# Annex $I_1$: Environmental and Social Analysis (ESA)

## Introduction

The proposed project "**Enhancing capacity for sustainable management of forests, land and biodiversity in the Eastern Hills"** will be implemented in 34 of the 88 Rural Municipalities/Municipalities of Province One, which include some parts or whole of five Middle-Hill districts, of Province 1; Taplejung, Panchthar; Terhathum, Sankhuwasabha, and Ilam covering 3,575 square kilometer of area and 496,689 people.

About 870,000 people live in the area, and more than 60 per cent belong to indigenous communities. Among these, Limbu, Rai, and Tamang constitute the majority but other marginalized groups living in the area include Bhote, Bhujel, Sunwar, Lepcha, Kumal, Yakkha and Walung. About 10-15 per cent of the inhabitants of the area are Dalits ("Untouchable") and most of them are landless.

The proposed project site is considered a hotspot for biodiversity. Biodiversity in the project area and overall in the eastern Middle hills is under threat because of various direct and indirect drivers including land degradation. This has affected the livelihoods of local communities as well. There are several barriers that need to be overcome to address the loss of biodiversity, land degradation and decreasing livelihood opportunities for local people.

Recently, environmental and social safeguards issues for any development project/program have become critical in the international and national policy arena. International development agencies, multilateral banks and other funding agencies all have their own environmental and social safeguard policies which are applicable for different development project activities, and compliance to these safeguards is mandatory for project funding.

FAO and GEF both have their own environmental and social safeguards policies. Similarly, various environmental and social safeguard measures of relevant development projects/programs have been included in different national policies, strategies, Acts and Regulations in Nepal. On one hand, the proposed project needs to be implemented in compliance with the national, provincial as well as local government laws. On the other hand, the project must comply with the relevant environmental and social safeguard policies of FAO and GEF.

This thematic report on **Environmental and Social Analysis of the project** summarizes the present status of environmental and social safeguard conditions of the project area and provides an environmental and social assessment of the project.

## Objectives of the Study

The main objective of this study is to prepare a thematic report on *"Environmental and Social Safeguards Issues and Measures"* of the project. Specific objectives of the study include**:**

- To provide a summary of how the project design has addressed Free Prior Informed Consent (FPIC);
- To conduct an Environmental and Social Assessment (ESA) of the project;
- To provide an outline of an Environmental and Social Management Framework (ESMF) for the project;
- To provide a completed stakeholder consultation template; and;
- To provide an outline of an Indigenous Peoples Plan for the project.

## Method

This report was prepared mainly through a desk review. Most recent project documents including the PIF, and draft baseline survey report are among the different documents reviewed to prepare this report. Neither any primary data were collected nor were any consultations with stakeholders conducted specifically for preparation of this report. It was not possible to visit the project sites for planned consultations due to the nationwide lockdown due to the COVID 19 pandemic. Organizing online or virtual meeting with local people was not practically possible because of timing and availably of the potential participants and also because of poor quality of networks for communication.

Information provided in the baseline survey report was based on primary data collection (Household survey and different level of consultations) and this was taken into account in preparing this report. A lot of information was taken from published and unpublished literature, including various international and national reports on the subject.

Some of national and international legal and policy instruments as well as other relevant documents and research papers reviewed for this study include:

- Project Identification Form (PIF) of the project
- Baseline Survey Report of the project
- FAO Environmental and Social Standards
- GEF Environmental and Social Safeguards Policy
- Constitution of Nepal (2015)
- National Forest Policy, (2019)
- National Climate Change Policy, (2019)
- National Environment Policy, (2019)
- National Agroforestry Policy, (2019
- Land Use Policy (2019)
- National Employment Policy (2015)
- Land Acquisition, Rehabilitation and Resettlement Policy 2015
- Forestry Sector Strategy, (2016)
- National REDD+ Strategy, (2018)
- Forest Act, (2019)
- Forest Regulations 2020
- Environment Protection Act, (2019)
- Environment Protection Regulations 2020
- Land Use Act, (2019)
- Local Government Operation Act (2017)
- Indigenous Nationalities Commission Act (2017)
- National Foundation for Upliftment/Development of Indigenous Nationalities Act (2002)
- Soil and Watershed Conservation Act (1982)
- Land Reform Act (1964)
- 15th National Plan
- Provincial Forest Act and Regulations of Province 1 (2020)
- Provincial Environment Protection Act and Regulations of Province 1 (2020)
- The United Nations Declaration on the Rights of Indigenous Peoples (2007)
- Convention on the Biological Diversity (1993)
- International Labor Organization (ILO) Convention (1989)
- Joint FCPF/UN-REDD program guidance note for establishing and strengthening grievance redress mechanisms, and disclosure of information

## FPIC During the Project Design Phase

The PIF describes that consultations with major stakeholders including representatives of different federal governmental organizations, provincial government, IUCN, Bird Conservation Nepal, FECOFUN as well as local level CSOs involved in community forestry were conducted during the development of the project concept. There are also guidelines in the PIF about how the local communities and stakeholders including, women, youth and other marginalized groups will be consulted during the project design phase ensuring the principles of Free Prior Informed Consent (FPIC).

Extensive local level consultations planned for the project design phase (from September to October 2020) were disrupted by COVID-19 restrictions. In this context, the project design team focused on obtaining as much information as possible through virtual meetings with local level stakeholders. Given these limitations, the project design team has proposed that further field level consultations, including with Indigenous People and Local Communities (IPLCs), and, if necessary, revision of some elements of the project should be

undertaken in the first year of commencement of the project. FPIC should also be followed during implementation phase of the project as described in the Indigenous Peoples Plan (IPP) prepared for the project (Annex J in the Project Document).

## Environmental and Social Assessment of the Project

### *Location of the Project Area*

The project area is in the Middle Hills physiographic region of Province 1. The area covered by the project includes the whole of Panchthar and Terhathum, and parts of Taplejung, Ilam and Sankhuwasabha districts (Figure 1). However, Project activities will be implemented in all or parts of 34 Rural Municipalities or Municipalities (*Palika*) covering a total area of 7,350.9 sq km. Out of this, 3,576.5 sq km has been identified as the project area (Table 1).

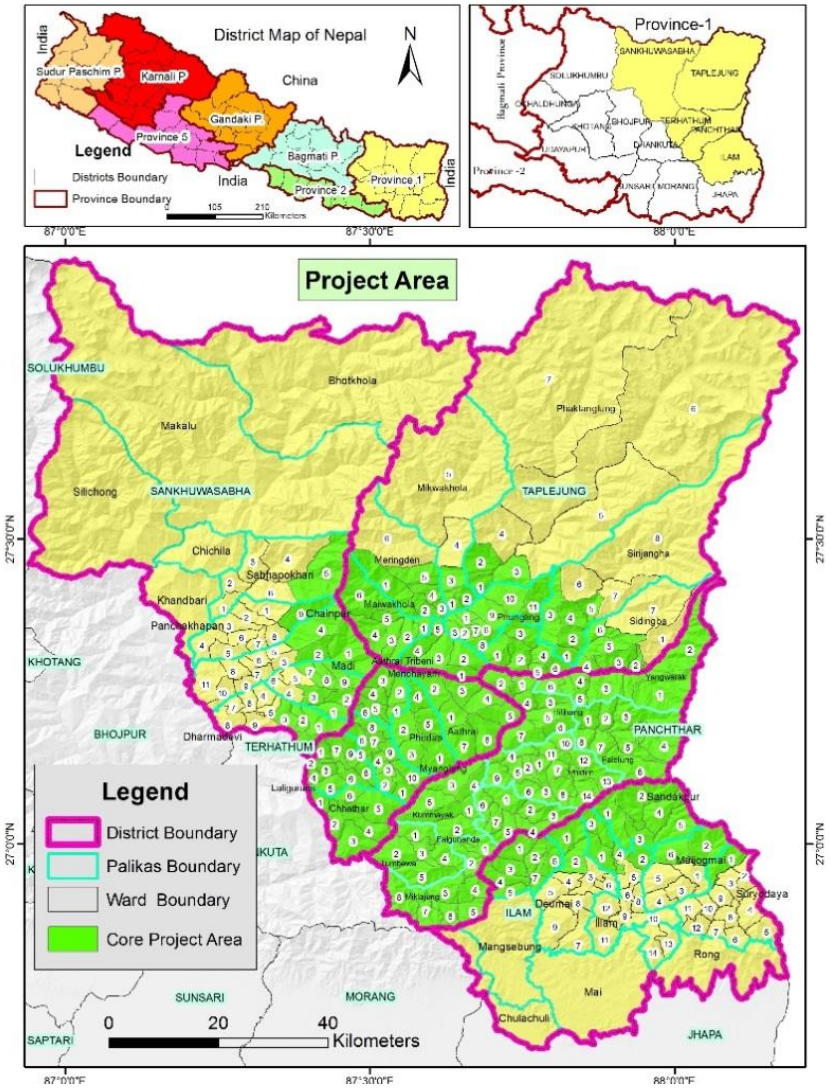


Figure 1 Location of the project area (Source: Baseline Survey Report)

**Table 1 Project area in different Palika of different districts (Source: MFAGA website)**

| District and no of Project *Palika* | *Palika*[1] | Total Area (Sq km) | Project Wards | Project Area (Sq km) |
|---|---|---|---|---|
| Taplejung (All 9 *Palika*) | Aathrai Tribeni RM | 88.83 | All Wards | 88 |
| | Mauwakhola RM | 138 | All Wards | 138 |

[1] A *palika* is the local level of government and includes *Gaun Palika* (Rural Municipality), Municipality, Sub metropolitan City or Metropolitan City governments

| | | | | |
|---|---|---|---|---|
| | Meringden RM | 210.33 | Wards 1, 2,3, 4, 5 | 106.36 |
| | Mikwakhola RM | 442.96 | Wards 1, 2, 3 | 36.65 |
| | Pathivara Yangbarak RM | 93.76 | All Wards | 93.76 |
| | Phaktanglung RM | 1858.51 | Wards 1, 2, 3 | 67.15 |
| | Phungling M | 125.57 | All Wards | 125.57 |
| | Sidingwa RM | 206 | Wards 2, 3, 4, 5, 6 | 78.71 |
| | Srijangha RM | 481.09 | Wards 1, 2, 3,4,5 | 92.36 |
| Subtotal | | **3645.05** | | **827.4** |
| Panchthar (All 8 *Palikas*) | Hilihang RM | 123.01 | All Wards | 123.01 |
| | Kurmyak RM | 129.3 | All Wards | 129.30 |
| | Miklajung RM | 166.61 | All Wards | 166.61 |
| | Phallelung RM | 207.14 | All Wards | 207.14 |
| | Falgunanda RM | 107.63 | All Wards | 107.63 |
| | Phidim M | 192.5 | All Wards | 192.50 |
| | Turnbewa RM | 117.34 | All Wards | 117.34 |
| | Yangbarak RM | 208.63 | All Wards | 208.63 |
| | **Subtotal** | **1252.16** | | **1252.16** |
| Terahthum (All 6 *Palika*) | Aathrai RM | 167.07 | All Wards | 167.07 |
| | Chhathar RM | 133.93 | All Wards | 133.93 |
| | Laligurans RM | 90.27 | All Wards | 90.27 |
| | Menchyam RM | 70.09 | All Wards | 70.09 |
| | Myanglung M | 100.21 | All Wards | 100.21 |
| | Phedap RM | 110.83 | All Wards | 110.83 |
| | **Subtotal** | **672.4** | | **672.4** |
| Sankhuwasabha (5 of 10 *Palika*) | Chainpur M | 223.69 | Wards 1,2, 4 | 113.81 |
| | Dharmadevi M | 132.82 | Wards 1, 3 | 53.47 |
| | Madi M | 110.1 | Wards 1, 2, 3, 7, 8, 9 | 79.42 |
| | Panchkhappan M | 148.03 | Ward 9 | 25.39 |
| | Sabhapokhari RM | 222.08 | Ward 5 | 71.75 |
| | **Subtotal** | **836.72** | | **343.84** |
| Ilam (6 of 10 *Palika*) | Deumai M | 191.63 | Wards 1, 2 | 41.72 |
| | Ilam M | 173.32 | Wards 1, 2, 3, 4 | 66.53 |
| | Maijogmai RM | 172.41 | Wards 2, 6 | 48.56 |
| | Pakpokthum RM | 108.79 | All Wards | 108.79 |
| | Sandakpur RM | 156.01 | All Wards | 156.01 |
| | Suryodaya | 252.52 | Ward 1 | 25.27 |
| | **Subtotal** | **1054.68** | | **446.88** |
| | **Total** | **7,350.9** | | **3542.68** |

## *Environmental Description of the Middle Hills (Broader Project Area)*

### Physical Environment in Middle Hills

The Middle Hills, also known as the Middle Mountains, lie north of the Churia along the southern flanks of the Himalayas. The Main Boundary Thrust (MBT) serves as the border between the Churia and the southern Middle Mountains, the uplifted Mahabharat Range (LRMP, 1986). It was formed in the Precambrian and Paleozoic periods and is predominantly composed of schist, phyllite, gneiss, quartzite and limestone belonging to the Lesser Himalayan Zone (Upreti, 1999). The northern region of Middle Mountains known

as Midland, in contrast, consists of those regions of the Lesser Himalayan geological zone which are thrust over the Churia Group along the Main Boundary Thrust. This region is primarily composed of schist, phyllite, gneiss, quartzite, granite, limestone and dates back to the Precambrian and Paleozoic to Mesozoic periods belonging to the Lesser Himalayan Zone. Middle Hill region of Province 1 occupies 9,671.3 Sq km of area, which is 37.3 percent of the total area of the Province.

The elevation of the Middle Hills region varies from 110 m to 3,300 m above mean sea level. Climate of the region ranges from sub-tropical, sub-humid in river valleys to warm-temperate in valleys and cool-temperate in the high hills.

### Geology and Soils of Middle Hills

The Middle Hills is cut in many places by rivers such Mechi, Arun, Tamor, Kankai, Trijuga and Koshi. Schist, phyllite, gneiss, quartzite, granite, and limestone parent rocks occur in the range, geologically belonging to the Lesser Himalayan Zone (Upreti, 1999). The valleys of the Middle Hills region, below the steep slopes, have alluvial loamy and sandy soils. On higher slope positions, the loam is mixed with boulders and exposed bedrock (Dijkshoorn and Huting, 2009). The area is partly covered by glacial deposits formed during the last ice age. Such soils may become unstable when wet. Because of the steep slopes and dynamic geological conditions, large scale landslides are common in the area during the monsoon, especially where the soil has been exposed by roads and agricultural terracing.

#### *Drainage*

The major river systems of Province 1 are the Mechi, Arun, Tamor, Kankai, Trijuga and Koshi. These rivers, originating in the Lesser Himalaya and the Mahabharat Range, are called second-grade Rivers. They are fed by precipitation as well as ground water recharge, including that from springs (WECS, 2011). These rivers are perennial and are commonly characterized by wide seasonal fluctuation in discharge. The river systems in the project area are the Arun River and the Tamur River of the Koshi River Basin, and upstream Mai Khola in Kankai sub-basin. The main river system is the Tamur River whose watersheds are in Taplejung, Panchthar and Tehrathum districts. In addition, three main tributaries of the Arun River which flow east to west draining to the Arun River (Sankhuwasabha district) are also included in the project area. The project area also includes the upper northern part of Ilam district, the watershed of Mai khola draining to the Kankai Mai River. Average watershed condition of three projects districts, Terhathum, Panchthar and Ilam is fairly good whereas two districts (Taplejung and Sankhuwasabha) have on average good watershed condition (Shrestha et al 1983).

#### *Climate*

The climate in Middle Hills ranges from sub-tropical in the river valleys to warm-temperate in valleys to cool-temperate in the high hills. The average annual maximum temperature1 is about 23.5$^{o}$C (ranging from 5$^{o}$C to above 40$^{o}$C); and the average annual minimum, 12.7$^{o}$C (ranging from -3$^{o}$C to 30$^{o}$C). Annual precipitation in the Middle Hills of Province 1 is recorded as 1,260 mm.

The Middle Hills are the first great barrier to monsoon clouds and high precipitation occurs on the southern slopes of the mountains. The conditions support lush vegetation with plenty of climbers and epiphytes. The warm-temperate monsoon climate occurs in the lower part of Middle Mountains, from approximately, 1,000 to 2,000 m, while the upper part, between 2,000 to 3,000 m, has cool-temperate monsoon climatic conditions (Acharya, 2003).

### *Environmental Condition of the Project Districts*

#### Land use classification

According to the baseline survey report of the Project area, about 41 per cent of the project area is covered by forests and a further 7 per cent is classified as shrub land, making the total forest land of the project about 48 per cent. About 23 per cent of the project area is classified as agricultural or cultivated land whereas grass lands cover about 8 per cent. Other land use types include barren land (13 per cent), Ice/Snow 10 per cent), water body (0.6 per cent) and settlement/built-up area (0.3 per cent). Land use classifications in project districts as provided by the baseline survey repot is shown in Table 2 and Figure 2.

**Table 2 Land use classification in the project districts**

| Land use type (Ha) | District | | | | | Total | Per cent |
|---|---|---|---|---|---|---|---|
| | Taplejung | Panchthar | Tehrathum | Sankhuwasabha | Ilam | | |
| Cultivated | 38,001 | 47,078 | 34,072 | 50,601 | 74,000 | 243,752 | 22.7 |
| Forest | 11,842 | 71,374 | 28,295 | 143,064 | 84,700 | 439,275 | 40.9 |
| Shrub/Bush | 27,019 | 2,015 | 2,593 | 41,532 | 2,729 | 75,888 | 7.1 |
| Grass land | 38,701 | 2,098 | 1,657 | 15,988 | 3,227 | 61,672 | 5.7 |
| Water body | 2,017 | 599 | 363 | 2,561 | 822 | 6,363 | 0.6 |
| Barren land | 63,307 | 789 | 412 | 67,769 | 2,959 | 135,237 | 12.6 |
| Settlement/ Built-up area | 605 | 505 | 303 | 310 | 1,912 | 3,635 | 0.3 |
| Ice/ Snow | 83,166 | 97 | 0 | 109,492 | 5 | 109,492 | 10.2 |

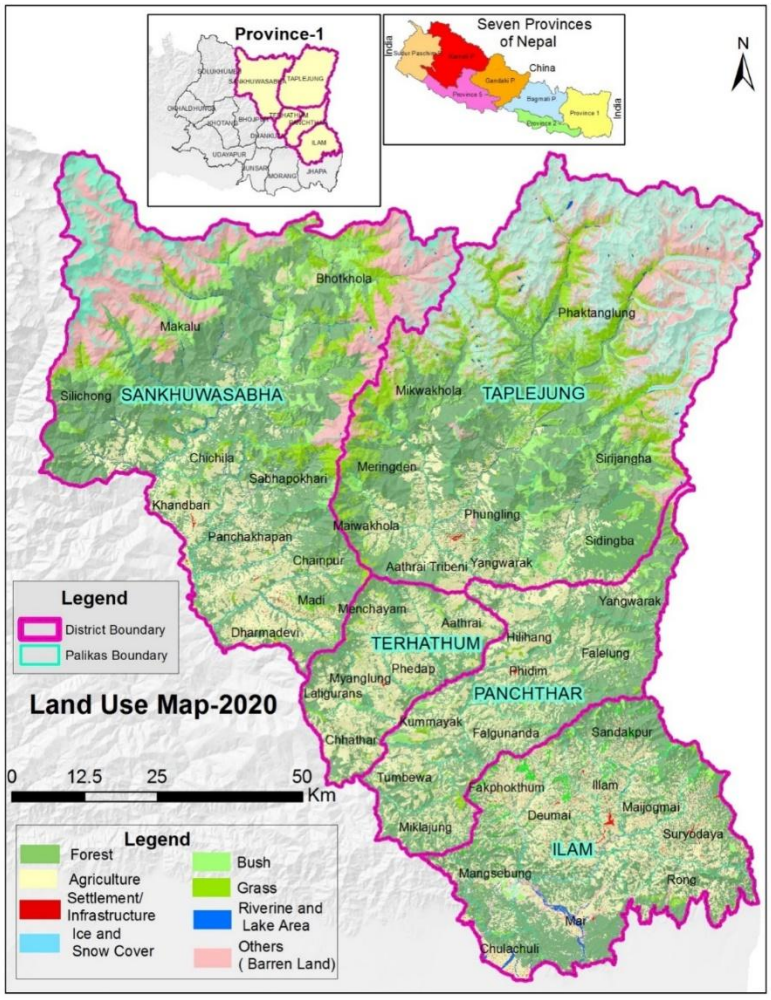


**Figure 2 Land use classification in project district**

## Forest types and their distribution

A wide variety of forest types are found in the project districts as the altitudinal variation is from about 300 m to more than 8,000 m above mean sea level. Table 3 shows the different forest types and their distribution. Forest types found in different parts of the project area are provided in Table 4.

**Table 3 Different forests types and their distribution in the project**

| Forest type | Forest sub-type | Main tree and shrub species | Elevation range (m.a.s.l.) |
|---|---|---|---|
| Tropical/ Sub-tropical forests | Dry Deciduous Hill Forest | Hill Sal (*Shorea robusta*), *Adina cordifolia*, *Anogeissus latifolia*, *Bombax ceiba*, *Albizia* spp., *Acacia catechu*, *Toona ciliate* | <1,000 |
| | Chir Pine Forest | Chir pine (*Pinus roxburghii*), mixed with Sal, *Schima walichii* and *Castanopsis indica* in transitional areas | Up to 1,600 |
| Lower Temperate Forests | Schima - Castanopsis Forest | *Schima walichii*, *Castanopsis indica*, *Shorea robusta*, *Alnus nepalensis*, *Michelia champaca* | 1000-1800 |
| | Mixed Lower Temperate Broad-Leaved Forest | *Quercus lamellosa*, *Quercus lantana*, *Rhododendron arboreum*, *Michelia kisopa*, *Machillus odoratissima*, *Lindera* sp. | 1500-2200 |
| | | *Castanopsis tribuloides*, C. *hystrix*, *Eurya accuminata*, *Quercus* spp. | 1800-2200 |
| Upper Temperate Forests | Mixed Upper Temperate Forests | *Quercus lamellosa*, Q. *semicarpifolia*, *Castanopsis tribuloides*, *Ilex dipyrena*, *Michelia kisopa* | 2200-2400 |
| | | *Quercus semicarpifolia* (south aspects)<br>*Abies spectabilis*, *Betula utilis*, *Lithocarpus pachyphylla* | 2200-3000 |
| | | *Quercus semicarpifolia*, *Symplocos lucida*, *Litsea* sp., *Acer* sp., *Lindera* sp., *Rhododendron arboreum*, *Vaccinium nummularia* | 2400-3300 |
| | Rhododendron Forest | *Rhododendron arboreum*, *Eurya accuminata*, *Daphniphyllum himalense*, *Acer* spp., *Lyonia* sp, *Betula utilis* | 2300-2800 |
| | Rhododendron-Betula Forest | R. *arboreum*, *Betula utilis* | 2300-3300 |
| | Lithocarpus Forest | *Quercus semecarpifolia*, Q. *lamellosa*, *Litsea* sp., *Lyonia* sp., *Viburnum erubescens* | 2400-2800 |
| | Temperate Conifer Forest | *Pinus wallichiana*, *Larix griffithiana*, *Cupresus torulosa*, *Tsuga dumosa* | 2200-3000 |
| Sub-Alpine Forests | Abies Forest | *Abies spectabilis*, *Betula utilis*, *Acer* sp. *Daphne* sp. | 3000-4000 |
| | | *Betula utilis*, *Pinus wallichiana*, *Juniperus*, *Rhododendron*, *Abies spectabilis* | 3000-4100 |
| Alpine Scrub | Moist Alpine Scrub | *Rhododendron lepidotum*, R. *anthopogon*, R. *setosum*, *Juniperus recurve* | 3000 - 4000 |
| | Dry Alpine Scrub | *Rhododendron lepidotum*, *Rhododendron barbatum*, *Berberis* spp., *Potentilla* sp. | 3000-4500 |
| | Alpine Meadows | *Rhododendron lepidotum*, R. *anthopogon*, R. *setosum* | 4000-5500 |

**Table 4 Forest types found in the project area (Source: DFOs Periodic Plan and the Baseline Study)**

| Ecology (forest type) | Tehrathum | Panchthar | Taplejung | Sankhuwasabha | Ilam |
|---|---|---|---|---|---|
| Schima-Castanopsis Forest | Okhare, Sudap, Sungnam, Solma, Piple, Sabla, Simle, | Miklajung, Tumbewa, Kummayak, Falgunanda, | Slopes of Tamur, Maiwakhola, | Along the valley and slopes of streams draining to Arun in Tamaphok, Jaljala, | River valleys Suryodaya 1, 2, 3, 9 Maijogmai 1, 2, 6 |

| | | | | | |
|---|---|---|---|---|---|
| | Chuhandanda, Shanti Bazar, Sungnam, Solma Oyakjhung area | Phidim, Falelung, Yangwarak, Hilihang | Phawakhola, Mawakhola | Chainpur, Siddhakali area | Sandakpur 1, 2, 3, 4, 5 Ilam 3, Deumai 1, Fakphokthum 1,3,4 |
| Hill Sal Forest | Valley of Tamur and tributaries Chhathar khola, Walamba khola, Lambu khola, Khorunga khola, Sakchuwa khola, Pyage Khola | Valleys of Tamur, Kabeli, Chhorung khola, Nawa khola, Nibu khola in Phidim, Bharpa, Nagin, Amarpur, Chakmagu, Ranigaon area | Tamur, Kabeli valley extending to Panchthar district | Valley of Arun and its tributaries Mayakhola, Sikhuwakhola, Hewa khola | Valley of Phokphok Khola, Sismsara khola, Deumai khola |
| East Himalayan Oak-Laurel Forest | Chhipuwa khola, Parewa khola, Mungsyaha khola, Chamur khola, Sabra khola, in Aangdim, Dakpa, Phulake, Basantapur, Morahang, Srijunga, and<br>Hinguwa khola, Hiundiya khola area in Hwaku, Esabu, Samdu | Dimba khola, Sawa khola, Nibhu khola, Muwa khola, Khewatham khola | Meringden, Maiwakhola, Phungling, Yangwarak area | Upstream of Bhitri khola, Yawanr Khola, Piluwakhola, Sewakhola, Chindakhola in Tamaphok, Madi Mulkharkha, Noondhaki, SiddhaPokhari, ShavaPokhari | Suryodaya 1, Maijogmai 2, Sandakpur 1, 2, 4 Ilam 3, Deumai 1, 2 Fakphokthum 1,3,4 |
| Fir Forest | - | Dhodmane khola, Thara khola in Falelung and Yangwarak 1, 2 Falelung 3, 4 bordering India | Upland in Fakumba, Thingbala, Mamangkhe area, boardering Sankhuwasabha | Upstream of SiddhaPokharai, ShavaPokhara bordering with Taplejung | Upstream of Mai, Mewa, Dhuwa khola in Sandakpur 2,4,5 and Maijogmai 1, 2 |
| Rhododendron Forest | Upstream area of Pingwa khola, Tangmaya khola, Asine khola, Khorunga khola in Basantapur, Morahang, Srijunga area, boardering with Taplejung and Sankhuwasabha | - | Upland in Mangmaya khola, Meruwa khola, Maiwakhola ward 3, 4, 5<br>Bordering with Sankhuwasabha and Tehrathum | Upstream of Kengbuwa khola, Oirang khola in<br>Tamaphok, Madi Mulkharkha, Noondhaki, Siddhapokhari Madi 9, Dharmadevi 1 Chainpur 1, 4 | - |
| Mixed Broad Leaved Forest | - | Midstream area of Dhodmane khola, Thara khola in Falelung 3, 4 Yangwarak 1, 2 | Fakumba, Thingabu, Phawakhola Meringden 1, 5 Maiwakhola 4,6 | Shava Pokhari area, along border with Tehrathum and Taplejung | - |
| Lithocarpus Forest | - | Pheme khola, Atungwa khola, Nibhu khola,<br>Falelung 6 | - | - | Upstream of Rate khola, Gitang Khola, Pakh Khola in sandakpur 1,2,3 and Deumai 1 |

| | | | | | |
|---|---|---|---|---|---|
| | | Phdim 13, 14 forest extending to Ilam district Sandakpur a | | | |
| Temperate Mountain Oak Forest | | Nasam Khola area in Yangwarak-1<br>Falelung 3 | | - | - |
| Chir Pine Forest | - | Panama khola area in Falelung, Yasok, Ranigaon, Limba, Rabi, Nagin, Bharpa area<br>Falelung 2, 3, 5 | Khokling, Khamlung area Phungling ward 1, 2, Sirijanga 2, 4 and a block in Kabeli river valley | - | - |
| Rhododendron Shrubberies | - | Upstream of Iwa khola in<br>Yangwarak-2, boardering India | Upland in Nalbu, Papung, Ikhabu Meringden 1, Phungling 3 | Upstream of Shava Pokhari above Fir forest, extended to Taplejung | - |
| Dwarf Rhododendron Scrub | - | Uppermost area of Iwakhola in<br>Yangwarak-2, boardering India | Channnge, Shangu<br>Phaktanglung 2, Sirijangha 3,4,5<br>Maiwakhola 6<br>Meringden 1 | North-East in Sabhapokhari -5 boardering Taplejung | - |

## Forests management regimes

In Nepal, there are two overall types of forest tenure - national forests and private forests. All forests except private forests (forests grown and managed in private land) are national forests. National forests are further divided into different categories based on different management modalities (regime). These include:

- National Parks or protected areas;
- Government managed forests (Outside the protected area system; includes protection forests);
- Forests managed under the community-based forest management system (Community forests and Collaborative forests);
- Pro poor leasehold forests;
- Religious forests (This is also one of the community-based forest management systems);
- Leased forests – Leased forests to a third party for commercial purposes (for hotel, resorts, industrial plantation etc).

The forest area under different management regimes in the project districts is shown in Table 5. The forest area of different project *Palika* (with the number of CFUGs and area under CF) is shown in Table 6. The status of pro poor leasehold forestry in the project districts is shown in Table 7

**Table 5 Forests under different management regimes in the project districts**

| **District** | **National Forest** | |
|---|---|---|

| | Protected area | Government Managed forest | Community Forest | Leasehold forest | Religious forest | **Private forest** |
|---|---|---|---|---|---|---|
| Taplejung | 52,548 | 90,276 | 7,336 (7.5) | - | - | 11 |
| Panchthar | - | 39,972 | 16,125 (28.3) | 789 (1.4) (pro-poor) | 32 | 4 |
| Tehrathum | - | 7,243 | 19,125 (71.6) | 328 (1.2) (pro-poor) | - | 9 |
| Sankhuwasabha | 233,000 | 45,382 | 31,776 (41.2) | 125 (0.2) (commercial) | 11 | 20 |
| Ilam | - | 46,988 | 47,375 (50.1) | - | 156 | 51 |
| **Total** | **285,548** | **229,861** | **121,737** | **1,242** | **199** | **95** |

**Table 6 Forest Area in different project Palika (with no. of CFUGs and area for project area)**

| **District** | ***Palika*** | **Total Area (Sq km)** | **Forest Area (Sq km)** | **No of CF (Core area)** | **Area under CF (Ha)** |
|---|---|---|---|---|---|
| Taplejung | Aathrai Tribeni RM | 88.83 | 34.5 | 12 | 249.33 |
| | Mauwakhola RM | 138 | 97.9 | 8 | 650.42 |
| | Meringden RM | 210.33 | 138.7 | 12 | 313.97 |
| | Mikwakhola RM | 442.96 | 214.9 | 18 | 1745.98 |
| | Pathivara Yangbarak RM | 93.76 | 46.5 | 17 | 767.91 |
| | Phaktanglung RM | 1858.51 | 477.5 | 5 | 608.40 |
| | Phungling M | 125.57 | 70.5 | 11 | 1071.74 |
| | Sidingwa RM | 206 | 160.1 | 10 | 436.07 |
| | Srijangha RM | 481.09 | 261.1 | 8 | 674.21 |
| Subtotal | | **3645.05** | | 101 | 6518.03 |
| Panchthar | Hilihang RM | 123.01 | 52.6 | 17 | 1668.21 |
| | Kurmyak RM | 129.3 | 55.8 | 20 | 791.94 |
| | Miklajung RM | 166.61 | 91.4 | 32 | 2978.65 |
| | Falelung RM | 207.14 | 145.89 | 22 | 2951.28 |
| | Falgunand RM | 107.63 | 50.96 | 25 | 1072.86 |
| | Phidim M | 192.5 | 109.5 | 35 | 2260.24 |
| | Turnbewa RM | 117.34 | 51.2 | 19 | 1427.63 |
| | Yangbarak RM | 208.63 | 160.4 | 10 | 2974.18 |
| | **Subtotal** | **1252.16** | | **180** | 16125 |
| Terahthum | Aathrai RM | 167.07 | 75.0 | 112 | 3266.93 |
| | Chhathar RM | 133.93 | 56.7 | 57 | 3789.96 |
| | Laligurans M | 90.27 | 47.9 | 47 | 2824.2 |
| | Menchyam RM | 70.09 | 41.0 | 22 | 3029.05 |

| | | | | | |
|---|---|---|---|---|---|
| | Myanglung M | 100.21 | 55.3 | 48 | 3675.38 |
| | Phedap RM | 110.83 | 52.2 | 53 | 2539.25 |
| | **Subtotal** | **672.4** | | 339 | 19124.77 |
| Sankhuwasabha | Chainpur M | 223.69 | 119.1 | 12 | 785.81 |
| | Dharmadevi M | 132.82 | 76.3 | 11 | 1672.95 |
| | Madi M | 110.1 | 63.4 | 17 | 668.28 |
| | Panchkhappan M | 148.03 | 86.7 | 6 | 881.57 |
| | Sabhapokhari RM | 222.08 | 156.3 | 4 | 790.41 |
| | **Subtotal** | **836.72** | | **50** | 4799 |
| Ilam | Deumai M | 191.63 | 85.7 | - | - |
| | Ilam M | 173.32 | 82.4 | 3 | 80.68 |
| | Maijogmai RM | 172.41 | 80.4 | 5 | 1786.94 |
| | Mangsebung RM | 142.41 | 103.2 | 13 | 405.04 |
| | Fakpokthum RM | 108.79 | 48.5 | 25 | 4457.29 |
| | Sandakpur RM | 156.01 | 107.6 | 3 | 515.85 |
| | **Subtotal** | **944.57** | | | |
| | **Total** | **7,350.9** | | | |

**Table 7 Status of Pro Poor Leasehold Forests in two project districts**

| **District** | ***Palika*** | **No. of LHFUGs** | **Forest Area (ha)** |
|---|---|---|---|
| Panchthar | Phidim | 23 | 56.26 |
| | Phalelung | 9 | 65.93 |
| | Phalgunanda | 23 | 124.95 |
| | Hilihang | 21 | 73.28 |
| | Kummayak | 35 | 79.28 |
| | Miklajung | 114 | 374.8 |
| | Tumbewa | 3 | 14.15 |
| Subtotal | | 228 | 788.7 |
| Terahthum | Myanglung | 5 | 16 |
| | Laligurans | 6 | 18.05 |
| | Aathrai | 23 | 60.19 |
| | Chhathar | 52 | 118.75 |
| | Phedap | 18 | 77.62 |
| | Menchhayayem | 11 | 37.63 |
| Subtotal | | 115 | 328.2 |
| **Grand Total** | | **343** | **1,117** |

### Status of Biodiversity

The proposed project area is a part of the biodiversity-rich Eastern Himalaya region, which hosts several biodiversity hotspots with unique assemblages of flora and fauna (WWF and ICIMOD 2001; Guangwei 2002). The region demonstrates numerous ecological patterns and processes, predator-prey relationships, altitudinal migrations, and hydrological processes (GoN/MoFSC, 2006; Chettri et al., 2010). It hosts several key mammal species, such as the snow leopard (*Panthera uncia*), red panda (*Ailurus fulgens*), musk deer (*Moschus chrysogaster*), and clouded leopard (*Neofelis nebulosa*); several species of pheasant and altitudinal migrant birds; and a diverse assemblage of rhododendrons and other valuable trees and medicinal herb species.

Some of the endangered wild animals, such as the snow leopard, Tibetan wolves (*Canis lupus chanco*) and brown bear hunt and travel over large areas. Large ungulates found in the area make short-distance altitudinal migrations between high altitude pastures to forested lower elevations. These species cannot survive in small, fragmented habitats. Ensuring survival of these endangered species, maintaining viable populations of other large mammals and birds, and keeping the integrity of hydrological systems requires landscape-scale connectivity of this bio-diverse landscape. Integrity of mid- and lower-montane forests of the project area is crucial for survival of charismatic birds, such as hornbills and pheasants, as they are intolerant of forest degradation and disturbance (GoN/MoFSC, 2016).

Butterfly, aquatic and agro biodiversity is also rich in this area. *Psilorhynchoides pseudecheneis,* an endemic fish species, locally known as *Titemachha* is common in the area. The area has several domesticated varieties of rice, wheat, millet, buckwheat, and barley. Many of these crops have high nutritional value and can tolerate extreme variations in temperature, precipitation, and soil conditions (GoN/MoFSC, 2016).

The rich biodiversity in the region has benefited from increased forest cover and is at the same time threatened by multiple factors including, neglect, poor management, overexploitation, forest area encroachment for agriculture and urban expansion, forest fires, human-wildlife conflict, and invasion by alien plant species (Chettri et al., 2010)

Some of the important biodiversity hotspots, landscapes and unique habitats of the area include: Tinjure-Milke-Jaljale (TMJ) forest complex; Kangchenjunga-Singalila Complex; and upper and lower Mai Valley natural remnant of tropical evergreen forest. A summary of these areas is provided in Table 8.

**Table 8 Key Biodiversity Hotspots**

| Areas | Location/Description | Key flora/fauna | Information Source |
|---|---|---|---|
| Tinjure-Milke-Jaljale (TMJ) forest complex | Covers parts of Sankhuwasabha, Tehrathum, and Taplejung districts. Represents Eastern Himalayan Shrub/Meadow and Eastern Himalayan Broadleaf Forests Eco regions. | Known for its richness in rhododendron species. Also hosts 36 species of mammals (including snow leopard, clouded leopard, and Himalayan musk deer), 151 species of birds, and 259 species of plants. | IUCN, 2010; Friends of Nature, 2017; and consultations |
| Kangchenjunga -Singalila Complex | Part of an important trans boundary landscape. Includes broadleaf and conifer forest patches in south and southwest of Kanchenjungha Conservation Area in Ilam and Panchthar districts. Important for species conservation as well as migrations, dispersal and other ecological linkages such as hydrology. | Hosts several species of endangered or threatened fauna, including Clouded Leopard (*Neofelis nebulosa*); Red Panda (*Ailurus fulgens*)<br>Chestnut-breasted Partridge (*Arborophila mandellii*);<br>White-bellied Heron (*Ardea insignis*), and 22 species of threatened flowering plants (based on IUCN, CITES and GoN threat categories). | CEPF, 2005; GoN/MoFSC, 2016b |

| | | | |
|---|---|---|---|
| Mai Valley forests | An Important Bird Area, the upper and lower Mai Valley forests in Ilam District include a small but important remnant of tropical evergreen forest. The moist mixed broadleaved forests comprising of *Quercus* spp., *Lithocarpus* spp., *Castanopsis* spp. and *Rhododendron* spp. with a bamboo understory are particularly important bird habitats. The forests are reportedly experiencing widespread loss, degradation and fragmentation of forest habitats. | Around 300 species of birds, including some restricted range species (Rufous-throated Wren Babbler, Spiny Babbler and Hoary-throated Barwing), rare species (e.g. *Irena puella,* Lesser Adjutant and White-rumped Vulture) and endemic species (e.g. *Gecinulus grantia*). Globally threatened *Macaca assamensis*, *Ursus thibetanus, Panthera pardus, Canis aureus, Prionailurus bengalensis, Semnopithecus entellus, Ratufa bicolor*, are some non-bird wildlife reported. | Bird Life International, 2020; Consultations |
| Tamor Valley | One of the IBAs in Nepal.<br>Tamor River is rich in agro-biodiversity and diversity of fish species. | Common Leopard (Panthera pardus), Jungle Cat (*Felis chaus*), Barking Deer (Muntiacus muntijack), Squirrel (*Funambulus pennant*), Monkey (*Macaca mulata*), Wolf (*Canis lupus*).<br>Lizard (*Hemidactylus frenatu*), Green Pit Viper (*Trimeresurus albolabris*), Latokosero (*Tyto alba*), Rohu (*Labeo rohu*), Asla (*Schizothorax* spp.) | CEPF, 2005 |
| Mai Pokhari Ramsar site | Located in Ilam District, the wetland has a very high ecological value and also holds high religious and cultural significance for Hindus and Buddhists. Designated a Ramsar site on 28 October 2008. | It is a major habitat for some indigenous fauna such as tree frog and Himalayan newt, and habitat for more than 300 species of birds, significant epiphytic orchids, and protected species such as White-rumped vulture (*Gyps bengalensis*), Leopard cat (*Prionailurus bengalensis*) and Eurasian otter (*Lutra lutra*). | Ramsar Secretariat, 2020; Consultations |

### Land Degradation

Land degradation is one of the environmental problems of the project area, mainly a result of water-induced disasters including erosion and landslides. This situation has been exacerbated by poor agricultural practices. Landslides and topsoil erosion occur across all project districts. Some of the direct causes of land degradation are deforestation, uncontrolled stone and sand mining, unplanned construction of local roads on steep slopes and encroachment and illegal farming on steep slopes.

### Threats for Environmental and Biodiversity Conservation in the Area

Some threats identified for environmental and biodiversity conservation in the area include:

- Excessive removal of low-value biomass
- Unsustainable forest management
- Forest fire
- Invasive species
- Illegal harvesting of forest products and poaching
- Human Wildlife Conflict
- Encroachment and over-extraction of resources
- Poorly planned and implemented infrastructure

- Competing and conflicting land use policies
- Inequity
- Climate change

### *Social Description of the Project Area*

#### Population of the Project Districts

More than 60 per cent of the population of the five project districts belong to the indigenous communities, major groups are Limbu, Rai, and Tamang (CBS, 2014). Other disadvantaged or marginalized groups living in the area include Bhote, Bhujel,Sunwar, Lepcha, Kumal, Yakkha and Walun. About 10-15 per cent of the population of the project districts belong to lower caste called Dalits ("untouchable), most of them are landless.

According to the 2011 census, Taplejung district has a total population of 127,461, with 47.6 per cent male and 52.4 per cent female. Total household number in the district is 26,509 with an average household size of 4.81. The caste and ethnic groups of Taplejung district consist of Limbu, Rai, Brahmin, Chhetri, Tamang, Kami, Magar, Gurung, Damai, Newar, Sarki and others (CBS, 2014).

In 2011, the total population of Panchthar district was191,817 of which 53 per cent female and 47 per cent male. The literacy rate of the district was 72 per cent, of which 60 per cent female and 80 per cent male. The caste and ethnic groups of Panchthar consist of Rai, Limbu, Brahmin, Chhetri, Tamang, Kami, Magar, Damai, Gurung and others. The population of Limbu is highest (42 per cent) and follows by Rai (14 per cent), Brahmin (11 per cent), Chhetri (10 per cent), Tamang (7 per cent) and others (CBS 2014)

Terahathum district had a total population of 101,577 in 2011. Female population represents 46.1 percent of the total population, male population represents 53.6 percent. The number of households is about 22,089 and the average size of the family per household is 4.6 people. The literacy rate of the district is 59.4 per cent, of which the female and male literacy rates are 47.8 and 71 per cent respectively.

The total population of Sankhuwasabha District was 158,742 in 2011 with 53 per cent female and 47 per cent male living in about 34,615 households. The literacy rate of the district is 56.72 per cent. About 63.7 per cent of males are literate whereas only 45 per cent of females are literate. Most of the people (77.6 per cent) of the district are engaged in agriculture for their livelihood.

Ilam district had a total population of 295,824 in 2011 with 51 per cent female and 49 per cent male living in about 64,477 households. The literacy rate of Ilam is 78 per cent, of which 72 per cent female and 84 per cent male.

Although five districts are considered as the project districts; the core project area includes whole or parts of only 34 *Palika* within these districts. Even some of the wards of the *Palika* are outside of the proposed project interventions.

The total population with male and female, sex ratio and population density of the five project districts is provided in Table 9. Ten major ethnic groups and their population in the project districts, in order of their population size is provided in Table 10. Similarly, the number of households, male, female and total population of each of the 187 Project Wards of 34 *Palika* is provided in Table 11.

**Table 9 Population structure of the five project districts (Source CBS, 2012; 2014)**

| District | Area (Sq km) | Household No | Total Population | Male | Female | Sex ratio | Population Density |
|---|---|---|---|---|---|---|---|
| Taplejung | 3,646 | 26,509 | 127,461 | 60,552 | 66,909 | 90.5 | 35 |
| Panchthar | 1,241 | 41,196 | 191,817 | 90,186 | 101,631 | 88.7 | 155 |
| Terhathum | 679 | 22,094 | 101,577 | 47,151 | 54,426 | 86.6 | 150 |
| Sankhuwasabha | 3,480 | 34,624 | 158,742 | 75,225 | 83,517 | 90.1 | 46 |
| Ilam | 1,703 | 64,502 | 290,254 | 141126 | 149,128 | 94.6 | 170 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Total | 10,749 | 188,925 | 869,851 | 414,240 | 455,611 | | |

**Table 10 Ten major ethnic groups and their population in the project districts in order of their population size (Source CBS – 2014)**

| **Taplejung** | | **Panchthar** | | **Tehrathum** | | **Sankhuwasabha** | | **Ilam** | |
|---|---|---|---|---|---|---|---|---|---|
| Ethnic group | Population | Ethnic group | Population | Ethnic group | Population | Ethnic group | Population | Ethnic group | Population |
| Limbu | 52,784 | Limbu | 80,339 | Limbu | 36,375 | Chhetri | 29,125 | Rai | 68,965 |
| Chhetri | 15,268 | Rai | 26,424 | Chhetri | 19,636 | Rai | 16,928 | Limbu | 45,626 |
| Sherpa | 12,043 | Brahman_ Hill | 20,594 | Brahman - Hill | 13,532 | Tamang | 16,574 | Brahman - Hill | 40,340 |
| Brahman - Hill | 9,916 | Chhetri | 18,927 | Tamang | 6,675 | Kulung | 9,755 | Chhetri | 39,735 |
| Rai | 6,438 3 | Tamang | 13,647 | Kami | 4,413 | Sherpa | 9,257 | Tamang | 20,175 |
| Kami | 5,959 | Kami | 6,522 | Damai/ Dholi | 3,086 | Limbu | 8,682 | Magar | 15,076 |
| Gurung | 5,879 | Magar | 6368 | Gurung | 2,991 | Gurung | 8,623 | Newar | 10,633 |
| Tamang | 5,649 | Damai/ Dholi | 4134 | Newar | 2,938 | Brahman - Hill | 8,479 | Kami | 9,894 |
| Newar | 2,029 | Gurung | 3727 | Magar | 2,451 | Newar | 7,537 | Gurung | 8,350 |
| Damai/ Dholi | 1,870 | Newar | 2743 | Rai | 2,014 | Kami | 7,521 | Damai/ Dholi | 4,527 |

**Table 11 Population of Project Wards of Different Palika of the Five Project Districts (Source CBS 2016)**

| ***Palika* and Ward** | **Ward** | **No of households** | **Males** | **Females** | **Total population** |
|---|---|---|---|---|---|
| Taplejung District | | | | | |
| Aathrai Tribeni RM (All wards) | 1 | 511 | 1117 | 1384 | 2501 |
| | 2 | 734 | 1675 | 1855 | 3530 |
| | 3 | 782 | 1746 | 1973 | 3719 |
| | 4 | 447 | 1020 | 1165 | 2185 |
| | 5 | 414 | 856 | 993 | 1849 |
| Mauwakhola RM All wards | 1 | 417 | 964 | 1133 | 2097 |
| | 2 | 329 | 770 | 881 | 1651 |
| | 3 | 394 | 924 | 971 | 1895 |
| | 4 | 361 | 889 | 1029 | 1918 |
| | 5 | 349 | 833 | 908 | 1741 |

| | | | | | |
|---|---|---|---|---|---|
| | 6 | 344 | 814 | 921 | 1735 |
| Meringden RM (5 of 6 wards) | 1 | 491 | 1153 | 1323 | 2476 |
| | 2 | 533 | 1178 | 1416 | 2594 |
| | 3 | 319 | 730 | 787 | 1517 |
| | 4 | 332 | 747 | 869 | 1616 |
| | 5 | 527 | 1131 | 1365 | 2496 |
| Mikwakhola RM 3 of 5 wards | 1 | 348 | 803 | 856 | 1659 |
| | 2 | 345 | 811 | 906 | 1717 |
| | 3 | 359 | 810 | 943 | 1753 |
| Pathivara Yangbarak RM (All wards) | 1 | 809 | 1722 | 2046 | 3768 |
| | 2 | 702 | 1552 | 1834 | 3386 |
| | 3 | 354 | 791 | 912 | 1703 |
| | 4 | 324 | 729 | 830 | 1559 |
| | 5 | 191 | 425 | 483 | 908 |
| | 6 | 454 | 1076 | 1191 | 2267 |
| Phaktanglung RM 3 of 7 wards | 1 | 297 | 676 | 785 | 1461 |
| | 2 | 480 | 1186 | 1220 | 2406 |
| | 3 | 457 | 1079 | 1135 | 2214 |
| Phungling M All wards | 1 | 248 | 611 | 727 | 1338 |
| | 2 | 631 | 1281 | 1443 | 2724 |
| | 3 | 606 | 1244 | 1454 | 2698 |
| | 4 | 967 | 1852 | 1924 | 3776 |
| | 5 | 463 | 925 | 915 | 1840 |
| | 6 | 620 | 1195 | 1403 | 2598 |
| | 7 | 379 | 756 | 800 | 1556 |
| | 8 | 530 | 1148 | 1371 | 2555 |
| | 9 | 753 | 1683 | 1922 | 3605 |
| | 10 | 493 | 1145 | 1268 | 2413 |
| | 11 | 260 | 589 | 714 | 1303 |
| Sidingwa RM 5 of 7 wards | 2 | 211 | 515 | 533 | 1048 |
| | 3 | 451 | 1122 | 1224 | 2346 |
| | 4 | 432 | 997 | 1136 | 2133 |
| | 5 | 356 | 841 | 991 | 1832 |
| | 6 | 463 | 851 | 903 | 1754 |
| Srijangha RM 5 of 8 wards | 1 | 461 | 977 | 1116 | 2093 |
| | 2 | 625 | 1442 | 21537 | 2979 |
| | 3 | 417 | 1066 | 1184 | 2250 |
| | 4 | 449 | 1013 | 1214 | 2227 |
| | 5 | 344 | 815 | 886 | 1701 |
| Panchhar District | | | | | |
| Falelung RM | 1 | 524 | 1082 | 1264 | 2346 |
| | 2 | 656 | 1379 | 1546 | 2925 |
| | 3 | 657 | 1464 | 1595 | 3059 |
| | 4 | 459 | 1121 | 1190 | 2311 |

| | | | | | |
|---|---|---|---|---|---|
| | 5 | 761 | 1759 | 1915 | 3674 |
| | 6 | 356 | 860 | 1005 | 1865 |
| | 7 | 529 | 1260 | 1433 | 2693 |
| | 8 | 600 | 1365 | 1616 | 2981 |
| Falgunanda RM | 1 | 858 | 1885 | 2243 | 4128 |
| | 2 | 485 | 1032 | 1168 | 2200 |
| | 3 | 939 | 1961 | 2377 | 4338 |
| | 4 | 799 | 1706 | 1944 | 3650 |
| | 5 | 922 | 1889 | 2154 | 4043 |
| | 6 | 574 | 1300 | 1536 | 2836 |
| | 7 | 585 | 1335 | 1530 | 2865 |
| Hilihang RM | 1 | 558 | 1178 | 1391 | 2569 |
| | 2 | 776 | 1748 | 2026 | 3774 |
| | 3 | 542 | 1132 | 1378 | 2510 |
| | 4 | 486 | 1115 | 1253 | 2368 |
| | 5 | 820 | 1937 | 2074 | 4011 |
| | 6 | 774 | 1657 | 1976 | 3633 |
| | 7 | 836 | 1879 | 2169 | 4048 |
| Kummayak RM | 1 | 947 | 1952 | 2272 | 4224 |
| | 2 | 771 | 1685 | 2007 | 3692 |
| | 3 | 531 | 1163 | 1339 | 2502 |
| | 4 | 537 | 1168 | 1315 | 2483 |
| | 5 | 714 | 1433 | 1784 | 3217 |
| Miklajung RM | 1 | 621 | 1232 | 1455 | 2687 |
| | 2 | 678 | 1318 | 1555 | 2873 |
| | 3 | 790 | 1688 | 1984 | 3672 |
| | 4 | 999 | 1932 | 2268 | 4200 |
| | 5 | 807 | 1635 | 2002 | 3637 |
| | 6 | 459 | 996 | 1155 | 2151 |
| | 7 | 511 | 1091 | 1314 | 2405 |
| | 8 | 685 | 1410 | 1580 | 2990 |
| Phidim Municipality | 1 | 2128 | 4056 | 4194 | 8250 |
| | 2 | 717 | 1388 | 1562 | 2950 |
| | 3 | 417 | 907 | 1051 | 1958 |
| | 4 | 1029 | 2017 | 2224 | 4241 |
| | 5 | 807 | 1757 | 2068 | 3825 |
| | 6 | 759 | 1639 | 1905 | 3544 |
| | 7 | 620 | 1337 | 1563 | 2900 |
| | 8 | 688 | 1529 | 1672 | 3201 |
| | 9 | 527 | 1149 | 1301 | 2450 |
| | 10 | 632 | 1243 | 1551 | 2794 |
| | 11 | 706 | 1571 | 1818 | 3389 |
| | 12 | 682 | 1543 | 1780 | 3323 |
| | 13 | 654 | 1585 | 1747 | 3332 |

| | | | | | |
|---|---|---|---|---|---|
| | 14 | 628 | 1446 | 1598 | 3044 |
| Tumbewa RM | 1 | 521 | 1188 | 1364 | 2552 |
| | 2 | 649 | 1501 | 1773 | 3274 |
| | 3 | 474 | 1012 | 1134 | 2146 |
| | 4 | 563 | 1190 | 1346 | 2536 |
| | 5 | 608 | 1374 | 1537 | 2911 |
| Yangbarak RM | 1 | 494 | 1073 | 1199 | 2272 |
| | 2 | 652 | 1587 | 1674 | 3261 |
| | 3 | 766 | 1876 | 2015 | 3891 |
| | 4 | 751 | 1597 | 1816 | 3413 |
| | 5 | 548 | 1212 | 1358 | 2570 |
| | 6 | 600 | 1356 | 1518 | 2874 |
| Terhathum District | | | | | |
| Aatharai Gaunpalika | 1 | 682 | 1437 | 1623 | 3060 |
| | 2 | 615 | 1423 | 1595 | 3018 |
| | 3 | 644 | 1448 | 1627 | 3075 |
| | 4 | 701 | 1535 | 1827 | 3362 |
| | 5 | 661 | 1485 | 1743 | 3228 |
| | 6 | 771 | 1632 | 1909 | 3541 |
| | 7 | 504 | 1172 | 1291 | 2463 |
| Chhathar Gaunpalika | 1 | 443 | 898 | 1088 | 1986 |
| | 2 | 731 | 1526 | 1796 | 3322 |
| | 3 | 455 | 963 | 1134 | 2097 |
| | 4 | 529 | 1145 | 1364 | 2509 |
| | 5 | 807 | 1746 | 1981 | 3727 |
| | 6 | 671 | 1401 | 1673 | 3074 |
| Laligurans Municipality | 1 | 272 | 555 | 689 | 1244 |
| | 2 | 513 | 1001 | 1060 | 2061 |
| | 3 | 326 | 705 | 894 | 1599 |
| | 4 | 341 | 787 | 888 | 1675 |
| | 5 | 495 | 1081 | 1431 | 2512 |
| | 6 | 439 | 907 | 1144 | 2051 |
| | 7 | 391 | 848 | 955 | 1803 |
| | 8 | 436 | 883 | 1068 | 1951 |
| | 9 | 464 | 961 | 1142 | 2103 |
| Menchhayayem RM | 1 | 217 | 440 | 533 | 973 |
| | 2 | 258 | 545 | 643 | 1188 |
| | 3 | 250 | 513 | 600 | 1113 |
| | 4 | 285 | 564 | 663 | 1227 |
| | 5 | 396 | 825 | 1003 | 1828 |
| | 6 | 388 | 796 | 953 | 1749 |
| Myanglung Municipality | 1 | 937 | 1708 | 1890 | 3598 |
| | 2 | 532 | 972 | 1140 | 2112 |
| | 3 | 221 | 470 | 545 | 1015 |

| | | | | | |
|---|---|---|---|---|---|
| | 4 | 331 | 681 | 815 | 1496 |
| | 5 | 217 | 467 | 534 | 1001 |
| | 6 | 527 | 1036 | 1220 | 2256 |
| | 7 | 448 | 882 | 1018 | 1900 |
| | 8 | 342 | 799 | 914 | 1713 |
| | 9 | 568 | 1183 | 1363 | 2546 |
| | 10 | 472 | 911 | 1111 | 2022 |
| Phedap RM | 1 | 919 | 1986 | 2330 | 4316 |
| | 2 | 1007 | 2150 | 2577 | 4727 |
| | 3 | 758 | 1633 | 1930 | 3563 |
| | 4 | 504 | 1047 | 1201 | 2248 |
| | 5 | 616 | 1305 | 1541 | 2846 |
| Sankhuwasabha District | | | | | |
| Chainpur M | 1 | 553 | 1174 | 1399 | 2573 |
| | 2 | 556 | 1266 | 1359 | 2625 |
| | 4 | 488 | 1112 | 1273 | 2385 |
| Dharmadevi M | 1 | 536 | 1115 | 1317 | 2432 |
| | 3 | 652 | 1367 | 1595 | 2962 |
| Madi M | 1 | 323 | 689 | 801 | 1490 |
| | 2 | 239 | 491 | 610 | 1101 |
| | 3 | 528 | 1025 | 1242 | 2267 |
| | 7 | 229 | 462 | 524 | 986 |
| | 8 | 228 | 460 | 550 | 1010 |
| | 9 | 264 | 596 | 711 | 1307 |
| Panchkhappan M | 9 | 367 | 839 | 993 | 1832 |
| Sabhapokhari RM | 5 | 179 | 476 | 464 | 940 |
| Ilam District | | | | | |
| Deumai M<br>2 of 9 Wards | 1 | 820 | 1946 | 2041 | 3987 |
| | 2 | 781 | 1661 | 1879 | 3540 |
| Ilam M<br>4 of12 Wards | 1 | 932 | 1917 | 2128 | 4045 |
| | 2 | 591 | 1233 | 1330 | 2563 |
| | 3 | 634 | 1386 | 1541 | 2927 |
| | 4 | 1139 | 1496 | 1512 | 3008 |
| Maijogmai RM<br>2 of 10 Wards | 2 | 672 | 1503 | 1622 | 3125 |
| | 6 | 654 | 1545 | 1741 | 3286 |
| Fakfokathum RM<br>All Wards | 1 | 792 | 1742 | 1989 | 3731 |
| | 2 | 605 | 1418 | 1551 | 2969 |
| | 3 | 627 | 1428 | 1649 | 3077 |
| | 4 | 840 | 1667 | 1971 | 3638 |
| | 5 | 544 | 1149 | 1307 | 2456 |
| | 6 | 534 | 1232 | 1355 | 2587 |
| | 7 | 692 | 1476 | 1685 | 3161 |
| Sandakpur RM<br>All Wards | 1 | 575 | 1306 | 1357 | 2663 |
| | 2 | 758 | 1745 | 1724 | 3469 |

| | | | | | |
|---|---|---|---|---|---|
| | 3 | 799 | 1721 | 1863 | 3584 |
| | 4 | 734 | 1495 | 1654 | 3149 |
| | 5 | 777 | 1523 | 1677 | 3200 |
| Suryodaya Municipality 1 of 14 Wards | 1 | 1228 | 2640 | 2718 | 5358 |

### Education Status

Education is an important indicator of human capability as well as a means for supporting human life by providing access to opportunities. Thus, access to educational opportunity is critically important. Literacy is defined as the ability to read and write. In the context of the project area, there is varied literacy rates both between and within the caste/ethnic groups. Hill Brahman have highest literacy rate (82.18 per cent) followed by Newar (78.04 per cent), Hill Chhetri (76.98 per cent), Hill IPs (71.31 per cent) and Dalits (66.94 per cent). The high literacy rate of Hill Brahman indicates better access to the education.

There is varied literacy rate between the women and men within the same castes and ethnic groups, e.g. the Hill Brahman has the highest literacy rate difference (16.57) between the men (90.59 per cent) and women (74.02 per cent) followed by Gurung (16.40 per cent), Magar (16.34 per cent), Damai (16.32 per cent) and Tamang (16.14 per cent). The Hill Chhetri has a lowest difference literacy rate (10.54 per cent).

Literacy rate varied not only between and within the castes/ethnic group but also by gender. Hill Brahman women has the highest literacy rate (74.02 per cent) followed by Newar women (72.72 per cent), Hill Chhetri women (72.13 per cent), Limbu women (68.19 per cent) and Rai women (68.03 per cent). And the least literate is the Sarki women (53.66 per cent). Hill Brahman, Newar, Hill Chhetri, Limbu and Rai women are in the top five position where as Yakkha, Tamang and all three Dalits women namely Kami, Damai and Sarki are at the bottom five. Rai, Gharti/Bhujel, Sunuwar and Tamang women are in the middle i.e., in between 53.66 per cent - 63.60 per cent.

### Economy and Livelihoods

Agriculture is the backbone of Nepal's economy, employing approximately 60 per cent of the population and contributing about 27 per cent of GDP. However, agriculture remains largely semi-subsistence based with relatively low productivity.[2] Nepal's Agriculture Development Strategy (ADS)[3] has identified migration, conversion of agriculture land to non-agricultural purpose, land fragmentation, lack of irrigation and other infrastructure as some of the main reasons for low performance of the sector. The agriculture sector provides about 36 per cent of Province One's Provincial Domestic Product[4]. With an average agriculture land holding of 0.66 ha., the province is self-sufficient in grain production and the Province also produces also produces tea, cardamom, vegetables, citrus fruit, and dairy products. Many of these products have substantial export potential[5].

In addition to a reliance on agriculture, an estimated 80 per cent of the population in the target area depend on forests. Forests are an important component of the farming system by providing a range of ecosystem services including provisioning services (e.g., wood, fuelwood, water, fodder), regulating services (e.g., catchment regulation (water flow, floods and landslides), climate regulation, and hazard regulation) and cultural services (e.g., religious forests).

Migration of youth especially outmigration for employment is another demographic feature of the project area. Domestic migration in Nepal includes rural to rural and rural to urban migration. Migration from the hills and mountains to the lowlands and valleys is prominent and increasing. Domestic migration is driven by income and employment opportunities, and in search of better education and living conditions[6]. In recent

2 15th Periodic Plan (2019/20 – 2023/24). Government of Nepal. National Planning Commission.

3 Agriculture Development Strategy (2015-2035). Government of Nepal, Ministry of Agriculture and Livestock Development.

4 Provincial domestic product has the same meaning as GDP but based on a province.

5 Annual Progress Report (2018/19). Agriculture Development Directorate, Ministry of Land Management, Agriculture and Cooperatives, Province One.

6 Suwal, B. R. (2014). Internal migration in Nepal. In Population Monograph of Nepal -2011 (pp. 241–283). Kathmandu: Government of Nepal, National Planning Commission Secretariat, Central Bureau of Statistics.

years, natural disasters such as prolonged drought, fires, earthquakes, and landslides have also triggered internal migration.

Overseas migration is an important feature of the population dynamics of Province One and it has substantial effect of the province's economy. Whilst overseas migration makes a significant contribution to the national economy through remittances (increasing USD 2.54 billion in 2010/11 to USD 8.79 billion in 2018/19), it also presents serious challenges. When foreign labor market was opened for Nepalese youths in early 1990s, the number of labor approval issued by the Department of Foreign Employment (DOFE) was just 3,605 in 1993/94. It reached 106660 in 2003/2004 and 519,638 in 2013/14. Number of Nepalese youths seeking foreign employment especially in Gulf countries and Malaysia has decreased since 2013/14 as 350,098 and 236,208 labor approvals were issued in 2017/18 and 218/19 respectively[7]. More than 80 per cent of overseas migrants from Nepal are aged between 18 and 35 years.[8] Outmigration has long-term implications for agriculture, livestock, forestry and other economic sectors, not the least as a result of a growing shortage of an active workforce.

### *Legal framework for Environmental and Social Safeguards*

This section provides a review and analysis of the legal and institutional framework (i.e., policies and measures) for Environmental and Social Safeguards. The first part focuses on Nepal and analyses existing legal and institutional frameworks for their relevance to mitigating potential negative environmental and social impacts of the proposed project activities. This is followed by an analysis of Environmental and Social Policies of FAO and GEF.

#### National and Provincial legal provisions for environmental and social safeguards

**Constitution of Nepal:** The Constitution of the Federal Republic of Nepal (2015) acknowledges environmental and social rights of its citizens and commits to safeguard them by applying social equity and inclusive governance and ending any kind of discriminations relating to class, caste, region, language, religion, and gender. Clauses 17, 18, 27, 30, 38, 39, and 40 of the Constitution have specific provisions related to rights to freedom, equality, information, clean environment, women, and Dalits respectively.

Clause 51 of the Constitution has special provisions for managing and using natural resources sustainably and safeguarding the environment and society.

- The State shall pursue a policy of making a sustainable use of biodiversity through the conservation and management of forests, fauna and flora, and by minimizing the negative impacts of industrialization and physical development by promoting public awareness on environmental cleanliness and protection.
- The State shall pursue a policy of adopting appropriate ways of minimizing or stopping negative impacts on environment if it is there, or if there is a possibility of such an impact on nature, environment, or biodiversity.
- The State shall formulate policies and enact laws based on the principle of sustainable environment development based on pre-warning and pre-informed agreements regarding environmental protection. Those people who pollute the environment shall have to be responsible for their action.
- Creating a condition to ensure employment for all and employment opportunities in the country itself by making the labor power, which is the main social and economic force, competent and professional.
- Making special arrangements to ensure the rights of *Adivasi/Janjatis* (indigenous ethnic groups) to lead a dignified life with their respective identities and making them participate in decision making processes that concern them, and preserving and maintaining the traditional knowledge, skills, experience, culture and social practices of *Adivasi*/*Janjatis* and local communities.
- Making special arrangements for minority communities to exercise their social and cultural rights by maintaining their identity.

7 Nepal Labour Migration Report 2020. Government of Nepal, Ministry of Labour, Employment and Social Security

8 Ibid

- Making special arrangements for the *Madhesi* community to have equal distribution of benefits of economic, social and cultural opportunities, and for the protection, progress, empowerment and development of the very poor and backward classes within the *Madhesi* community.

**National Forest Policy (2019):** Nepal adopted a new National Forest Policy in 2019 with the vision to contribute local and national prosperity through sustainable management of forests, biodiversity, and watershed. To achieve this vision, the following targets have been formulated.

- Increase forest productivity and production of forest products through sustainable forest management.
- Increase the benefits from ecosystem services including biodiversity and resource conservations and ensure equitable distributions.
- Increase productivity of land through integrated conservation and management of watersheds.
- Strengthen (i.e., ecologically, economically and socially) community-based forest management systems such as community forests, leasehold forests, collaborative forests, buffer zone community forests, protection forests and religious forests, and adopt justifiable benefit sharing.
- Through involvement of private sector in forest development and enhancement, enhance values of products and generate green employment by diversifying and commercializing forest-based enterprises and products.
- To reduce the impact of climate change, adopt options for mitigation and adaptation.
- Strengthen management to promote good governance, inclusiveness, and social justice in Forest Sector.

**The Forestry Sector Strategy (2016-2025):** The Forestry Sector Strategy (FSS) is a guiding document to implement the Forest Policy (2015) for 10 years (i.e., 2016 to 2025). The FSS aims to deliver five major outcomes: sustainable production and supply of forest products; improvements of biodiversity; watersheds and ecosystem services; increased contribution to national economic development; and inclusive and accountable forestry sector institutions and organizations to develop a climate-resilient society and forest ecosystems. The strategy has eight strategic pillars and seven key thematic areas, see Table 12.

**Table 12 Strategic Pillars and Key Thematic Areas of Nepal's Forestry Sector Strategy**

| **Strategic pillars of the FSS (2016-2025)** | **Key thematic areas of the FSS (2016-2025)** |
|---|---|
| Sustainably managed resources and the ecosystem. | Managing Nepal's forests. |
| Conducive policy process and operational environment. | Managing ecosystem and conserving biodiversity. |
| Responsive and transparent organizations and partnerships. | Responding to climate change. |
| Improved governance and effective service delivery. | Managing watersheds. |
| Security of resource use by the community. | Promoting enterprise and economic development. |
| Private sector engagement and economic development. | Enhancing capacities, institutions, and partnerships. |
| Gender equality, social inclusion, and poverty reduction. | Managing and using forestry sector information. |
| Climate change mitigation and resilience. | |

**The Forest Act, 2019:** The Forest Act, 2019 recognizes the importance of forests in maintaining a healthy environment. Section 49 of the act prohibits registration; setting fires; grazing, removing, or damaging forest products; felling trees or plants; hunting wildlife; and extracting boulders, sand, and soil from the national forest without prior approval. Regarding the non-forestry use of forest land, Clause 42 (1) of the Forest Act 2019 states that the government may permit the use of any part of government-managed forest, leasehold forest, or community forest if there is no alternative for the implementation of a plan or project of national priority without significantly affecting the environment. According to Clause 42 (2), while permission of use of forest land is granted under Clause 42 (1), at least equal areas must be provided for plantation in adjoining area or similar area somewhere else from the project proponent.

The Forest Act has given a bundle of rights to local communities for protection, development, management, and use of forest products under different institutional management modalities including community forests, collaborative forests, leasehold forests, and religious forests. The act and regulations define community forest user groups (CFUGs) as self-sustained, perpetual entities and have given absolute rights to them in managing their forests.

The regulatory provisions authorize CFUGs to formulate their own rules and enforce and sanction as appropriate. The CFUG constitution is a key regulatory document that defines decision making and benefit sharing mechanisms within the group as well as rights and responsibilities of different user members and forums. Within the legal framework defined by the rules, the CFUGs hold regular meetings, prepare and amend rules, and allocate an annual budget for overall forest development including different local development initiatives. Table 13shows some of the environmental and social safeguard related provisions of the Forest Act, 2019 and draft Forest Regulations, 2019.

As per the provisions of the second revision of community forest guidelines, the well-being ranking of community forest users is mandatory. The poorest households are identified through a well-being ranking which is done based on the locally developed criteria. Implementing poverty reduction and related activities for marginalized groups is required. The guidelines prescribe for certain provisions for benefitting the disadvantaged, Dalits, indigenous peoples, and women including subsidized/free distribution of forest products. The guidelines also suggest that there should be a thorough discussion at the tole (hamlet) level of the needs and interests of the poor, women, and destitute sections of the community while preparing or revising forest management plans.

**Table 13 Environmental and Social Safeguard provisions of the Forest Act (2019)**

| **Federal Forest Act (2019)** |
|---|
| • Land ownership remains with the state, while the land use rights belong to the CFUGs.<br>• User groups are recognized as independent, self-governing, autonomous, and corporate bodies with perpetual succession.<br>• All management decisions (land management and forest management) are taken by the CFUGs.<br>• Each household is recognized as a unit for the membership and every member has equal rights over the resources.<br>• Equitable distribution of benefits.<br>• CFUGs can accumulate their fund from grants received from GoN and other local institutions, sale of CF products, and amount received by other sources such as fines, etc.<br>• CFUGs have to spend 25 percent of their income in forest development, protection and management activities and 50 percent of remaining amount in poverty reduction, women empowerment and enterprise development in coordination with local level.<br>• CFUGs can use their funds in any kind of community development works. |

**REDD+ strategy (2018):** Nepal's REDD+ strategy envisions that REDD+ implementation will assist in advancing sustainable forest management, integrating various sectoral policies that optimize cross-sectoral synergies that will ultimately lead to an improvement of forest law enforcement and governance at large, with necessary amendment of act and regulations by accommodating the concerns of stakeholders complying with relevant international standards, agreements, and decisions. REDD+ architecture will also contribute to global low-carbon economic development pathways and the global sustainable development agenda. Table 14 shows the vision, mission, and objectives of the REDD+ strategy.

**Table 14 Vision, Mission and Objectives of Nepal's REDD+ Strategy (2018)**

| | |
|---|---|
| Vision | Enhanced carbon and non-carbon benefits of forest ecosystems contribute to the prosperity of the people of Nepal |
| Mission | To strengthen the resilience of forest ecosystems for emission reductions and increased environmental, social, and economic benefits through improved policy, measures, and institutions with enhanced stakeholders' capacity, capability, and inclusiveness. |

| | |
|---|---|
| Objectives | 1. To reduce carbon emission, enhance carbon stocks and ecosystem resilience through mitigation and adaptation approaches by minimizing the causes and effects of drivers of deforestation and forest degradation, and promoting sustainable forest management across the ecological regions (Strategy 1, 2, 3, 4).<br>2. To improve resource tenure and ensure fair and equitable sharing of carbon and non-carbon benefits of forests among rights holders, women, indigenous peoples, Madhesis, Dalits, and forest-dependent local communities with effective implementation of safeguard measures (Strategy 5, 11).<br>3. To increase livelihood assets and diversify employment opportunities of women, indigenous peoples, Madhesis, Dalits, local communities, and forest-dependent poor (Strategy 6, 7, 8).<br>4. To improve and harmonize policy and legal framework, in line with national and international requirements and standards, to harness carbon and non-carbon benefits; increase institutional capability and coordination, and strengthen governance, gender equality, and social inclusion of forestry sector (Strategy 5,9,10,11).<br>5. To establish and maintain a national forest monitoring system with a robust measurement, monitoring, reporting, and verification mechanisms (Strategy 12). |

Each of the objectives has different strategies with total of 12 strategies each with action plans to implement them. A total of 70 actions are proposed for the 12 strategies.

**National Biodiversity Strategy and Action Plan (NBSAP) (2014-2020):** The GoN has developed a comprehensive strategy and action plan for biodiversity conservations for 2014 to 2020. The overall goal of the NBSAP is to significantly enhance the integrity of Nepal's ecological systems by 2020, thereby contributing to human wellbeing and sustainable development of the country. The NBSAP provides a strategic planning framework for conservation and sustainable use of biodiversity and biological resources of Nepal for enhancing local livelihoods and eco-friendly national development, and equitable sharing of the benefits accrued from the use of biological resources across all sections of society. The strategy includes eight underpinning principles and 13 approaches to address and respect traditional and cultural practices of IPLC.

**Gender and social inclusion strategies:** Since the early 1990s, Nepal has significantly increased commitments to gender equity, equality, and the empowerment of women in its policies, plans, and programs. In 1990 it introduced a gender approach to development, known as gender and development to enable women and men to participate equally in public and private life and realize their full potential in development. Since the 10$^{th}$ development plan (2002-2007), gender mainstreaming has been one of the main strategies for reducing poverty. Gender- and caste-related issues are the key cross-cutting issues for poverty reduction and sustainable development. The forestry sector gender and social inclusion strategy (2006) is aimed at guiding all forestry sector stakeholders to promote the inclusion of poor and socially excluded groups of people in community forests. Furthermore, the Ministry of Forests and Soil Conservation (MoFSC) has declared its gender, poverty, and social equity vision for 2020 which clearly commits the Ministry as a gender and social equity sensitive and socially inclusive organization, practicing good governance to ensure equitable access to, benefits from, and decision-making power over forest resources and benefits of all forestry sector stakeholders.

**National Parks and Wildlife Conservation Act (1973):** Although this act restricts entry in national park areas without prior permission in the core areas declared as national park and wildlife reserve, it allows government (4$^{th}$ amendment in 1993) to declare peripheral areas as a buffer zone and considers local communities as an integral part of it.

**Buffer Zone Regulation (1996):** This regulation allows the park authority and local users to design programs for the buffer zone that are compatible with national park management. It allows investing 30-50 per cent of the park-generated revenues for community development activities in buffer zone and promotes activities that meet the basic needs of local people for fuelwood, fodder, timber, and grazing. However, the regulation prohibits occupying any land without legal ownership or cutting trees, clear forest and any other activities damaging forest resources, habitats, and wildlife.

**National Environmental Policy (2019):** The policy was framed to guide the implementation of environment related laws and other thematic laws, to realize Nepal's international commitments and to enable collaboration between all concerned government agencies and non-government organizations on environmental management actions. The policy aims to lessen and prevent all types of environmental pollution, to manage waste from all sectors, to expand parks and greenery in urban area and to ensure environmental justice for affected people. The policy specifies special measures, including setup of effective systems for checking and reducing pollution, encouragement for the use of environment-friendly technology, regulation of harmful pesticides and protection of human health from unauthorized food adulterants. The policy includes promotion of technologies to manage pollutants such as dust, smoke and water from industries; to promote the use of alternative energy in homes and for energy effective housing.

A national environment council will be established to coordinate environment-related activities and all tiers of government will be required to formulate laws and policies on environment. Federal, Provincial and Local Governments all have a role in implementation of the policy. Federal government has responsibility for national-level policy, laws, and environmental standards.

**Environment Protection Act (2019):** Environment includes all natural, cultural, and social systems, economic and human activities and their constituent parts, and the interaction and interrelationship among the constituent parts. This one of the most progressive definitions of the term 'environment' as it includes economic, human, and social dimensions. The Environment Protection Act requires the proponents to prepare a brief environmental study or initial environmental examination (IEE) or environmental impact assessment (EIA) report in relation to prescribed plans, programs, or projects which may cause changes in existing environmental conditions by physical activity, development activity, or change in land use. Thus, the word 'proposal' has been progressively defined to include plan. The general interpretation is that 'proposal' is limited to projects and therefore the act only requires EIA at the project level and does not cover plans, policies, and legislation. Another interpretation is that 'proposal' has been so comprehensively defined by this law that it includes plans, policies, and legislation thus requiring preparation of strategic environmental assessment in relation to any plan, policy, or legislation. To improve the quality of the studies/documents the ACT includes provision for restricting the proponent from preparing environmental study report for a period not exceeding 5 (Five) years if the submitted report does not adhere to that standard. The Act puts emphasis on the need of Alternative analysis stating that the potential initial, mid-term and long-term adverse impacts on the environment and also the method and procedure to be adopted for minimizing the impact. After having prepared a brief environmental study or IEE or EIA, the proponent is required to submit it to the relevant government agency for approval. The Act delineates and defines the role and responsibilities of the three tiers of governments with regard to preparation of IEES, EIAs, and approval and clearance procedures.

**Local Government Operation Act, (2074):** This Act came into effect in 2017 and has paved a strong legal foundation towards institutionalizing legislative, executive and quasi-judiciary practices of the newly formed local governments. The legal mechanism was enacted as per the Article 296 (1) of the Constitution of Nepal-2015 so as to leverage local leadership and governance system. The Act has stipulated the arrangements related to authorities, duties and responsibilities of local government, assembly meeting and working system, assembly management procedures, plan formulation and implementation, judicial works, financial jurisdictions, administrative structure and district assembly, among others.

This act describes about the criteria to divide a state into municipalities or rural municipalities and respective rights, duties and responsibilities in different development and conservation sectors. It clarifies the rights of municipalities/ rural municipalities to form local laws, regulations and criteria for conservation of environment protected areas and species; for environmental pollution and hazard control; solid waste management; etc.

In addition to the policies and measures discussed above, some additional policies and measures are also in place that address cross-cutting issues of forests and their stakeholders and provide different requirements for overall environmental and social safeguards while implementing any development projects. These include: Land Acquisition Act 2034 (1977); Land Act 1964; Labour Act 1992; Water Resources Act, 1993; National Foundation for the Development of Indigenous Nationalities (NFDIN) Act 2002; Right to Information Act, 2007; Good Governance Act, 2008; and National Dalit Commission (NDC), 2002.

**Relevant Provincial Acts:** The Provincial Forest Act 2020, Environment Protection Act, 2020 and other relevant Acts and Regulations emphasize environmental and social safeguards consistent with the related Federal Acts and Regulations.

### *FAO Environmental and Social Standards*

Nine FAO Environmental and Social Standards (ESS) 1-9 are designed to help manage and improve FAO environmental and social performance through a risk and outcome-based approach at all program and field levels. All these standards may or may not be applicable for specific program/project. Applicability of each of the standards is determined during the environmental and social screening of the project. These are briefly described in this section (Table 15).

**Table 15 FAO Environmental and Social Standards**

| Environmental and Social Standard (ESS) | Description | Applicability for the project? |
|---|---|---|
| **ESS 1:** Natural Resources Management | ESS 1 recognizes that competition over natural resources, such as land, water, biodiversity, productive landscapes, inland water bodies and oceans is intensifying. Also, degradation of natural resources and loss of ecosystem services are escalating as a result of the direct pressures and drivers of change.<br><br>This focuses on the abiotic environment, meaning the non-living parts of the natural resources and services on which the project is directly dependent (e.g., soils, land, water, security of tenure and climate). | Yes |
| **ESS 2**: Biodiversity, Ecosystems and Natural Habitats | ESS 2 recognizes that agriculture production systems impact on biodiversity and the ecosystem functions they provide and that maintaining these are fundamental to sustainable development.<br><br>ESS 2 recognizes that biological diversity encompasses the variety and variability of animals, plants and micro-organisms at the genetic, species and ecosystem levels that sustain the structure, functions and processes of production systems.<br><br>FAO requires that biodiversity and ecosystem services are maintained or enhanced and is committed to integrating their sustainable management into its crops, forestry, livestock, fisheries and aquaculture practices. | Yes |
| **ESS 3**: Plant Genetic Resources for Food and<br><br>Agriculture | ESS 3 defines Plant Genetic Resources for Food and Agriculture (PGRFA) as the entire diversity of the plants used, or with the potentials to be used, in agriculture for the production of food, fodder, and fiber.<br><br>Plant Genetic Resources for Food and Agriculture (PGRFA) include the accessions of germplasm holdings (*ex-situ* collections), wild species found in nature (*in situ*) that may include crop wild relatives (CWRs); landraces or traditional varieties maintained on-farm; breeding materials in crop improvement programs; and improved varieties registered and/or released for cultivation.<br><br>ESS 3 recognizes the International Plant Protection Convention (IPPC) as the framework that provides tools to protect plant resources from pests and diseases (including weeds). | Yes |

| | | |
|---|---|---|
| **ESS 4**: Animal - Livestock and Aquatic - Genetic<br>Resources for Food and Agriculture | ESS 4 defines Animal Genetic Resources for Food and Agriculture (AnGR) as those animal species, such as livestock, poultry, and pigs that are used, or may be used, for the production of food and agriculture, and the populations within each of them. | No |
| **ESS 5**: Pest and Pesticides Management | ESS 5 defines pesticides as any substance, or mixture of substances of chemical or biological ingredients intended for repelling, destroying, or controlling any pest or regulating plant growth. A pest is defined as any species, strain or biotype of plant, animal or pathogenic agent injurious to plants and plant products, materials or environments and includes vectors of parasites or pathogens of human and animal disease and animals causing public health nuisance. | No |
| **ESS 6**: Involuntary Resettlement and<br>Displacement | ESS 6 recognizes that involuntary resettlement refers to both physical relocation and economic displacement.<br>ESS 6 with reference to the physical relocation of people adheres to the Voluntary Guidelines on the Responsible Governance of Tenure (VGGT) where the General Principles lay down, inter alia, that states should "safeguard legitimate tenure rights against threats and infringements. They should protect tenure right holders against the arbitrary loss of their tenure rights, including forced evictions..." | No |
| **ESS 7**: Decent Work | ESS 7 recognizes that promoting decent work and full and productive employment is essential to achieving food security and reducing poverty.<br>ESS 7 is anchored in FAO's vision for sustainable food and agriculture, which explicitly prioritizes decent work defined by ILO as "productive work for women and men in conditions of freedom, equity, security and human dignity." | Yes |
| **ESS 8:** Gender Equality | ESS 8 recognizes gender equality is a major factor of sustainability for interventions in the agriculture and rural development sector.<br>ESS 8 is embedded in the UN Common Country Programming Principles under the gender equality, human rights-based approach, and environmental sustainability and is closely related to ESS 7 and 9. | Yes |
| **ESS 9**: Indigenous Peoples and Cultural<br>Heritage | ESS 9 recognizes indigenous peoples' traditions and knowledge present opportunities for many of the challenges that humankind will face in the coming decades. This is of particular significance in relation to indigenous food systems in the face of increasing food demand and traditional knowledge with respect to adapting to climate change vulnerabilities and impacts.<br>The FAO Policy on Indigenous Peoples underpins ESS 9 and provides the corporate guidance to respect, include and promote indigenous peoples' issues in FAO's work. The core principles of the policy are self-determination: respect for indigenous knowledge, cultures and traditional practices that contribute to sustainable and equitable development; and Free, Prior and Inform Consent (FPIC). ESS 9 furthermore | Yes |

| | | |
|---|---|---|
| | recognizes the importance of tangible and intangible cultural heritage for current and future generations. | |

### *GEF Policy on Environmental and Social Safeguards*

The GEF policy on environmental and social safeguards sets out the GEF's approach to anticipating, and then avoiding, preventing, minimizing, mitigating, managing, offsetting or compensating any adverse impacts that GEF-financed projects and programs may have on people or the environment throughout the project or program cycle; thereby enhancing the environmental and social outcomes of such projects and programs.

The policy has been effective since 1st of July 2019 and applies to the Secretariat and all GEF Agencies. The Policy applies to all new GEF-financed projects and programs (including activities funded through any GEF-managed trust fund, unless decided otherwise by the LDCF/SCCF Council in response to guidance from the Conference of the Parties of the United Nations Framework Convention on Climate Change) submitted on or after the date of effectiveness of July 1, 2019. For GEF-financed projects and programs under implementation, the Policy applies to all mid-term reviews and terminal evaluations submitted after one year of the date of effectiveness.

The Policy sets out mandatory requirements for identifying and addressing Environmental and Social Risks and Impacts in GEF-financed projects and programs; and for documenting, monitoring, and reporting on associated measures throughout the project and program cycles, and at the portfolio level. The Policy sets out the following nine Minimum Standards for Agency policies, procedures, systems, and capabilities related to identifying and addressing Environmental and Social Risks and Impacts in projects and programs:

(a) Environmental and Social Assessment, Management and Monitoring;

(b) Accountability, Grievance and Conflict Resolution;

(c) Biodiversity Conservation and the Sustainable Management of Living Natural Resources;

(d) Restrictions on Land Use and Involuntary Resettlement;

(e) Indigenous Peoples;

(f) Cultural Heritage;

(g) Resource Efficiency and Pollution Prevention;

(h) Labor and Working Conditions; and;

(i) Community Health, Safety and Security.

Agencies must ensure that the Minimum Standards are met at all levels of project and program implementation, including by executing partners. In implementing the policies, procedures and systems required the Minimum Standards provided in the policy. Agencies must also ensure compliance with the Policy on Stakeholder Engagement, the Policy on Gender Equality, and the Minimum Fiduciary Standards for GEF Partner Agencies.

### *Other International Environmental and Social Safeguards Policies*

Nepal is a signatory of the International Labor Organization (ILO) Convention 169, United Nations Declaration on the Rights of Indigenous People (UNDRIP), and UN Convention on Biological Diversity and is committed to comply with respective safeguards policies while developing and implementing development policies and programs to the extent relevant to the country context. The proposed project activities invoke these international policies; hence the project should respect and address them to the extent possible.

#### International Labor Organization (ILO) Convention 169

The ILO Convention commits governments of signatory countries to adopt special measures as appropriate for safeguarding the persons, institutions, property, labor, cultures, and environment of indigenous peoples.

ILO 169 requires assessment of likely impacts of any development interventions on indigenous peoples and states that governments shall ensure that, whenever appropriate, studies are carried out, in cooperation with the peoples concerned, to assess the social, spiritual, cultural, and environmental impacts on them of planned development activities. The results of these studies shall be considered as fundamental criteria for the implementation of these activities.

### UN Declaration on the Rights of Indigenous People (UNDRIP 2007)

UNDRIP is an international policy safeguarding the rights of indigenous peoples. It encourages member countries to work alongside indigenous peoples to solve global issues, such as development, multicultural democracy and decentralization. UNDRIP sets out the individual and collective rights of indigenous peoples, as well as their rights to culture, identity, language, employment, health, education, and other issues. Being a member country, Nepal is committed to address and respect the UNDRIP and UNDRIP is applicable to the proposed project.

### UN Convention on Biological Diversity

The UN Convention on Biological Diversity and the Ramsar convention on wetlands of international importance are also triggered by the proposed project activities as the core project area includes some biodiversity hotspots and some important Ramsar sites.

### Sustainable Development Goals and the Paris Climate Agreement

Being one of the signatories of the UN General Assembly Resolution (A/RES/70/1): Transforming our world: the 2030 Agenda for Sustainable Development; and the Paris Climate agreement, Nepal has an obligation to work for the Sustainable Development Goals and to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius as per the Nationally Determined Contributions submitted to the UNFCCC.

## Barriers for Biodiversity Conservation and Improved Livelihoods

Despite having extraordinarily rich biodiversity in the area and tremendous opportunities for improved livelihoods through sustained management of forests, land and biodiversity, there are different kinds of barriers to manage and utilize them for livelihood improvements in the Middle Hills of Province 1.

Some of the major barriers and how these are expected to be addressed by the Project activities include:

1. A lack of systems to manage and share data and information sharing to enable national, provincial and municipal governments and CFUGs to provide the evidence needed to guide decisions on adjusting approaches and plans to meet current and future challenges. This barrier es expected to be addressed by the Project outputs 2.1-2.3.
2. Limited implementation of biodiversity and land degradation related policies and plans at national, provincial, and municipal level. This will be addressed by outputs 1.1-1.5, 3.1 and 3.2.
3. Low capacity of municipalities to undertake Land Use Planning potentially leading to missed opportunities for ecosystem restoration, biodiversity conservation, land restoration and development of forest-based livelihoods through the effective engagement of CFUGs. This will be addressed by outputs 1.2-1.5.
4. Weaknesses with CFUG planning and operations including:
    - CFUG operational plans do not currently incorporate ecosystem restoration, biodiversity conservation, or clear measures to mitigate direct pressures on biodiversity and skills and knowledge within CFUGs are inadequate to address these issues. This will be addressed by outputs 1.3, 3.2.
    - Very limited ability of CFUGs to address emerging issues including demographic change (e.g., labor shortage), economic change (e.g., market demand for illegal forest products), and ill-planned infrastructure (e.g., road construction). This will be addressed by outputs 3.2-3.5.
    - Lack of leasehold forest, a pro-poor income generation instrument, in an estimated 50% of CFUGs. This will be addressed by output 3.5.

- Inadequate representation of socially excluded groups in CFUG leadership (e.g., 1% Dalit in CFUG committee compared to 10% Dalit membership of the CFUG). This will be addressed by outputs 1.2 and 3.5.

- A lack of viable options for generating livelihoods through the sustainable use of biodiversity due to weak value chains, bottlenecks (at multiple levels) and lack of skills and capabilities. This will be addressed by outputs 3.4 and 3.5.

## Risk Assessment of the Project

The project's risk is classified as moderate risk according to FAO's ESM guidelines for triggering ESS 3: Plant Genetic Resources for Food and Agriculture and ESS 9: Indigenous Peoples and Cultural Heritage. Proposed activities are mostly focused on capacity building and establishing a robust forest monitoring system or forest information management system at all levels. These are expected to improve biodiversity and natural resource conservation and social well-being through creating more sustainable livelihood opportunities at local level. It is also expected that the project will support the establishment of a robust and equitable benefit sharing mechanism where marginalized and disadvantaged groups including Dalit, Women and Indigenous People can get access to the benefits they deserve.

Some of the potential risks identified that might prevent the Project objectives from being achieved and suggested mitigation measures are provided in Table 16.

**Table 16 Potential risks and suggested mitigation measures for the Project**

| Description of Risk | Impacts | Probability of Occurrence | Suggested Mitigation Measures | Responsible agency |
|---|---|---|---|---|
| Nepal's federal governance structure is new, and the strengthening of provincial and local governance is slowly taking place. This may create institutional, policy and staff capacity gaps that affect project implementation, monitoring, and reporting. | Moderate | Moderate | The project, in cooperation with other projects, will support capacity development for provincial and local level officials.<br>Specific areas identified in the micro-assessment (OP, Program Management, Organizational structure and management, Procurement, and sub-partner management) will be the focus of capacity development by FAO. | PMU<br>FAO |
| Nepal's federal governance structure and legal framework may create conflict during the project implementation in relation to legal and customary rights, roles and/or responsibilities of local governments with CFUGs | Moderate | Moderate | The project acknowledges the ongoing conflict in terms of legal and customary rights, but it is beyond the scope of this project to intervene in this area. The project will help local governments and CFUGs in identifying common working areas such as land use planning and investment in ecosystem restoration that builds synergy and complementarity among different levels of government. | PSC, PMU, provincial and local government |
| Provincial, local governments and project partners do not cooperate in implementation | Moderate | Moderate | A Project steering mechanism at provincial level and regular coordination initiatives with local governments and other stakeholders will help build confidence and generate support for project implementation | PSC, PMU |

| | | | | |
|---|---|---|---|---|
| Low priority to landscape planning, ecosystem restoration, due to low return from this sector in the short term | Moderate | Moderate | The project, working closely with local levels, will facilitate landscape level land use planning and implementation that generates sustained flows of ecosystem services in the mid to long term, and ensure stability of development infrastructure. | PSC, PMU, Local levels |
| The KMIS may face startup problems | Moderate | Moderate | Active securing of interest, backing from and cooperation with the government and other forestry sector actors will be sought. | PMU, MoITFE |
| Municipal Governments may accord low priority in landscape planning | Moderate | Moderate | The project will demonstrate the need for integrated landscape level land use planning for sustainable flow of ecosystem services and increased revenue. | Provincial and local governments |
| Limited positive impact on livelihoods from the sustainable utilization of biodiversity benefits due to fluctuating market prices, virus outbreaks, unprofitability of processing in inaccessible areas, lack of linkage to services and markets. | Moderate | Moderate | The project will support a sustainable approach to planning and management of forests, land and biodiversity resources through local level leadership and engagement of CFUGs, LFUGs/CBOs and the private sector in implementation. This will strengthen value chains and bring increased benefits to local communities. | PSC, PMU |
| Local levels and CFUGs are unable or unwilling to implement biodiversity sensitive sustainable land use planning in their planning cycles and decision-making processes | Low | Low | The project will provide capacity development support and focus on change that is feasible for the stakeholders | PMU |
| Elite capture of project benefits; particularly the unequal distribution of costs to and benefits for women | Moderate | Moderate | The project will ensure a strong participatory approach, transparency, and capacity development of more marginalized groups to mitigate the potential for elite capture of benefits. The government is committed to ensuring this, and through strong partnership with other partners and CSOs, the project is expected to mitigate this threat. Strong gender assessment and involvement of women will be promoted to ensure that women have an equitable share of benefits and are not bearing additional costs/ burdens. | PSC, PMU, local governments |
| Climate variability and Change impacts | High | Moderate | Shorter term climate variability is affecting local conservation and rehabilitation efforts. To address this, | PSC, PMU, ongoing |

| | | | | |
|---|---|---|---|---|
| | | | the project will incorporate climate resilient approaches. Close cooperation with ongoing projects such as Building a Resilient Churia Region in Nepal and Developing Climate Resilient Livelihoods in the Vulnerable Watersheds in Province One will inform climate resilience perspectives of the project. | projects in Province One |
| Restrictions due to the COVID-19 pandemic | Moderate | Moderate | The COVID-19 pandemic began at the early stages of project design and continued till the end.<br>The impact of the COVID-19 pandemic on the economy, forests, and biodiversity is yet to be clearly known, but it is most likely that at the project level the impact may include an increase in deforestation and ecosystem degradation and loss of employment and income. Forest dependent rural poor, women, disadvantaged groups, and indigenous people are among the worst affected.<br>The Provincial government has proposed skill development programs for impacted people. The Project will adapt its intervention to support this activity.<br>The Project will carry out a rapid assessment of the impact of the COVID-19 pandemic at landscape level and adjust its activities as far as practical. | PSC, PMU |

### *Potential Environmental and Social Impacts of the Project*

The environmental and social risks of the project and its activities depend not just on the nature and scale of the activities, but also on the local geography of the area, climate conditions, soil and forest types and their condition, as well as the socio-economic condition of the people living in and around the discrete project sites.

The project is considered a moderate risk from Environmental and Social Safeguards perspective as determined from the Environmental and Social Screening Check List provided in Annex 1. There are indigenous communities in the project area and the project will ensure their rights are protected. The project includes explicit rights-based and pro-poor approaches. The project design proposes strengthening participation and social inclusion in forest management, leading to an overall positive impact on communities. Environmental impacts are likely to be positive and involve improved ecosystem services leading to improved livelihoods. The enhancement of social institutions (e.g. CFUGs) to achieve sustainable management of forest and farm resources will be managed in an inclusive manner and promoted in ways that lead to improved social benefits.

Six of the nine FAO Environmental and Social Standards (ESSs) are applicable for this project. These are: ESS 1: Natural Resources Management; ESS 2: Biodiversity, Ecosystems and Natural Habitats; ESS 3: Plant Genetic Resources for Food and Agriculture (procurement of seedlings for plantation triggers this standard); ESS 7: Decent Work; ESS 8: Gender Equality; and ESS 9: Indigenous Peoples and Cultural Heritage (Presence of IPs in the project area triggers this standard).

Since the Project is expected to enhance the capacity of Provincial and local governments as well as Indigenous People and local communities for sustainable management of forests, biodiversity and land, there

will not be any significant negative environmental and social impacts from the project activities. Project activities will help better management of natural resources (ESS 1), biodiversity, ecosystems and natural habitats (ESS 2) of the area which will ultimately help livelihood improvements of local people. As most of the project activities will be implemented by CFUGs, inflow of labor from outside is unlikely. Therefore, it should not be problem to promote decent work (ESS 7) during project implementation.

Community based forest management groups have been practicing to some extent for the gender equality for long time and therefore, the project is expected to improve the condition of gender equality (ESS 8). More than 60 per cent of the population of the project area are indigenous people. The project will be implemented in wider consultations with IPLCs of the area and will follow the FPIC principles while implementing subproject activities.

Out of the three components of the project, activities within Component 3 will be implemented in 34 Rural Municipalities/Municipalities of five Middle Hill districts in Province 1. These activities may have some local environmental and social impacts. For other activities in Component 1 (mainly policy and capacity related interventions) and Component 2 (relating to Project management, monitoring and evaluation) there are unlikely to be local environmental or social impacts, although some activities e.g. policy-level changes may have some indirect impacts.

Participating *palika* in the Project have already been selected and potential project activities also identified. On the basis of available baseline information, existing practices and indicative project activities that will be implemented in the field, the most likely environmental and social impacts of the project components are explored and suggested mitigation measures to address negative environmental and social impacts are briefly discussed in this section. This assessment needs to be revised after site specific activities and their scale are finalized and effective and meaningful consultations with the potential project affected people and communities are conducted in the field within one year of project commencement.

**Component 1** will deliver capacity-building support for Provincial and Municipal governments and other local stakeholders for adaptive and collaborative landscape planning and management to support biodiversity conservation, ecosystem restoration and achieving land degradation neutrality. The project activities will be focused on capacity building of the stakeholders to develop and implement policy and planning frameworks for landscape level biodiversity sensitive forest management.

Capacity development activities will have mostly positive environmental and social impacts as enhanced capacity of stakeholders will help in the design, implementation and monitoring of development projects in more environmentally friendly ways, taking account of various social issues related to the project including gender, social inclusion, culture, labor management and issues related to indigenous and vulnerable communities and engagement of all stakeholders throughout the project cycle with meaningful consultations following the principles of FPIC and the Environmental and Social Management Guidelines of FAO.

Activities supporting the development of policies, strategies, Acts and Regulations as well as plans will also have mostly positive environmental and social impacts as it is expected that new policies, strategies, Acts and Regulations, good implementable plans that will be developed and revision of existing policies, strategies Acts and Regulations will have positive environmental and social provisions to ensure safeguards and social inclusion and support in creating enabling environment to the stakeholders associated with forestry sectors. They will also be more gender sensitive, socially inclusive and will address issues related to the labor management, indigenous and vulnerable communities, culture as well as meaningful stakeholder engagement in implementation. Since this component supports development of policies, plans, acts, and regulations, a Strategic Environmental and Social Assessment (SESA) is a more appropriate tool to assess risks and impacts.

There may be some risk of conflicts among the CFUGs and other local stakeholders in the process of selecting beneficiaries for training and involvement in other processes. If consultations are conducted without adequate planning, there may be a risk of elite capture in the process and in decision making. The poorest and disadvantaged groups could be left behind and not included in decision making processes if meaningful inclusive consultation following the principles of FPIC is not followed. To mitigate this risk, it must be ensured that meaningful inclusive consultation process are organized following the principles of FPIC.

**Component 2** is mostly focused on development of an effective and functional Forest Management Information System (FMIS) or Knowledge Management Information System (KMIS). The idea is that a robust and functional FMIS will be established at the federal Ministry which can be linked to the Provincial Ministry and institutions (DFOs) and local governments and CFUGs. The FMIS can be used for strategic, tactical and operational planning and implementation, and operational control in and across administrative units and levels of the organizational hierarchy.

The Forest Management Information System (FMIS) is envisaged as an integrated system which will be used to support the planning, implementation, and monitoring of multi-objective forest management activities. The FMIS can be used for strategic, tactical, and operational planning and implementation, and operational control in and across administrative units and levels of the organizational hierarchy. Besides the databases and models required to support decision-making in the many programs of the Department, the FMIS also has the ability to maintain current forest inventories and generate maps of spatially oriented data (e.g. attributes of entities depicted on a map, such as population of a village, whose location can be fixed on a map). The components of the FMIS, which will necessarily be linked, are a Monitoring Information System (MIS), a Geographic Information System (GIS), and an Image Processing System.

FAO and other agencies including UNFCCC use the term National Forest Monitoring System (NFMS), therefore, it could be better to use this terminology for the FMIS as the purpose and function of both are same. FAO has supported more than 50 countries in their development of robust National Forest Monitoring Systems (NFMS) and assessments, with the goal of developing reliable forest resource information for application in creating national forest policies, planning and sustainable development. Forest monitoring systems include measurement, reporting and verification (MRV) functions and aim to produce high-quality, reliable data on forests, including forest-carbon estimates, that are critical to the battle against climate change caused by among others deforestation and degradation of forests[9].

This component is highly technical. However, meaningful, and effective consultations with all stakeholders are especially important for this component. The kind of information that needs to be included in the system, how these can be accessed, what are the technical skills that are needed to operate the system at local level should be clearly identified, disclosed to all stakeholders and openly discussed in the consultation process before any decision is made about the development, establishment and running the FMIS or KMIS. The decision-making process should be fully transparent.

This component in general does not have any environmental impacts. However, there may be some indirect environmental impacts of the system. For example, wrong or misleading data and information on forest encroachment, forest fire, poaching and so on provided from the field in the system can have significant negative environmental impacts. This can also cause some social unrest in the long run. For example, some individuals or communities may be prosecuted based on wrong information that they were involved in excessive forest products harvesting, wildlife poaching etc. Therefore, there should be extremely strict and robust protocol on when, how and who will be responsible to upload the data and information in the system.

**Component 3** is focused on implementation of activities at *palika* level. Therefore, there may be some negative environmental as well as social effects/impacts because of this intervention if appropriate mitigation measures are not implemented. Component 3 activities will mostly have positive environmental effects/impacts.

Activities related to the **Output 3.1** may be too focused on biodiversity conservation without considering their impacts on livelihoods, access to forest resources and agricultural production which may affect food security in the area.

Activities in **Output 3.2** may require participating households to change their traditional agricultural practices; their access to forests may also be restricted to some extent due to SFM practices. Similarly, there may be some control on open grazing practices.

Formation of community-based anti-poaching and fire control networks **(Output 3.3**) certainly will have many positive environmental impacts. However, it will not be risk free from a social viewpoint. Anti-

[9] http://www.fao.org/redd/areas-of-work/national-forest-monitoring-system/en/

poaching activities will help increase wildlife population in the area. This may also increase human-wildlife conflicts in the area. There may be conflicts among the CFUGs and individuals related to who benefits and who will be included in the groups if specific criteria are not used for selection of the individuals for the groups.

Pro poor biodiversity enhancing livelihood opportunities and value and service chains will not be successful if the private sector is not involved in the process. Pro–poor leasehold forestry groups or CFUGs should be working as the producers, but businesses and trading should be done by the individual (not from the groups as suggested by the private sector. During the discussion with the private sector (Agriculture Enterprise Centre of the Federation of Nepal Chambers of Commerce and Industry) they emphasized that private sector with profit motive and good intention can better invest, manage and run the business sustainably and therefore private sector needs to be involved in the process. Their view was that CFUGs cannot run any big forest-based industry or business sustainably because of various reasons. However, they can manage the sustainable supply of raw materials from the forests needed for the big industries. Therefore, Production base for value chains should be enhanced through community-based organizations. It is important that chambers also have sufficient capacity to work with this project. Strengthening value chains should include private sector capacity enhancement.

Summary of potential social risks of the indicative project activities and suggested mitigated measures are provide in Table 17. Most of the proposed activities will have positive environmental impacts and environmental risks of the activities if any are mostly insignificant. However, there could be some environmental risks of the proposed activities under the outcome 3.2 (Assist CFUGs and other LFUGs/CBOs in planning and implementing restoration activities including procurement of seedlings; and Support CFUG members and farmers in implementing agroforestry, soil conservation, stall feeding, conservation farming, soil moisture retention activities, and water source protection measures) that need to be taken account while implementing them. Potential environmental risks of these activities and suggested mitigation measures are provide in Table 18.

**Table 17. Summary of potential social risks of the proposed activities and suggested mitigation measures**.

| Indicative project activities | Potential social risk | Suggested mitigation measures |
|---|---|---|
| Output 1.1. A policy and planning framework for landscape level biodiversity-sensitive land use and forest management implemented by Province One and 34 Local levels, including LDN targets for the Province 1 | | |
| 1. Select and train staff from partner organizations and government agencies in the planning approaches to be used by the project | Selection of partner organizations and staff for the project implementation may not be transparent and inclusive | • Selection of partner organization and staff will be transparent and inclusive.<br>• Organizations of indigenous people will be given equal opportunity for selection. |
| 2. Asses how policy and planning frameworks can contribute to landscape level biodiversity-sensitive land use and forest management at provincial and local levels using participatory approaches. | Indigenous peoples and other marginalized groups could be left beyond or neglected in participatory assessment process. | • Indigenous peoples and other marginalized groups will be included in the participatory assessment process. |
| Output 1.2. Province, forestry/wildlife staff and 34 local levels have capacities, mechanisms and instruments to sustainably coordinate and support biodiversity conservation and SLM | | |
| 1. Identify and develop the capacity of local resource persons (LRP) to provide technical support to CFUGs and LFUGs to prepare/revise operational plans | Selection of LRP could be biased, not transparent or inclusive. | • The LRP selection process will be transparent, inclusive, and unbiased.<br>• At least 50 per cent LRPs will selected from indigenous peoples and other marginalized groups. |

| Indicative project activities | Potential social risk | Suggested mitigation measures |
|---|---|---|
| 2. Support local level annual planning processes. | Indigenous peoples and other marginalized groups could be neglected or not included in the planning process. | • All indigenous community groups will be included in the planning process.<br>• The FPIC process will be followed for the planning process. |
| 3. Train local level, DFO staff, local conservation groups and forest users in sustainable forest management, land management, and biodiversity monitoring | The selection process of local conservation groups, forest users groups for the training could be biased, not transparent or inclusive. | • The selection process will be unbiased, transparent, and inclusive.<br>• At least 50 per cent of the trainees from local conservation groups and forest users groups will be from indigenous and marginalized communities. |
| 4. Support establishment and operation of a multi-stakeholder coordination platform at MoITFE and local stakeholder coordination mechanisms in 34 local levels | Indigenous peoples and other marginalized groups could be neglected and not included in the multi-stakeholder coordination platform and local stakeholder coordination mechanism | • Representatives of indigenous groups and other marginalized groups will be included in the coordination platform.<br>• Indigenous groups and marginalized groups will be given full authority to choose their representatives without any intervention. |
| Output 1. 3. 200 priority CFUGs selected for biodiversity conservation based on rapid local level-level assessments, trained and conducting biodiversity and LD monitoring (PAMEB) | | |
| 1. Train CFUGs and local levels in Participatory Assessment, Monitoring and Evaluation of Biodiversity (PAMEB) process and methods | Selection of CFUGs and trainees may not be transparent or inclusive.<br>Indigenous peoples and other marginalized groups could be neglected and not selected for the training. | • The selection process will be unbiased, transparent and inclusive.<br>• At least 50 per cent of the trainees from forest users groups will be from indigenous and marginalized communities. |
| Output 1.4. 34 Local level landscape maps (covering 3,575 km2) of critical ecosystems and biodiversity and LD hotspots locations produced through participatory processes with at least 500 CFUGs and other LFUGs/CBOs | | |
| 1. Identify critical ecosystems, land degradation and biodiversity hot spots across local levels and prepare maps in collaboration with local levels. | Indigenous peoples and other marginalized groups could be neglected or not included in the process. | • All indigenous community groups and other marginalized groups will be included in the process. |
| Output 1.5. Development and land use plans (LUP) of 34 local level and operational for 320 CFUGs and 340 other LFUGs/CBOs adequately integrate land use and biodiversity conservation priorities | | |
| 1. Organize consultative meetings with stakeholders | Indigenous peoples and other marginalized groups could be neglected or not included in the process. | • All indigenous community groups and other marginalized groups will be consulted following FPIC principles. |
| 2. Support, orient and facilitate incorporation of biodiversity conservation and sustainable land use elements in CF, leasehold forest and CBO operational plans | Indigenous peoples and other marginalized groups could be neglected and not included in the process. | • All indigenous community groups and other marginalized groups will be involved in the process and their voice is heard during the preparation/revision of operational plans. |
| Output 2.1. Nepal National Forest Research and Training Centre (FRTC) Forestry Information System (FIS) and Ministry of Forests and Environment (MoFE) Forest Management Information System (FMIS) upgraded and linked to the knowledge and adaptive management support (KMIS) portal where CFUG, local levels, Province, and MoFE can share and access biodiversity and CF data | | |
| 1. Design and establishment of KMIS infrastructure, hosting, | Design and establishment of the KMIS being a highly technical | • Meaningful and effective consultations with all relevant |

| Indicative project activities | Potential social risk | Suggested mitigation measures |
|---|---|---|
| access management, sharing protocols, including for information generated through PAMEB under Component 1 | process, indigenous and other marginalized groups could be neglected or not included in the process. | stakeholders will be conducted following the principles of FPIC.<br>• The kind of information to be included in the system, how these can be accessed, the technical skills that are needed to operate the system at local level will be clearly identified, disclosed to stakeholders and openly discussed in the consultation process before any decision is made.<br>• The decision-making process will be fully transparent, and a grievance mechanism included. |
| Output 2.2. Mechanism for the systematic creation and sharing of Provincial KMIS linked to national database, developed, and operational. | | |
| 1. Organize multi-stakeholder workshops on the purpose and design of KMIS and information sharing protocols | Indigenous peoples and other marginalized groups could be neglected or not included in the process. | • All indigenous community groups and other marginalized groups will be involved in the process, encouraged to actively participate in workshops, their voices heard and FPIC obtained. |
| Output 2.3. 200 CFUGs, 34 Local levels, Province and MoFE trained, coached and monitored in KMIS operation and use | | |
| 1. Train government officials, FECOFUN, BCN, Local levels and CFUGs on KMIS | Selection of CFUGs and trainees could be biased, not transparent or inclusive. | • The selection process will be unbiased, transparent and inclusive.<br>• At least 50 per cent of the trainees from forest users groups will be from indigenous and marginalized communities. |
| Output 3.1. 34 Local level implement land use interventions that strengthen biodiversity conservation and avoid interventions that negatively affect biodiversity | | |
| 1. Conduct consultative meetings with stakeholders on sustainable land use interventions | Indigenous peoples and other marginalized groups could be neglected or not included in the process. | • All indigenous community groups and other marginalized groups will be involved in the process, are encouraged to actively participate in workshops, their voices heard and FPIC obtained. |
| Output 3.2. 300 CFUGs and other LFUGs/CBOs and 30,000 hh implement forest, livestock, agriculture and other livelihoods practices that strengthen biodiversity conservation and sustainable management of forest landscapes | | |

| Indicative project activities | Potential social risk | Suggested mitigation measures |
|---|---|---|
| 1. Build capacity of CFUGs, LFUGs/CBOs and farmers through training and workshops on bio-diversity sensitive land use intervention.<br>2 Support CFUGs and other LFUGs/CBOs in translating land use planning results into community forest operations.<br>3 Train and coach farmers in biodiversity-sensitive farming.<br>4 Support and strengthen CFUG internal monitoring and governance system.<br>5 Support CFUG members and farmers in implementing agroforestry, soil conservation, stall feeding, conservation farming, soil moisture retention activities, and water source protection measures.<br>6 Assist CFUGs and other LFUGs/CBOs in planning and implementing restoration activities including procurement of seedlings. | Selection of the CFUGs, LFUGs, CBOs and farmers could be biased, not transparent or inclusive.<br>Indigenous and other marginalized groups could be neglected and not selected for the training. | • The selection process will be unbiased, transparent and inclusive.<br>• At least 50 per cent of the trainees selected will be from indigenous and marginalized communities. |
| Output 3.3. At least ten (10) community-based anti-poaching and fire control networks established to protect ecosystem services and conserve globally threatened species such as the Red Panda and highly exploited floral species | | |
| 1. Build the capacity of community based anti-poaching and forest fire control networks through information and warning systems. | Selection of organizations (CFUGs) and individuals for the network could be biased, not transparent or inclusive. | • The selection process will be unbiased, transparent, and inclusive.<br>• At least 50 per cent of the participants selected for the network will be from indigenous and marginalized communities. |
| Output 3.4. Ten (10) pro-poor biodiversity enhancing livelihood opportunities identified and developed through value chain assessments, establishment of value chain coordination networks, and strengthening of key business services (e.g. traders, collection centers, processors, technicians, input suppliers) | | |
| 1. Promote community-based enterprises (CBEs) based on forest products/NTFPs.<br>2. Support CFUGs in preparation and implementation of livelihood improvement plans for the poor | Selection of CFUGs and NTFPs for the CBEs and could be biased, not transparent or inclusive. | • The selection process will be unbiased, transparent, and inclusive.<br>• Indigenous and other marginalized groups will be consulted following the principles of FPIC process and FPIC obtained for promoting the CBEs. |
| Output 3.5. 100 CFUGs linked to markets and business services and sustainably increase incomes from engagement in value and service chains (e.g., NTFP, eco-tourism) with leasehold forestry and other extra support for poor producers | | |
| 1. Assist CFUGs to select feasible value chains that provide incentives for conservation. | Selection of CFUGs individuals for training could be biased, not transparent or inclusive. | • The selection process will be unbiased, transparent, and inclusive. |

| Indicative project activities | Potential social risk | Suggested mitigation measures |
|---|---|---|
| 2. Train/coach women and marginal groups on market negotiation, and production technologies (adjusted to their situation and education levels)<br>3. Provide technical or business development coaching and training to CFUGs and individual producers | | • Indigenous and other marginalized groups will be consulted following the principles of FPIC process and FPIC obtained for promoting CBEs.<br>• At least 50 per cent of the participants selected for the training will be from indigenous and marginalized communities. |

**Table 18. Summary of potential environmental risks of some of the proposed activities under output 3.2 and suggested mitigation measures**.

| Indicative project activities | Potential environmental risks | Suggested mitigation measures |
|---|---|---|
| Output 3.2. 300 CFUGs and other LFUGs/CBOs and 30,000 households implement forest, livestock, agriculture, and other livelihoods practices that strengthen biodiversity conservation and sustainable management of forest landscapes | | |
| 7 Support CFUG members and farmers in implementing agroforestry, soil conservation, stall feeding, conservation farming, soil moisture retention activities, and water source protection measures.<br>8 Assist CFUGs and other LFUGs/CBOs in planning and implementing restoration activities including procurement of seedlings. | There may be a risk of procuring genetically modified seeds and seedlings for different agroforestry activities and other livelihood activities.<br><br>Risk of using non-native species in plantation activities could not be ruled out.<br><br>Use of pesticides in plantation activities and in the nurseries where seedlings are produced for plantation may cause some environmental risk. | • Avoid undermining local seed & planting material production and supply systems.<br>• Ensure that the seeds and planting materials are from locally adapted crops and varieties that are accepted by farmers and consumers.<br>• Ensure that the seeds and planting materials are free from pests and diseases according to agreed norms, especially the International Plant Protection Convention (IPPC).<br>• Internal clearance from NSPGD is required for all procurement of seeds and planting materials. Clearance from NSPCD is required for chemical treatment of seeds and planting materials.<br>• Clarify that the seed or planting material can be legally used in the country to which it is being imported.<br>• Clarify whether seed saving is permitted under the country's existing laws and/or regulations and advise the counterparts accordingly.<br>• Ensure, according to applicable national laws and/or regulations, that farmers' rights to Plant Genetic Resources for Food and Agriculture (PGRFA) and other associated traditional knowledge are respected in the access to PGRFA and the sharing of the benefits accruing from their use. |

## ESMP and Other Safeguards Documents

Preparing ESMP requires a robust, effective, and meaningful consultation with all stakeholders of the project area including project affected people and communities after details of the proposed actives (specific activities, location, and scale) finalized. Because of restrictions due to COVID-19 pandemic, it was not possible to go to the field for the required consultations. Therefore, ESMP has not been prepared at this stage. However, an Indigenous Peoples' Plan (IPP) has been prepared for the project (Annex J). Some of the supporting documents, including the IPP shall be revised and finalized after wider consultations with local people and communities in the first year of commencement of the project. An outline of ESMP for the sub-projects is provided in Annex 2.

### Stakeholder consultations during the project design phase

Number of consultations with the stakeholders at different level were organized during the project design phase as far as COVID-19 restrictions allowed. The project is committed to secure participation of all relevant stakeholders in its implementation. Table 19 provides the details of the consultations that were organized during the project design and their findings.

**Table 19. Stakeholder Consultation during project formulation**

| Stakeholder Name | Stakeholder Type | Stakeholder profile | Consultation Methodology | Consultation Findings | Date | Comments |
|---|---|---|---|---|---|---|
| **Direct beneficiary** | | | | | | |
| 1. Federation of Community Forest Users Nepal (FECOFUN) | Partner | National NGO | Information sharing, consultation meeting | FECOFUN is committed to support project design and interested in implementation through its networks. Collaboration between local levels and CFUGs is critical for the success of the project.<br><br>Capacity development of district level federation on forest protection and management is important. | 24 June 2020 | Collaboration with CFUG network and its capacity building will be incorporated in the project work plan |
| 2. Nepal Federation of Indigenous Nationalities (NEFIN) | Partner | National NGO | Information sharing, consultation meeting | The role of IPLC should be clearly spelled out specifically in project implementation. A special focus should be given to marginalized groups within CFUG. Inclusion within CFUGs should be promoted to | 24 June 2020 | Indigenous people's plan addresses these concerns |

| Stakeholder Name | Stakeholder Type | Stakeholder profile | Consultation Methodology | Consultation Findings | Date | Comments |
|---|---|---|---|---|---|---|
| | | | | address concerns of indigenous people | | |
| 3. Himalayan Grassroots Women's Natural Resource Management Association (HIMAWANTI) | Indirect beneficiary | National NGO | Information sharing, consultation meeting | Women led entrepreneurs should be supported | 24 June 2020 | Product and service value chain intervention will address this issue |
| 4. Dalit Alliance For Natural Resources (DANAR) | Indirect beneficiary | National NGO | Information sharing, consultation meeting | Dalits should be represented in project implementation through enterprise and livelihood activities | 24 June 2020 | Product and service value chain intervention will address this issue |
| **Government agencies** | | | | | | |
| 5. Ministry of Finance | Other | Federal ministry | Information sharing, consultation meeting | Project fund flows should follow the budget system. The Provincial government should steer the project, management cost should be less than 5% and international consultancies should be minimized | 10 June 2020 | These suggestions have been considered in detail project design, fund flow arrangement and budgeting |
| 6. National Planning Commission | Other | Federal planning commission | Information sharing, consultation meeting | A special division of NPC is dedicated to coordination with provinces. Province One has formed its planning commission and prepared first periodic plan. | 11 June 2020 | Project will support in implementing relevant provisions of provincial periodic plan in biodiversity, sustainable use and enterprise development |
| 7. Ministry of Federal Affairs and General Administration | Other | Federal ministry | Information sharing, consultation meeting | Project should focus on thematic areas and MoITFE should execute the project. Local level should be | 10 June 2020 | Project will focus on overall planning capacity of local level and strengthen conservation friendly intervention |

| Stakeholder Name | Stakeholder Type | Stakeholder profile | Consultation Methodology | Consultation Findings | Date | Comments |
|---|---|---|---|---|---|---|
| | | | | supported in preparing comprehensive land use planning | | |
| 8. Ministry of Agriculture and Livestock Development (MoALD) | Partner | Federal ministry | Information sharing, consultation meeting | This Ministry has no direct communication with provincial agricultural agencies, but the data/information need for planning and reporting has not reduced. MoALD with support from FAO is developing software to be installed at local level. This software will help local level in gathering and updating agricultural data. A central hub at MoALD linked to this software will provide updated information | 10 June 2020 | Project will work closely with MoALD and benefit from the initiatives in collecting agricultural data through the software. |
| 9. Ministry of Forests and Environment | Partner | Federal ministry | Information sharing, consultation meeting | MOFE is facilitating the project design and intends to support in implementing under provincial leadership. | 09 June 2020 | |
| 10. Department of Forests and Soil Conservation | Partner | Federal department | Information sharing, consultation meeting | DoFSC has no direct and formal communication with provincial forest agency and divisional forest offices which makes CFUG and other data base update extremely difficult. Updated data is important for | 08 June 2020 | Establishing functional data base at DoFSC is important and the project will explore opportunity to support in setting database and linking it to province and MoFE |

| Stakeholder Name | Stakeholder Type | Stakeholder profile | Consultation Methodology | Consultation Findings | Date | Comments |
|---|---|---|---|---|---|---|
| | | | | reporting to Ministry and other federal agencies | | |
| 11. Forest Research and Extension Centre | Partner | Federal department | Information sharing, consultation meeting | FRTC is interested to be a part of this project through forest information system upgrade and operation. Functional FIS at FRTC also helps in reporting on global forest resource assessment. | 08 June 2020 | The project will support FRTC in upgrading and operating FIS that will be linked to knowledge portal of the Province One |
| 12. REDD Implementation Centre | Other | Federal centre | Information sharing, consultation meeting | Number of projects under MOFE are supporting local levels in land use plan and there is strong need to bring uniformity MoFE is the appropriate agency to host federal forest management information system (FMIS) hub. Concerned federal departments and provincial agencies should prepare their own system and link to FMIS for data exchange and reporting | 21 September 2020 | Project will work closely with REDD IC to find common ground for local level land use plan and knowledge management system design |
| 13. Financial Comptroller General Office | Other | Federal ministry | Information sharing, consultation meeting | Province government should execute this project and fund should be transferred through budget system | 08 June 2020 | Project implementation modality will address these suggestions |
| 14. Province One-Ministry of Industry, | Partner | Province ministry | Information sharing, consultation meeting | MoiTFE of Province No. One is prepared to take lead in | 24 July 2020 | Project implementation modality will |

| Stakeholder Name | Stakeholder Type | Stakeholder profile | Consultation Methodology | Consultation Findings | Date | Comments |
|---|---|---|---|---|---|---|
| Tourism, Forest and Environment | | | | project implementation | | address these suggestions |
| 15. Province One-Province Forest Directorate (PFD) | Partner | Province directorate | Information sharing, consultation meeting | Province forest directorate is responsible for monitoring and reporting. All divisional forest and watershed offices have to report to the directorate on regular basis. PFD is appropriate agency to host knowledge portal | 19 September 2020 | MoITFE will select the agency to host provincial knowledge management portal |
| **Private sector** | | | | | | |
| 16. Agriculture Enterprise Centre of the Federation of Nepal Chambers of Commerce and Industry | Partner | Specialized wing of private sector umbrella organization | Information sharing, consultation meeting | FNCCI is keen to collaborate with this project through district chambers and has offered to provide office space in the project area<br><br>Production base for value chain should be enhanced through community-based organizations. It is also important that chambers also have sufficient capacity to work with this project. Strengthening value chain should include private sector capacity enhancement. | 21 September 2020 | Project will collaborate with FNCCI (AEC) to implement enterprise and value chain |
| 17. Asia Network for Sustainable Agriculture and Bioresources | Partner | National NGO committed to enterprise-oriented solutions to biodiversity conservation and sustainable | Information sharing, consultation meeting | ANSAB is keen to work on project implementation. It has expertise and experience. | 21 September 2020 | Project will seek technical support from ANSAB to implement enterprise and value chain |

| Stakeholder Name | Stakeholder Type | Stakeholder profile | Consultation Methodology | Consultation Findings | Date | Comments |
|---|---|---|---|---|---|---|
| | | community development | | ANSAB has suggested *Chiraito, lothsalla* and *lokta*, *argeli* for value chain activity | | |
| 18. Association of family forest network (AFFON) | Other | National network of private tree growers | Information sharing, consultation meeting | The project should address the issues that have emerged during the COVID -19 pandemic. Agro-forestry is a potential intervention for this project. Problems faced by private tree growers should be taken into consideration in project implementation | 24 June 2020 | Except COVID-19 impact, Ecosystem restoration and enterprise development intervention will accommodate this concern |
| **International Conservation organizations** | | | | | | |
| 19. IUCN | Other | International NGO | Information sharing, consultation meeting | Project should prioritize conservation hotspots and strive to address issues in a cluster | 18 June 2020 | Ecosystem restoration will be carried out based on landscape wise assessment |
| 20. WWF Nepal | Other | International NGO | Information sharing, consultation meeting | There are useful lessons gathered by previous initiatives on landscape level conservation and livelihoods enhancement which may be useful for this project | 18 June 2020 | Lesson learnt and best practices will be referred to during project implementation |
| 21. Red Panda Network Nepal | Partner | International NGO | Information sharing, consultation meeting | This project should collaborate with conservation INGOs for species conservation, ecosystem restoration and strengthen local institutions | 18 June 2020 | Red Panda Network is identified as one of the important project partners |

| Stakeholder Name | Stakeholder Type | Stakeholder profile | Consultation Methodology | Consultation Findings | Date | Comments |
|---|---|---|---|---|---|---|
| 22. Bird Conservation Nepal/Bird Life International | Partner | International NGO | Information sharing, consultation meeting | BCN supported community-based biodiversity monitoring in the past in some of the project areas and the project should build on this foundation | 18 June 2020 | BCN expertise will be utilized in biodiversity monitoring |
| **International organizations** | | | | | | |
| 23. International Centre for Integrated Mountains Development | Partner | Regional intergovernmental organization | Information sharing, consultation meeting | ICIMOD has been supporting the implementation of Kanchenjunga landscape conservation and development initiatives. With much of the project area overlapping with Kanchenjunga landscape, there is prospect to collaborate for conservation and livelihood outcomes | 28 June 2020 | ICIMOD is a potential knowledge source and also a project partner |
| **Donors** | | | | | | |
| 24. USAID | Other | Bilateral development agency | Information sharing, consultation meeting | The role of the private sector in product value chains and enterprise development should be emphasized. Community-state-private sector collaboration together can make fundamental changes in uplifting the livelihoods of targeted community. The landscape approach to | 26 June 2020 | Private sector is identified as key actor in project implementation. Learnings of landscape projects will be utilized in project implementation |

| Stakeholder Name | Stakeholder Type | Stakeholder profile | Consultation Methodology | Consultation Findings | Date | Comments |
|---|---|---|---|---|---|---|
| | | | | conservation is maturing with different initiatives generating a wealth of knowledge. It should be capitalized on in implementing this project. | | |

### Grievance Redress Mechanism

The project has developed a Grievance Redress Mechanism related to the project implementation as following:

| | |
|---|---|
| Focal Point Information | Ayshanie Medagangoda-Labé (Ms.) |
| Contact Details | **Ayshanie Medagangoda-Labé (Ms.)**<br>FAO Representative in Nepal a.i.<br><br>Food and Agriculture Organization of the United Nations (FAO)<br>UN House, Pulchowk, Lalitpur, Nepal<br>E-mail: nayshanie.labe@undp.org<br>Tel: (+977 1) 5537214, 5523239 (+977 1) 5523200 Ext 1002 |
| Explain how the grievance mechanism will be/ has been communicated to stakeholders | The project will prepare and present its grievance redress mechanism at the project inception workshop including information on the grievance focal point. Stakeholders will be communicated about it so that people affected by the project can file a complaint in accordance with the established procedure of FAO. |

FAO is committed to ensuring that its programs are implemented in accordance with the Organization's environmental and social obligations. In order to better achieve these goals, and to ensure that beneficiaries of FAO programs have access to an effective and timely mechanism to address their concerns about non-compliance with these obligations, the Organization, in order to supplement measures for receiving, reviewing and acting as appropriate on these concerns at the program management level, has entrusted the Office of the Inspector-General with the mandate to independently review the complaints that cannot be resolved at that level.

FAO will facilitate the resolution of concerns of beneficiaries of FAO programs regarding alleged or potential violations of FAO's social and environmental commitments. For this purpose, concerns may be communicated in accordance with the eligibility criteria of the Guidelines for Compliance Reviews Following Complaints Related to the Organization's Environmental and Social Standards[10], which applies to all FAO programs and projects. Concerns must be addressed at the closest appropriate level, i.e., at the project management/technical level, and if necessary, at the Regional Office level. If a concern or grievance cannot be resolved through consultations and measures at the project management level, a complaint requesting a Compliance Review may be filed with the Office of the Inspector-General (OIG) in

[10] Compliance Reviews following complaints related to the Organization's environmental and social standards: http://www.fao.org/aud/42564-03173af392b352dc16b6cec72fa7ab27f.pdf

accordance with the Guidelines. Program and project managers will have the responsibility to address concerns brought to the attention of the focal point.

The principles to be followed during the complaint resolution process include impartiality, respect for human rights, including those pertaining to indigenous peoples, compliance of national norms, coherence with the norms, equality, transparency, honesty, and mutual respect.

**Project-level grievance mechanism**
The project will establish a grievance mechanism at field level to file complaints during project inception phase. Contact information and information on the process to file a complaint will be disclosed in all meetings, workshops, and other related events throughout the life of the project. In addition, it is expected that all awareness raising material to be distributed will include the necessary information regarding the contacts and the process for filing grievances.

The project will also be responsible for documenting and reporting as part of the safeguards performance monitoring on any grievances received and how they were addressed.
The mechanism includes the following stages:

- In the instance in which the claimant has the means to directly file the claim, he/she has the right to do so, presenting it directly to the Project Coordination Unit (PCU). The process of filing a complaint will duly consider anonymity as well as any existing traditional or indigenous dispute resolution mechanisms and it will not interfere with the community's self-governance system.
- The complainant files a complaint through one of the channels of the grievance mechanism. This will be sent to the Project Coordinator (PC) to assess whether the complaint is eligible. The confidentiality of the complaint must be preserved during the process.
- The PGC will be responsible for recording the grievance and how it has been addressed if a resolution was agreed.
- If the situation is too complex, or the complainer does not accept the resolution, the complaint must be sent to a higher level, until a solution or acceptance is reached.
- For every complaint received, a written proof will be sent within ten (10) working days; afterwards, a resolution proposal will be made within thirty (30) working days.
- In compliance with the resolution, the person in charge of dealing with the complaint, may interact with the complainant, or may call for interviews and meetings, to better understand the reasons.
- All complaint received, its response and resolutions, must be duly registered.

**Internal process**

**Level 1:** Project Coordination Unit (PCU). The complaint could come in writing or orally to the PCU directly. At this level, received complaints will be registered, investigated, and solved by the PCU.

**Level 2:** If the complaint has not been solved and could not be solve in level 1, then the Project Coordinator (PC) elevates it to the FAO Representative of Nepal

**Level 3:** Project Steering Committee (PSC). The assistance of the PSC is requested if a resolution was not agreed in levels 1 and 2.

**Level 4:** FAO Regional Office for Asia and the Pacific. FAO Representative will request if necessary, the advice of the Regional Office to resolve a grievance or will transfer the resolution of the grievance entirely to the regional office, if the problem is highly complex.

**Level 5:** Only on very specific situations or complex problems, the FAO Regional Representative will request the assistance of the FAO Inspector General, who pursuits its own procedures to solve the problem.

**Resolution**
Upon acceptance a solution by the complainer, a document with the agreement should be signed with the agreement.

| | |
|---|---|
| Project Coordination Unit (PCU) | Must respond within 5 working days. |
| FAO Representation in Nepal | Anyone in the FAO Representation may receive a complaint and must request proof of receipt. If the case is accepted, the FAO Representative must respond within 5 working days in consultation with FAO's Representation and Project Team.<br>FAO Representative: Ayshanie Medagangoda-Labé (Ms.)<br>FAO Representative in Nepal a.i.<br>E-mail : nayshanie.labe@undp.org<br><br>Tel: (+977) 01 5523200- Ext 1401; 1002 |
| Project Steering Committee (PSC) | If the case cannot be dealt by the FAO Representative, he/she must send the information to all PSC members and call for a meeting to find a solution. The response must be sent within 5 working days after the meeting of the PSC. |
| FAO Regional Office for Asia and the Pacific | Must respond within 5 working days in consultation with FAO's Representation.<br>FAO Regional Representative: Jong-Jin Kim, FAO Assistant-Director General and Regional Representative for Asia and the Pacific<br>Email : FAO-RAP@fao.org<br>Tel: (+66 2) 697 4000 |
| Office of the Inspector General (OIG) | To report possible fraud and bad behavior by fax, confidential: (+39) 06 570 55550<br>By e-mail: Investigations-hotline@fao.org<br>By confidential hotline: (+ 39) 06 570 52333 |

### Cost Estimation for the Risk Management Plan

Tentative cost estimation for risk management plan including implantation of the IPP (Annex J of the Project Document) is shown in Table 20.

**Table 20. Tentative cost estimate for risk management (Implementation of the IPP)**

| Activities | Unit/No of event | Rate (US$) | Total cost (US$) |
|---|---|---|---|
| Capacity building for FPIC process (Training on FPIC process) including the cost of experts | 186 (one in each of the Wards) | 1000.00 | 186,000.00 |
| Communication materials for the FPIC process (Translation of project document and other safeguards instruments in Nepali/local language | Lump Sum | - | 5000.00 |
| Consultation with Indigenous Peoples representatives following the procedure and principles of the FPIC | 186 (one in each of the Wards) | 1000. 00 | 186,000.00 |
| Third party monitoring and evaluation of implementation of the IPP. | 5 (One in each year) and one final evaluation | 11,000.00 | 55,000.00 |
| | | **Total cost** | **432,000.00** |

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## Annex 1. Project Environmental and Social Screening Checklist

| Would the project, if implemented | Not Applicable | No | Yes | Unknown |
|---|---|---|---|---|
| **I. FAO VISION/STRATEGIC OBJECTIVES** | | | | |
| Be in line with FAO's Vision? | | | Yes | |
| Be Supportive of FAO's Strategic Objectives? | | | Yes | |
| II FAO KEY PRINCIPLES FOR SUSTAINABILITY IN FOOD AND AGRICULTURE | | | | |
| Improve efficiency in the use of resources - The project's governance and adaptive management strategies are good and based on a sound management framework. The project is cost effective and can improve the efficiency in the management and use of natural resources | | | Yes | |
| Conserve, protect and enhance natural resources? - The project's objectives are focused on conservation and protection of natural resources including land resources. The project will help enhance the natural resource base for sustainable management | | | Yes | |
| Protect and improve rural livelihoods and social Well-being? - The project will deliver a wide range of benefits from conservation of natural resources including land resources; their cumulative effect will improve the condition of rural livelihoods and social well-being. | | | Yes | |
| Enhance resilience of people, communities and ecosystems? - The project will enhance the adaptive capacity of people and communities through improving their livelihoods, knowledge and skills on land management including the management of natural resources. Such changes will make them more resilient to stress and uncertainty | | | Yes | |
| Included Responsible and effective governance mechanisms? - Responsible governance mechanisms are included in the project. | | | Yes | |
| ESS 1 NATURAL RESOURCES MANAGEMENT | | | | |
| ❖ Management of Water resources and small dams | | | | |
| Include an irrigation scheme that is more than 20 hectors or withdraws more than 1000m3/day of water? | NA | | | |
| Include an irrigation scheme that is more than 100 hectors or withdraws more than 5000m3/day of water? | NA | | | |
| Include an existing irrigation scheme? | NA | | | |
| Include an area known of expected to have water quality problems? | NA | | | |
| Include usage of non- conventional sources of water (i.e. waste water)? | NA | | | |
| Include a dam that is more than 5 m. in height? | NA | | | |
| Include a dam that is more than 15 m. height? | NA | | | |
| Include measures that build resilience to climate change? | NA | | | |
| ❖ Tenure | | | | |
| Negatively affect the legitimate tenure rights of individuals, communities, or others? | | No | | |
| ESS 2 BIODIVERSITY, ECOSYSTEMS AND NATURAL HABITATS – Triggered | | | | |
| Make reasonable and feasible effort to avoid practices that could have a negative impact on biodiversity, including agricultural biodiversity and genetic resources? – The project will avoid the practices that could have negative impact on biodiversity values, genetic resources, critical habitats, critical forest areas, natural areas, or cultural practices | | | Yes | |
| Have biosafety provisions in place?<br>The project will follow biosafety protocols, which will help stop the spread of invasive organisms that could affects plants and biodiversity in the project location. The project will respect the Cartagena Protocol on Biosafety | | | Yes | |

| | | | | |
|---|---|---|---|---|
| Respect access and benefit sharing measures in force? – Legislative, administrative or policy measures for regulating access and benefit-sharing for genetic resources (ABS) are not in place. | | | | Unknown |
| Safeguarded the relationships between biological and cultural diversity? – The project will be focused on maintaining the environment and social safeguards of the relation between biological and cultural diversity | | | Yes | |
| ❖ Protected areas, Buffer zones and natural habitats | | | | |
| Be located such that it poses no risk or impact to protected areas, habitats, and ecosystem functions? – There is no risk to or impact on protected areas since it has no provisions for physical investments involving land use, or wate inside protected areas | | | Yes | |
| ESS 3 PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE - Triggered | | | | |
| ❖ Planted forests | | | | |
| Have a credible forest certification schemes, national forest programmes or equivalent or use the voluntary guidelines on planted forests for an equivalent for indigenous forests)? - Credible forest certification scheme national legislation is not in place | | No | | |
| ESS 4 ANIMAL-LIVESTOCK AND AQUATIC –GENETIC RESOURCES FOR FOOD AND AGRICULTURE | | | | |
| Involve the procurement or provision of pesticides? - The project will not procure or provide pesticides | | No | | |
| ❖ Aquatic genetic resources | | | | |
| Adhere (Aligned) to the FAO code of conduct for responsible fisheries (CCRF) and its related negotiated instruments? | NA | | | |
| Be aligned, where applicable, with FAO's strategic policies established in the FAO technical Guidelines for responsible Fisheries (including aquaculture)? | NA | | | |
| ❖ Livestock genetic resources | | | | |
| Be aligned with the livestock sector strategy including the animal disease, public health and land degradation provision? - The project will align with the National Livestock Sector Strategy regarding the introduction of exotic breeds, diversity of local breeds, interactions between local livestock and the production environment, including associated pests and diseases and ultimately on the overall resilience of the production system. | | | Yes | |
| ESS 5 PEST AND PESTICIDES MANAGEMENT- Triggered | | | | |
| Involve the procurement or provision of pesticides? – The project will be in line with promotion of IPM, which is environmentally sound for sustainable production of agriculture and forests crops. The project will emphasize IPM for healthy growth of crops with the least possible disruption to agroecosystems and encourage natural pest control mechanisms. | | No | | |
| Result in increased use of pesticides through expansion or intensification of production systems? – The project will encourage reduced use of pesticides that are less hazardous to terrestrial and aquatic ecosystems, domestic animals and human life. The project will be in line with the national policy on pesticide use, production and procurement provisions | | No | | |
| Require the safe disposal of pesticides or pesticide contaminated materials? – The project will encourage the disposal of hazardous pesticides and pesticides contaminated materials. | N/A | | | |
| ESS 6 INVOLUNTARY RESTTLEMENT AND DISPLACEMENT | | | | |
| Avoid the physical and economic displacement of people? – The project will not economically displace, or damage peoples' physical and economic assets nor will it create an environment that people will be displaced from the project sites. The project will not engage in involuntary displacement of individuals, groups, or communities from homes and/or lands and common property resources. | | | Yes | |
| ESS 7 DECENT WORK- Triggered | | | | |
| Adhere to FAO's guidance on decent rural employment, promoting more and better employment opportunities and working conditions in rural areas and avoiding practices | | | Yes | |

| | | | | |
|---|---|---|---|---|
| that could increase workers' vulnerability? – The project will work toward the creation of more and better employment opportunities, especially for disadvantaged, vulnerable people, youth and women; It will also promote fair treatment, non-discrimination and equal opportunity for all inhabitants in the project areas. It will respect the application of international labor standards in the rural economy, prevention and elimination of child labor**.** | | | | |
| Respect the fundamental principles and rights at work and support the effective implementation of other international labor standards, in particular those that are relevant to the agro-food sectors? – The project will respect the fundamental principles and rights of local people and support the national and international labor standards | | | Yes | |
| ESS 8 GENDER EQUALITY - Triggered | | | | |
| Have the needs, priorities and constraints of both women and men been taken into consideration? - The project will respond to women's and men's specific needs and priorities, their potential risks, benefits and impacts. The project will identify and consider women's and men's different interests, roles and responsibilities while project planning, implementation, monitoring and evaluation. | | | Yes | |
| Promote women's and men's equitable access to and control over productive resources and services? - The project will provide equal access to men and women and control over productive resources, services and markets. | | | Yes | |
| Foster their equal participation in institutions and decision-making processes? – The project will strengthen equal women and men's participation at all levels of project planning, selection, implementation and decision making | | | Yes | |
| ESS 9 INDIGENOUS PEOPLES AND CULTURAL HERITAGE- Triggered | | | | |
| Are there any indigenous communities in the project area? | | | Yes | |
| Are project activities likely to have adverse effects on indigenous peoples' rights, lands, natural resources, territories, livelihoods, Knowledge, social fabric, traditions, governance systems and culture or heritage (tangible and intangible)? - The project will protect the rights of indigenous people for their access and utilization of natural resources. They will benefit from the project by enhancing their livelihoods, knowledge and governance systems | | No | | |
| Are indigenous communities outside the project area likely to be affected by the project? | | No | | |
| Designed to be sensitive to culture heritage issues? - The project will be sensitive to the protection and maintenance of cultural heritage issues of local communities | | | Yes | |

## Annex 2. Indicative outline of Environmental and Social Management Plan (ESMP)

An ESMP consists of the set of mitigation, monitoring, and institutional measures to be taken during implementation and operation of a project to eliminate adverse environmental and social risks and impacts, offset them, or reduce them to acceptable levels. The ESMP also includes the measures and actions needed to implement these measures.

The content of the ESMP will include the following:

### a) Mitigation

The ESMP identifies measures and actions in accordance with the mitigation hierarchy that reduce potentially adverse environmental and social impacts to acceptable levels. The plan will include compensatory measures, if applicable. Specifically, the ESMP:

(i) identifies and summarizes all anticipated adverse environmental and social impacts (including those involving indigenous people or involuntary resettlement);

(ii) describes—with technical details—each mitigation measure, including the type of impact to which it relates and the conditions under which it is required (e.g., continuously or in the event of contingencies), together with designs, equipment descriptions, and operating procedures, as appropriate;

(iii) estimates any potential environmental and social impacts of these measures; and (iv) takes into account, and is consistent with, other mitigation plans required for the project (e.g., for involuntary resettlement, indigenous peoples, or cultural heritage).

### b) Monitoring

The ESMP identifies monitoring objectives and specifies the type of monitoring, with linkages to the impacts assessed in the environmental and social assessment and the mitigation measures described in the ESMP. Specifically, the monitoring section of the ESMP provides:

- a specific description, and technical details, of monitoring measures, including the parameters to be measured, methods to be used, sampling locations, frequency of measurements, detection limits (where appropriate), and definition of thresholds that will signal the need for corrective actions; and
- monitoring and reporting procedures to (i) ensure early detection of conditions that necessitate mitigation measures, and (ii) furnish information on the progress and results of mitigation.

### c) Capacity Development and Training

To support timely and effective implementation of environmental and social project components and mitigation measures, the ESMP draws on the environmental and social assessment of the existence, role, and capability of responsible parties on site or at the agency and ministry level. Specifically, the ESMP provides a specific description of institutional arrangements, identifying which party is responsible for carrying out the mitigation and monitoring measures (e.g., for operation, supervision, enforcement, monitoring of implementation, remedial action, financing, reporting, and staff training).

To strengthen environmental and social management capability in the agencies responsible for execution, the ESMP recommends the establishment or expansion of the parties responsible, the training of staff and any additional measures that may be necessary to support implementation of mitigation measures and any other recommendations of the environmental and social assessment.

### d) Implementation Schedule and Cost Estimates

For all three aspects (mitigation, monitoring, and capacity development), the ESMP provides (a) an implementation schedule for measures that must be carried out as part of the project, showing phasing and coordination with overall project implementation plans; and (b) the capital and recurrent cost estimates and

sources of funds for implementing the ESMP. These figures are also integrated into the total project cost tables.

### e) Integration of ESMP with Project

Each of the measures and actions to be implemented will be clearly specified, including the individual mitigation and monitoring measures and actions and the institutional responsibilities relating to each, and the costs of so doing will be integrated into the project's overall planning, design, budget, and implementation.

| **FAO ESS triggered** | **Impacts / Risks** | **Mitigation measure** | **Timeline** | **Responsibilities of implementation** | **Costs** | **Indicators to monitor** | **Responsibilities of monitoring** | **Related Project componant/ activity** |
|---|---|---|---|---|---|---|---|---|
| *Identify the ESS trigered: ESS1* | *Inserts a brief description of identified risk /impact )* | *List of mitigation measures related to the impacts/ risk.* | *Inserts the timeline for each of the mitigation measures* | *Highlight here which party/organization/entity/partner will be responsible for ensuring the implementation* | *Insert a lumpsum budget. A detailed budget is annexed to understand the current budget) .* | *List of the indicators to monitor to ensure "do not harm" approaches and mitigation measures implementation* | *Highlight here which party/organization/entity/partner will be responsible for ensuring the monitoring* | *This is the column to relate to the appropriate project component for implementation support:* SC1.1 |
| | | | | | | | | |