trainings, awareness and information dissemination:* These activities will be combined with other trainings, awareness and information activities. CLPIU , as part of the annual work plan, will develop environmental and social training, awareness and communication/ information dissemination plans with cost. It is expected that this will incur approximately NRs 21 million. The detail cost breakdown is presented in Annex -6.

## **ANNEX 1: BIOPHYSICAL ENVIRONMENT AND SOCIO-ECONOMIC BASELINE**

**Demography and Social Composition:** According to survey done in 2016 (source: NRA MIS), in the 32 severely affected district more than 820,691 households are affected out of which females comprise approximately 49% of the total population. With regards to social composition, indigenous people (known as Adivasi Janajati in Nepal) constitute 40% of the total households. Likewise, there is also a significant presence of other marginalized groups including Dalits (previously known as 'untouchables') that constitute 6% of the population and 173,733 female-headed households constituting 21% of all households. Notably, the figure for female-headed households is likely to increase due to households deaths of male members. About two percent (513,321 individuals) of the total population of Nepal is reported to have some kind of disability. Although there is no data available, it can be assumed that this figure has increased due to injuries sustained in the earthquake.

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 to higher remittances flowing to female-headed households – approximately 65%, in contrast to only 24% flowing to male-headed households (CBS 2005).

**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 thirty two project districts would be comparable. Further, 42% of Dalits live under the poverty line, 80% of whom are Dalit women. 63.8% of Dalit families do not have food 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.

**Topography:** As mentioned earlier, the project area<sup>3</sup> 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 500 meters, while others are higher than 5,000 meters. 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.

**Slope stability risks:** The hills and mountains in Himalayan region<sup>4</sup> 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 eight project districts, also lie along the three active tectonic plates —main boundary thrust (MBT), main central thrust (MCT) and main frontal thrust (MFT) which are still active, and landslides and soil erosion are frequent along these faults.

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<sup>3</sup> Area affected by the Nepal earthquake of April 25, 2015 and its aftershocks (32 districts).

<sup>4</sup> Project area is located within this region.

Most landslides and soil erosion events happen during the period of monsoon rain (June through September). Although landslides and erosions are common in the hills and mountains region, there are also zones of relatively higher and lower risks. For example, landslides and soil erosion are frequent along the faults such as MBT, MCT and MFT, 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 and 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 season and after. Landslides also cause considerable erosion, stripping the soil of productivity, and sedimentation, resulting in siltation and obstructing natural drainage and waterways.

Climate, Rainfall, Hydrology and Water Bodies: Most of Nepal lies within the sub-tropical 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 earthquake affected districts/ project area experiences generally warm temperate climate which are sub-tropical in the river valleys (lower altitude) and cool temperate to alpine in the higher mountains.

The earthquake affected districts/ project area experiences monsoon rainfall. Average annual rainfall is between 1,700 to 3,000 mm, approximately 80% of which occurs during the monsoon season. 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 such as Bhotekoshi, Trishuli, Marsayndhi, Tamakoshi, Sunkoshi, Kaligandaki and Arun river drain the earthquake-affected area. Further, glaciers, many 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. There have been instances of rivers blocked by landslides debris and later resulting significant floods. Such risk<sup>5</sup> 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. 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.

Biodiversity, forests and protected areas: There are eight protected areas in the 18 affected districts: Manaslu Conservation Area, Langtang National Park, Shivpuri-Nagarjuna National Park, Gaurishankar Conservation Area, Sagarmatha National Park, Makalu Barun National Park, Chitwan National Park and Dhorpatan Hunting Reserve. People live in the buffer zones of these protected areas. The

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<sup>5</sup> On May 23, 2015 a massive landslide blocked the Kali Gandaki River (Myagdi) causing water level to rise by 150 meters 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).

Sagarmatha National Park is a world heritage, and a 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 for meeting the firewood, timber and fodder needs of the respective communities.

The national parks, conservation area, 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% and significant reduction in 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 earthquake<sup>6</sup>. 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.

Cultural heritage: The project-affected area includes numerous cultural heritage sites. According to the PDNA, the earthquake affected approximately 2,900 structures with a cultural and religious heritage value, some of which are UNESCO World Heritage Sites.<sup>7</sup> For example -Chitwan National Park and Sagarmatha National Park among the parks listed as heritage sites by UNESCO. 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 and importance. These for example may include sacred hills and peaks, sacred cliffs, cave and/or sacred tree, place of worship, temples, monasteries, cremation sites, and religious bathing sites.

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<sup>6</sup>Sectoral Report, Nepal Earthquake Post Disaster Needs Assessments (page 297)

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

## ANNEX2: POTENTIAL ENVIRONMENT AND SOCIAL RISKS AND IMPACTS

### 1. Positive Environmental Impacts

In Nepal most rural housing remains vulnerable to disasters of significant magnitude. Therefore, a positive aspect of this project is the opportunity to build back better with a resilient, sustainable and resource-efficient perspective. Planning, design and construction of houses uses criteria and guidelines related to, inter alia, earthquake resilience, flood and landslide risks, climatic considerations, and environmental pollution and health aspects.

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 house reconstruction includes the following:

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

Further, to facilitate long-term environmental resilience, a set of 'Principles of good practices' is encouraged. These includes:

- 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: These areas must be avoided during housing construction. Eligible households should be located in geologically stable areas (as a rule of thumb, areas with slopes of greater than a 30% inclination may not be desirable for constructing houses).
- iii. Climatic considerations and orientations: Most new shelter sites are in the same or similar 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 and 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 block seeping winter wind is to plant trees in the direction of the prevailing wind. At lower altitudes, temperatures are comparatively higher. Therefore, orienting a building in such a way that the prevailing winds can be used to cool rooms is good practice. Evergreen trees also may be planted to prevent direct sunlight from entering the building.
- iv. Earthquake resilient standards: 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 a minimum, each house must be aware of the need for sanitation and toilets, and the use of 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 and children.

- vi. *Renewable energy and resources.* Green shelter/houses are 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 housing reconstruction program disseminates information about the GON's existing programs for subsidies, incentives and provision of facilities or materials for adopting renewable energy such as 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. Local people will be encouraged to recycle and reuse salvaged materials like boulders, window frames, timber beams(pillars), roofing materials, stones, GI sheets and tiles.

Positive impacts on forest resources and the environment can be anticipated through the promotion of environmental good practices (e.g. alternative energy, recycling and re-use of timber/materials from damaged houses) as part of design and construction of houses, on case-by-case basis where appropriate. Further, the deterioration of the environment can be reduced, and the resilience of eco-systems in an area increased, if relevant and necessary, through forestation programs, slope stabilization through re-vegetation, and bio-engineering activities. In addition, the GoN has declared it will support forestation programs in earthquake-affected districts under forest decade program and also that it will support improved smokeless stoves in the earthquake-affected areas. These and similar other programs offer opportunities for linking and enhancing the natural environment in and around the project area.

## **2. Adverse Environmental Impacts, and mitigations for common and special environmental and social cases.**

Adverse impacts arising from the construction of shelter and houses are site-specific. The house is small and residential, and is constructed by the owners, in situ or at alternative nearby location owned by the recipient. The civil works are of small scale, largely labor-based and take place at different locations over a large geographic area. Therefore, significant environmental impacts are not anticipated. Nonetheless, various common impacts need to be prepared at the project level through an ESMP with a need for review and verification/validation of mitigation measures at the Municipality level for implementing the mitigation measures. There is possibility of long-term and induced adverse impacts on the local environment, for example, degradation and depletion of local natural resources such as surrounding forest, water, slope stability, due to the 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 long-term effects through complementary environmental management and rehabilitation activities at the community/settlement/ward, Rural Municipality/Municipality levels in addition to mitigation measures incorporated for each shelter/ house<sup>8</sup>. 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 and storing yards).

1. **Forest and forest resources:** According to the 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

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

in the vicinity of settlements in the earthquake-affected districts, are important for meeting the firewood, timber and fodder needs of the respective communities. As the construction of the shelters concentrates in the rural/interior parts, potential negative impacts related to extraction of timber and other forest resources for construction of small houses/shelters arises. Timber is one of the basic construction materials used in the remote rural areas. The reconstruction of houses increases demand for timber and increases pressure on the already stressed forests. As reported by stakeholders during consultations, timber demand could be slightly higher than supply from the local/ community forests. There is the possibility of forest resources in the vicinity of the project site being felled/encroached upon for timber. As an alternative, the GoN has relaxed restrictions for importing timber from the neighboring districts for limited period, as a way to reduce pressure on forests in the earthquake-affected districts (Ramechhap has already imported timber from Sindhuli). Forests are usually sparse in the middle hills and there is the possibility of further degradation of forests, leading to scarcity of fodder, as well as impacts on wildlife from habitat degradation and destruction. Further, 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 promotes 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 building. The GoN has already declared that it facilitates 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. In district level consultations, forest stakeholders suggested that up to 50% of the timber demand could be met by recycling. Guidelines for the production, supply and management of timber for earthquake victims, 2072 BS has been issued by the GoN to facilitate timber distribution (see Annex-2).
- The program should 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, BZFUGS 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.
- Measures such as reforestation and a forestation 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 programs aimed to strengthened forest management and protection in the earthquake-affected areas and has positive synergy as well as mitigates 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 the 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.



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

Potential mitigation measures include the following:

- Materials extracted from demolished buildings such as debris, stones, and clay should be reused or recycled as much as possible. It is estimated that about 50% of rubble generated from the buildings that were either completely or partially damaged by the earthquake can be recycled or reused.
- Safe sites for stone quarry, sand/ gravel / clay extraction can be identified by geotechnical experts (or by a civil engineer experienced in slope stability), and building materials should be allowed to be extracted from designated areas approved by the relevant authority
- As far as possible, quarrying for construction materials will be done only from designated sites approved by the DCC, RM and Municipalities 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 technical advice from geotechnical experts or civil engineers experienced in slope stability and preparation of ESMPs if deemed necessary.
- House owners or persons involved in quarrying operations need to be trained for safe quarrying.
- 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 the review and verification/validation of the project level ESMP and preparation of special environmental and social cases ESMPs in Municipal level/ settlements/communities).

**3. Health and Safety:** Another envisaged impact is on the health and safety of the local inhabitants, laborer and others involved in the construction. Although the construction works are small in scale and scattered, accidents can happen, such as during the transportation of construction materials, when undertaking quarrying, felling of trees, and excavation for the foundation and clay works, when storing materials at construction sites and yards, and as a result of disruptions to access trails. However, learning experience shows that there have been no record of injuries in house reconstruction activities, in the original project financed districts.

Potential mitigation measures include the following:

- Training and awareness in the use of construction equipment and the associated risks and safety issues will be provided to local inhabitants, skilled labor (e.g. masons, carpenters), unskilled laborer and other stakeholders. Fencing off construction sites and maintenance of sites including material storage should be done bearing in mind safety considerations. The available options for housing design templates and construction procedures for communities, which the project makes available, also includes environmental health & safety procedures and guidance where contractors are mobilized for reconstruction of houses in settlements

- Adequate numbers of First Aid Kit box and Personal Protection Equipment in each wards of RM and Municipality will be managed.

4. **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 leads to water and air pollution. Wasted or littered or wrong storage of construction materials could also lead to localized pollution. The pollution risks during construction relate to the lack of water and sanitation, and toilet facilities (therefore encouraging open defecation and unhygienic surroundings and practices, which in turn affect household and community health). Further, pollution risks result from increased dust pollution, particularly in earthen roads with plying of vehicles carrying raw materials, conversion of agricultural land for setting up of brick kilns for supplying bricks to reconstruction of houses, and from indoor air pollution where firewood or bio-mass is used as source of energy for indoor activities such as cooking, heating, lights.

Potential mitigation measures include the following:

- 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 sprinkling water at very sensitive public spots or other measures suitable at sites, as well as using masks
  - Provision of temporary toilets during construction and other sanitation facilities and drainage facility designed and constructed as part of the new building.
  - Provision of improved smokeless stoves if fire-wood or other bio-mass energy is used for cooking, heating, lighting etc.
  - Safe collection, storage and disposal of any hazardous chemicals and materials if the screening detects its presence in the area (for example in damaged agricultural service center, health post etc.).
  - Eligible construction materials suppliers and 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).
5. **Physical Cultural Resources.** Various types of PCR are present in the project area. Whilst it is considered unlikely that impacts to such resources will be significant, there still 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 beneficiary household should be made aware and warned to ban the use of any PCR in home reconstruction, as well as requiring 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.
- Programs to raise awareness regarding PCR amongst beneficiaries and communities. This will include national legal requirements regarding PCR as well as ancient monuments.

#### **Potential Special issues/ Impacts:**

*Water availability for reconstruction:*

Water scarcity is not a project induced issue but it may face significant deficit of water supply for house reconstruction during dry season. Already unavailability of water source or water demand in settlement area will not cover under this program. Water availability concern is only related to deficit demand of water supply for reconstruction.

Mitigation Measures:

- Avoid excess water usage and focus on collection and storage of night water discharge
- Ensure that construction is scheduled in accordance with water demand and availability
- Use/install alternative mechanism to collect existing discharge water in large quantity
- Coordinate and link activities with district and local level Government agencies and I/NGO working for drinking water and sanitation in the district

*Slope Instability and Landslides.:*

Some houses or settlements may be prone to landslides and erosion. Detailed geo-tech investigation is not the responsibility of CLPIU-GMALI. It will be carried out by the team of expert and based on the recommendations of report, mitigation measures will be explored. However in general mitigation measures are as follows.

Mitigation measures:

- For severe cases of slope instability/erosion, carry out geotechnical investigation from expert available in NRA
- For minor cases of slope instability/erosion, adopt mitigation measures with the consultation of experts
- Explore idea to coordinate and making linkage between district level/local government level organizations for the implementation of mitigation measures.

**ANNEX 3: DRAFT MUNICIPALITY LEVEL ENVIRONMENTAL AND SOCIAL VERIFICATION AND MITIGATION TOOL**

The DL-PIUs will use this Environmental and Social Verification and Mitigation Tool in each of the participating project districts.

**General Information**

1.	Project Title	Earthquake Housing Reconstruction Project (EHRP- AF)
2.	Project District	
3.	Name of the Rural Municipality/Municipality	
4.	Name and number of settlements and wards	
5.	Total number of houses damaged	
6.	Number of houses to be reconstructed and completed	Reconstructed:.....Completed:.....
7.	Number of beneficiaries received tranche (first/second and third)	First tranche:.....Second.....and Third.....
8.	Estimated quantity of reusable materials (by type)	
9.	Estimated quantity of debris that needs to be disposed in safer place	
10.	Estimated quantity of construction materials needed (Timber, sand, gravel, stone, etc)	

SN	Common Environmental and Social cases (Project Level):	Y/N	Explanation/description /Extent, nature of risk	Mitigation measures	Cost and % of cost sharing agencies	Mitigation Implementation Planning (date)	Implementation Responsibility	Name of settlement and Municipality if issues are applicable	Remarks
1.	Increased pressure on degradation or loss of tress (Community Forest) Due to Timber Requirement								
2.	Impact on quarry site (sand, aggregate, slate, stone, etc.)								
3.	Debris Management (House Demolished materials)								
4.	Occupational health and safety								
5.	Labor influx and use of child labor								
6.	Marginalized and disadvantaged groups (Indigenous Peoples, Dalits, Women, people								

	with disabilities and elderly)								
<b>Special Environmental and Social cases :</b>									
7.	Safety issues of existing temporary structures in use								
8.	Water availability for reconstruction								
9.	Slope Instability and Landslides								
10..	Resettlement and Relocation (Involuntary Resettlement)								

**Verification Completed by:**

Name:

Designation:

Date:

**Each mitigation cost Approved by:**

1. Name:

Designation:

Date:

2.Name, designation and date

3.Name, designation and date

**Annexures:**

1. Google Map Location

**2. Field Note on Project Level ESMP review and verification/validation (Mandatory) with technical suggestion.**

(Provide a list of common environmental and social issues, impacts and mitigation measures with cost-sharing approaches and a list of potential special environmental issues and impacts and mitigation measures)

3. List of consultations and discussions

**ANNEX-3A: PROJECT LEVEL ESMP COST (INDICATIVE)**

S.No.	Environmental and Social Cases/Issues	Unit	Quantity	Estimated Cost (NRs.)	Estimated Total Cost (NRs.)	Total district	Estimated Grand Total Cost (NRs.)	Remarks
A.	<b>Common Environmental and Social cases:</b>							
A.1	Increased pressure on degradation or loss of tress (Community Forest) Due to Timber Requirement	No. of Trees	6,000	300	1,800,000	32	57,600,000	Prepare plantation plan and endorse by FUG and LG.
A.2	Impact on quarry site (sand, aggregate, slate, stone, etc.)	No. of Event	4	100,000	400,000	32	12,800,000	Technical verification report is essential. It will not cover the commercial quarry sites.
A.3	Awareness/Training Component (ICS, Debris Management, Occupational health and safety, labor influx and use of child labor or any form of forced labor, Safety issues of existing temporary structures in use)	No. of Event	3	150,000	450,000	32	14,400,000	Priority will be given to develop coordination and linkage with other similar agencies for awareness creation and debris
A.4	Marginalized and disadvantaged groups	1					327,000,000	Part of project overall budget.
B.	<b>Special Environmental and Social cases:</b>							

B.1	Water Availability for reconstruction	Lump sum	3	200,000	600,000	32	19,200,000	Through CLPIU, NRA will play coordination and linkage role with line agencies working in the sector for implementation of mitigation measures .Low cost option will be adopted.
B.2	Slope Instability and Landslides	Lump sum	3	1,000,000	3,000,000	32	96,000,000	Detailed geo-tech investigation will be carried out by NRA.
B.3	Resettlement and Relocation (Involuntary resettlement)	Lumpsum	1	200,000	200,000	32	6,400,000	
<b>Total Estimated ESMP mitigation Cost NRs (above A+B)</b>							<b>533,400,000</b>	
<b>C. Third Party Monitoring</b>		<b>Lumpsum</b>				<b>32</b>	20,300,000.00	For 2019 and 2020 only
<b>Total ESPM implementation cost</b>							<b>553,700,000</b>	

Note: 1) The above quantity and cost for the purpose are estimation. Each of these must be verified on site and final cost must be approved from NRA and relevant agencies.

2) For tree plantation: Plantation plan must be endorsed from local level authorized agency and CFUGs and need coordination with relevant forest authority and CFUGs for implementation.



- 3) For the quarry site reinstatement, technical verification/expert opinion report is mandatory and endorsed and verification by relevant agency
- 4) For the water availability, technical report with justification is mandatory and endorsed and verified by relevant agency.
- 5) Training/awareness component: program should be site specific, relevant, meaningful and based on linkage and coordination with similar agencies working in local level/district level activities.
- 6) NRA PMU will prepare a socio-technical assistance package and implement it as part of project activity.

## **ANNEX 4: ENVIRONMENT AND SOCIAL POLICY SUMMARY OF NEPAL**

### **1. Land Acquisition, Compensation and Resettlement**

The project is not expected to cause involuntary settlement and involuntary land acquisition in of itself. However, resettlement of families may be required, for example, where households are identified to be living in areas at risk of geo-hazards and require relocation. Given that resettlement is likely to occur during the project, an assessment of regulatory provisions and policies related to land acquisition and associated impacts would be beneficial.

The *Constitution of Nepal 2072 (2015)* guarantees the fundamental rights of citizens. Article 25(1) establishes the right to property, whereby every citizen shall, subject to laws, have the right to acquire, enjoy own, shall, have professional gains, and otherwise utilize, or dispose of property. Article 25(2) states that the State shall not, except in the public interest, acquire, requisition, or create any encumbrance on the property of any person. Article 25(3) states that in the case when the land of a person is acquisitioned by the State according to clause (2), the basis of compensation and the relevant procedure shall be as prescribed by Act. The Constitution also guarantees every person the right to live in a clean environment as a fundamental right. It is also a matter of State policy to adopt appropriate measures to abolish or mitigate existing or possible adverse environmental impacts on the nature, environment or biological diversity.

The *Land Acquisition Act, 2034 (1977)* is the only legal document which guides tasks related to land acquisition and resettlement activities in Nepal. The Act empowers the GoN 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). Further, any institutions seeking land acquisition may also request the GoN to acquire the land under this act, subject to entitled to compensation. 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 a Chief of Land Revenue, an Officer assigned by CDO, a representative from District Development Committee (DDC), and the concerned Project Director. In other words, the CFC under the Act is formed for the: actual verification of land to be acquired; reviewing and fixing the compensation rate; identifying the proper owner(s); distributing compensation; and providing necessary administrative support to address associated issues. However, there is also a provision under Clause 14 of the *Land Acquisition Act 2034 (1977)* to receive land as compensation where available.

The GoN has recently introduced the *Land Acquisition, Resettlement and Rehabilitation Policy for Infrastructure Development Projects, 2071 (2014)*. Amongst the provisions included, the Policy identifies non-title holders and squatters as being entitled to compensation in relation to land acquisition. It also introduces requirements for compensation to be valued and provided at replacement cost of the land. However, as at time of writing, the *Land Acquisition Act 2034 (1977)* has not been amended to bring it line with the policy.

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% 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 GoN 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.

## **2. Safeguarding Indigenous Peoples (IPs) and other Vulnerable Communities**

The 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 *Constitution of Nepal, NFDIN Act 2002, Local Governance Operation Act 2074 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. Further, there are some provisions for the protection and promotion of Janajatis' traditional knowledge and cultural heritage.

The Constitution of Nepal also provides that the State has the 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 providing reservations in the sectors of 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 Adivasi/Janajati 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 GoN, 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 opportunities shall be given to women and 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 four 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.

### **3. 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 a number of GoN Acts which contain provisions to ensure good governance, accountability and meaningful public consultations.

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 hearings 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 states that subject matter experts, 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 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. Clause 3 of the Act ensures the right to information and e access to the information held in the public Bodies unless confidentiality has been maintained by laws. Clause 4 describes the responsibility of a Public Body to disseminate information. It provides that each Public Body has to respect and protect the right to information of citizen. Clause 7 prescribes the Procedures of Acquiring Information.

Clauses 4, 5, 7 and 11 of the *Environment Protection Rules (EPR), 1997* provides detailed provisions related to conducting public consultation, disclosure and feedback. 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.

#### **4. Additional procedures and guidance developed by the NRA to address social safeguard issues**

The NRA has introduced several regulations and guidelines, based on identified circumstances and needs since the commencement of the project. These are outlined below:

##### **Revised Grants Disbursement Procedures for Privates Houses 2074 for landless earthquake victims**

Previously, landless earthquake victims were not deemed entitled to receive the housing reconstruction grant due to their lack of land ownership certifications (despite being listed as beneficiaries during households surveys). To address this, the Grants Disbursement Procedures for Privates Houses guidelines were revised in 2017 to allow for the provision of additional grant funding for landless earthquake victims. Under the guideline's revision, landless victims are entitled to receive US\$2,000, in addition to the US\$3,000 private housing grant. Beneficiaries or their families who hold habitable land elsewhere are not eligible to receive the additional grant.

##### **Procedures for Relocation and Rehabilitation of Hazard-prone Settlements 2073 (2017)**

A rapid geological assessment was undertaken by the Department of Mines and Geology (DMG) at 117 critical locations in the second half of 2015 to determine areas which were at risk of geo-hazards. The NRA subsequently completed a large-scale geo-hazard risk assessment. Assessments were carried out in approximately 450 sites, and communities were classified as one of the three categories:

Category 1: Settlements or families do not need to be relocated. Reconstruction can be started anytime

Category 2: Reconstruction can be started only after applying suitable countermeasures. Communities are under risk of manageable geo-hazards

Category 3: Relocation of these communities is recommended. Communities are unsafe due to the existing state of geo-hazards which are difficult to control technically and financially.

*Procedures for Relocation and Rehabilitation of Hazard-prone Settlements 2073 (2017)* document the procedures for identifying households requiring resettlement, as well as outlining resettlement procedures.

- Household resettlements: Households identified at risk of geo-hazards can choose to relocate either within their own district or in another nearby earthquake-affected district. Under the *Criteria for purchasing habitable lands for earthquake victims*, published in July 2017, families identified as living in high-risk areas and requiring resettlement are entitled to receive an additional US\$2,000 to purchase new land.
- Integrated settlements: The *Procedures for Relocation and Rehabilitation of Hazard-prone settlements* also encourage beneficiaries to create user groups' consisting of at least 10 families in a settlement and to select a safe location for developing an integrated settlement. After acquiring land, the households are eligible for the housing grant. The NRA provides support for the development of physical infrastructure in the integrated settlement area, such as providing roads, supply of drinking water, electricity, health centers and educational institutions, based on agreements reached with local level government units. The procedures note that infrastructure development is to be done through users' committees or authorized offices, with supervision conducted by the NRA or agencies authorized by the NRA.

##### **Land Acquisition Guideline for Reconstruction (LAGR) 2072 (2016)**

Whilst the NRA itself discourages land acquisition and involuntary resettlement for the private housing component, Land Acquisition Guideline for Reconstruction (LAGR) 2072 (2016) provides a detailed procedure if any land acquisition for the reconstruction of earthquake affected houses is required. The provisions laid in the work procedure will supersede provisions of Land Acquisition Act 1977. This

procedure has shortened the procedures related to land acquisition to facilitate relocation and rehabilitation of earthquake victims. The work procedure has also incorporated a provision which enables the NRA to hold direct negotiations with the land owner to fix the compensation amount. However, this guideline does not adequately address involuntary resettlement. It 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. It 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, structures and crops. Therefore, project specific resettlement policy and Resettlement Action Plan are required, if involuntary resettlement is unavoidable for this project

#### **Directives for harvesting, supply and management of wood for earthquake victims 2072 (2016)**

The Directives for harvesting, supply and management of wood for earthquake victims 2072 (2016) provides special provisions for the supply of wood to earthquake victims for house reconstruction. Under the directives, Community Forest User Groups (CFUGs) must give first priority to the earthquake-victims of the group, or to the victims of neighboring CFUGs from the same municipality, or to the victims from another municipality within the same district. In terms of demand for wood, the directives provide that earthquake victims must try to get the necessary wood for their respective CFUGs. Where wood is not available from their own CFUG, wood can be obtained from any neighboring CFUG.

#### **Grievance Management Related to Reconstruction and Rehabilitation Guidelines 2074**

The *Grievance Management Related to Reconstruction and Rehabilitation Guidelines 2073* enables persons who are earthquake-affected to lodge grievances with respect to the housing reconstruction process. Types of grievances that can be lodged include grievances related to being excluded from the beneficiary list, or difficulties accessing the housing grant process. Grievances can be registered either by electronic medium or by application.

#### **Work Procedure for identification of vulnerable households affected due to earthquake 2074**

Separately, the NRA has identified that there are certain households who, due to vulnerability, are struggling to rebuild their homes. In March 2018, the NRA released a list of 18,505 households that have been identified as vulnerable and requiring additional support for their housing recovery. Households were identified by the NRA on the basis of four vulnerability criteria: senior citizens above 70 years, single women above 65 years, people living with disabilities (red or blue card holders), and minor-head households (under 16 years).

### **1. Legislative Measures, Frameworks and Directives related to Disaster Management**

#### **Disaster risk reduction and management Act 2074 (2017)**

The Act provides for the cooperation of national and local authorities in the framework of the Disaster Risk Reduction and Management Council in the case of natural disasters in Nepal. The Act focuses on protecting public life, public and private property, natural and cultural heritages, physical properties and minimizing disaster risk. The Act repeals and replaces the Natural Calamity Relief Act 1982.

#### **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.

#### **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).

#### **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.

#### **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 program about natural disaster, early carefulness or preparedness about disaster.

#### **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.

#### **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 sprit of National Disaster Risk Management Strategy 2066 BS (2009) . 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 information is 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.

NRA has formulated environmental assessment guideline for reconstruction of earth quake affected infrastructure, 2072 to address requirement of environmental documents for Initial Environmental Examination (IEE) and Environmental Impact Assessment (EIA) level of assessment. NRA has authority for approval of IEE and EIA documents instead of approving through concerned Ministries .

### **Working Procedure Related to Environmental Impact Assessment (EIA) for Reconstruction of the Earthquake Affected Project 2015 (second amendment 2017).**

This working procedure provides guideline for undertaking reconstruction and rehabilitation projects. These include detail procedures for carrying out different activities like Initial Environmental Examination (IEE) and Environmental Impact Assessment (EIA), land acquisition etc. and determine the format of EIA/IEE for reconstruction of earthquake affected structures. The second amendment of the same document has revised the threshold for project to undergo IEE or EIA.

### **Forest Act 1993**

As mentioned in the preamble, one of the major objectives of the enactment of the Act is to promote the healthy environment. Decision makers should take into account of all forest values, including environmental services and biodiversity. The Act categorizes the forest into five categories viz.; state managed forest, community forest, leasehold forest, private forest and religious forest. Section 49 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. Article 68 of the Act empowers government to permit use of any part of the forest, if there is no alternative for the implementation of a plan or project of national priority without significantly affecting the environment.

### **Forest Regulation 1995**

The Forest Regulation 1995 elaborates legal measures for the conservation of forest and wildlife. The Regulation has included 13 plants species and forest products legally protected under the regulation and GoN has, inter alia, banned the falling, transportation and export thereof. The regulation (Clause 65) stipulates that in case the execution of any project having national priority in any forest area causes any losses or harm to any local individual or community, the proponent of the project itself shall bear the amount of compensation to be used.

### **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.

### **Working Policy on construction and operation of new infrastructures in Protected Area 2008**

This policy elaborates the procedure for the development of project within the protected area. The policy has ban providing land within the national park, reserve, conservation area or buffer zone except for national priority project. The policy also stipulates provision of compensatory plantation at the ratio of 25 times felled trees, along with protection for five years by the proponent or provide plantation and protection cost

to the related office. The plantation on the area should be equivalent to the government land area of national park, reserve, conservation area or buffer zone occupied by the project. Royalty for the forest products used for the construction of the project should be paid to the related national park, reserve, or conservation area as defined by the Forest Regulation, 2051 (1995).

#### **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.

#### **Working Procedure to use National Forest Area for National Priority Projects, (2017 AD):**

The Working Procedure has elaborated procedure for the development of the project within the protected area. Following are the main features of the procedure:

- Alternative analysis must be done during feasibility study for avoiding forest area or if not having minimal loss of vegetation;
- EMP/IEE/EIA study is mandatory for obtaining forest clearance;
- Concern ministry must obtain concurrence from ministry of Forest and Soil Conservation before approving IEE/EIA; and
- Provision of compensatory plantation (with protection for five years) at the ration of 1:25 plants by the project or provide plantation and protection cost to concerned DFO.

#### **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 cultivates 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 regulations are 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 regarding ancient monument. At district level, Chief District Officer is the contact point for reporting if any ancient monument or object is found.

#### **GoN Guidelines 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 5 : RESETTLEMENT POLICY FRAMEWORK**

This Involuntary Resettlement Policy Framework establishes the resettlement and compensation principles, organizational arrangements and design criteria to be applied in those cases that entail involuntary resettlement as a result of project activities thus resulting in loss of shelter, assets or livelihoods, and/or loss of access to economic resources. The Framework is prepared to the standards of the GoN as specified in relevant legislation, and the World Bank's Operational Policies (OP) 4.12 on Involuntary Resettlement.

### **a. Comparison of the GoN's and World Bank's Policies on Involuntary Resettlement**

This section will provide a comparative analysis of the national and World Bank's policies on involuntary resettlement/land acquisition, and present recommendations to bridge identified gaps.

#### **Common Principles**

Generally, both the World Banks' and the policy of GoN support the following basic principles:

- Involuntary resettlement shall be avoided or minimized to the extent possible, through the incorporation of social consideration during into design options and alignment selections.
- Where displacement is unavoidable, people losing assets, livelihood and other resources shall be assisted in improving or at a minimum regaining their former status of living at no cost to themselves.
- There are some areas, however, where additional measures or further specifications for the entitlements under national guidelines and laws are necessary to meet the standards of the World Bank (OP 4.12). These additional measures are essential for ensuring that the principles mentioned above will be achieved. In addition, a well thought out, specific entitlement framework would protect the project from major delays caused by confusion.

#### **Identification of Gaps and Limitations in the National Policies**

The main gaps and limitations of the national legal and policy framework are:

- Land Acquisition Guideline for Reconstruction (LAGR) 2072 (2016) makes provision for compensation to the titled landholder only and, by default, omits all other project affected people (PAP), including non-registered tenant farmers, landless farmers, and squatters. Invariably, these groups are primarily those who are economically and socially the most vulnerable and marginalized groups including, agricultural laborers, petty entrepreneurs, artisan groups and *Dalits*.
- There are also no provisions in the LAGR 2016 to protect the interests of vulnerable groups. Accordingly, there is no provision for rehabilitation assistance for such vulnerable groups.
- The LAGR does not make any provision for encroachers or squatters regarding entitlement for compensation. The reason is to focus on assisting poor people whose assets and livelihoods may be lost or disrupted by the project.
- The *LAGR 2016* does not emphasize transparency and stakeholder participation for various decisions that directly affect the long-term wellbeing of PAPs. Also, the Compensation Fixation Committee (CFC) does not require participation of either the representatives of PAPs or representatives from the governments.
- When GoN requires assets, the guideline does not specify the provision of mandatory replacement cost. There are also no clear directives in place to look at project design options that avoid or minimize involuntary resettlement. Further, only cash compensation is considered for payment. While cash compensation is the easiest mode of operation, its long-term impact on families who are not used to large cash flows, can be more negative than otherwise.

- There is a provision in the *LAGR 2016* for land-for-land compensation such that if a titleholder loses all his/her land and opts for land as compensation, the government may provide land if there is *ailani* (unclaimed land) or other government land available. Experience, however, indicates that the relevant clauses are too general and do not oblige implementation. It is also not clear if PAPs can exercise this right or it is entirely the decision of the government.
- Lack of consideration of the apparent time gap between notification of acquisition and the payment of compensation is another limitation of the existing legal framework.

### **Recommendations for Bridging the Gaps**

The results of this policy review of both the World Bank and GoN/NRA are taken into due account in the development of an Involuntary Resettlement Policy Framework for the EHRP, including a policy matrix for entitlements to compensate losses from project interventions.

Policy recommendations to close the identified gaps and limitations are:

- A project affected person (PAP) will be defined as a person or household whose livelihood or living standard is adversely affected through loss of land, housing and other assets, income, or access to services as a consequence of the implementation of the project, primarily, as a result of the relocation of the earthquake-affecting households, causing a change in land use.
- Entitlements will be established for each category of loss. In particular, practical provisions will be made for the compensation for all lost assets to be made at replacement cost without depreciation or reductions for salvage materials. To the extent possible, efforts will be made to assess the real replacement costs of land. A procedure will be established for determining compensation rates accurately by making rigorous efforts to assess the replacement costs and market rates for all assets, including labor costs for construction. No depreciation value will be subtracted.
- Special attention will be given to protect the interest of vulnerable groups. With a census date as cut-off date, no fraudulent encroachments after this date will be considered eligible for entitlements of compensation in the land where the relocated households will be resettled. However, landless farmers/squatters who have been occupying the concerned public land for at least 3 years before the cut-off date, but without legal title, which has not been claimed by others, will be entitled to compensation for the lost land and entitled to be legalized on the remaining unaffected portion, if they do not have title to any other agricultural land. Non-land assets will be compensated at replacement value and their relocation and transportation will be provided for. Support for vulnerable groups will be provided to improve their livelihood.
- There will be legal provision of PAPs and local representatives of Rural Municipalities/Municipalities participation in settling the resettlement issues related to compensation, relocation and rehabilitation.
- Options for compensation will be kept open; decision will be made only after detailed analysis of the project impacts, consultation, and acceptance by the project affected families, based on full information being made available to them about the implications of the various options. In rural areas, land-for-land will be the preferred option offered to PAPs, and cash compensation in urban areas.
- Titleholders who are severely affected through loss of their agricultural land will be offered a choice of assistance with the identification and purchase of suitable privately owned cultivation land in the community (if there is no suitable unallocated replacement land), or cash compensation. They would also be entitled to rehabilitation assistance such as skills training for one household member.

- Full compensation will be provided for all losses, including land, at current market price and will be paid promptly before evacuation. In the case of residential land, current market price of similar land or replacement land of equivalent size will be provided together with transfer arrangements in the case of displacement, and cash compensation in the case of partial loss without displacement. Tenants renting residential land will be compensated in cash and assisted in finding suitable alternative residence.

## **b. Eligibility, Entitlement and Valuation**

### ***Eligibility***

The World Bank Policy on Involuntary Resettlement requires compensation for the lost assets at replacement costs to both titled and non-title holders (i.e. squatters, encroachers and tenants) and resettlement assistance for lost income and livelihoods. In the proposed project, the absence of formal titles will not be a bar to resettlement assistance and rehabilitation. However, some form of eligibility criteria such as customary, traditional or accepted claims, will be considered. Further, the principles adopted herein contain special measures and assistance for any affected person from vulnerable groups.

Persons affected by land acquisition, and relocation and/or rehabilitation of structures/assets (businesses, houses, etc. will be entitled to a combination of compensation measures and resettlement assistance, depending on the nature of ownership rights of lost assets and scope of the impact, including social and economic vulnerability of the affected persons. Thus, the affected persons in the project will be entitled to various types of compensation and resettlement assistance that will help in the restoration of their livelihoods, at least, to the pre-project standards.

The cut-off date of eligibility for entitlement is when the census survey is completed and when the results are publicly announced. Persons who has encroached the area after the given cut-off-date will not be entitled to compensation or any other form of resettlement assistance. However, for non-land related assets, the cutoff date will be the “start” of the census.

### **Entitlement Framework**

The project will affect property owners and occupants, their dependents and community groups if involuntary resettlement of private and community assets is unavoidable. Entitlements for each type of affected are based on the types and levels of losses. Details on the entitlement framework by type of loss and entitlement unit are shown in Annex 4.

In Nepal, the following types of entitlement practices exist<sup>20</sup> for those who have formal legal rights to land (including tenancy, customary and traditional rights recognized under the Land Related Act, 2021 (1964):

- In case of tenancy land, 50 percent of the evaluated amount (value of the affected land) will go to the owner and 50 percent is paid to the tenant.
- Those who do not have formal legal rights to land at the time of the census but have a recognizable legal right or claim to such land or assets are entitled to full compensation at replacement cost. These could include persons waiting for the Land Certificate (“*LalPurja*”) to be approved by the District authority but who have documents to prove as such.

- Those who occupy land temporarily or on a leased-basis allocated to them by the individual, community and any private or public organization with the written permission or signed contract will receive entitlements as per the terms of the lease arrangement.
- GoN's laws and regulations do not provide any compensation to individuals/households who do not have any recognizable legal rights or claim to the land they are occupying i.e. squatters, ownerships under dispute etc. However, with an assumption that people of this category are poor and vulnerable, the Project will compensate for the loss of crops at market prices and structures at full replacement cost. For poor and vulnerable affected persons who have no other land, the Project will suggest to allocate alternate land and provide them with temporary or lease land rights as well as relocation allowances and rehabilitation support. Landless PAP will not be displaced until the project provides land or alternatives for the poor and vulnerable.
- *Guthi*, public or community land area can also be subject to loss of land due to the Project. If the recovered land belongs to a *Guthi*, it will be treated according to the Guthi Corporation Act, 2033 (1976). On public and community land, the Project will support relocation to another land or pay cash compensation on a consensus basis.

#### *Carrying Out the Valuation of Affected Assets*

All assets that will be affected, as identified by the survey teams (see below for the preparation of the Resettlement Action Plan), will be properly recorded and verified in the presence of the concerned persons. The detailed survey asset information will be computerized to monitor the reestablishment of PAPs. The valuation of affected assets will be undertaken by the District-level Compensation Fixation Committees (CFCs). To the extent possible, the said assets (land, structures) will be geo-referenced with the help of a Global Positioning System (GPS) to facilitate monitoring and will be used in case of later claims.

Each asset will be enumerated and inscribed on a register. Values for each types of asset will be pre-printed, shown to the affected person, and set against the type and number of such losses that the individual will sustain. The total compensation for that category of loss will be explained to the affected persons/households, and the total of all losses will be shown as well. The valuers will ensure that the affected persons/households fully understand the compensation calculation, and that the entire process is explained in local dialect, as applicable. The inventory and evaluation sheet will then be signed and a copy given on the spot to the affected person/household. The form will also state, and the affected person will be notified, that the inventory will not be official until a second signed copy, verified by DL PIU, is returned to the affected person. At that time, a copy of the grievance procedure described below (explaining the rights of the AP to forward claims) will also be given to the affected person.

When valuing affected assets, the CFCs will take account of rates in the open local market and information gathered during RAP preparation, to ensure that compensation is at replacement value. Compensation rate for all types of losses will be prepared. The established price list for land and other assets will be used for compensation of property acquisition. During the course of project implementation, the rate will be continuously reviewed and updated on an annual basis by the CFC. The respective data will be stored in an updated data bank administered by the DL-PIU and central level PIU.

The final valuation will be based on the principle that the project-affected families shall be compensated in a way to guarantee that their living standard is at least the same as before, if not better. Accordingly, the assessment of compensation for affected assets will be based on the principle of current market price at replacement value. The prices per square meter for different category of structures will be based on the total



affected area of a structure, and not the usable area. As a matter of principle, all compensation will be equivalent or higher than the prevailing market price.

**c. Recommended Procedures for the Resettlement Action Plan**

As described in greater detail in the Environment and Social Management Framework (ESMF), for the purposes of verification of environmental and social issues, the DL-PIU will define a settlement using combination of criteria including the following: (a) Administrative boundary, such as a ward, or a VDC; (b) Name of the village/place (such as Tol)/ community; (c) Natural or topographical boundary; (d) Contiguity.<sup>21</sup>

During verification of the Project level ESMP the DL-PIU team will identify land requirements as well as resettlement impacts of the project. If the results of the verification exercise points to the need to resettle or relocate earthquake affected households, the DL-PIU will further validate the information through a detailed social assessment to understand, at a minimum:

- Demographic characteristics of the population that will have to be relocated;
- Status of their incomes, occupations and livelihood strategies;
- Land requirements;
- Collective attachment to the current land;
- Cultural/religious practices;
- Production systems
- Preferences for relocation;
- Characteristics of vulnerable groups amongst those who need to be relocated; etc.

Accordingly, a report will be prepared by the DL PIU and submitted to the central level PIU for resettlement options for the earthquake affected households. The DL PIU as well as the Central level PIU will consider options for alternate land.

While deciding on the land for resettlement of the earthquake affected households, the central level PIU will conduct Social Impact Assessment (SIA) in the new land where the earthquake-affected households will be resettled. The SIA, which will be census-based and involve potentially displaced people will cover:

- Current occupants of the affected area (i.e., the area where the earthquake affected households will be resettled) to inform the design of the resettlement program and establish a cut-off date for eligibility for compensation and resettlement assistance;
- Socio-economic characteristics of households who will be resettled in order to provide land to the earthquake affected households. This will include description of production systems, labor and household organization; and baseline information on livelihoods and standards of living of the population that will be displaced.
- Magnitude of the expected loss (both total and partial) of assets and physical and/or economic livelihoods
- Information on vulnerable groups (indigenous people, women, Dalits, disabled, etc.) for whom special provisions will have to be made;

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<sup>21</sup> Based on these criteria, 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 also. The GPS coordinates collected by the eligibility survey team would be used to define the boundaries for the settlement.

- Land tenure systems, including an inventory of common property resources, non-title based usufruct system (e.g., fishing, grazing, use of forest areas) and other land ownership and land usage systems;
- Patterns of social relations, including social networks and social support systems and how these would be affected by the project;
- Public infrastructure and social services that will be affected; and
- Social and cultural characteristics of the communities that will involuntarily be displaced, including a description of formal and informal institutions that may be important during the consultations and to designing and implementing the resettlement activities.

Based on the results of the SIA, the central level PIU will consider alternative options to minimize adverse social impacts resulting from land acquisition. Where the social impact assessment indicates that land acquisition and/or loss of assets are unavoidable, a Resettlement Action Plan (RAP)/Abbreviated RAP (ARAP) will be prepared. Generally, the GoN requirements specify the undertaking of a RAP if the land acquisition in the project site affects more than 200 people, takes more than 10 percent of any holding, and involves physical relocation of population. An abbreviated RAP is generally acceptable if fewer than 200 people are displaced even if more than 200 people are affected, and land acquisition is less than 10 percent and no physical relocation is involved.

The individual RAP/ARAP documents will be prepared in close consultation with the affected persons, along with active participation of secondary stakeholders, such as local or national government, policy makers, advocacy groups, elected officials and NGOs and the local VDC secretary. These RAP/ARAPs will at least consist of the following elements:

- Description of the project;
- Census data
- Consultation details
- Findings from the SIA comprising potential impacts, including project activities that give rise to resettlement, the zone of impact, alternatives considered and mechanisms established to minimize resettlement;
- Legal framework covering the applicable legal and administrative policies/procedures;
- Institutional framework that describes the roles and responsibilities of agencies responsible for resettlement activities, assessment of their capacity and steps that would be taken to enhance their institutional capacity;
- Eligibility and method for the valuation of and compensation for the losses;
- Resettlement measures, including site selection, site preparation and relocation;
- Plans to provide for housing, infrastructure and social services of people who will be involuntarily resettled;
- Community participation and organizational responsibility;
- Grievance Redress Mechanism that is in line with the GRM for the project
- Implementation arrangements, costs and budget, and monitoring and evaluation.

Accordingly, the Abbreviated Resettlement Plan will include the following minimum estimates:

- Census survey of displaced persons and valuation of assets;
- Description of compensation and other resettlement assistance to be provided;
- Consultations with the displaced populations about acceptable alternatives;
- Institutional arrangements, monitoring and implementation framework, and a timetable and budget.

All the RAPs/ARAPs will be reviewed and approved by the World Bank and the central level PIU. Further, they will also be disclosed to the affected persons. Further consultation and participation program will be conducted to ensure that information on the project objectives, implementation schedule, resettlement and land acquisition; eligibility and compensation issues are properly understood and accepted by the affected communities.

During project implementation, resettlement process will be coordinated with the timing of the inflow of the earthquake affected households into the area. The project will provide adequate notification and assistance to affected people so that they will be able to move without undue hardship before the arrival of the earthquake affected households.

In the case of land acquisition, the procedures will follow the provisions of the Land Acquisition Act, and the RPF. Every RAP/ARAP after its approval by the central level PIU and the World Bank, will be translated into the local language and made available in a public place accessible to affected people and other stakeholders. The project will ensure that the earthquake affected households will not be relocated before compensation and assistance to the affected population have been provided in accordance with this Resettlement Policy Framework.

Entitlement Matrix:

Type of Loss	Entitlement Unit	Description of Entitlement /Compensation Policy	Implementation issues/procedures
1. Agricultural, Residential, Commercial, Pasture and Forestry Land			
1.1 Loss of Private Land under any form of tenure	Titleholder Encroacher/ Squatter on public land	<p>Provide compensation at full replacement cost, or</p> <p>Provide full title to land of equal area and productivity acceptable to owner in the vicinity.</p> <p>If land is not available elsewhere then provide cash compensation at full replacement cost based on current market rate or Government rate whichever is higher.</p> <p>In case of vulnerable groups preference should be to replace land for land</p> <p>Squatter/encroacher cultivating the effected land for at least three years prior to the cut-off date will be entitled to allocation of land if <i>ailani</i> or other government land is available. However illegal occupants after the cut-off date do not qualify for compensation for land losses.</p> <p>Resettlement assistance in lieu of compensation for land occupied (land, other assets, employment) at least restore their livelihoods and standards of living to pre-displacement levels.</p> <p>In the case of farmland, the AP will be entitled the cultivation disruption allowance equal to one-year production.</p>	<p>A List of available <i>ailani</i> land in each affected VDC is required</p> <p>A list of affected and entitled persons and the area of land loss is required</p> <p>Notice to vacate will be served at least 35 days prior to acquisition date.</p> <p>If any owner having significant impact receives cash compensation for farmland and purchases replacement farmland within 1 year from the date of receiving compensation, all related land registration fees, taxes and duties will be borne by the project.</p> <p>Case-wise compensation will be either by cash or cheque, depending on the owner's preferences.</p> <p>To ensure fair compensation, determination of rates will be established not more than one year prior to property acquisition.</p>
1.2 Loss of Tenancy Land	Landlord and Tenant by a written agreement (That is yet in practice and to be processed as per 2058 B.S. Amendment in Land Reform Act). Renter/lease holder	<p>Both the landlord &amp; the tenant will be entitled for 50 percent of land compensation amount each (As per 2058 B.S. amendment in Land Reform Act).</p> <p>Non-registered tenant/renter/lease holder does not qualify for compensation for land losses; however they will be entitled to compensation for crops.</p>	Where a renter/leaseholder has a sharecropping arrangement, the compensation payable should be apportioned according to the arrangement.
1.3 Loss of <i>Guthi</i>	Entitled Person/ institutions and tenant in accordance	As per <i>Guthi</i> Corporation Act, 2033	

Type of Loss	Entitlement Unit	Description of Entitlement /Compensation Policy	Implementation issues/procedures
(Trust) Land)	with the <i>Guthi</i> Corporation Act 2033.		
1.4Temporary Loss of Private Land	Titleholder Tenants and landlord (As both are the owner of equal (i.e. 50 %) share, hence treated as private land holder.	<p>Compensation for crop, land productivity and other property losses for the duration of temporary occupation.</p> <p>Compensation for other disturbances &amp; damages caused to property.</p> <p>Or, Contractor to negotiate a contract agreement on the rental rate with the owner for temporary acquisition of land.</p> <p>Project and the Contractor to ensure that persons other than the owner affected as a result of temporary acquisition are compensated for the temporary period.</p> <p>Land should be returned to the owner at the end of temporary acquisition period, restored to its original condition or improved as agreed with owner.</p>	<p>The owner/entitled party will sign a temporary occupation contract specifying:</p> <p>Period of occupancy,</p> <p>The terms and conditions for calculation of production losses,</p> <p>The frequency of compensation payment, and</p> <p>Land protection and rehabilitation measures.</p> <p>The land will be returned to the owner at the end of temporary acquisition, restored to its original condition.</p>
2. Crops and Trees			
2.1 Loss of Trees & Perennial Crops	Titleholder Lessee/cultivators having agreement with the owner	<ol style="list-style-type: none"> <li>1. Advance notice to harvest crops</li> <li>2. Net value of existing crops where harvesting is not possible.</li> <li>3. The crops, which live, in short time will be paid in accordance with one-year output value. The crops which have lived for several years will be compensated at market value on the basis of loss of future production, based on 5 years annual net production for fruit &amp; fodder trees &amp; 3 years annual net production for timber/ fuel wood trees &amp; other perennial crops.</li> </ol>	<p>Inventory of the tree and plant species list</p> <p>List of owner, non-perennial crops and the area (if applicable) of cultivation should be prepared</p> <p>The APs will get notice 3-6 months in advance regarding crop harvesting. Crops grown after the issue of the notice will not be compensated.</p> <p>The work schedule has to be adjusted considering the crop seasons so that for avoiding crop damage.</p> <p>Crop/trees/bamboo market values will be determined by the CFCs in consultation with District agriculture and forestry office.</p> <p>Where a tenant/renter/lessee &amp; landowner have a sharecropping arrangement, the compensation payable should be apportioned according to the arrangement.</p> <p>Materials may be salvaged with no deduction from compensation</p>
2.2Loss of Non-perennial crops	Landless squatter/ encroachers on public land		
3. Houses, Structures and Other basic facilities			

Type of Loss	Entitlement Unit	Description of Entitlement /Compensation Policy	Implementation issues/procedures
3.1 Loss of own house & Privately owned other structures 3.2 Loss of commercial establishment.	Full Titleholder Tenant/Renter/Lease holder (own accommodation) Landless squatter/ encroachers on public land	<p>Compensation for full or partial loss of house and other structures at full replacement cost of materials and labor according to house/structure type, with no deduction for depreciation.</p> <p>Every displaced household is entitled to a housing displacement allowance, based on the established rates per HH, capita, capita income and/or minimum wage rate.</p> <p>Every household will receive transportation allowance on actual cost basis. However, loss of structures other than household and commercial establishments does not entail payment of a displacement allowance</p> <p>Resettlement assistance to those most vulnerable households to restore pre-displacement livelihoods.</p>	<p>Replacement cost at market value of house and structures will be determined by the CDC in consultation with local experts and compensation prices will be finalized with participation of LCF/AP representatives.</p> <p>Formal resettlement planning will be undertaken where more than 10 households from one settlement/residential area are displaced, if the households having significant impacts opt for group resettlement site.</p> <p>Other structures include: toilet, sheds, walls, fences, water mills, workshop etc.</p> <p>Materials may be salvaged with no deduction from compensation</p>
3.3 Loss of rented accommodation	Renter/Lessee holder	<p>Every displaced household with business affected will be entitled to receive one time lump sum grant; minimum one month's income based on the nature of business and type of losses assessed on a case to case basis. Daily minimum wage rate may be used as compensation for business loss as basis for calculation when and as applicable.</p> <p>One time cash assistance (displacement allowance) equivalent to one month's rent for moving to alternative premises for commercial establishment</p> <p>The household will be entitled to a rental stipend for loss of rented accommodation</p> <p>Cash compensation for damages to structures resulting from temporary occupation of land at replacement cost.</p>	<p>Non-titleholder (squatters, encroachers) will not be entitled to any compensation for their affected unauthorized/illegal extensions over public land.</p> <p>Vulnerable encroachers with economic losses may be entitled to assistance as a vulnerable group, at established rates determined by the CDC.</p> <p>Renter/ lessee holder will not be entitled for compensation of structures. However if the structures are made by them, they will be entitled to compensation or will be according to the lessee agreement</p>
3.4 Other basic household facilities	Titleholder Tenant/lessee holder/renter Landless squatter / encroacher on public land.	1. Payment of installation charge or compensation for relocation of electricity, telephone line, TV cable drinking water and other infrastructure to the installer, if these exists.	The concerned authority will be requested to assist the households to reinstall or permit the facilities in their new location if applicable/required.
<b>4. Community and Cultural Assets/ Facilities</b>			
4.1 Loss of community	Local community/ User's group	Cash compensation for restoring affected community and cultural resources.	Community resources/facilities include: schools, temples/monastery, religious tree, graveyards, ghats, waiting

Type of Loss	Entitlement Unit	Description of Entitlement /Compensation Policy	Implementation issues/procedures
buildings/ structures, cultural assets		Restoration of affected community buildings and structures to at least previous condition, or replacement in areas identified in consultation with affected communities and relevant authorities. Restoration before commencement of the project where necessary, or to be determined in consultation with the community.	sheds, including the community hall etc. established by the local community/ CBOs.
4.2 Loss of land	Local community user's group	1. Restoration of access to community resources	The land revenue office in the district and concerned VDC/municipality will be requested to assist communities for land replacement identifying the area nearby.
4.3 Loss of community forests and other natural resources due to construction	Forest user's group/Other Groups Concerned	Mitigation measures should be initiated to control erosion caused by tree cutting, and to stabilize and rehabilitate the slopes with suitable bioengineering works and vegetation. Community forestland lost due to road construction should be replaced and reforested according to DoF regulations including others concerned. Advance notice to harvest resources from affected community forest areas. Compensation for trees to the FUG	List of plant and tree species lost and an assessment for maintaining that kind of vegetation Compensation for trees calculated on the basis of type, age, and productive value of affected trees in consultation of concerned forestry office and FUG. To minimize damage the department of Forestry will be requested for necessary action.
<b>5. Displacement Allowances</b>			
5.1 Displacement of households	Titleholder Tenant /Lessee holder, Renter Landless squatter /Encroachers on public land.	Every households displaced will be entitled to a housing displacement allowance. Each displaced renter, lessee holder household will be entitled to a rental stipend for loss of rented accommodation. The households affected by partial loss of structures that can be repaired will be entitled to repair allowance for mitigating the loss, not displacement allowance.	Each displaced household will receive housing <i>displacement allowance equivalent to two months poverty line income (PLI)</i> . Displaced households living on rent will receive 35 days' notice or rental stipend equivalent to 0.5 month PLI plus transportation assistance by the project. Allowances will be paid prior to displacement. Partial loss to be calculated as per the cost of replacement material and labor cost. The following cultivation disruption allowances will apply to households with total landholdings of 0.25 ha and smaller who lose more than 10 % of their landholdings;
5.2 Displacement of commercial enterprise		4. Every household of displaced businesses will be entitled to a business displacement allowance for loss of commercial establishment.	

Type of Loss	Entitlement Unit	Description of Entitlement /Compensation Policy	Implementation issues/procedures
5.3 Transportation allowance		5. Each displaced household will be entitled to transportation assistance to move their belongings. 6. Cultivation disruption allowance for severe disruption to household cultivation levels.	households with total landholdings above 0.25 ha who lose more than 25 % of their landholdings; Households whose production levels are severely affected through participatory assessment with LCFs. The cultivation disruption allowance will be equal to one season's production on the area of land lost, based on published District/VDC production figures, land type and crop market prices for the year of acquisition.
5.4 Severe disruption to cultivation			
<b>6. Group Losses, Vulnerability and Rehabilitation Measures</b>			
6.1 Loss of income indirectly due to the project (employment for porters and other laborers)	Persons in the vicinity of the road who may be adversely affected by the project although they do not lose assets. Female community living near construction section	1. Rehabilitation assistance such as information dissemination regarding project impacts, compensation alternatives and risks. 2. Preferential access to project construction employment opportunities, to the extent possible. 3. Assessment of current economic activities and potential for improvement to these activities, as well as alternative income earning opportunities. 4. Counselling/information dissemination/ skill development training for job upgrading/diversification and other possible support services. 5. Employment opportunity for unskilled labor to female should make compulsory at established rate of at least 33 % female participation.	List of SPAF with potential impact should be prepared in consultation with LCF & Civil Society and may include: Porters and other providers of non-vehicular transport. Ethnic, occupational cast people Having aged people as household head and having disabled family members in the households Women headed poor households Poorest of the poor landless households & squatters Provide clauses in Work Contracts that will require specific employment quota for local female residents, taking into special account vulnerable groups.
6.2 Severe loss of assets directly due to the project, and severe impact indirectly	Households/ APs having significant impacts Households of the Vulnerable categories APs family members over 16 years of age	1. Information dissemination regarding project impacts, compensation alternatives and risks, and resettlement options (where required). 2. Technical support on saving schemes and cash management. 3. Preferential access to road construction employment opportunities, to the extent possible. 4. Assessment of current economic activities and potential for improvement to these activities, as well as alternative income earning opportunities. 5. Assistance with training in life skills that would help in obtaining employment and/or earning livelihood.	The rehabilitation measures will be targeted to APs having significant adverse impact and to vulnerable groups in the vicinity of the project area, even though they do not lose assets. Training on road construction and hiring workers will be included in Contractors' contracts. APs having significant impact who opt for training assistance will be entitled to a training subsistence allowance equal to a maximum of one three month's minimum wage as



Type of Loss	Entitlement Unit	Description of Entitlement /Compensation Policy	Implementation issues/procedures
caused by the project.		6. The project will investigate training programs and institutions. In such a case, Funds will be paid directly to the relevant institutions. Or, project by itself will arrange suitable program for its mitigation. 8. Assistance through the implementation of Vulnerable Community Development Plan.	established at the national or local level, whichever amount is higher, for the duration of the training course. The respective Agriculture and forestry related Institutions will be requested to assist in implementing the forestry and agriculture program if required. Any costs required for this will be borne by the project.
7. Damages Caused during Construction			
7.1 any kind of Private and Public Properties	All categories of entitled persons	1. Extreme care should be taken by Contractors to avoid damaging public and private property unnecessarily. 2. Where damages do occur to public or private property as a result of construction works, the affected parties shall be compensated immediately for damages to crops and trees, damaged land, structure and infrastructure shall be restored immediately to their former conditions.	The same entitlement policies will apply as for other land acquisition.
8. Government Property			
8.1 Loss of infrastructure and facilities	Relevant agency	1. Facilities will be repaired or replaced.	To be undertaken in consultation with the relevant department or ministry
8.2 Loss of forest areas	Department of Forest	1. Mitigation by means of afforestation.	An assessment for maintaining that kind of vegetation To be undertaken in consultation with Department of Forestry

## **Suggested Table of Content for Resettlement Action Plan**

The scope and level of detail of the resettlement plan vary with the magnitude and complexity of resettlement. The plan is based on up-to-date and reliable information about (a) the proposed resettlement and its impacts on the displaced persons and other adversely affected groups, and (b) the legal issues involved in resettlement. The resettlement plan covers the elements below, as relevant. When any element is not relevant to project circumstances, it should be noted in the resettlement plan.

*1. Description of the project.* General description of the project and identification of the project area.

*2. Potential impacts.* Identification of

- (a) the project component or activities that give rise to resettlement;
- (b) the zone of impact of such component or activities;
- (c) the alternatives considered to avoid or minimize resettlement; and
- (d) the mechanisms established to minimize resettlement, to the extent possible, during project implementation.

*3. Objectives.* The main objectives of the resettlement program.

*4. Socioeconomic studies.* The findings of socioeconomic studies to be conducted in the early stages of project preparation and with the involvement of potentially displaced people, including

- (a) the results of a census survey covering
  - i. current occupants of the affected area to establish a basis for the design of the resettlement program and to exclude subsequent inflows of people from eligibility for compensation and resettlement assistance;
  - ii. standard characteristics of displaced households, including a description of production systems, labor, and household organization; and baseline information on livelihoods (including, as relevant, production levels and income derived from both formal and informal economic activities) and standards of living (including health status) of the displaced population;
  - iii. the magnitude of the expected loss—total or partial—of assets, and the extent of displacement, physical or economic;
  - iv. information on vulnerable groups or persons as provided for in OP 4.12, para. 8, for whom special provisions may have to be made; and
  - v. provisions to update information on the displaced people's livelihoods and standards of living at regular intervals so that the latest information is available at the time of their displacement.
- (b) Other studies describing the following
  - i. land tenure and transfer systems, including an inventory of common property natural resources from which people derive their livelihoods and sustenance, non-title-based usufruct systems (including fishing, grazing, or use of forest areas) governed by local recognized land allocation mechanisms, and any issues raised by different tenure systems in the project area;
  - ii. the patterns of social interaction in the affected communities, including social networks and social support systems, and how they will be affected by the project;
  - iii. public infrastructure and social services that will be affected; and

- iv. social and cultural characteristics of displaced communities, including a description of formal and informal institutions (e.g., community organizations, ritual groups, nongovernmental organizations (NGOs)) that may be relevant to the consultation strategy and to designing and implementing the resettlement activities.

5. *Legal framework.* The findings of an analysis of the legal framework, covering

6. *Institutional Framework.* The findings of an analysis of the institutional framework covering

- (a) the identification of agencies responsible for resettlement activities and NGOs that may have a role in project implementation;
- (b) an assessment of the institutional capacity of such agencies and NGOs; and
- (c) any steps that are proposed to enhance the institutional capacity of agencies and NGOs responsible for resettlement implementation.

7. *Eligibility.* Definition of displaced persons and criteria for determining their eligibility for compensation and other resettlement assistance, including relevant cut-off dates.

8. *Valuation of and compensation for losses.* The methodology to be used in valuing losses to determine their replacement cost; and a description of the proposed types and levels of compensation under local law and such supplementary measures as are necessary to achieve replacement cost for lost assets.

9. *Resettlement measures.* A description of the packages of compensation and other resettlement measures that will assist each category of eligible displaced persons to achieve the objectives of the World Bank's policy (see OP 4.12, para. 6). In addition to being technically and economically feasible, the resettlement packages should be compatible with the cultural preferences of the displaced persons and prepared in consultation with them.

10. *Site selection, site preparation, and relocation.* Alternative relocation sites considered and explanation of those selected, covering

- (a) institutional and technical arrangements for identifying and preparing relocation sites, whether rural or urban, for which a combination of productive potential, locational advantages, and other factors is at least comparable to the advantages of the old sites, with an estimate of the time needed to acquire and transfer land and ancillary resources;
- (b) any measures necessary to prevent land speculation or influx of ineligible persons at the selected sites;
- (c) procedures for physical relocation under the project, including timetables for site preparation and transfer; and
- (d) legal arrangements for regularizing tenure and transferring titles to re-settlers.

11. *Housing, infrastructure, and social services.* Plans to provide (or to finance re-settlers' provision of) housing, infrastructure (e.g., water supply, feeder roads), and social services (e.g., schools, health services); plans to ensure comparable services to host populations; any necessary site development, engineering, and architectural designs for these facilities.

12. *Environmental protection and management.* A description of the boundaries of the relocation area; and an assessment of the environmental impacts of the proposed resettlement and measures to mitigate and manage these impacts (coordinated as appropriate with the environmental assessment of the main investment requiring the resettlement).

13. *Community participation.* Involvement of re-settlers and host communities, including

- (a) a description of the strategy for consultation with and participation of re-settlers and hosts in the design and implementation of the resettlement activities;
- (b) a summary of the views expressed and how these views were taken into account in preparing the resettlement plan;
- (c) a review of the resettlement alternatives presented and the choices made by displaced persons regarding options available to them, including choices related to forms of compensation and resettlement assistance, to relocating as individuals families or as parts of preexisting communities or kinship groups, to sustaining existing patterns of group organization, and to retaining access to cultural property (e.g. places of worship, pilgrimage centers, cemeteries); and
- (d) institutionalized arrangements by which displaced people can communicate their concerns to project authorities throughout planning and implementation, and measures to ensure that such vulnerable groups as indigenous people, ethnic minorities, the landless, and women are adequately represented.

*14. Integration with host populations.* Measures to mitigate the impact of resettlement on any host communities, including

- (a) consultations with host communities and local governments;
- (b) arrangements for prompt tendering of any payment due the hosts for land or other assets provided to re-settlers;
- (c) arrangements for addressing any conflict that may arise between re-settlers and host communities; and
- (d) any measures necessary to augment services (e.g., education, water, health, and production services) in host communities to make them at least comparable to services available to re-settlers.

*15. Grievance procedures.* Affordable and accessible procedures for third-party settlement of disputes arising from resettlement; such grievance mechanisms should take into account the availability of judicial recourse and community and traditional dispute settlement mechanisms.

*16. Organizational responsibilities.* The organizational framework for implementing resettlement, including identification of agencies responsible for delivery of resettlement measures and provision of services; arrangements to ensure appropriate coordination between agencies and jurisdictions involved in implementation; and any measures (including technical assistance) needed to strengthen the implementing agencies' capacity to design and carry out resettlement activities; provisions for the transfer to local authorities or re-settlers themselves of responsibility for managing facilities and services provided under the project and for transferring other such responsibilities from the resettlement implementing agencies, when appropriate.

*17. Implementation schedule.* An implementation schedule covering all resettlement activities from preparation through implementation, including target dates for the achievement of expected benefits to re-settlers and hosts and terminating the various forms of assistance. The schedule should indicate how the resettlement activities are linked to the implementation of the overall project.

*18. Costs and budget.* Tables showing itemized cost estimates for all resettlement activities, including allowances for inflation, population growth, and other contingencies; timetables for expenditures; sources

of funds; and arrangements for timely flow of funds, and funding for resettlement, if any, in areas outside the jurisdiction of the implementing agencies.

*19. Monitoring and evaluation.* Arrangements for monitoring of resettlement activities by the implementing agency, supplemented by independent monitors as considered appropriate by the Bank, to ensure complete and objective information; performance monitoring indicators to measure inputs, outputs, and outcomes for resettlement activities; involvement of the displaced persons in the monitoring process; evaluation of the impact of resettlement for a reasonable period after all resettlement and related development activities have been completed; using the results of resettlement monitoring to guide subsequent implementation.

## **Suggested Table of Content for Abbreviated Resettlement Plan**

An abbreviated plan covers the following minimum elements:

- (a) a census survey of displaced persons and valuation of assets;
- (b) description of compensation and other resettlement assistance to be provided;
- (c) consultations with displaced people about acceptable alternatives;
- (d) institutional responsibility for implementation and procedures for grievance redress;
- (e) arrangements for monitoring and implementation; and
- (f) a timetable and budget