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Building a Resilient Churia Region in Nepal

Environmental and Social Management Framework

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LIST OF ABBREVIATIONS

AEPC	Alternative Energy Promotion Centre
BRCRN	Building a Resilient Churia Region in Nepal
CBD	Convention on Biological Diversity
CBO	community-based organization
CEDAW	Convention on the Elimination of all Forms of Discrimination Against Women
CFUG	Community Forest Users Group
CKC	Churia Knowledge Center
DRR	Disaster Risk Reduction
ESA	Environmental and Social Analysis
ESCP	Environmental and Social Commitments Plan
ESM	Environmental and Social Management
ESMP	Environmental and Social Management Plan
ESMF	Environmental and Social Management Framework
ESS	Environmental and Social Standards
EWS	Early Warning System
FAO	Food and Agriculture Organization of the United Nations
FPIC	Free, Prior and Informed Consent
IFC	International Finance Corporation
ILO	International Labour Organization
IP	Indigenous People
GAP	Gender Action Plan
GCF	Green Climate Fund
GDP	gross domestic product
GESI	Gender Equality and Social Inclusion
HDI	Human Development Index
LDC	least developed countries
LRP	Local Resource Person
M&E	Monitoring & Evaluation
MFE	Ministry of Forests and Environment
MIS	management information system
NDA	National Designated Authority
NDC	Nationally Determined Contribution
NEFIN	Nepal Federation of Indigenous Nationalities
NGO	Non-governmental organization
NPD	National Project Director

NTFP	Non-Timber Forest Product
OHS	Occupational Health and Safety
OIG	Office of the Inspector-General
PCU	Project Coordination Unit
PMC	ProjectManagement Committee
PMSU	Project Management Support Unit
PS	Performance Standard
PSC	Project Steering Committee
NRM	Natural Resource Management
SDG	Sustainable Development Goals
SME	Small and medium enterprise
SNRM	Sustainable Natural Resource Management
TCM	Technical Committee Meeting
UNCCD	United Nations Convention to Combat Desertification
UNFCC	United Nations Framework Convention on Climate Change

EXECUTIVE SUMMARY

The Government of Nepal together with the Food and Agriculture Organization of the United Nations (FAO) developed the *´Building a Resilient Churia Region in Nepal´* (BRCRN) Project. The overarching objective of the proposed Green Climate Fund (GCF) project is to "*enhance the climate resilience of ecosystems and vulnerable communities in the Churia region through integrated sustainable rural development and natural resource management approaches.*"The project will directly benefit at least 750 community-based organizations, containing over 173,160 households and 831,168 people (50% women), in 26 vulnerable river systems to strengthen their resilience against climate change. Indirectly the project will benefit over 3.2 million people living in the BRCRN project area.

The project is aligned with the country´s National Development Plans, climate change policy and key sectoral strategies, as well as Nepal´s international commitments, including its Nationally Determined Contribution (NDC) to the United Nations Framework Convention on Climate Change (UNFCCC). The project has been designed through extensive stakeholder consultations at the national, regional and local level, including consultations with local community-based organizations, indigenous federations, women's groups and Dalit organizations, among other stakeholders. The National Designated Authority (NDA) has issued a letter of no-objection for the project, and has been closely involved throughout the elaboration of the concept note, funding proposal and supporting documents.

An Environmental and Social Management Framework (ESMF) was elaborated to guide the identification and management of potential adverseenvironmental and social impacts of the proposed project. The ESMF was prepared in compliance with FAO´s Environmental and Social Management Guidelines, while further considering the congruence between FAO´s Environmental and Social Standards(ESS) and the GCF Interim Environmental and Social Safeguards (i.e. International Finance Corporation (IFC) Performance Standards). Specifically, the ESMF aims to support:[1]

- The promotion of sustainable agriculture and food systems.
- The identification, management and evaluation of the environmental and social risks and impacts associated with the BRCRN project.
- Adoption of a mitigation hierarchy based on:

- Avoidance of adverse environmental and social impacts as a priority
- Where avoidance is not possible, minimize or mitigate risks to acceptable levels, and
- Where residual impacts remain, compensate for/ offset them whenever technically and financially feasible

The document is organized into seven main sections beginning with the introduction (Section 1) and project description (Section 2) and a description of the Environmental and Socio-Economic Conditions (Section 3). The legal and institutional framework at the international, national and local level is then presented in Section 4, which describes the legal framework in place that ensures social and environmental safeguards are appropriate and in place. This is followed by

[1] FAO 2015

adescription of the applicable safeguard policies from FAO and GCF (Section 5), including the project risk classification process and results. A monitoring and evaluation framework to monitor, evaluate and mitigate potential environmental and social risks and impacts is then provided (Section 6). An overview of the stakeholder consultation and engagement plan and results is integrated into Section 7. An indigenous peoples and social inclusion planning framework is presented within Section 8that ensures that the rights of indigenous peoples and socio-economically excluded/ marginalized groups are respected, and that the project will not have a negative impact on these communities. Section 9 describes the biodiversity management framework, which presents the approach applied by the project to avoid and mitigate negative impacts on biodiversity, and to further promote measures that enhance biodiversity conservation within the project area. Beyond these core sections of the ESMF, various annexes are provided with detailed supporting information.

1 INTRODUCTION

1. The Government of Nepal in coordination with the Food and Agriculture Organization of the United Nations (FAO) is developing the project *´Building a Resilient Churia Region in Nepal´* (BRCRN) as a cross-cutting project to be submitted to the Green Climate Fund (GCF). GCF grant resources, together with government co-financing, will invest in climate-resilient land use planning, as well as the implementation of climate-resilient sustainable natural resource management (SNRM) and disaster risk reduction (DRR) measures in 26 river systems that are vulnerable to climate change.
2. At the implementation level, it will focus primarily on local community-based organizationsto strengthen their capacities on climate-resilient land use practices, and support them to scale up such activities. At least 750 local community-based organizations will directly benefit from the project. This will result in at least 200,681 households as direct beneficiaries, containing approximately 963,268 people, where approximately 50% of the beneficiaries are women, of which at least 77% consist of groups that are considered to have experienced inter-generational socio-economic exclusion.[2] The project will directly and indirectly benefit over 3.2 million people (11% of the population of Nepal) through the development of strategies for climate-resilient land use in three provinces, and 26 action plans for each of river sheds that comprise the project area.
3. The Environmental and Social Management Framework (ESMF) ensures that environmental and social management is integrated into the development cycle of projects. The exact locations and interventions will be finalized with the implementation of Component 2, and thus ESMF was selected as the most suitable instrument.
4. This ESMF for the proposed BRCRN Project has been conducted in accordance with FAO´s Environmental and Social Safeguards Policy and GCF´s Environmental and Social Safeguards.This document has been designed to ensure to support the following key activities:[3]
   - Identification, management and evaluation of the environmental and social risks and impacts associated with the BRCRN project.
   - Adoption of a mitigation hierarchy based on:
     - Avoidance of adverse environmental and social impacts as a priority
     - Where avoidance is not possible, minimize or mitigate risks to acceptable levels, and
     - Where residual impacts remain, compensate for/ offset them whenever technically and financially feasible
   - Promotion of sustainable agriculture and food systems.
5. Sub-activities where possible environmental and social risks have been identified will develop environmental and social management plans (ESMP) that include information on the

[2] Note: 'Excluded´ or marginalized groups include those who have experienced inter-generational discrimination and have been systematically excluded due to *economic [situation], caste, ethnicity, gender, disability, sexual orientation, and geographical reasons*" (GESI Working Group 2017). This includes groups including women, poor people, Dalits, Adivasi/ Janajati, Madheshis, Muslims, people with disabilities, third-gender and people living in remote areas. For more information refer to the note on vulnerability in Section 2.3.

[3] FAO 2015

mitigation measures, indicators, responsibilities and timeframe where the completion of such measures are expected (refer to Chapter 6.1 for more detailed information).

2 PROJECT DESCRIPTION

6. The project focuses on the Churia-Terai region of Nepal. The Churia range extends west to east from Pakistan to North India, passing through Nepal (Figure 1). The Churia region of Nepal represents one of the country's most fragile ecosystems with friable soils, high vulnerability to various natural hazards such as extreme heat, water scarcity, wild fires, flooding and landslides. Yet, due to its strategic location, the region is key to Nepal's ecological and socio-economic sustainability. Wedged between the high mountain areas (Mahabharat range) of the north and the plains of the south (Terai) as a contiguous landscape, the Churia hills perform several critical social and ecological functions:
   - In terms of upstream linkages, all major river systems in Nepal pass through the Churia hills. They are effectively the last frontier between these river systems and the densely populated alluvial plains in the Terai and in northern India. Particularly in the monsoon season, the degree of runoff and sedimentation from the Churia hills can determine whether swells in river flows can be controlled or whether they lead to severe floods and potentially damaging changes in the directions of watercourses. The effective long-term management of the Churia hills is thus a transboundary issue, even if activities under initiatives such as this project are limited to the boundaries of Nepal.
   - In terms of downstream linkages, with more than 50% of its area under forests and riverine areas, the Churia hills render hydrological services such as regulating surface water flows and recharging groundwater. They are the main source of water for more than 14 million people inhabiting the downstream Terai plains. With the clearance of the majority of forest areas in the Terai over the last century, the Churia hills are now the primary source of timber, fuelwood, fodder and other forest products for not only communities living in the Churia hills, but also for downstream communities in the Terai-Madhesh region. Together, the Terai and Churia comprise about 25% of Nepal's land area, but harbor close to 50% of its population.[4]

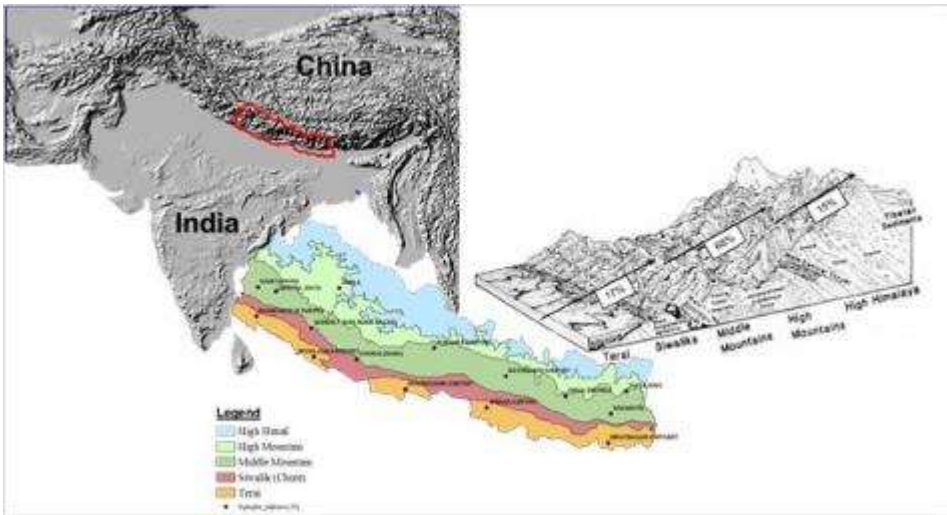

Figure 1: Location of the Churia-Terai Madhesh region in Nepal

Sources: Adapted from PCTMCDB 2016

[4] http://www.rccp.gov.np/

2.1 Project Objective and Outputs

7. Unsustainable land use practices exacerbate the exposure to aforementioned hazards and climate risks, where deforestation, unsustainable agriculture and forestry practices lead to various impacts such as accelerated erosion and sedimentation, river bed rise due to sedimentation, soil degradation, increasing areas of landslide and flood-susceptible areas, ecosystem degradation and habitat loss, reduced water recharge, and reduced availability of forest products (fuelwood, fodder, forage, non-timber forest products), among others (Figure 2).If adaptive measures are not adopted and business as usual practices prevail, the Churia region of Nepal will be increasingly exposed to extreme heat, water stress, wildfires, flooding and landslides having detrimental impacts on local people, ecosystems and the country´s economy.

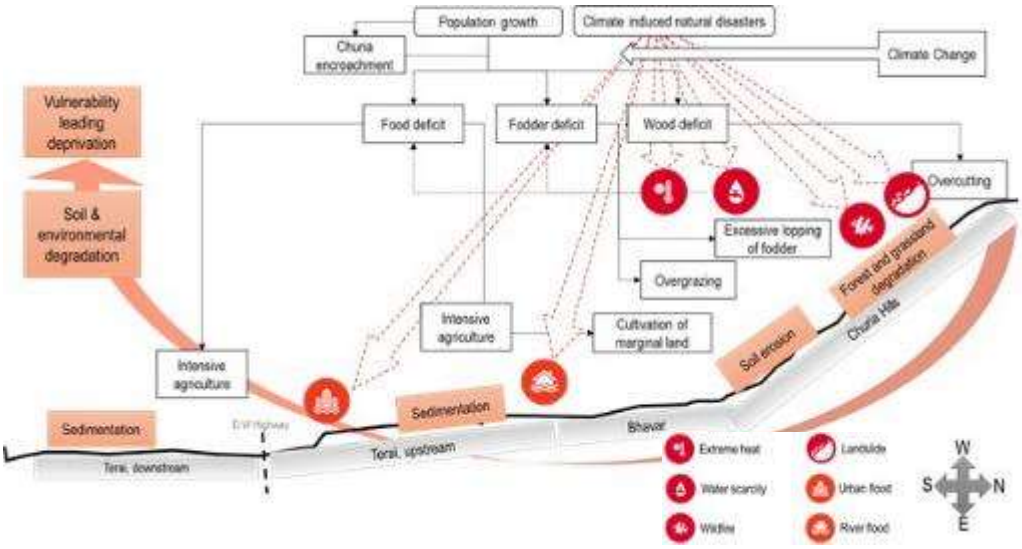

Figure 2: Overview of climate induced natural disasters and drivers of land use change in the Churia and Terai regions of Nepal

8. **Project Objective:** The overarching objective of the proposed GCF project is to enhance the climate resilience of ecosystems and vulnerable communities in the Churia region through integrated sustainable rural development and natural resource management approaches.
9. In particular, the BRCRN project will focus on:
   - Establishing and strengthening an enabling institutional environment for climate-resilient SNRM;

- Strengthening the capacities of at least 750 local community-based organizations/ user groups[5] on recognizing climate threats, climate-resilient land use planning and sustainable natural resource management, and supporting them to implement climate-resilient land use interventions;
- Large-scale adoption and promotion of climate-resilient land and forestry management practices on at least 512,499 ha, which specifically respond to climate-related threats, including landscape-scale restoration of critical ecosystems in vulnerable river systems;[6]
- Reducing the incidence of sedimentary and flash flooding by improving soil and water conservation, and constructing small-scale infrastructure (stone walls, contour bunds, check dams, among others);
- Reducing deforestation and forest degradation through the implementation of sustainable natural resource management (SNRM) practices and other measures that address the direct and underlying drivers of deforestation and forest degradation;
- Improving water recharge systems by reducing surface run-off water through the adoption of water conservation and water management practices/ technologies;
- Improving information consolidation, dissemination and monitoring to raise awareness on climate change and climate resilient land use practices, and strengthen the utilization of climate information in decision making and planning processes.

10. The following Figure provides a depiction of envisaged climate-resilient development pathway as result of the project:

[5] Including community-forest user groups, leasehold forestry, private forest users and public forest user groups, water user groups, among others.
[6] Note: some activities may be implemented on overlapping parcels of land (e.g. measures to reduce deforestation such as controlled grazing, with sustainable forest management practices).

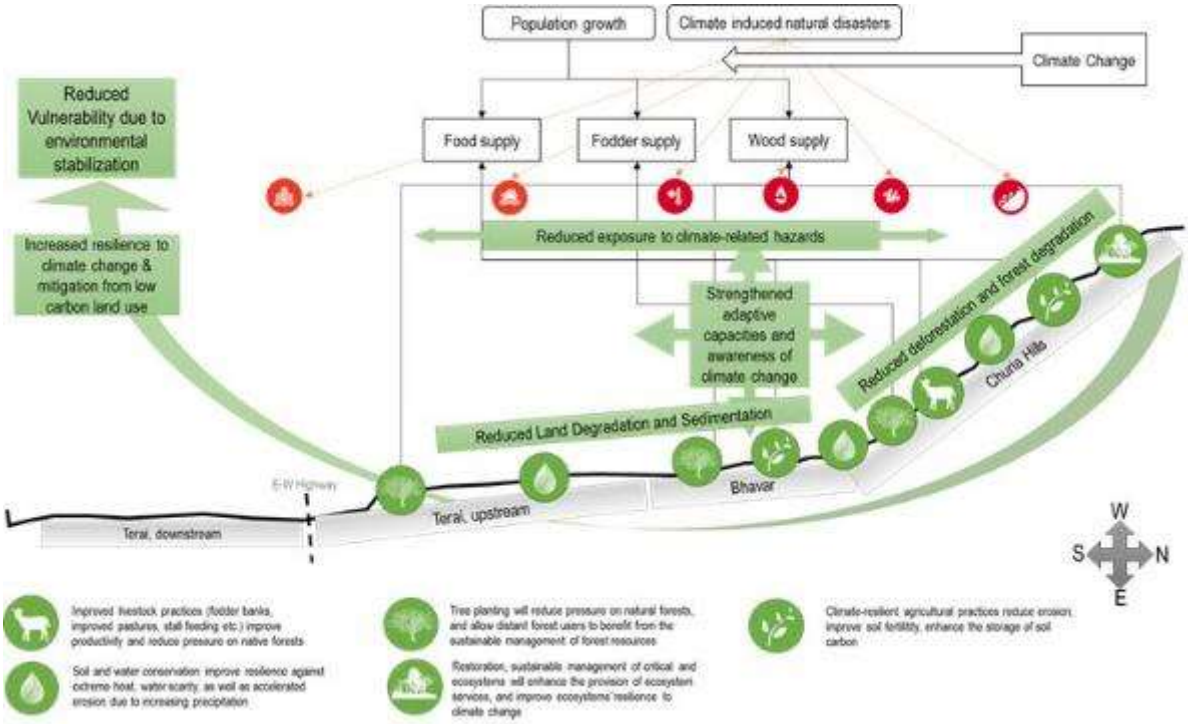

Figure 3: Overview of envisaged climate-resilient land use in BRCRN biophysical zones

11. The project will directly benefit 750 local community-based organizations/ user groups, containing at least 173,160 households with over 831,168 people (at least 50% of which are women, with proportional representation of indigenous peoples, Dalits and other marginalized groups[7]) in 26 of the most vulnerable river systems in the Churia Region in Nepal. Together with reduced deforestation and forest degradation resulting from project activities, the BRCRN project will result in lifetime emission reductions estimated at11.48 million tCO_2eq. Over 206,277 ha of critical ecosystems (forests, wetlands and grasslands) will be restored through project implementation leading to reduced greenhouse gas emissions as well as improved ecosystem resilience to climate shocks.
12. The proposed project is comprised of three complementary Outputsand tensupporting activities. While the following provides a brief overview of these Outputsand activities, more detailed information can be found in the BRCRN GCF funding proposal and feasibility study.
13. The project will support activities focused on scaling up proven climate-resilient SNRM approaches to strengthen ecosystem stability and resilience in vulnerable river systems within Output 1.To support the implementation and scaling up of climate-resilient SNRM, activities within Output 2 will focus on strengthening local and provincial capacities, supporting operational planning at the local level within each of the project´s 26 target river systems and mainstreaming climate-resilient land use planning at the provincial level. Output 3 includes measures to strengthen extension materials for farmer-field schools, operational costs to

[7] Refer to Section 2.3´s ´note on vulnerability´ for more information on excluded groups.

scale-up the reach of extension services, and trainings for trainers to implement climate-resilient SNRM approaches.

14. Together, these complementary measures will help to overcome barriers to adaptation and mitigation, and will support the desired paradigm shift with a strong enabling environment and the scaling up of interventions that will increase the resilience of both communities and critical ecosystems to climate change.
15. The project objective will be achieved through the following Components:
    - Component 1: Scaling up climate-resilient Sustainable Natural Resource Management (SNRM).
    - Component 2: Strengthening institutions and planning for climate-resilient SNRM.
    - Component 3: Improving knowledge, awareness and local capacity for climate-resilient SNRM.
16. Under Component 1, the project will support activities focused on scaling up proven climate-resilient SNRM approaches to strengthen ecosystem stability and resilience in vulnerable river systems. Such interventions will focus on climate-resilient agricultural practices on agricultural land, ecosystem restoration and sustainable management in degraded and critical ecosystems, and tree planting on non-forested land to build resilience and reduce pressure on natural forests for fodder, fuelwood and forage, targeting especially distant forest users in the upstream Terai. This support will be delivered in each of the 26 targeted river systems, with the specific constellation of support (capturing upstream and downstream dynamics) to be defined in consultation with government and community stakeholders during the process of developing Critical Ecosystem Restoration Plans (CERPs) under Activity 2.1.2 – an Activity that will precede (and guide) field-level interventions under Component 1.
17. To support the implementation and scaling up of climate-resilient SNRM, Activities within Component 2 will focus on strengthening local and provincial capacities, supporting operational planning at the local level within each of the project´s 26 target river systems and mainstreaming climate-resilient land use planning at the provincial, local (i.e. rural municipality) and community-level. This Component will balance top-down integrated spatial planning with participatory land use planning for climate-resilience at the CBO level. Importantly, this Component will support the development of CERPs in each of the 26 targeted river systems. These plans (and the priorities and interventions identified therein) will be consulted and validated with the relevant CBOs within each river system, thereby ensuring full community buy-in for interventions to be delivered under Component 1.
18. Project activities will further enhance awareness, knowledge and communication on climate risks, climate-resilient SNRM. Component 3 includes measures to strengthen extension materials for farmer-field schools, operational costs to scale-up the reach of extension services, and trainings for trainers to implement climate-resilient SNRM approaches. This will ensure such approaches are mainstreamed into training materials and that government extension staff and service providers understand climate change threats, low-carbon and climate-resilient land use practices. The establishment of an innovative knowledge center will further enhance climate monitoring, knowledge management and dissemination.
19. Together, these complementary measures will help to overcome barriers to adaptation and mitigation, and will support the desired paradigm shift with a strong enabling environment

and the scaling up of interventions that will increase the resilience of both communities and critical ecosystems to climate change.

Component 1: Scaling up climate-resilient sustainable natural resource management (SNRM)

20. Component 1 focuses on implementing and scaling up of climate-resilient SNRM practices to increase the resilience of ecosystems and local households within 26 river systems that are vulnerable to climate change. CBOs and their members, as well as local governments will be provided with technical and financial support to scale up sustainable practices including climate-resilient agricultural practices on 60,965 ha, restoration of 202,237 ha of critical forest, wetland and grassland ecosystems (including areas that are highly susceptible to landslides and flooding), and tree planting on 23,800 ha as new forest systems (including enrichment planting on shrub land, conservation and commercial plantations and horticulture). Such measures will not only increase the adaptive capacities and resilience of communities, but also enhance the resilience of ecosystems and the provision of key ecosystem services.
21. Promoted measures have been selected based on their relevance given the key climate risks faced by the region, and considering differentiated vulnerabilities within each river system.Implementation of these measures will be supported throughriver system-based spatial and operational plans developed under Component 2. Investments in climate-resilient land use practices and technologies will further be supported by knowledge products and resources developed within Component 3, including guidelines and educational materials for field schools and extension trainings. The monitoring of such measures will be integrated with the Churia Knowledge Centre (developed under Component 3).
22. Scaling up climate-resilient land use practices will help address the proximate and underlying drivers of deforestation and land degradation in the project area, leading to further emission reductions through reduced deforestation and forest degradation as well as improved carbon sequestration in areas under forest and tree cover.Measures will have numerous positive socio-economic and environmental impacts, including improved water security, food security, soil nutrition, biodiversity conservation and agricultural productivity. Since poverty is a major barrier to the adoption of climate-resilient land use practices in the BRCRN project area, investments in climate-resilient land uses will be provided to local CBOs, although communities are expected to provide in-kind labor in exchange for participating in farmer field schools and/or trainings and receiving ongoing extension / technical support.
23. **Sub-Component 1.1 – Climate-resilient land use practices are adopted.** This sub-component will work with farmers and other land users in the 26 targeted river systems (the "Project Area") to scale up the adoption of farming and other land use practices that enhance the resilience of agricultural production in the Project Area. This Sub-Component will directly train and support farmers from relevant CBOs, and equip them to return to their communities to teach and train other farming households on project-promoted practices. This Sub-Component will also establish crucial local infrastructure in each river system to enhance resilience against climate change-induced erosion, sedimentation and flooding risks.

a. **Activity 1.1.1 – Establish Farmer Field Schools (FFSs) in the Project Area to promote climate-resilient land use.** This Activity will establish 120 FFSs in the Project Area to encourage the use of climate-resilient farming practices, with at least 3 FFS to be established in each of the 26 targeted river systems. These FFSs will be used to deliver trainings on climate-resilient farming practices to Farmer Beneficiaries under Activity 1.1.2, as well as to continue promoting climate-resilient land use in the Project Area after project closure. A FFS technical expert recruited by the project will design the overall approach to thisActivity, including the development and supervision of agreements with national service providers to identify sites, establish FFSs and orient local communities regarding their function. A second agreement will be developed, under the supervision of the FFS technical expert, to deliver Training of Trainers (ToT) for MoITFE and MoACLM field staff, based on the modules developed under Activity 3.2.1. The FFS technical expert will identify the equipment needs for all 120 FFSs and organise the procurement and delivery of this equipment, including agricultural and forestry technical supplies for training purposes. The Provincial Project Management Units (PPMUs) will cover the travel and logistical costs for MoITFE and MoACLM field staff to establish capacity of all 120 FFSs to deliver capacity building activities based on the FFS training modules. This is anticipated to require a total of 120 visits, by teams of 3 field staff, to FFS over the project period in provinces 2 and 3, and 240 in province 1, to ensure the long-term ability of all FFS to deliver all modules to local farmers and communities as required.

b. **Activity 1.1.2 – Train farmers to adopt and apply climate-resilient land use practices.** This Activity will train Farmer Beneficiaries in each of the 26 targeted river systems to understand and apply climate-resilient farming practices (CRFPs) that are most relevant to the challenges and conditions within their communities (see *Annex 2: Feasibility Study – Appendices A1.2-A1.5* for more information on promoted practices). Farmer Beneficiaries will not only be equipped to apply relevant CRFPs on their own land, but will also be able to teach and train other members of the communities on such practices. Widespread adoption of such practices will build resilience of farming households against many of the climate change impacts outlined in Section C.1 (above), while also reducing soil runoff and erosion that have significant negative impacts in downstream communities. Based on the results of the Critical Ecosystem Restoration Plans (CERPs) developed under Activity 2.1.2, project staff will identify the CRFPs most appropriate for vulnerable areas of the 26 river systems, and identify the CBOs to be targeted for capacity building efforts and the training approaches to be employed, both on-site and in FFSs. Based on this analysis, carried out on an annual basis, the equipment needs for support to the CRFP training programme will be identified, and the procurement and delivery of this equipment will be organized through FAO (as co-EE). Under Activity 1.1.2, the project will organize 260 training events (approximately 10 per river system), each of which will be supported by 3 government field staff and train approximately 30 Farmer Beneficiaries. In total, Activity 1.1.2 is expected to train about 7,800 Farmer Beneficiaries.

c. **Activity 1.1.3 – Train farmers to adopt agroforestry and livestock management practices.** This Activity will support Agro-Forestry and Livestock Beneficiaries to apply agroforestry and livestock management practices in their fields in each of the 26

targeted river systems, and equip them to promote more widespread adoption of such practices within their communities (practices are described in more detail in *Annex 2: Feasibility Study – Appendices A1.6-A1.7*). Such practices will not only enhance resilience of agricultural production among Agro-Forestry and Livestock Beneficiaries, but will also contribute to easing the expansionary pressures that are driving deforestation and forest degradation in the Project Area. Importantly, such practices will also contribute to increasing incomes for the predominantly poor and vulnerable small-scale farming and livestock-owning households with which this Activity will work. Building on the identification of priority areas and appropriate practices from the CERPs under Activity 2.1.2, Activity 1.1.3 will train approximately 120 Agro-Forestry and Livestock Beneficiaries from relevant CBOs to understand project-promoted practices, and procure the materials needed for them to establish small on-farm tree nurseries to continue supporting agroforestry within their communities and beyond project closure. Once these small on-farm nurseries are established, three full-time government field staff in each province will conduct regular visits (from PY3-7) to communities in which on-farm nurseries have been established to train additional Agro-Forestry and Livestock Beneficiaries to adopt project-promoted agroforestry and livestock management practices, drawing in part on the seedlings produced at the on-farm nurseries established in PY3. During the training/extension visits, government field staff will also identify about 500 livestock-owning households within the relevant communities (in line with the selection process and eligibility criteria outlined in Table 6 above) who are eligible to access the government's biogas subsidy, and provide them with the technical assistance and guidance needed to access this subsidy and ultimately purchase and install a biogas digester on their respective farms.

d. **Activity 1.1.4 – Construct check dams, gully stabilization measures and other local infrastructure to enhance resilience against climate change-induced erosion, sedimentation and flooding risks.** This Activity will work with relevant CBOs to construct local structures (described in more detailed in *Annex 2: Feasibility Study – Appendix A2.2*) that will play a crucial role in reducing community vulnerability to climate change impacts, accounting for both upstream and downstream dynamics in each of the 26 river systems that collectively comprise the Project Area. In particular, these structures will reduce erosion risk and sedimentation in upstream areas, and reduce flooding risk and water stress in downstream areas. Building on the key risks and priority areas for specific structures identified in the CERPs developed under Activity 2.1.2, MoFE will recruit 3 civil engineers to work with provincial technical support officers in MoACLM, rural municipalities, watershed management centres and local communities to identify specific sites and approaches for local structures. The engineers will develop detailed project reports and technical standard guidelines to be followed in construction, which will be carried out by service providers contracted by MoFE (with technical supervision and backstopping from MoFE and FAO project staff). In particular, Activity 1.1.4 will: (i) establish relevant structures and practices to stabilize 86 gullies, mostly in the Churia hills; and (ii) establish and maintain check dams and/or community-managed water harvesting ponds in 129 sites, mostly in the Bhavar zone.

24. **Sub-Component 1.2 – Natural forest ecosystems are better maintained and protected.**This Sub-Component will work with communities to support more sustainable management and preservation of existing, natural forest ecosystems in the Project Area. In so doing, the project aims to reduce the rate of deforestation and forest degradation, which will produce important climate change mitigation benefits while also preserving (and enhancing) crucial ecosystem functions that are essential to the resilience of communities (both upstream and downstream) throughout each of the 26 targeted river systems that collectively comprise the Project Area.

    a. **Activity 1.2.1 – Support all forestry-related CBOs to develop/strengthen and deliver forest management operational plans.** ThisActivity will focus on the improvement of sustainable forest management (SFM) in all forest land managed byforestry-related CBOs in the Project Area, to ensure silvicultural practices are implemented to maximise ecosystem service provision, both in terms of climate resilience and in terms of enhancement of forest carbon stocks (see *Annex 2: Feasibility Study – Appendix A2.4* for more information on promoted practices). Building on the priorities and relevant CBOs identified in the CERPs developed under Activity 2.1.2, project staff will recruit qualified service providers in each province to work with relevant CBOs to develop and/or strengthen forest management operational plans to enable coordinated and sustainable management of their local forest ecosystems. Project staff will then procure relevant equipment for each of these CBOs (including for inventory, plantation, cultivation and harvesting operations) to be distributed to the relevant CBOs in accordance with the specific needs identified in their forest management operational plans. Under Activity 1.2.1, project staff will subsequently work with these CBOs throughout PY3-7 to provide ongoing advice and guidance to enable implementation of their forest management operational plans. In so doing, Activity 1.2.1 expects to support sustainable management of 186,247 ha of forest land within the Project Area.

    b. **Activity 1.2.2 – Train CBOs and land owners to enable more sustainable management of forest ecosystems.** This Activity will build the capacity of government staff and all forestry-related CBOs to better understand the principles and practices that underpin sustainable management of forest ecosystems, and continue applying such principles and practices after project closure. Such trainings will go beyond simply supporting delivery of forest management operational plans developed under Activity 1.2.1, and aims to build broader capacity among key actors within the Project Area to continue promoting *and* scaling up relevant knowledge and practices after project closure. To do so, Activity 1.2.2 will support the development of a regular, locally-relevant and demand-driven extension service on forest planning and management for CBOs and other land owners. Project staff will start by delivering 26 Training of Trainers (ToT) events for MoITFE field staff at local level ("Professional Beneficiaries") during PY3-5. These field staff will in turndeliver 122 local training events to CBOs and other land owners ("Forest Training Beneficiaries") to build their capacity on sustainable management of forest ecosystems. Representatives from forestry-related CBOs to be trained under Activity 1.2.2 will be nominated by the executive committee of their respective CBOs.

25. **Sub-Component 1.3 – Forests and tree cover are restored and maintained in the river system landscape.** This Sub-Component will work with CBOs and other forest stakeholders to expand tree cover and restore forest ecosystems in the Project Area. In so doing, this Sub-Component will contribute to enhancing resilience in critical areas (e.g. along riverbanks) and restoring other ecosystem services that enhance resilience for downstream communities. Forest restoration and expanded tree cover will also deliver important mitigation benefits by increasing biomass and carbon sequestration, as well as providing alternative fuelwood and timber sources that enable local communities to meet their needs without encroaching on natural forest ecosystems.

    a. **Activity 1.3.1 – Establish and support the operation of 52 multi-purpose tree nurseries to serve the plantation and restoration needs of CBOs and other forest sector stakeholders.** This Activity will establish tree nurseries that are needed to support tree planting and forest restoration under this project, as well as by communities throughout the Project Area (specifications for project-supported nurseries are available in *Annex 2: Feasibility Study – Appendix A3.3*). Nurseries are expected to continue providing seedlings to support continued planting and restoration activities beyond project closure, in line with CERPs and other local plans supported under the project. Without such services, CBOs and other actors in the Project Area would struggle to procure the necessary seedlings in the future, which would risk undermining local buy-in and support for the broader process of sector transformation that this project aims to set in motion. To accomplish this, project staff will procure the equipment and materials needed to establish two nurseries in each of the 26 targeted river systems, for which sites will be selected in accordance with the criteria and process outlined in Table 6 of the Funding Proposal. Project staff will also procure material inputs (e.g. poly bags, soil, sand) and labour inputs needed for production of seedlings from PY3-7, ensuring that each nursery has the capacity to produce at least 50,000 seedlings per year. Nurseries will be operated by local forest offices, and project staff will work with MoITFE to ensure operations and maintenance costs for these nurseries are integrated into their annual budgets by project closure. Nurseries will be developed in line with GESI principles, promoting equitable employment opportunities for women, as well as indigenous peoples, Dalits and marginalized groups.

    b. **Activity 1.3.2 – Establish and maintain 7,300 ha of forest plantations to enhance resilience.** This Activity will establish and support maintenance of several different forest plantations in the Project Area that will contribute to building resilience and mitigating climate change, while also equipping local stakeholders to promote and support more sustainable forestry activities beyond project closure. These are described below, while technical specifications are provided in more detail in *Annex 2: Feasibility Study – Appendix A3.2*).

        i. *Demonstration plantations:* Project staff will establish demonstration plantations to expand tree cover and build capacity of local MoITFE staff (those who train and support CBOs, land owners and other forest users in the Project Area) to promote sustainable plantation management beyond project

closure. This in turn will deliver important long-term adaptation and mitigation benefits. To do so, project staff will train 20 MoITFE staff in each of the three provinces (60 total "Professional Beneficiaries") on how to promote/support sustainable plantation management. Project staff will in turn procure materials and seedstock needed to establish 1,300 ha of demonstration plantations of native species (including teak) in the Bhavar and Terai zones of the 26 targeted river systems. These demonstration plantations will contribute to enabling trained MoITFE staff to promote and support sustainable plantation management after project closure.

ii. *Public land forests on river bank sites:* Building on the priorities identified in the CERPs developed under Activity 2.1.2, project staff will work with vulnerable and marginalized communities to plant grasses, bamboo and trees along key river banks, primarily in the Bhavar zone in each of the 26 river systems. This will contribute to stabilizing these river banks, which in turn will build resilience for within the Bhavar zone but also for downstream communities whose vulnerability to sedimentation and flooding will be reduced. The CBOs with whom project staff will work to establish these plantations will also be supported to take over management responsibility for these forests by signing formal agreements with their respective Municipality offices. Project staff will further support these CBOs to develop management plans that will guide post-project management of these forest resources. In total, this Activity is expected to result in the establishment of 1,000 ha of riparian plantations (with at least 25 ha being established in each river system), and equip local CBOs to sustainably manage these forest resources after project closure.

iii. *Public land forests on community land:* Building on the priorities identified in the CERPs developed under Activity 2.1.2, project staff will work with vulnerable and marginalized communities to plant multipurpose trees in open community land, primarily in the (upstream) Churia hills and Bhavar zone in each of the 26 river systems. This expanded forest cover will enhance resilience against climate-change induced soil erosion (thus reducing downstream risks related to sedimentation and flooding) and enhance crucial ecosystem functions that underpin the resilience of upstream communities, while also providing important mitigation benefits. The CBOs with whom project staff will work to establish these plantations will also be supported to take over management responsibility for these forests by signing formal agreements with their respective Municipality offices. Project staff will further support these CBOs to develop management plans that will guide post-project management of these forest resources. In total, this Activity is expected to result in the establishment of 5,000 ha of plantations (with at least 50 ha being established in each river system), and equip local CBOs to sustainably manage these resources after project closure.

c. **Activity 1.3.3 – Train government field staff and CBOs on Forest Landscape Restoration, and support CBOs to implement Assisted Natural Regeneration on 15,990**

ha. This Activity will assist CBOs to expand forest cover and restore forest landscapes in critical locations in each of the 26 targeted river systems, in line with the priorities identified in the CERPs developed under Activity 2.1.2. This will enable CBOs to restore crucial ecosystem functions and ecosystems resilience in each river system, while also generating significant mitigation benefits. Under Activity 1.3.3, the project will not only support CBOs to expand and restore forests in the Project Area, but will also build their capacity (and that of government) to continue scaling up such approaches after project closure, in line with their CERPs and drawing on the network of services and resources (e.g. nurseries) established under this project. In particular, the project will support the approaches outlined below, technical specifications for which are included in *Annex 2: Feasibility Study – Appendix A2.3*).

i. *Forest Landscape Restoration (FLR):*Project staff will prepare training materials on FLR, which they will then use to train 240 provincial forestry field staff ("Professional Beneficiaries") through 12 training events (20 Professional Beneficiaries per training) organized in PY3-5. These provincial forestry field staff will in turn organize 180 training events for relevant CBOs ("Forest Training Beneficiaries") to enhance their understanding and ability to apply FLR approaches in their respective communities. Approximately 30 Forest Training Beneficiaries will be trained at each training, reaching a total of about 5,400 Forest Training Beneficiaries.

ii. *Assisted Natural Regeneration (ANR):* Building on the priorities and areas identified in the CERPs developed under Activity 2.1.2, project staff will work with relevant CBOs (557 CFUGs and 3 CoFMs) to implement ANR on at least 15,990 ha of community-managed forest land, focusing in particular on the Churia hills and Bhavar zones in the 26 targeted river systems. Project staff will start by identifying specific sites (in line with the selection criteria and process outlined in Table 6) and developing ANR methodologies and implementation plans that are suited to the local contexts. Project staff will then procure tools, equipment, inputs and local labour needed to implement ANR in collaboration with relevant CBOs, which may include (depending on the needs of specific sites):

- **Plantation for protection and stabilization:** To reduce degradation and promote the ecosystem services and sustainable use of forests, communities will be supported to establish fodder banks, fire breaks and other locally-appropriate measures, while ensuring that measures to control grazing or forest product extraction do not disproportionately affect marginalized or poor households within CBOs.
- **Measures to accelerate natural forest recovery (e.g. direct seeding, planting seedlings) in degraded primary or secondary forests:** Promoted measures will include the establishment of enrichment planting

to restore over-exploited forest-dominated ecosystems, especially along upstream riversides.8

- **Measures to support natural regeneration will involve promoting tree seedlings and favorable species within a forest landscape, supporting multiple-use forest management plans, with equal consideration of social, ecological and economic functions of forest ecosystems**: Planning concepts and components such as multi-functional zoning and control forest inventories will be supported where necessary.

d. **Activity 1.3.4 – Provide technical guidance and seedlings to establish tree cover on 16,500 ha of woodlots to enhance ecosystem resilience, and improve fuelwood and timber availability in downstream communities.** This Activity will work with small-scale land owners to establish woodlots on their lands (see *Annex 2: Feasibility Study – Appendix A3.2* for more detailed technical specifications). In so doing, the project will further enhance resilience of soils (against erosion upstream, and the associated sedimentation downstream) and broader ecosystem services that are essential to the overall resilience of the river systems. This Activity will also provide additional sources of fuelwood and timber for downstream communities, thereby reducing expansionary pressures on natural forest ecosystems. To do so, project staff will draw on the prioritized areas in the CERPs to guide the identification of landowners with whom to collaborate (in line with the selection process outlined in Table 6). Project staff will then organize exchange visits between these small-scale landowners and other successful forest owners in neighbouring districts to enhance their interest in engaging with the project. Interested landowners will then provide the necessary labour for establishing woodlots on their land, while project staff will procure the necessary seedlings and government field staff will provide the necessary extension and advisory services. Under this Activity, the project will support at least 100 households in each of the 26 river systems (to be selected according to the criteria and process outlined in Table 6). Each household will receive support to establish woodlots on a maximum of 1 ha of their land. The government remains committed to continue providing extension support for such planting, further contributing to the potential to scale up tree planting on woodlots beyond project closure.

Component 2: Strengthening institutions and planning for climate-resilient SNRM

26. Component 2 is designed as a precursor for the investments in Component1, and will support the necessary planning for interventions within each of the 26 targeted river systems while equipping government officials and CBO members with the capacities to understand and apply climate-resilient land use. Given Nepal´s ongoing political transition, Provincial

[8] Native species will be promoted to the greatest extent possible, however in highly degraded areas locally-adapted exotic species with no risk of invasion may be required to facilitate soil restoration (as a nurse crop for the eventual recovery of natural forest). Measures to avoid and mitigate adverse impacts are further described in the ESMF in Section F.

and Local governments have new responsibilities over natural resource management and there is a need to build awareness on climate threats and low carbon and climate-resilient land use practices, providing support to mainstream climate-resilient land use planning into local strategies and processes. Local CBOs also play an important role in managing local resources, however there is limited awareness about the long-term risks that climate change poses as well as sustainable natural resource management approaches that can strengthen their adaptive capacities and overall resilience to climate change.

27. Ultimately, this Component will address climate change risks by improving awareness of threats and building capacities to continuously monitor climate change and vulnerability at the provincial, local (rural municipality) and CBO level. It will further raise awareness of suitable low carbon and climate-resilient practices that are adapted to local conditions and differentiated vulnerabilities and contexts. It is closely linked with Component 3, which focuses on improving knowledge, strengthening extension services and trainings and improving knowledge dissemination to support awareness raising and the enhancement of adaptive capacities.

28. **Sub-Component 2.1 – Planning for climate-resilient SNRM is enhanced.** This Sub-Component will support government stakeholders and CBOs to identify and assess climate change risks and resource degradation within the Project Area, and develop corresponding plans that will enable relevant actors to respond to such challenges. This Sub-Component will also build the capacity of these actors to further monitor local risks and resources in the future. In so doing, Sub-Component 2.1 not will only provide an evidence-based foundation to guide interventions under Component 1, but will also equip government stakeholders and CBOs to continue investing in climate-resilient SNRM – in a manner that coordinates upstream and downstream interventions to maximize adaptation and mitigation benefits – beyond project closure.

    a. **Activity 2.1.1 – Strengthen institutions on climate change impacts and ecosystem mapping.** Under this Activity, the project will build the capacity of key entities that intend to collaborate with and/or benefit from the project – including those whose mandates are linked to promoting climate-resilient SNRM in the Project Area, and who will play an important role in sustaining and scaling up support for such practices after project closure – on climate change and climate resilient land use planning and management practices. To do so, project staff will organize four national-level trainings, three provincial-level trainings and 64 local-level trainings for Professional Beneficiaries on such topics. Trainings will further include a component on Gender Equality and Social Inclusion (GESI), discussing how differentiated vulnerabilities to climate change affect the overall vulnerability of communities, as well as key considerations to enhance and strengthen GESI within the context of the BRCRN project (building on measures identified in the Gender Action Plan, Indigenous Peoples Planning Framework and cross-cutting measures to support social inclusion).

    Project staff will organize one national-level training and 6 provincial-level trainings for staff from MoFE, MoITFE and other relevant provincial and municipal authorities ("Professional Beneficiaries") on the production and use of GIS tools used in the multi-criteria analysis that informed the development of CERPs under Activity 2.1.2. In so doing, the project will equip key provincial and local stakeholders with the

knowledge and tools needed to continue monitoring climate change impacts and natural resources in the Project Area after project closure – knowledge that is essential to enable government to continue refining the support it provides for climate-resilient SNRM.

b. **Activity 2.1.2– Develop and validate Critical Ecosystem Restoration Plans (CERPs) for each of the 26 targeted river systems.** Under this Activity, project staff will work with a range of provincial and local stakeholders to develop and validate CERPs, which will enable evidence-based planning for interventions under Component 1, while also providing governments and CBOs with common plans and priorities to guide coordinated investments in climate-resilient SNRM in the future. Project staff will start by recruiting a qualified firm to perform a multi-criteria spatial analysis for each of the 26 targeted river systems to help identify: climate change risks within each river system; critical ecosystems within each river system; priority climate-resilient SNRM practices and approaches for each biophysical zone in each river system; priority interventions to be delivered (under Component 1) to enable short-term action on the aforementioned priorities, including priority areas for such interventions; and CBOs for inclusion/involvement in prioritized interventions in each river system. Building on this analysis, project staff will organize a series of 26 river system-level consultations (one per targeted river system) to discuss the identified priorities with key stakeholders and develop this into a Critical Ecosystem Restoration Plan (CERP).

   Once the CERPs are validated, project staff will organize a series of field consultations (following FPIC principles) to ensure: (i) interventions identified in the CERPs are locally-relevant and appropriate; (ii) relevant CBOs and other local stakeholders in each river system are supportive of the priorities and plans outlined in their respective CERPs; and (iii) the implementation methodologies are adapted to local circumstances as appropriate, including to address locally-specific social and environmental risks and capacity gaps. In so doing, project staff will ensure that prioritized interventions reflect the relevant management regimes, such as community forestry, leasehold forestry, collaborative forestry, public land forests, and private forestry, among others. While promoting collective action through local CBOs/ user groups, the project will take into account the priorities and needs of vulnerable groups (e.g. women, Dalits and indigenous peoples). In total, project staff will organize 52 local-level consultations (2 per river system) to secure community buy-in and support for the CERPs and the specific interventions prioritized therein. Project staff will then discuss the community-endorsed CERPs with stakeholders at the national and provincial levels (through two national workshops and six provincial-level workshops) to secure feedback on the planning processes and government validation of the plans, and discuss opportunities for mainstreaming CERP priorities into regular planning cycles.

c. **Activity 2.1.3 – Support provincial governments to plan and increase resilience to projected climate change-related extreme events.** Due to an increasing risk of climate change-induced extreme events (e.g. flooding) in the Project Area, it is essential that government stakeholders understand these risks and how best to support

enhanced preparedness – both within the government and at community level. Under this Activity, project staff will raise awareness of such risks among provincial and local government staff ("Professional Beneficiaries") and support them to develop corresponding risk management plans. Project staff will begin by organizing 26 awareness-raising workshops (one in each targeted river system) for provincial and local government staff, during which participants will learn about river system-specific risks (drawing on analysis done under Activity 2.1.2) and train them on relevant guidelines and tools for further assessing such risks in the future. Participants will also be trained on how to access information from the Churia Knowledge Centre in their respective provinces (established under Activity 3.2.3), and how this important resource can facilitate future analysis of climate change risks in each of the targeted river systems. Following the awareness-raising workshops, project staff will work with provincial governments ("Professional Beneficiaries") to develop provincial-level risk management plans for climate change-related extreme events, building on detailed hazard mapping, vulnerability assessments and risk mapping from the CERP planning process under Activity 2.1.2. Once these plans are developed, project staff will subsequently work with provincial governments organize 26 multi-stakeholder validation workshops to secure endorsement and community buy-in for such plans.

29. **Sub-Component 2.2 – Community-based organizations (CBOs) are equipped to scale up climate-resilient SNRM.** This sub-component will work with local stakeholders and CBOs to improve local-level planning, build their capacity to provide support for climate-resilient SNRM in their river systems, and address other legal and institutional barriers that otherwise inhibit local actors from taking a leadership role in shifting the management of land, forests and other natural resources toward more climate-resilient and low-emission pathways.

    a. **Activity 2.2.1 – Establish, formalize and register CBOs to enable climate-resilient SNRM.** Community organizations play a key role in managing natural resources within the Project Area, and are essential to shifting the management of forests and other resources toward more climate-resilient and sustainable approaches. Such organizations also play an important role in supporting individual households to adopt and sustain climate-resilient practices in their own fields. In order to empower such organizations to provide support at scale, project staff will support them to overcome key institutional hurdles under Activity 2.2.1. Project staff will begin by working with all 750 beneficiary CBOs to ensure they are registered with the relevant authorities, in line with Provincial and Federal Law. This will include CFUGs, collaborative forestry user groups, pro-poor leasehold forestry groups, soil conservation user groups, farmer groups, agriculture cooperative groups, public land forest user group. While existing CFUGs, collaborative forestry user groups, leasehold forestry and private forest users are registered with the Department of Forestry, with the ongoing political transition they will be required to register at either the provincial or local level (Article 11, LGOA 2017). Meanwhile, project staff will also support local governments to formalize recognition of public land forest user groups, comprised of primarily marginalized and highly vulnerable households, to benefit from the sustainable management of public land forests. Many of these groups already exist (particularly where pilot projects have successfully engaged them in the sustainable management of public forests) but are not yet formally recognised. Based on the

local government operation act (2017), local government will have the authority to formalize such groups, having positive impacts on highly vulnerable households. Finally, project staff will help establish 26 networks of CFUGs and private forest owner networks. This will include organizing initial workshops for such groups in each river system, as well as supporting the organization of annual meetings of such groups from PY3-7. This will encourage information exchange among similar groups within each of the targeted river systems. It will also provide important platforms to exchange experiences and lessons learned, and support long-term capacity development of these local institutions.

b. **Activity 2.2.2 – Train CBOs on climate-resilient land use planning, and assist them to mainstream climate-resilient SNRM into their CBO management plans.** Under this Activity, project staff will strengthen the technical capacities of CBOs to better understand climate change risks and how best to respond through climate-resilient SNRM approaches that are catered to their local needs (drawing on insights gained through the CERP process under Activity 2.1.2). Trainings will also include sessions on GESI principles to promote (inter alia) greater involvement of women in climate-resilient SNRM, as well as to promote greater understanding among males CBO members of women's roles. In so doing, CBOs throughout the Project Area will be better equipped to sustain and scale up climate-resilient SNRM practices beyond project closure. To accomplish this, project staff will start by recruiting a service provider to organize a training of trainers (ToT) for Local Resource Persons (LRPs) (on behalf of "CBO Beneficiaries") on climate-resilient land use. LRPs will include women, indigenous peoples and marginalized minority groups (including Dalits), and all trainers will be given additional training on GESI to ensure women and marginalized groups are effectively engaged. Once LRPs have been trained, project staff will organize at least 250 community-level workshops for 750 local CBOs (with 3-5 CBOs per workshop), at which LRPs will train CBO members to improve their awareness on climate change and associated risks, and support them to map out adaptation needs and strategies to build resilience at the local level. Such an approach is based on multi-stakeholder participation, and will promote the empowerment and inclusion of women as well as indigenous peoples, Dalits and members from other marginalized groups. After the initial workshops and trainings, project staff will select the 250 most vulnerable CBOs (in line with the selection criteria and process outlined in Table 6), and recruit a qualified service provider to support these CBOs to develop CBO management plans that effectively mainstream support for climate-resilient SNRM. These plans are expected guide members/households of these 250 CBOs to scale up climate-resilient SNRM within their communities in a coordinated manner.

Component 3: Improving knowledge, awareness and local capacity for climate-resilient SNRM

30. Component 3 will improve awareness of climate change threats and build capacities to continuously monitor climate change and vulnerability at the provincial, local (rural municipality) and CBO level. It will further raise awareness of suitable low carbon and climate-resilient practices that are adapted to local conditions and differentiated vulnerabilities and contexts. It is closely linked with Component 2, with a stronger focus on improving knowledge, strengthening extension services and improving the dissemination of information to support awareness raising and the enhancement of adaptive capacities. This is crucial to the broader process of transforming the way communities manage natural resources within the Project Area.
31. While the project aims to strengthen coordination and the use of networks for vertical and horizontal information and knowledge dissemination, there is also a need to establish a formal mechanism to monitor climate change and natural resource management in the Project Area, and to share knowledge and information, such as templates for operational guidelines, success stories/lessons learned, action plans and strategies, among other documents.Component 3 therefore aims to establish a systematic knowledge and information sharing and monitoring mechanism concerning climate-resilient SNRM: The Churia Knowledge Centre (CKC). CKC will serve as a comprehensive resource including a database of natural resources – including soil, water, ecosystems and forests – to support informed policy-/decision-making and planning, and knowledge-sharing mechanisms. The CKC will include an online digital platform and will further have regional representation within MoITFE´s Science Environment and Climate Change Division in each province, where IT and computer experts are employed. The CKC will play a crucial role in enabling local stakeholders to continue delivering (and even scale up) climate-informed extension services to farmers and other land users after project closure, and in areas in Provinces 1, 2 and 3 that are beyond the Project Area.
32. **Sub-Component 3.1 – Local knowledge on climate-resilient SNRM is enhanced.** This Sub-Component will collect and analyse existing local and indigenous knowledge about climate-resilient SNRM in the Project Area, and support the effective dissemination of this knowledge. In so doing, this Sub-Component will catalyse broader interest in climate-resilient SNRM among communities in the Project Area, thereby reinforcing interest in engaging in Component 1 Activities (the implementation of which will coincide with awareness-raising Activities under this Sub-Component) as well as in scaling up climate-resilient SNRM beyond the scope of the direct support provided by the Project.
    a. **Activity 3.1.1 – Equip LRPs with best practices on climate-resilient SNRM from local experience, including indigenous knowledge.** Under this Activity, project staff will gather local and indigenous knowledge on climate-resilient SNRM, and distil this information into user-friendly guidelines for LRPs and other local stakeholders to train and support CBO members to adopt such practices during and beyond the pro-

ject. To do so, project staff will start by recruiting qualified service providers to organize 105 local/community consultations[9] (about 4 consultations in each of the 26 targeted river systems) to better understand and consolidate traditional knowledge on climate resilience and SNRM. Project staff will then develop a compendium of local and indigenous knowledge based on these local-level consultations, and subsequently organize five provincial-level workshops to review and validate this compendium, drawing on additional information from civil society organizations (CSOs), development cooperation partners and government officials. Once the compendium of local and indigenous knowledge is validated at the provincial-level workshops, project staff will recruit a qualified service provider to develop best practice guidelines for LRPs to assist them in promoting and training CBO members on climate-resilient SNRM. These guidelines will draw in part on the compendium of local and indigenous knowledge, as well as additional information about lessons learnt and best practices from other projects and programmes that have been implemented in the Project Area.

b. **Activity 3.1.2 – Raise awareness on climate-resilient SNRM through local schools, media and intra-regional exchange.** Under this Activity, project staff will organize awareness raising campaigns to promote climate-resilient SNRM, and increase interest in such practices among communities and households living throughout the Project Area. Project staff will start by recruiting a qualified service provider to develop a knowledge dissemination and communication plan. Working with local and provincial governments, NGOs, indigenous people's federations, Dalit organizations, women's organizations and others, the service provider will establish methods for widespread dissemination of project-generated information (including that which is developed under Sub-Component 3.1, as well as the information contained in the CKC established under Sub-Component 3.3) via these entities' respective networks. Project staff will subsequently recruit a service provider to develop curricula on climate-resilient SNRM for local high school students. Project staff will then work with schools in the Project Area to establish student-run eco-clubs and organize 260 awareness-raising sessions for the eco-club members. To further raise awareness within the Project Area, project staff will recruit service providers to develop and broadcast 119 local-level radio programmes on climate change risks and climate-resilient SNRM. These radio programmes will be adapted to the local contexts in which they will be broadcast, drawing on the insights gained from the CERP process (under Activity 2.1.2) and the local and indigenous knowledge gathered under Activity 3.1.1). Finally, to enhance awareness of climate-resilient SNRM among local governments – whose buy-in and support are essential to the longer-term process of transforming land-use practices and natural resource management in the Project Area – project staff will organize 28 exchange visits within Nepal for local govern-

[9] Adapted based on an approach piloted for the Government of Nepal´s study on ´Indigenous and Local Knowledge and Practices for Climate Resilience in Nepal´ (2015).

ment authorities ("Professional Beneficiaries") to demonstrate good practices related to technical implementation of climate-resilient SNRM and extension processes through which to promote such practices.

33. **Sub-Component 3.2 – The extension system is equipped to promote climate-resilient SNRM.** This Sub-Component will ensure that recent projections on climate change impacts and appropriate response measures (including local and indigenous knowledge) are integrated into the extension system in the Project Area. It will ensure that extension workers and trainers are equipped to promote climate-resilient SNRM, and can scale up the provision of climate change-informed extension services to ensure local communities, farmers and other land users are able to benefit from such services during and after the project.

    a. **Activity 3.2.1 – Develop 10 modules on climate-resilient SNRM to be used by extension workers, including in the farmer field schools.** This Activity will ensure that government extension workers have locally-adapted training modules to be used when training farmers and other land users to adopt project-promoted climate-resilient SNRM practices. Project staff will develop 10 training modules to be used by government personnel and extension workers during and beyond the project, including for trainings on farmer field schools. Project staff will also recruit a qualified service provider to translate these modules in local languages to ensure they cater to local needs. Project staff will ensure these modules draw on the feasibility work done for this project, as well as the insights gained from the CERP process (under Activity 2.1.2) and the collection of local and indigenous knowledge (under Activity 3.1.1). The modules will cover sensitisation and extension processes for rural communities and beneficiaries including implementation planning, self-learning, quality assurance and incentive structures, and will support the facilitation of all key interventions under Component 1.

    b. **Activity 3.2.2 – Enhance and deliver quality extension services on climate-resilient SNRM to households.** The extension system plays a crucial role in shaping how farmers, forest users and communities use land and other natural resources in the Project Area. To promote lasting and sustainable behavourial change, it is therefore essential to scale up the delivery of high-quality, climate-informed extension services in all 26 targeted river systems. Under Activity 3.2.2, project staff will therefore organize 78 training events during which they will train government extension workers and LRPs ("Professional Beneficiaries") to understand and apply the 10 training modules developed under Activity 3.2.1. In total, these trainings are expected to benefit approximately 2,340 extension workers and LRPs (about 30 at each of the 78 training events). Under this Activity, the project will also cover the financing of improved and climate-informed extension services within the Project Area. MoFE co-financing will be used to engage the services of provincial-level extension workers (on secondment with MoITFE and MoALMC) to specifically support the delivery of climate-informed extension modules and support under the BRCRN project. These extension workers will directly support delivery of project-financed trainings and extension & advisory services under Component 1. They will also provide ongoing advice, guidance and support to CBOs throughout the project implementation

period to enable the continued adoption and use of climate-resilient SNRM practices promoted by the project, including among households who were not selected by their CBOs to directly participate in formal trainings organized by the project. By building the capacity of local extension workers and drawing on their existing insights and networks, the project expects to generate high adoption rates among CBOs. This approach will also ensure that the provincial governments are well equipped to continue providing climate-informed extension services in the Project Area after project closure – thereby increasing the prospects for scaling up and out that are so important to the broader process of sector transformation that this project aims to set in motion.

c. **Activity 3.2.3 – Establish and operate the Churia Knowledge Centre (CKC) in each province to enable continuous delivery of climate-informed extension services and planning, and to monitor implementation and results of CERPs and CBO management plans.** To effectively provide climate change-informed extension and advisory services beyond project closure, the government requires a user-friendly platform to store relevant knowledge and training materials, as well as the latest data and tools to track evolving climate change impacts and the state of natural resources within the Project Area. Project staff will therefore recruit qualified service providers to design and establish the CKC. This online platform will include a database of natural resources within the Project Area (including soils and forests), as well as provide a centralized and easily-accessible repository for project-generated information, knowledge, guidelines and materials. In addition, the CKC will be used to facilitate participatory monitoring of the impact of project Activities (as described in Section H.2). The service providers will also establish regional CKC hubs in the MoITFE offices in provinces 1, 2 and 3, specifically within the Science, Environment and Climate Change Division. This platform will not only underpin the delivery of climate-informed extension services, but will also enable government and other stakeholders to continuously monitor the evolving impacts and needs in the 26 targeted river systems, and update relevant plans and support programmes/services accordingly.

   Once the CKC is established, project staff will organize one national training and three provincial trainings to build the capacity of Professional Beneficiaries on the CKC online platform and regional hubs. The three provincial trainings will focus in particular on building the capacity of MoITFE staff in each of the provincial CKC hubs to operate the CKC. To complement this support, project staff will develop manuals, protocols and guidelines will be developed to guide provincial staff on CKC knowledge generation, gathering and management, including after project completion. This will include the development of Standard Operating Procedures (SOPs), which will be agreed with MoITFE to ensure the provincial CKC hubs are well operated and maintained beyond project closure. Project staff will also train relevant MoITFE staff on these protocols, guidelines and SOPs in PY7 to build their capacity to continue operating the CKC, and ensure it fulfils its role as a repository to support climate-informed extension services and planning into the future.

2.2 Project location

34. The BRCRN project area consists of 26 priority river systems that were identified as having ´high´ or ´medium´ priority under the vulnerability assessment (Figure 4; Table 1).[10] These river systems cover 720,620 ha in total. Excluding settlements and bodies of water, the total area is 702,011 ha. These river systems are located in Provinces 1, 2 and 3, covering the former districts of Jhapa, Ilam, Morang, Sunsari, Udayapur, Saptari, Siraha, Dhanusha, Mahottari, Sarlahi and Sinhuli.[11]

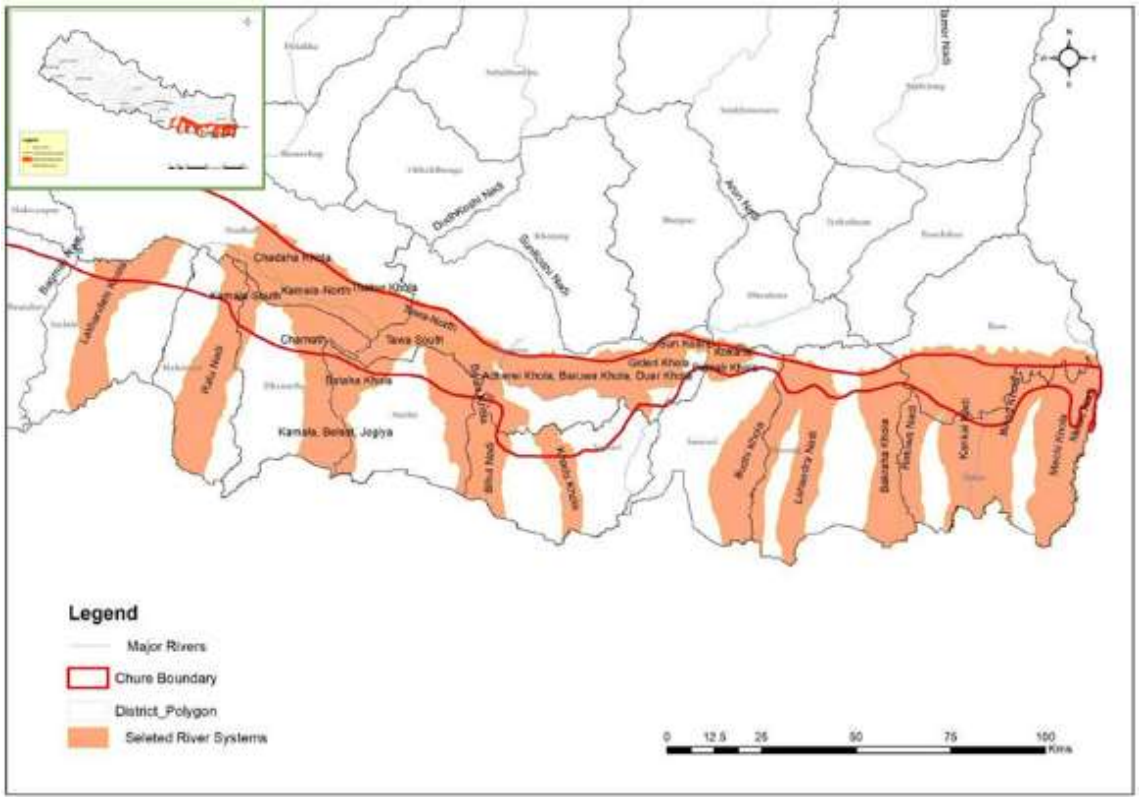

Figure 4: Selected river systems for the BRCRN project*

**Note: The red boundary shows the core BRCRN intervention zone within the river systems including the Churia hills, Bhavar, Dun and upstream Terai*

[10] An overview of the vulnerability assessment procedure can be found in Annex 5. More detailed information can be found in the BRCRN feasibility study and funding proposal.

[11] Nepal is currently undergoing a transition from a constitutional monarchy to a federal democratic republic, involving major restructuring of regional and local level institutions – including the establishment of seven provinces and the devolution of power over natural resource management to the local level. Formerly Nepal was organized into districts.

Table 1: Overview of the selected 26 river systems for the BRCRN project

#	Name of River System (RS)	Risk rating	(Former) Districts Covered by RS	RS Total Area (ha)	RS Area without settlements and water bodies	Population 2011*	Annual Deforestation Rate 2000-2015 (%)	Forest Cover 2015 (%)	Degraded Area (%)	Area under Slope Instability (%)	Percentage of Settlements located in the Churia Hills (%)	Area prone to flooding (%)	Area in Churia Hills (%)	Population Density Increase 2001-2011(%)
1	Kokaha	High	Sunsari	3312	3309.472707	5,090	3%	44%	9%	66%	82%	3%	77%	5%
2	Gideri Khola	High	Udayapur	11694	11596.27167	13,549	1%	61%	23%	24%	48%	8%	61%	35%
3	Patnali Khola	High	Sunsari	5,185	4,994	8,912	1%	64%	5%	16%	53%	5%	57%	10%
4	Thakur Khola	High	Sindhuli	2423	2422.51262	6,957	2%	71%	7%	41%	91%	2%	83%	38%
5	Sun Koshi	High	Upayapur	4,829	4,818	6,657	3%	72%	3%	66%	71%	0%	72%	32%
6	Chadaha Khola	High	Sindhuli	16,118	16,083	34,833	2%	63%	2%	39%	85%	4%	87%	35%
7	Kamala-North	High	Sindhuli	17,070	16,775	35,478	1%	55%	1%	18%	41%	16%	61%	47%
8	Tawa-North	High	Sindhuli	18,564	18,516	43,667	1%	57%	1%	12%	50%	10%	66%	29%
9	Tawa-South	High	Sindhuli	9,119	8,970	12,282	1%	66%	9%	10%	47%	12%	60%	41%
10	Kankai Nadi	High	Ilam	56,578	55,657	164,140	2%	29%	0%	24%	21%	17%	31%	17%
11	Ratuwa Nadi	High	Ilam	36,689	35,396	174,593	1%	21%	0%	15%	19%	17%	27%	41%
12	Adherei Khola, Baruwa Khola, Duar Khola	High	Udayapur	37,146	36,516	97,233	1%	63%	0%	14%	24%	11%	44%	36%
13	Lakhandehi Khola	High	Sarlahi	47,611	46,006	284,033	1%	24%	0%	5%	25%	13%	24%	20%

#	Name of River System (RS)	Risk rating	(Former) Districts Covered by RS	RS Total Area (ha)	RS Area without settlements and water bodies	Population 2011*	Annual Deforestation Rate 2000-2015 (%)	Forest Cover 2015 (%)	Degraded Area (%)	Area under Slope Instability (%)	Percentage of Settlements located in the Churia Hills (%)	Area prone to flooding (%)	Area in Churia Hills (%)	Population Density Increase 2001-2011(%)
14	Kamala-South	High	Sindhuli	14,854	14,673	27,575	1%	62%	3%	53%	2%	13%	52%	60%
15	Biring Khola	Medium	Ilam	26,952	26,485	106,496	2%	27%	1%	19%	11%	21%	18%	14%
16	Balan Khola	Medium	Siraha	52,255	50,921	179,215	0%	40%	2%	5%	33%	16%	51%	29%
17	Charnath	Medium	Dhanusa	8,485	8,351	22,053	1%	51%	0%	21%	4%	13%	61%	38%
18	Bataha Khola	Medium	Udayapur	12,327	11,827	67,387	1%	15%	5%	3%	0%	13%	16%	40%
19	Budhi Khola	Medium	Sunsari	62,057	59,389	456,343	1%	18%	0%	6%	8%	5%	10%	26%
20	Lohandra Nadi	Medium	Morang	36,111	34,773	171,347	1%	22%	2%	4%	5%	7%	10%	10%
21	Kamala, Belsot, Jogiya	Medium	Dhanusa	53,042	51,102	242,845	0.40%	30%	1%	14%	2%	25%	31%	30%
22	Ratu Nadi	Medium	Mahottari	58,539	56,841	391,732	1%	18%	0%	11%	0%	16%	15%	13%
23	Mechi Khola	Medium	Ilam	59,326	58,292	310,479	2%	20%	0%	8%	7%	10%	8%	18%
24	Bakraha Khola	Medium	Ilam	38,448	37,534	161,374	1%	22%	1%	9%	8%	15%	11%	6%
25	Bihul Nadi	Medium	Saptari	14,542	14,144	87,611	1%	6%	2%	1%	0%	6%	8%	13%
26	Khado Khola	Medium	Saptari	17,344	16,621	104,367	0.30%	25%	11%	3%	0%	18%	26%	14%

Source: Feasibility study for the BRCRN Project

**Note: Population is determined by the aggregated ward-level population statistics for those wards located within each river system. The most recent ward-level data available is from 2011.*

2.3 Project beneficiaries

35. The BRCRN project will include some measures focused on mainstreaming climate resilience into provincial policies and plans at the provincial level, and institutional strengthening for provincial level authorities in the same provinces. Such measures will benefit over 15.4 million people living within these provinces.

36. The population in the core BRCRN intervention area (i.e. within 26 river systems) is over 3,216,428 - around 11% of Nepal´s population. There are 670,052 households in the project area, with an average household size of 4.8 members – which is slightly larger than the national average (4.5 people/ household).[12] There are more female inhabitants than male inhabitants in the proposed project area, where women make up 51% of the population.[13]This is partly due to migration trends, where 25% of households in the project area are considered '*absentee households*,' with household members (88% of which are male), migrating to larger cities or neighboring countries for economic purposes.[14]Diverse cultural, ethnic and caste groups inhabit the project area:[15] Indigenous Peoples (Janajati/ Adivasi; 31%), Terai-Origin Madheshi peoples (28%), hill-origin high caste (19%), Terai Dalits (9%), Hill Dalits (4%) and Muslims (5%), and others (4%). The majority of community-based organizations have heterogeneous membership in terms of caste, ethnicity and sociocultural backgrounds.

37. At least 77% of inhabitants of the BRCRN core intervention area are from groups who are considered to have experienced some form of inter-generational socio-economic exclusion (Indigenous peoples [*Janajati/Adivasi*], Dalits, Madheshis, Muslims, refer to the following note on vulnerability and exclusion), thus highlighting the importance of the project to build the resilience of some of the most vulnerable people and regions.

Note on Vulnerability and Exclusion

38. **Vulnerable groups** are defined as "…*groups of people whose disadvantage is situational rather than structural. Their depravations are as a result of a particular situation (in some cases only temporarily) that has reduced their ability to withstand shocks rather than their more deeply embedded social identity*".[16]

39. Local communities, ecosystems and ecosystem services are expecting ever increasing exposure to climate change induced temperature rise and precipitation variability in entire country. The Churia region is expected to be impacted most because of steep mountain slopes, fragile soil, poor moisture regime, and high disturbance factors. Increased exposure, therefore, would increase the risk of climate-led hazards such as flooding, landslides, and droughts; which are expected to worsen unless prevailing unsustainable and inefficient land use and natural resource management practices are halted. BRCRN inhabitants are living in

[12]CBS 2014
[13] Ibid.
[14] CBS 2014; Based on district-level data
[15] CBS 2014 – based on VDC level data (Ward level data unavailable for 2014; and 2011 ward-level data does not include information on caste/ethnicity/cultural groups.
[16] GESI Working Group 2017

26 of the most vulnerable river systems in Nepal, where exposure to flooding, landslides and drought is becoming increasingly common with climate change, and accelerated by unsustainable natural resource management. The impacts of climate change and unsustainable NRM are not only felt by those living within the project area, but both nationally and internationally. With the Terai region serving as the grain-basket of Nepal, and the Bhavar and Churia hills serving as the water reserve for the Terai and downstream areas in India, the Churia region plays a critical role in terms of both national economy and integrity, as well as transboundary-water management.

40. While all project beneficiaries live in highly and moderately vulnerable river systems, there is differentiated vulnerability within the river systems, where some inhabitants are considered more vulnerable due to their socio-economic situation, location of settlement (e.g. in high risk areas for flooding or landslides), or due to inter-generational exclusion/ marginalization (see following note on excluded/ marginalized groups), among other factors. In terms of exposure, over 700,000 inhabitants of the project area (22%) live in areas that have a high risk of flooding during the monsoon season, whereas 94,000 inhabitants (3%) live in areas that are considered high risk for erosion and landslide. Unsustainable land use practices contribute to growing vulnerability and exposure to climate risks.[17]

41. **Excluded groups** are defined as "…those who have experienced inter-generational discrimination and have been systematically excluded due to economic [situation], caste, ethnicity, gender, disability, sexual orientation, and geographical reasons".[18] This includes groups including women, poor people, Dalits, Adivasi/ Janajati, Madheshis, Muslims, people with disabilities, third-gender and people living in remote areas.[19] Women comprise 51% of the project beneficiaries. Socially-excluded groups comprise over 77% of the project population (including Indigenous Peoples 31%, Terai-Madheshi 28%, Dalits 13% and Muslims 5%).

42. There are differentiated vulnerabilities within members of excluded groups as well. Within the project consultations it was mentioned that women, poor households, indigenous peoples and Dalits are particularly vulnerable to climate change. These groups are often more vulnerable to climate change and climate-induced natural disasters for various reasons, due to the barriers they face as a result of inter-generational discrimination (social and economic exclusion) and socio-cultural barriers, among other factors.[20] Many of these groups are heavily dependent on natural resources (agricultural land, forests) to maintain their livelihoods, but often lack the resources and activities to invest in SNRM – often leading to a cycle of poverty and environmental degradation which exacerbates their vulnerability to climate change. In addition, often poor households and highly marginalized groups (especially Dalits) live in high risk areas that are often along river beds or in susceptible landslide or erosion areas.[21]

[17] PCTMCDB 2017
[18] GESI Working Group 2017
[19] Ibid.
[20] Social Inclusion Action Group 2015; Maharjan et al. 2017
[21] BRCRN Consultations; Maharjan et al. 2017

43. Climate change will have a disproportionate adverse impact on these excluded communities, and thus it will be important that project activities empower and ensure the engagement of these particularly vulnerable groups. While all project beneficiaries can be considered vulnerable, the project has been designed to include activities which can be targeted to diverse beneficiaries, including excluded groups, to ensure that differentiated vulnerabilities, contexts, priorities and needs are taken into consideration to increase people´s resilience and adaptive capacities.
44. More information on group-specific challenges, as well as proposed measures to promote gender equality and social inclusion within the context of the BRCRN project can be found in the gender assessment and gender action plan (separate documents), and the Indigenous peoples and social inclusion planning Framework in Section 8.

45. The main project beneficiary will be local community-based organizations.[22] In terms of direct beneficiaries, the project will target at least 750 local community-based organizations. Based on average membership figures in the project area, this will equate to at least 173,160 households representing over 831,168 people (~26% of inhabitants in BRCRN project area). At least 50% of beneficiaries will be women, and the project will promote proportional representation of indigenous peoples and marginalized groups. All 3.2 million people living in the BRCRN project area will indirectly benefit from the project through the elaboration of a climate-resilient strategy for the BRCRN area and the elaboration of action plans for each of the 26 vulnerable river systems. In addition, local capacities will be built on climate-resilient land use planning and management, which will have a long-term impact to continue to build the resilience of communities within the Churia region of Nepal.
46. The following Table provides a brief overview of the different user groups to be included within the project:

Table 2: Overview of community-based project beneficiaries

Beneficiary	Brief Description
Community Forest User Groups	▪ The community forestry system was established in Nepal in the late 1970s, and is defined as the control, protection and management of forest resources by the rural communities who depend on the trees and forests for their livelihoods.[23] Community forests, and their association community forest user groups, have significant control in the management and use of forest resources as provisioned in the Community Forest Act of 1993. As of June 2013, 18,133 community forest user groups have been established, with a total membership of 2,237,195 households and covering a total of 1,700,048 ha of forest area.[24] This represents a 99% increase in forest area under

[22]Community-based user groups will include: community forest user groups (CFUGs), collaborative forestry user groups, pro-poor leasehold forestry groups, soil conservation user groups, farmer groups, agriculture cooperative groups, private forest users and public land forest user groups. Specific beneficiary groups will be identified within Activity 1.1.
[23] Gilmour and Fisher 1991.
Joshi,
[24] MoFSC, 2014

Beneficiary	Brief Description
	community control since 2002, and the promotion of Community forests and community forest user groups continues to be a priority of the Ministry of Forests and Environment.[25] ▪ Community forest user groups are made up of members of a community coming from a variety of economic backgrounds. Monthly membership fees, fines and penalties, along with donations from various outside groups, are used to raise the group income of a community forest user group, which can then be used to implement development activities ▪ Community forestry has significantly contributed to the protection of forests in the middle hills of Nepal.[26] Most of the CFUGs are able to manage forests and generate a group fund. Such funds are being used for local community development activities such as school building construction, road and trail maintenance and construction; provide irrigation facilities, constructing community buildings, etc.[27] CFUGs have developed policies to support poor and disadvantaged members in a community in a variety of ways. For example: special preferential quota for membership of the executive committee and benefit sharing for Dalits and poor, obligatory 50 percent women participation in all executive committee, and providing funds to support income generating activities. In some cases, CFUGs have funded poor students for their education and health. ▪ The Federation of Community Forest Users' Groups in Nepal (FECOFUN) is a federated body established in 1995 to represent the interests of CFUGs and community forestry practitioners at the national level. It has chapters in all of Nepal's forested districts and has newly-established province-level chapters in all of Nepal's seven provinces. FECOFUN is recognized nationally as the representative body for CFUGs and the project will therefore engage with FECOFUN in all matters relating to the representation of CFUGs in project activities and management structures.
Farmer Groups and Soil Conservation User Groups	▪ Agriculture and Livestock development office organize farmers to develop collective plans and implement Agriculture and livestock improvement activities in their communities. Such farmers groups are informal and often targeted to certain commodities focused pocket groups and terminate after project activity is over. However, success achieved by such groups from collective decision often motivates them to emerge as registered farmer cooperatives. ▪ Soil conservation user groups are formed by District soil conservation offices to involve local communities in conservation related activity implementation. These groups are not officially registered though but play important role in developing soil conservation plan, activity implementation, and maintenance.
Leasehold forestry Groups	▪ Leasehold Forestry first appeared in Nepal through the Hills Leasehold Forestry and Forage Development Project (HLFFDP) in 1992, with the objectives of alleviating poverty and improving the ecological conditions of the hilly region. ▪ Leasehold forestry emerged as a result of poor households being excluded and unable to benefit from community forests and is designed to lease degraded forest lands to groups of poor households for their exclusive use, leading to both forestland regeneration and income generation. Although HLFFDP was a 10 year project introduced in 10 districts by the government of Nepal with support from IFAD, ADB, and FAO, after seeing the resulting benefits, the Government of Nepal continued the leasehold forestry mechanism.

[25] Ibid.
[26] Kanel and Dahal, 2008
[27] Dahal and Chapagain, 2008

Beneficiary	Brief Description
	▪ Although leasehold forestry for poor is not visualized in the Forest Act of 1992, the Forest Regulation of 1995 makes a strong legal backing for Leasehold forestry and makes a special provision for the leasing of forests to disadvantaged groups. Beneficiaries of leasehold forestry are households living under the poverty line with limited land and/ or annual income. ▪ Leaseholder forest user groups are arranged by grouping several of these households together and are then allocated land. Land can only be used for leasehold forestry if the community is not willing to take parts of it into the community forest and are often shrub land, land recovered from forest encroachers or natural calamities, forests with limited crown cover or areas vulnerable to soil erosion.[28] ▪ Despite its limited coverage, leasehold forestry has become popular amongst poor households because it has helped to improve forest condition and contributed to the livelihoods of the members. However, due to procedural complexities and limited ability of leasehold groups to access financial and technical assistance from the involved organizations the progress in terms of scaling up of this model has so far been relatively slow compared to the expansion of community forestry. Furthermore, the progress is constrained as most of the forests allocated to leasehold groups are degraded and demand intensive and costly restoration efforts. ▪ As of June 2013, a total of 7,413 households are households who are living below the poverty line, leading to the management of 42,773 hectares of forest.[29] The leasehold forestry programme has been implemented in 39 districts and have contributed to restoring degraded forestlands, conserving biodiversity and alieving poverty.
Collaborative Forest Management Groups	▪ Collaborative forest management (CFM), a joint forestry management strategy between government and community, was introduced in Nepal through a cabinet decision in May 2000 in response to the continued deforestation within the Terai region.[30] CFM designates the management modality for 'contiguous large blocks' of productive Terai and Inner-Terai national forests.[31] ▪ Although the community forestry strategy had taken hold in the hilly regions of Nepal, leading to increased forest conservation in these areas, the Terai area remained mostly under government management and experienced severe forest degradation through programs such as the malaria eradication programs and East-West highway construction. ▪ The argument for CFM creation to manage forests in the Terai despite already existing CF systems was four-fold. First, it was argued that CF and government-managed forest modalities were not sufficient in patrolling and preventing forest encroachment and crime in the high-value forest systems of the Terai. CFMs were, therefore, needed to increase forest productivity through professionally managed silvicultural interventions and forest management to both fulfil the need for forest products and conserve biodiversity, while also promoting local livelihoods and poverty reduction. Another argument was that 'scientific' management of these forests was lacking. Third, CFs were argued to be insufficient to provide equal benefits to the geographically distant and more traditional Madheshi forest users of the Terai and to ensure that any groups that may have been excluded in the CF scheme are included. Finally,

[28] Laudari *et al.,* 2013.
[29] MoFSC, 2014
[30] Bampton *et al.,* 2007
[31] Bampton *et al.,* 2007

Beneficiary	Brief Description
	CFMs are intended to serve as a link between community forests and the local government, and in this way CFMs ensure that the local government also benefits from forest management. The local government is included as a stakeholder in forest management and thus CFM generated income can also be used for local development activities. Benefits made by CFMs are divided, with 25% to the district level for local development projects and 75% to the central government.[32] ▪ The key objectives of collaborative forestry are to meet local demand of users and demand for commercial use of forest products, and to reduce poverty by creating employment while enhancing biodiversity. Local residents living within 5 km from the forest are considered as primary users of collaborative forestry. Collaborative forestry also follows the principles of participatory forest management and has been trying to maintain equity by providing preferential treatment to poor households (discounted price on timber purchase etc.), and encouraging women to participate in decision making. As the regime is relatively new, the economic, social and environmental outcomes are yet to be understood. ▪ According to DoF, since 2004 thirty collaborative forests, covering a total land area of 73,364 hectares in twelve Terai districts have been established.[33] ▪ The Association of Collaborative Forest Users Nepal (ACOFUN) is a federated body established in 2004 to represent the interests of CFM users' groups and collaborative forestry practitioners at the national level. ACOFUN is recognized nationally as the representative body for CFM users and the project will therefore engage with ACOFUN in all matters relating to the representation of CFM users in project activities and management structures.
Private Forest Users	▪ Private forest users include all trees and forests growing on private lands, including leasehold forests that are leased by private institutions for commercial raw material production. The cultivation of NTFPs on private lands also fall under this category.[34] ▪ The area of land falling under private forests has increased throughout the country and in August 2013, there were 2,458 registered private forests accounting for a total of 3,329,885 trees covering an area of 2,361 ha of land. Between 2000 and 2013, there has been a 9.3% increase in the number of trees falling within private forests and a 12.9% increase in private forest area.[35] ▪ The scale of private forests in Nepal is insignificant so far, making up only 0.01% of total forest area, but slowly people are being encouraged toward establishing registered private forests as per Forest Act 1993. Some have started agroforestry within their private agriculture land or renting other people's land for private forestry with an arrangement of having tree tenure. In any case, private forests provide direct economic benefits to the individual as 100% benefit goes to the private owner. ▪ These days' farmers with abandoned agricultural land are shifting their priority from agriculture farming to tree farming due to a shortage of labour for farming and better income from trees.[36] The complicated process of private forest registration at District Forest Office and regulatory barriers often demotivate private landholders from growing forest trees in their farm land. Registration of private forestry is a legal requirement to have rights to harvest timber and to sell timber commercially. Unlike

[32] Rai *et al.,* 2017
[33] FMS NFD/ DOF 2018
[34] MoFSC, 2016.
[35] MoFSC, 2014.
[36]Gilmour 2016

Beneficiary	Brief Description
	the community, leasehold and collaborative forestry models, no comprehensive studies have been undertaken to find out the impacts of private forests. ▪ Nevertheless, increasing interest from people indicates that private forests are perceived to contribute to livelihoods and income through employment generation and sale of forest products. In addition, private forests could help in maintaining local environmental condition. ▪ Within the BRCRN project, private forest users will be provided with technical support under Activity 1.14. ▪ Associations of private forest users in Nepal include the Association of Family Forests Owners Nepal (AFFON), which was established in 2015 and is active in 45 districts, including all districts covered by this project. It has a national assembly and district-level committees. The project will therefore consult with AFFON as a matter of course, with respect to activities related to private forests, and to representation of private forest owners in decision making processes and project management structures.

47. An estimated 66% of BRCRN inhabitants are literate (comparable with the national average), however there are discrepancies between within the project area (Figure 5).[37] For instance inhabitants in Ilam and Jhapa have literacy rates above 75%, whereas inhabitants of Mahottari and Sarlahi districts have literacy rates around 46%.[38]On average, 34% of project inhabitants are unable to read and write (45% of women and 27% of men), thus approaches must be used to build capacities, raise awareness and promote the leadership and engagement of communities within the BRCRN project (cf. Section 6).

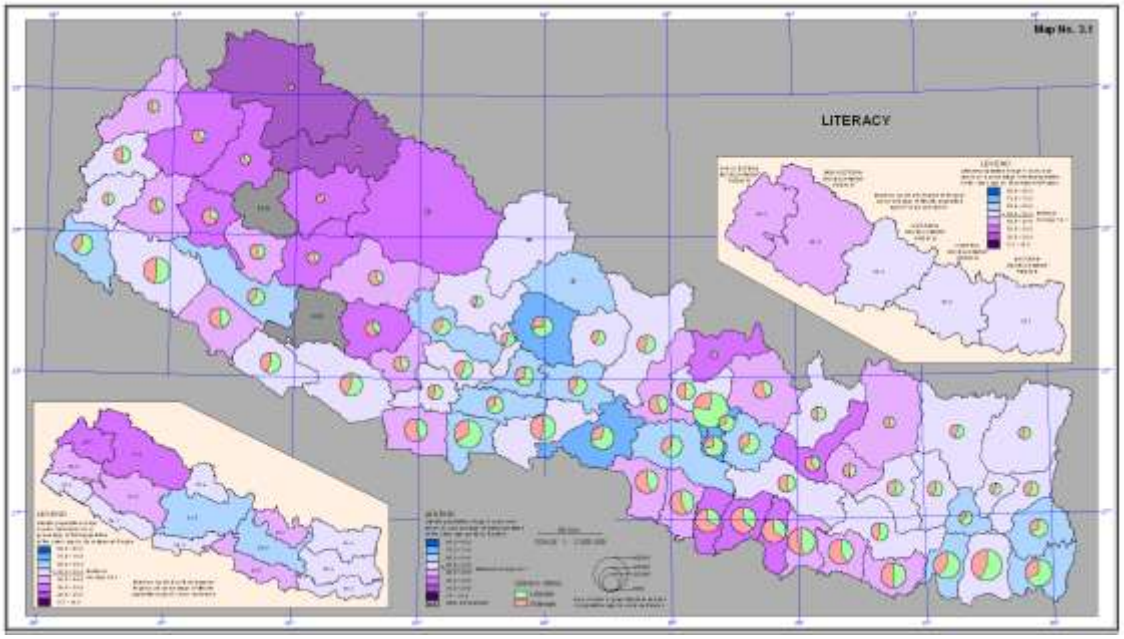

Figure 5: Literacy rates in Nepal

Source: CBS 2011; http://cbs.gov.np/index.php?route=information/gis_maps

[37] CBS 2011, based on district averages

[38] CBS 2011

2.4 Project implementation arrangements[39]

48. The institutional framework for this project will engage a wide range of stakeholders, ensuring their sustained engagement from project design to implementation, to monitoring and evaluation (M&E).

49. Nepal´s new governance structure envisions three tiers of Government structure (i.e. local, provincial, national), with fully devolved authority to local government to conserve, monitor, regulate and use natural resources within its jurisdiction. To avoid any conflict or confusion or roles between different levels of the government or with other non-governmental stakeholders, the institutional arrangement for this project establishes operational clarity on the scope, authority and responsibilities of the government at different levels, as well as their cooperation structure with CBOs and other stakeholders.[40] The following Figure provides an overview of the proposed project implementation arrangements:

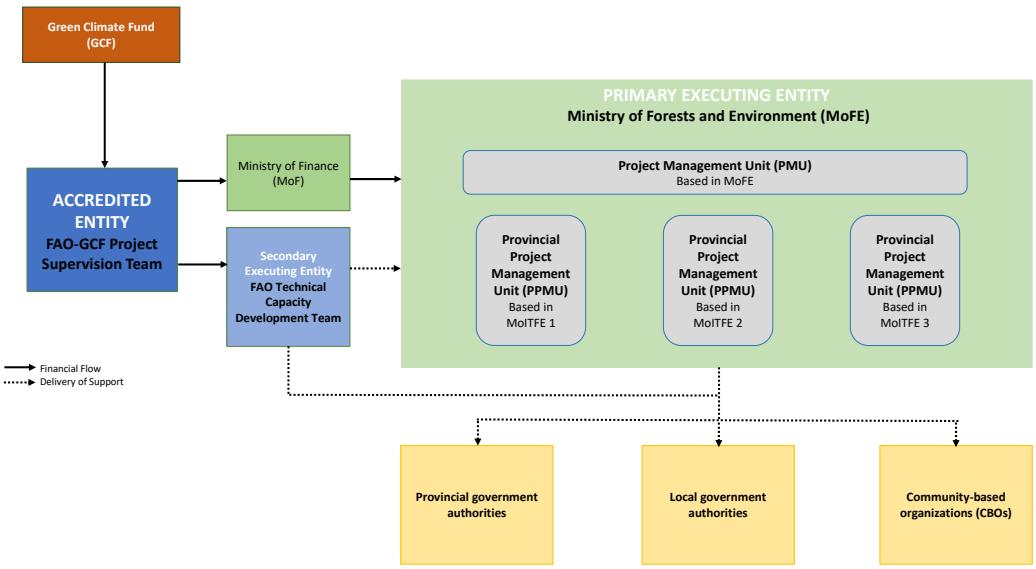

Figure 6: Overview of project implementation arrangements

Project Coordination and Management

50. In its role as executing entity, MoFE will establish a national **Project Steering Committee (PSC)** chaired by the Secretary of MoFE. This committee will be comprised of joint-secretary level representative members from relevant federal ministries, provincial ministries, FAO (in its role as Accredited Entity), as well as a member secretary of PCTMCDB. The gender focal point of MoFE will also participate in the PSC. The PSC will also invite representatives from relevant CSOs (including those representing Indigenous Peoples, Dalits, women, Forest and

[39]Additional information on the institutional arrangements can be found in the Feasibility Study
[40] LGOA 2017, Article 11 (3) (4) clarifies the role of local governments in Schedule 9; however, these provisions have yet to be translated into provincial and federal acts.

Water Users, Farmer Cooperatives, among other), the private sector and academia as necessary to discuss thematic issues as well as partnership opportunities. PSC´s main responsibility will be to provide strategic guidance and support coordination among government institutions, and will provide general oversight for the implementation of the project. PSC will further be responsible for revising and approving annual working plans and budgets, and mobilizing relevant technical expertise where necessary. They will approve the Project Implementation Manual (PIM) and Project Reporting Guidelines (PRG) during the inception phase.PSC meetings will be held twice a year - prior to annual budget planning and after the closure of fiscal year.

51. MoFE will also establish and host a **Project Management Unit (PMU)** at the federal level. It will be headed by a full-time National Project Director (NPD), appointed by MoFE in consultation with the PSC, and will include three provincial-level support teams, termed **Provincial Project Management Units (PPMUs)** – one in each of Provinces 1, 2 and 3. The PMU will be responsible for implementation of project activities according to annual work plans and budgets submitted to, and approved by, the PSC. The PMU will also prepare and submit to the PSC annual progress reports to track performance against project targets, and against the targets of the Gender Action Plan, Indigenous peoples and social inclusion planning Framework and ESMF. In the inception phase, the PMU will develop a detailed work plan and monitoring framework for the full project duration, and the PIM and PRG, for submission and approval by the PSC. These will govern the roles of all responsible institutions and project stakeholders, including in terms of procurement, monitoring, reporting and auditing.Close coordination will be ensured between the PMU and the Gender Focal Point within MoFE, as well as other government institutions responsible for social inclusion (e.g. Ministry of Women, Chidren and Social Welfare, the National Women´s Commission, Ministry of Federal Affairs and General Administration (MoFAGA) and its Dalit and Adivasi/Janajati coordination committees; National Commissions for Women, Dalits, Indigenous Nationalities, Madheshis, Muslims, Tharus; and the National Inclusion Commission; National Foundation for the Development of Indigenous Nationalities; and the Ministry of Women, Children and Senior Citizens (MoWCSC).

52. The PPMUs will be hosted in the provincial Ministries of Industry, Tourism, Forests and Environment (MoITFE), but will remain accountable to the PMU under MoFE at the federal level, and operate according to the regulations and guidance set out in the PIM and PRG. PPMUs will be responsible for coordinating the development of provincial work plans, in consultation with the Provincial Coordination Units (see below), for delivery and oversight of project activities at the province and local level, for development of quarterly progress reports and their submission to the PMU.

53. In addition to the above project coordination and management structures, FAO will establish a Technical Capacity Development Team to support effective and technically sound delivery of the BRCRN project. The **FAO Technical Capacity Development Team** will serve as a Co-Executing Entity delivering targeted technical assistance and maintaining responsibility and/or controls over international tenders and (non-expendable) procurement requiring expert/requiring technical oversight. This team will function independently of the FAO-GCF project supervision team (described above) to ensure FAO's Accredited Entity and Executing Entity functions are kept separate from one another. Detailed information on the specific

activities and budget items for which the FAO Technical Capacity Development Team will be responsible is included in the detailed budget in Annex 3 – Integrated Financial Model.

Multi-stakeholder Coordination Units

54. Provincial Coordination Units (PCUs) will be established in each of the three provinces, and will be chaired by the Secretary of the provincial MoITFE. Each PCU will include representative members (Under Secretary level) from other relevant provincial ministries,41 departments, CSOs (including women´s organizations, indigenous people's federations and representatives, and Dalit organizations, among others) and private sector representatives, with the coordinator of the PPMU acting as PCU Secretary. PCUs will serve as multi-sectoral and multi-stakeholder committees to develop proposals for provincial work plans, with guidance from the PMU and PPMU and according to the PIM and PRG. The PCU will convene on a quarterly basis to review project progress against provincial targets, to ensure coordination of project activities with those of provincial institutions and with provincial policy and legislative priorities, and to communicate provincial-level concerns and issues to the PMU. The PCUs are a key part of the project's exit strategy. During the second half of the project timeframe, and based on the recommendations of the independent mid-term evaluation, the PPMUs will work together with provincial stakeholders towards handover of project technical and operational support structures to the PCUs.

The following is a brief overview of key actors and entities for project management:

55. **FAO** will be the accredited entity for the project. FAO will provide oversight to the GCF project and channel the resources to the Federal Ministry of Finance (MoF). FAO will maintain close contact with MoFE, PSC and PCU members and federal and provincial PMUs, while also supporting monitoring, evaluation and reporting of project activities.
56. The **Ministry of Forests and Environment (MoFE)**[42] will be the co-Executing Entity for the proposed project from the government side. MoFE is responsible for the conservation, development, use, and sustainable management of forests (which is the predominant land use in the Churia). The Ministry is also in charge of REDD+ in Nepal, and hosts the REDD+ Implementation Centre (RIC). In addition, MoFE has experience and expertise in successfully implementing projects related to the main thematic areas of intervention under this project, for example, SNRM and ecosystem restoration in the Churia region. MoFE is thus well placed to play a central role in the delivery of the proposed project. Through the Project Steering Committee (PSC), the ministry will coordinate with other relevant sector Ministries to ensure synergies for transformational change.
57. The **Ministry of Finance (MoF)** is the National Designated Authority (NDA) for the GCF in Nepal. They will channel project finance to the executing entity (MoFE) for project imple-

[41] The Ministry of Social development will support coordination and steering on topics related to GESI within the project areas.
[42] Formerly the Ministry of Forests and Soil Conservation

mentation, facilitate coordination with the GCF, and provide oversight to the implementation and management of the project as the NDA to the GCF. The Ministry has long-standing experience managing project finance from international development projects.

58. The **Ministry of Agriculture, Land Management and Cooperatives (MoALMC)** will play an important role supporting interventions targeted at the agricultural sector. It is the Ministry that oversees agricultural land management, the establishment of cooperatives and agricultural extension, which will have an important role in planning processes for climate-resilient SNRM, the implementation of climate resilient land use practices in the agricultural sector, and in supporting the activities within Output 3. The Ministry has successfully implemented several large projects with funding from international donors and technical assistance from FAO, such as the Nepal component of the Global Agriculture and Food Security Project (GAFSP) and the Climate Change Adaptation in Agriculture Project funded through the Least Developed Countries Fund (LDCF) window of the GEF. Together with FAO and other development partners, the Ministry has also developed and implemented Nepal's Agriculture Development Strategy (ADS), and the Food and Nutrition Security Plan of Action (FNSP). Other emblematic programs of the ministry include the High Value Agricultural Project In Hill and Mountains (HVAP), the Decentralized Science, Technology and Education Program, the Value Chain Development Program, and the Innovation and Agro-entrepreneurship Program.
59. The **Ministry of Energy, Water Resources and Irrigation (MoEWRI)**[43] will support interventions related to sustainable water resource management and alternative renewable energy (biogas). In terms of watershed management, the Ministry has implemented several successful projects including the Kulekhani, Fewa and Begnastal/Rupatal (BTRT) watershed management projects, among others.
60. In terms of energy, the MoEWRI promotes the adoption of sustainable renewable energies in Nepal. In 2016, the Ministry developed a subsidy scheme for renewable energy technology based on the ´Renewable Energy Subsidy Policy´. The Ministry also coordinates with the **Alternative Energy Promotion Centre (AEPC)**. Since 1996, AEPC promotes renewable energy technologies in Nepal and aims to make such technologies more accessible to the population of Nepal. AEPC has developed guidelines to support the planning and adoption of renewable energy in rural communities,[44] as well as guidelines to support business development in local communities related to sustainable energy technologies.
61. The **Ministry of Federal Affairs and General Administration** (MoFAGA) will contribute to improving coordination between national ministries and local and provincial governments, especially ensuring alignment with the BRCRN and provincial level policies and decision-making.
62. The **Ministry of Home Affairs (MoHA)** is responsible for disaster risk reduction planning and will therefore provide a source of advice and support for DRR-related activities within Out-

[43] Formerly the Ministry of Energy and the Ministry of Water Supply & Sanitation
[44] Guidelines can be found at: http://www.aepc.gov.np/?option=resource&page=resgfm&sub_id=24

put 3 of the project. MoHA led the elaboration of the national policy for disaster risk management in Nepal, and is highly experienced in local level DRR planning. Before the transition to a federal structure, MoHA supported the elaboration of district DRR plans, including in Arghakhanchi and Udayapur districts together with FAO and the MoALMC, as well as guidance for local level planning.[45] The ministry also elaborates and publishes annual reports on disasters and disaster risk reduction, including guidance on policies, practices and lessons learned. Such insight will also be important to ensure that key knowledge is integrated within the CKC, as well as in guidelines and educational materials developed under Output 3.

Other institutions who will be engaged in project implementation include:

63. **Provincial governments: Provincial governments from Provinces 1, 2 and 3** will have an important role in the BRCRN project, as described above, as hosts of the PPMUs and chairs of the PCUs, and will further be the recipients of institutional capacity building efforts at the provincial level, contributing to the sustainability of project outcomes and impact.
64. **Local governments:** Local governments (i.e. rural municipalities) along with provincial ministries and entities, will be the direct recipients and beneficiaries of capacity building interventions of the project, in order to develop their competence in planning and implementation of climate-resilient SNRM and DRR. They will further provide support as necessary to the PPMU for coordination of project activities at the local level, and facilitate alignment of project activities with local development plans and budgets.
65. **Community-based organizations (CBOs):** Many local groups such as Community Forest Users Groups (CFUGs), Collaborative Forest User Groups, Pro-Poor Leasehold Forest User Groups, Public Land Forest User Groups, Indigenous Peoples' Organisations, Soil Conservation User Groups, Farmer Groups are the primary stakeholders in the Churia region and will play important roles in managing natural resources in the Churia region. CBOs and their members will serve as a main beneficiaries of the project.
66. **Private forest owners:** Private forest owners will be engaged in Activity 1.14, with a focus on trainings and capacity building on climate-resilient forestry practices.
67. **CSOs:** Support with measures aimed to strengthen and empower communities and community-based user groups on topics related to SNRM and climate change, providing extension services to local communities, supporting institutional strengthening and acting as key actors to support knowledge dissemination. Examples of CSOs to engage include NEFIN, forest user group federations (e.g. FECOFUN, ACOFUN), pro-poor leasehold forest user groups, women's organizations (e.g. HIMAWANTI, NIWF) and organizations representing ethnic minorities and marginalized groups (e.g. DANAR, FEDO), among others. The project will also the establishment of networks at the river system level for community-based forest users (CFUG) and Private Forest Owners' (Activity 2.11).

[45] MoAC and FAO 2011

68. **Research and Academic Entities:** To be engaged in various project activities to help generate and disseminate relevan**t knowledge and research outcomes** on climate change, climate-resilient land use and DRR in the Churia Region.

Fund Mobilization procedure

69. Every year the PMU will prepare the annual work plan and budget, including a procurement plan, which will be approved by the PSC. The work plan and budget will draw on the discussions at provincial level and proposals of the PCUs, as communicated to the PMU by the PPMUs. Based on the approval of this plan, FAO will transfer funds according to its covenants, rules and standards, to MoF. MoF will confirm these funds in the 'Red Book' system of budget management and transfer to MoFE accordingly.
70. According to FAO internal procedures and the OPA negotiated with MoFE, FAO will maintain controls over any funds related to international tenders, provision of expert advisory services, and goods or equipment for which technical specifications or quality assurance is required. Such procurement will be conducted or technically overseen by the FAO Technical Capacity Development team directly as part of the TA services to the project.
71. GCF grant finance allocated to the PMU within MoFE according to annual 'Red Book' Government accounts, will be the responsibility of the NPD and PMU staff. As part of MoFE and the PMU structure, PPMUs will have access to funds for implementation of provincial and local-level interventions according to provincial work plans. These funds will be mobilized directly by PPMUs, in their capacity as outposted units of MoFE, and will not be transferred for any purposes to other government or non-government entities at provincial or local levels.
72. Additional information on the project´s institutional arrangements is provided n the Feasibility Study, including a detailed description of staff for the PMU.

3 ENVIRONMENTAL AND SOCIO-ECONOMIC BASELINE CONDITIONS

3.1 Environmental conditions

73. As previously stated, the project area is located in 26 of the most vulnerable river systems in the Churia region, originating in the central and eastern Churia (Figure 7).

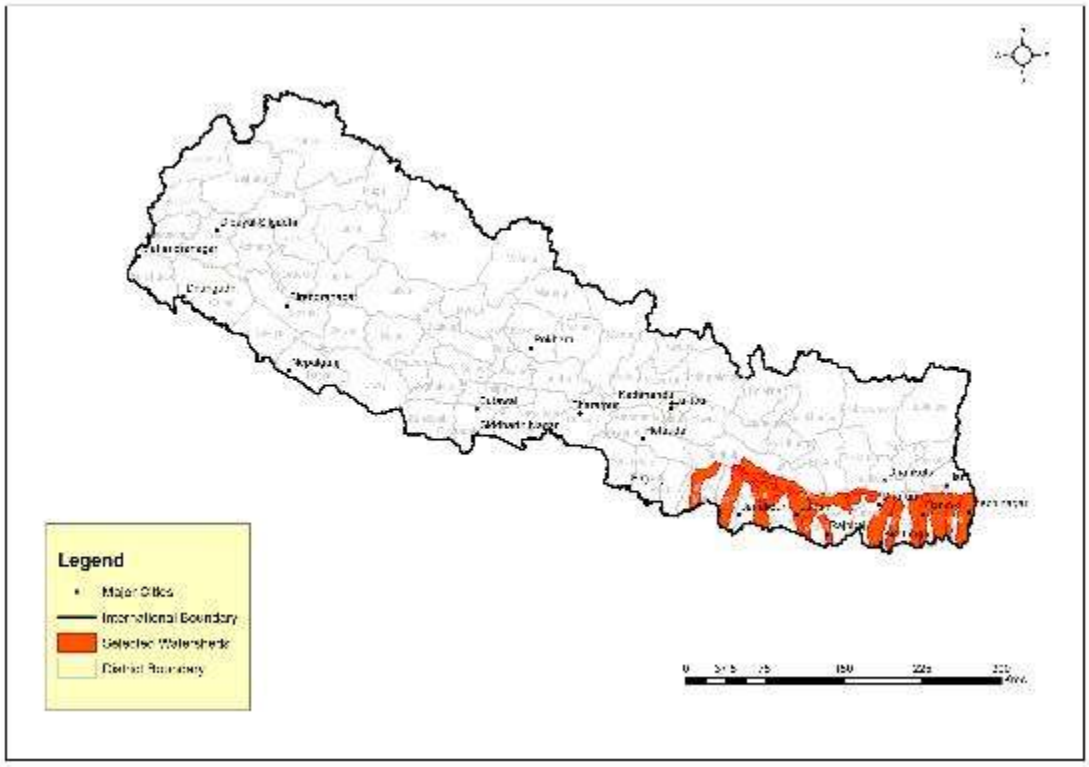

Figure 7: Location of BRCRN prioritized river systems.

3.1.1 Climate

74. The Churia region has a sub-tropical to warm climate, and is characterized by hot and sub-humid summers, intense monsoon rains and cold and dry winters.[46] There are four distinct seasons: pre-monsoon (March-May), monsoon (June-September), post-monsoon (October-November), and winter (December-February).[47]

Temperature

[46]MoFSC 2014a; MoFSC 2014b
[47] MoPE 2016

75. The average maximum temperature in Churia is within the range of 28.2° and 31.8° Celsius and the average minimum temperatures is between 15.8° and 20.4° Celsius (Figure 8Figure 8:).[48] Average maximum and minimum temperatures are slightly lower in the Churia Hill and Dun Valley areas than the Terai areas. Temperatures are lowest during winter months (December-January) and increase during spring and summer. However, the arrival of the monsoon keeps temperatures from further increasing, making the hottest months May and early June. The temperature range is directly related to altitude; during the winter months the Terai region reaches an average minimum temperature of 16-20˚C while norther high altitudes reach less than -8˚C and, similarly, during the summer months the Terai region reaches a mean maximum of over 30˚C, while the mid-hills reach 12-16˚C and the Himalaya range can still be below zero.[49]

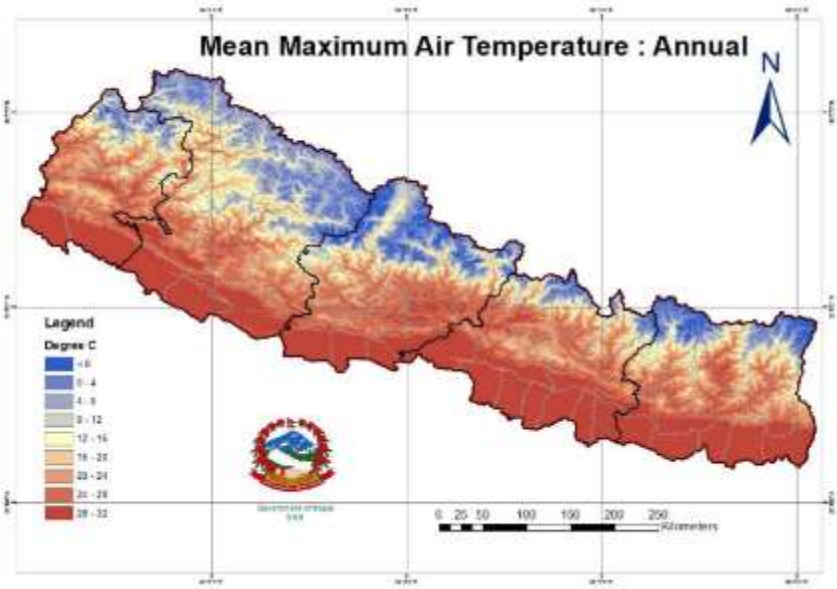

Figure 8: Mean annual air temperature in Nepal

Source: MoSTE 2015

76. Heat waves resulting in maximum temperatures of up to 44.5°C have been recorded during the summer, while cold waves resulting in minimum temperatures of 0° have been recorded during the winter.[50] When temperatures fall to the freezing-point, fog develops and leads to cold-waves in the Terai-Madhesh region. Cold waves are having adverse effects on wintercrops, and livelihoods within the region. The prevalence of cold waves has been found to be increasing in the past 5-10 years, with cold-waves starting earlier in the year and lasting longer.

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[48] PCTMCDB 2017
[49] MoSTE 2015
[50] Ibid.

Precipitation

77. Precipitation patterns within the Churia region vary from east to west, with the eastern and central regions experiencing higher annual rainfall than the western and far west regions. The western region experiences an average annual total rainfall of 1,138mm and the eastern region experiences an average annual total rainfall of 2,671mm (Figure 9).[51] Nearly 84% of total annual rainfall occurs during the rainy season (July-September).[52] Nation-wide rainfall trends based on data since 1960, shows mean national rainfall to be decreasing at an average rate of 3.7mm (-3.2%) a month per decade.[53] This is a significant decrease and this decrease is particularly evident during the monsoon season.

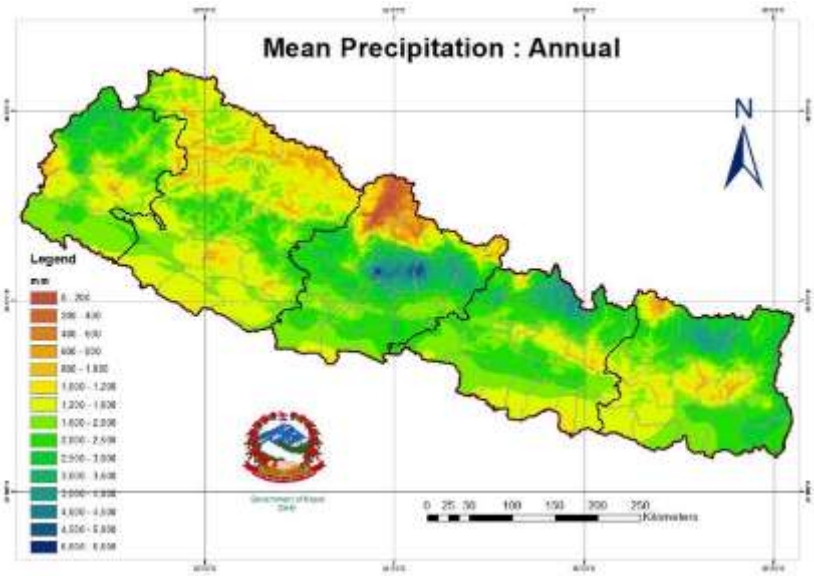

Figure 9: Mean annual precipitation in Nepal

Source: MoSTE 2015

78. The monsoon season is when Nepal receives the majority of its rainfall. The Churia Terai-Madhesh region experiences between 800mm-1,200 mm on average throughout the region (Figure 10). Precipitation levels during the monsoon season also play a significant role in the country's hydropower potential. Around 68% of the current hydropower generated is the result of monsoon rains, with the remaining 32% resulting from glacial melt.[54] During the monsoon season, Churia is often exposed to extreme precipitation events, landslides and flooding. Many parts of Churia experience intensive precipitation during the monsoon season, where areas within the Churia region can receive over 400mm within 24 hours (Figure 11). Each year flash flooding impacts the Churia Terai-Madhesh region of Nepal, with manifold impacts on the environment, economy and local livelihoods (cf. Section 2.1.5 for a more detailed description of floods).

[51] Khadka et al. 2016
[52] PCTMCDB 2017
[53] World Bank 2012
[54] World Bank 2012

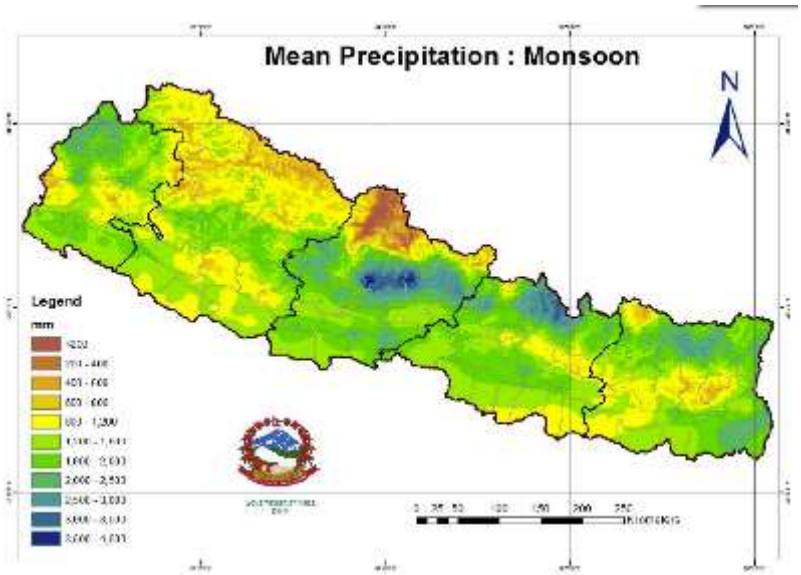

Figure 10: Mean precipitation during the monsoon season

Source: MoSTE 2015

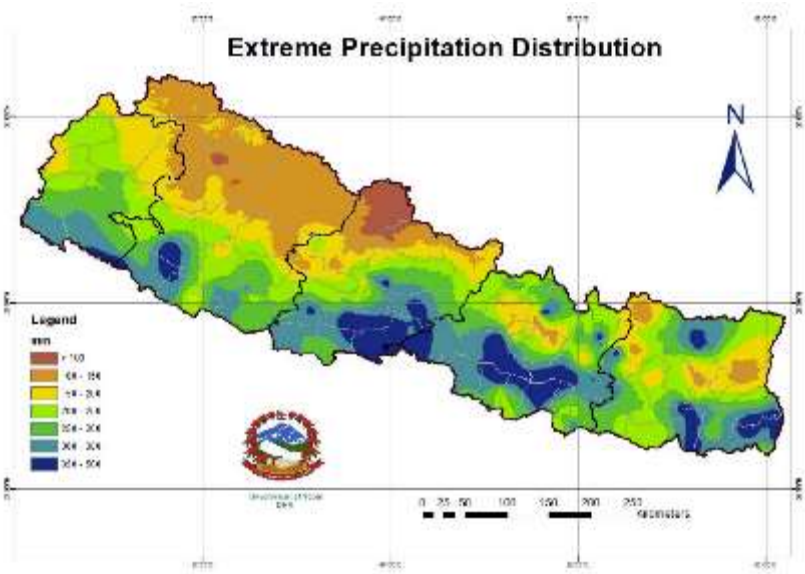

Figure 11: Extreme precipitation (maximum rainfall within 24 hours) distribution in Nepal

Source: MoSTE 2015

79. During the winter season (December to February), the Churia and Terai-Madhesh region experiences extremely limited precipitation, especially in the central and eastern areas where precipitation may be less than 40mm during the entire winter season (Figure 12). Future projections show that winters may become drier and monsoon seasons wetter, with some predictions expecting up to a threefold increase in monsoon rains. However, large uncertainties within precipitation models make clear precipitation estimates difficult to achieve. Uncertainties in precipitation and monsoon patterns, along with projected reduced

glacial runoff resulting from glacial recession, are expected to increase drought risk and occurrence. Although improved crop varieties and agricultural management practices are being implemented, the increasing population and water needs of inhabitants in the Churia and Tera-Madhesh region culminate in increased drought vulnerability, and with drought comes decreased crop productivity and overall nutrition and health.[55]

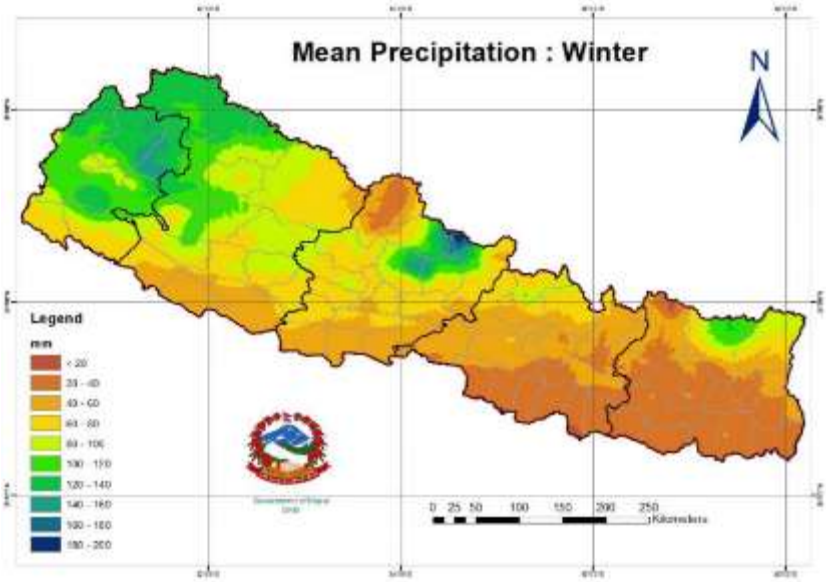

Figure 12: Mean precipitation variation in Nepal in winter

Source: MoSTE 2015

3.1.2 Biophysical zones, soils and geology

Biophysical Zones

80. Within each of the river systems in the BRCRN project there are four distinct bio-physical zones, with shared land use characteristics, land use changes and socio-economic activities (Figure 13):
    - Churia Hills (33% of project area)
    - Bhavar (18% of project area)
    - Dun Valleys (Inner-Terai; 3% of project area)
    - Terai (46% of project area).
81. The following sub-sections provide further information on soils, land use water, vegetation and biodiversity.

[55] MoHA 2015

Figure 13: Schematic outline of physiographic intervention zones within a river system, and main climate-related hazards

Soils and Geology

82. Soil characteristics in the Churia valley vary between the Churia Hills, Dun Valley, Bhavar Region, and Terai Madesh. The Churia Hills are the youngest mountain range in the Himalayas and the soils originate from soft rock.[56] Mostly sandstone, mudstone and conglomerate are found in the region, with smaller quantities of shale, marl and clay-stone. The lower Churia Hills zone is composed mostly of fine-grained sediments (e.g. variegated mudstone, siltstone and shale), while the middle Churia Hills has thick beds of multi-storied sandstone and subordinate beds of mudstone. The gently sloping forest lands are full of Paheozems, which are dark soils rich in organic matter. On the other hand, loose boulder conglomerates and other coarse sediments characterize the upper Churia Hills. Regosols, weakly developed soils in unconsolidated areas found generally on eroding lands and gravelly areas, are common on the steep hills of upper Churia. The soils here are shallow, droughty soils with low surface-infiltration and percolation rates.[57] Soils of the Dun Valley, a depositional basin, are mostly composed of Gleysols. The main soils of the Churia Hills and Dun Valley regions are depicted in the Figure below.

[56]MoFSC 2014a
[57] Ibid.

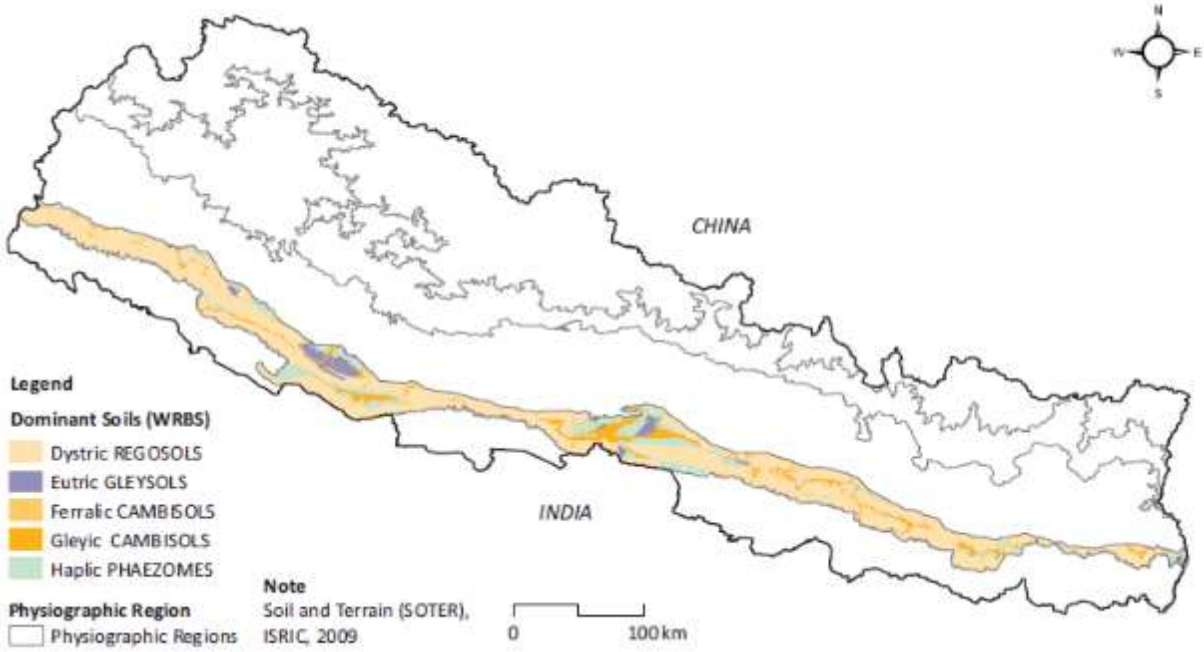

Figure 14: Distribution of main soil types in Churia Hill and Dunn Valley regions

Source: MoFSC 2014a

83. The Terai region soils are mostly alluvial deposits, which are unconsolidated materials deposited by rivers. The texture of alluvial deposits depends on its origins and can range from clay to sand. The Bhavar region consists mostly of coarse sand, gravels and boulders. The Terai region soils can be broadly classified into the three categories of Calcari Fuvisol, Gleysols and Phaeozems. [58] Calcari Fuvisols are found near rivers, while Gleysols are in areas where there is moisture near the surface and Phaeozems are found in the upper Terai and are characterized as loamy textured, with dark topsoil rich in organic matter, calcareous, and drought-prone.[59] The following Figure shows the distribution of different soil types throughout the Terai and Bhavar regions.

[58]Ibid.
[59]Ibid.

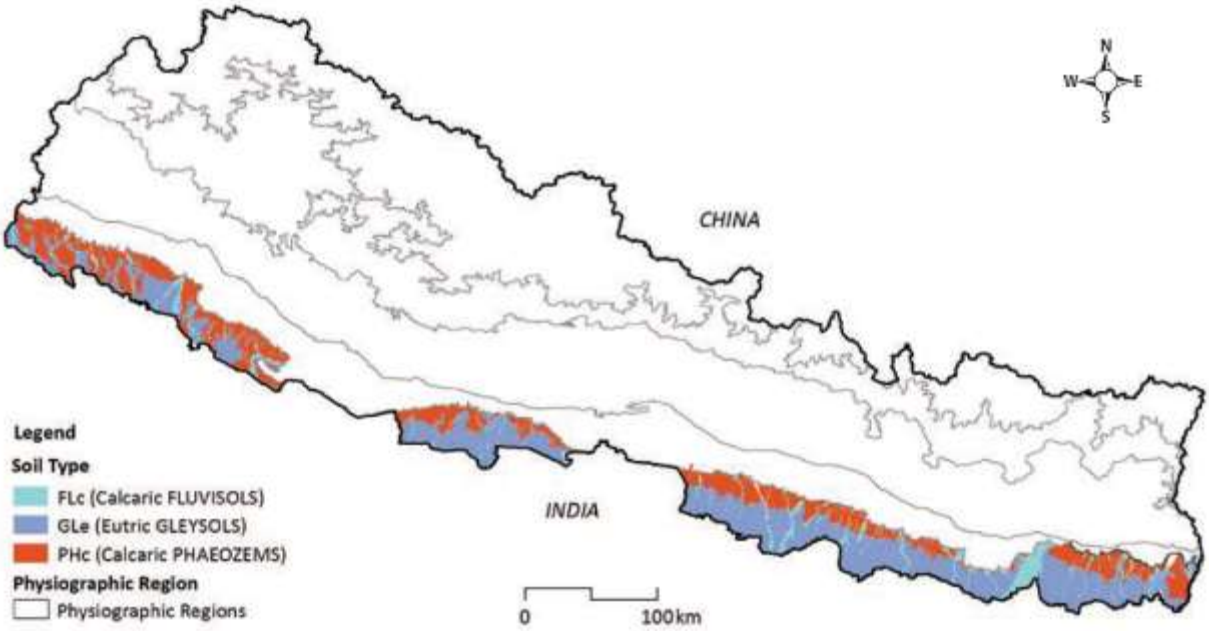

Figure 15: Distribution of main soil types in Bhavar and Terai regions

Source: MoFSC 2014b

3.1.3 Land use

84. Within the BRCRN project area, cultivated land covers around 390,000 ha, followed by forests with 227,276 ha (Figure 16). Roughly 50,000 ha is considered as degraded or marginal land. More than 35,000 ha of open riverbeds in these river systems underpin the dramatic changes, and loss of productive land due to sedimentation and widening of river beds.

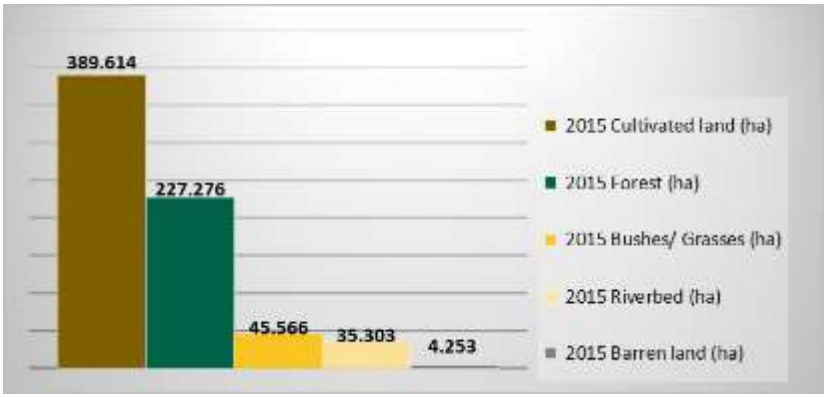

Figure 16. Total land use areas of the selected 26 river systems excluding settlement areas and water bodies in 2015

85. The following Table provides a summary of land use practices in each of the four BRCRN biophysical zones:

Table 3. Overview of the four main biophysical zones in the project area

Zone	Description of Terrain	Agriculture	Forests	Land Use and its Impact on Vulnerability
Churia Hills (33% of project area)	▪ Hilly terrain with steep slopes, typically located at higher altitudes. ▪ Made of coarse-grained, soft conglomerates that are very prone to erosion ▪ Communities are highly dependent on forests for their livelihoods (for subsistence and income) ▪ Within the Churia hills, forests play an essential role in preventing land erosion, with estimates showing that in the absence of forest cover, around 13% of the total Siwalik range would be converted into desert within a year.[60] Top soil loss from the mountainous regions has led to an estimated annual rate of 15-30cm riverbed rise in the Terai region, leading to increasing exposure and impact to floods, and damage to infrastructure (e.g. irrigation canals, dams/ hydropower sites), and land (e.g. erosion, reduced soil fertility). On average, soil loss in well managed forest areas is estimated to be about 10t/ha/year and in fragile areas 30t/ha/yr.[61] ▪ Main hazards exposed to: landslides, wildfires, water scarcity, extreme heat	▪ 13% cultivated land ▪ Majority of terrain unsuitable for agriculture, nonetheless many poor households cultivate on steep slopes for subsistence. ▪ Agricultural production is characterized by rain-fed, primarily low-yield fallow agriculture with different crops including upland rice, maize, vegetables and mustard, among other crops.[62] ▪ Many households have small-livestock, especially goats/sheep/rams, pigs, and some households have buffalos who are often raised for subsistence using traditional practices, including free-grazing in forested areas (contributing to forest degradation). Such systems have low-productivity. ▪ Erosion is a major challenge for agricultural activities, and many households apply unsuitable agricultural practices (i.e. do not apply soil or water conservation measures).	▪ 76% forest cover ▪ Majority of households use fuelwood for household energy needs. Forests provide not only fuelwood, but also fodder, forage, timber and non-timber forest products for forest-dependent households in the Churia. ▪ 75% of deforestation and forest degradation in the BRCRN area occurred in the Churia hills. ▪ Drivers of deforestation and forest degradation include encroachment, uncontrolled grazing, agricultural expansion, unsustainable harvesting of forest products.	▪ Deforestation and degradation as well as inappropriate agricultural (incl. livestock) practices increase the risk of wildfires and landslides in the Churia Hills. ▪ Such activities further increase sedimentation and erosion that reduce agricultural productivity in the Churia hills, and ultimately increase the vulnerability of downstream communities to flooding. ▪ Increased sedimentation and erosion will also contribute to declining agricultural productivity and increased land degradation, which could accelerate deforestation and forest degradation. ▪ Alarming trend of decreasing soil fertility due to low input (organic matter) farming practices

[60] MoPE 2000
[61] Ibid.
[62] MoFSC 2014

Zone	Description of Terrain	Agriculture	Forests	Land Use and its Impact on Vulnerability
Bhavar Zone (18% of project area)	▪ **A**n intermediate or transition zone between the Churia and Terai. ▪ This zone has its own distinct geo-morphology, and is characterized by the deposition of primarily rough sediments. ▪ The Bhavar region is an important zone for ground water recharge given its unique geological characteristics and soils. ▪ The Bhavar zone ischaracterized by the low availability of drinking and irrigation water ▪ Land use in the Bhavar region includes a mixture of forest and agriculture activities, ▪ Main hazards exposed to: flooding, landslides, wildfires, water scarcity and extreme heat. ▪	▪ 35% cultivated land, agricultural production is limited due to the unsteady supply of water, traditionally, the bhavar is mainly forest land and is thought to be relatively unsuitable for agricultural practices ▪ In the Bhavar region, surface water is declining due to the deposition of sediments on the river-beds. This limits agricultural production in the region. ▪ Many households have small-livestock, especially goats/sheep/rams, pigs, and some households have buffalos who are often raised for subsistence using traditional practices, including free-grazing in forested areas.	▪ 49% forest cover ▪ Majority of households use fuelwood for household energy needs. Forests provide not only fuelwood, but also fodder, forage, timber and non-timber forest products for forest-dependent households in the Bhavar region. ▪ Drivers of deforestation and forest degradation include encroachment, uncontrolled grazing, agricultural expansion, unsustainable harvesting of forest products.	▪ Deforestation and degradation increase the risk of wildfires and landslides in the Bhavar region, as well as increased sedimentation and erosion that reduce agricultural productivity in the Bhavar region. Such land use trends further increase the vulnerability of downstream communities to flooding through accelerated sedimentation and erosion. ▪ Gully erosion leads to significant loss of land ▪ Reduced vegetation cover (from deforestation and inappropriate agricultural practices) further limit ground water recharge, increasing the vulnerability of downstream communities to extreme heat and water scarcity.
Dun Valleys (3% of project area)	▪ The Dun valleys, also known as the ´inner Terai´, are valleys surrounded by the Churia hills. ▪ Among the most fertile and productive lands in Nepal with steady groundwater supply ▪ Settlements are often found in these valleys. ▪ Main hazards exposed to: wildfires, flooding, extreme heat, water scarcity and silt accumulation in farmlands	▪ 40% cultivated land ▪ Major areas for the production of staple foods such as paddy, cereals, pulses, and oilseeds ▪ Many households have small-livestock, especially goats/sheep/rams, pigs, and some households have buffalos who are often raised for subsistence using traditional practices, including free-grazing in forested areas.	▪ 37% forest cover ▪ Drivers of deforestation and forest degradation include encroachment, uncontrolled grazing, agricultural expansion, unsustainable harvesting of forest products.	▪ Deforestation within the Dun Valley, as well as in the Churia hills, increases the vulnerability of local communities and ecosystems to extreme flooding events. ▪ Deforestation and erosion in the Bhavar region further limits water infiltration/ groundwater recharge, increasing the vulner-

Zone	Description of Terrain	Agriculture	Forests	Land Use and its Impact on Vulnerability
				ability of communities and ecosystems to extreme heat and water scarcity.
Terai-Madhesh (46% of project area)	▪ The Terai-Madhesh are the low-lying plains that cover the south of the country. ▪ This region was created due to the deposition of fine sediments, and has a high suitability for agricultural activities. ▪ Cow dung is main source of energy in Terai, although some households still use fuelwood. ▪ The Terai is more heavily populated than the other three regions. Population growth occurs in the region, which puts increased pressure on agricultural lands and forests in the Terai, as well as in other bio-physical regions. ▪ Many households experience seasonal food and water insecurity. ▪ Declining soil fertility has been reported in the Terai, attributed to: soil erosion, organic matter depletion, acidification, forest degradation and marginal land, among other factors.[63] ▪ Main hazards exposed to: flooding, extreme heat, water scarcity	▪ 83% cultivated land ▪ The Terai is known as the ´*Rice bowl*´ of Nepal, where farmers in the Terai produce majority of the country´s grains (wheat, maize, rice, among other crops) ▪ 40% of agricultural land in Terai can be irrigated throughout the year. [64] ▪ Constraints in dry season are often water availability and soil fertility. ▪ Many households have small-livestock, especially goats/sheep/rams, pigs, and some households have buffalos who are often raised for subsistence using traditional practices, including free-grazing in forested areas ▪ Commercial livestock production often includes stall feeding, and attention to animal nutrition and feed. ▪ Commercial agricultural practices in the Terai increasingly use mechanization. ▪ Relatively low-adoption of soil and water conservation practices.	▪ Forest cover (3%) ▪ With limited forest resources, many people in the Terai are dependent on the Churia for forest products (fodder, NTFPs, timber), as they lack local alternatives. ▪ Many inhabitants of the Terai are considered ´distant forest users´ due to their reliance on the Churia forests. Distant users are associated with deforestation, as there is limited incentive for such communities to benefit from the sustainable management of these resources.	▪ Distant-forest users from the Terai contribute to deforestation and forest degradation upstream, with impacts described in the rows above. ▪ Inappropriate agricultural practices do not apply soil or water conservation practices that leave areas vulnerable to soil erosion, flooding, extreme heat and water-scarcity. ▪ Combined factors from upstream deforestation and forest degradation, as well as the continued use of practices contributing to soil degradation and water-scarcity will lead to further constraints in dry-season crop production in the Terai within the context of climate change.

[63] Shrestha et al. 2013
[64] http://ibn.gov.np/agriculture

3.1.4 Biodiversity and forests:

86. The project region is critical in terms of ecosystem and biodiversity. Of the 188 ecosystems of Nepal, 14 are found within the Churia hills and another 12 are founding within the Tarai Madhesh region. In terms of biodiversity, of the total 1,988 species of flora and fauna in Nepal, 1,308 are found within the Churia-Terai Madhesh landscape.[65] Flagship species, including tigers, elephants, rhinos and wild-buffalo, are also found within these habitats, as well as 321 or the Nepal's 493 endangered species of flora and fauna.[66]

Protected Areas

87. Compared to higher altitudes, the lower altitude areas of the Terai have disproportionately fewer protected areas, causing many of the large fauna, especially large mammals, to live in densely human-populated areas.[67]The inhabitants' close dependence on forests and environmental resources adds to the increasing risk of human-wildlife conflict.
88. Currently there are seven protected areas established in the entire Churia-Tarai Madhesh region in Nepal spanning a total of 5,886km^2. Eleven ecosystems still remain outside of these protected areas and call for protection.[68] In addition, the trans-boundary nature of mega-fauna species, as well as the ecosystem themselves, require ecosystem connectivity between critical habitats.Establishing corridors between habitats is not only essential for the long-term protection of many species, but is also considered a preventative step to limiting human wildlife conflicts.[69] This is especially important in the Terai landscape where human wildlife conflicts are reported to be increasing, with hundreds of tons of crops being damaged and occasionally human lives being lost.[70]
89. One protected areapartially overlaps[71] with one of the 26 BRCRN prioritized river systems (Adherei Khola, Baruwa Khola and Duar Khola River System): the Koshi Tappu Wilfdlife Reserve (Figure 17). The Wildlife Reserve was designated a Ramsar site in 1987, and is home to diverse wildlife including 485 species of birds, 31 species of mammals, among other flora and fauna.[72] While no direct project interventions are planned for the protected area buffer zone or core-intervention area, a biodiversity management framework has been developed to ensure the project causes no harm and promotes positive environmental impacts within the reserve (Section 9).

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[65] Ibid.
[66] Ibid.
[67] Acharya 2016
[68] PCTMCDB 2017
[69] World Bank 2016
[70] MoPE 2016
[71]In total, 31 ha of the wildlife reserve, and 471 ha of the bufferzone overlap with the project area.
[72]https://www.nepjol.info/index.php/INIT/article/view/2513

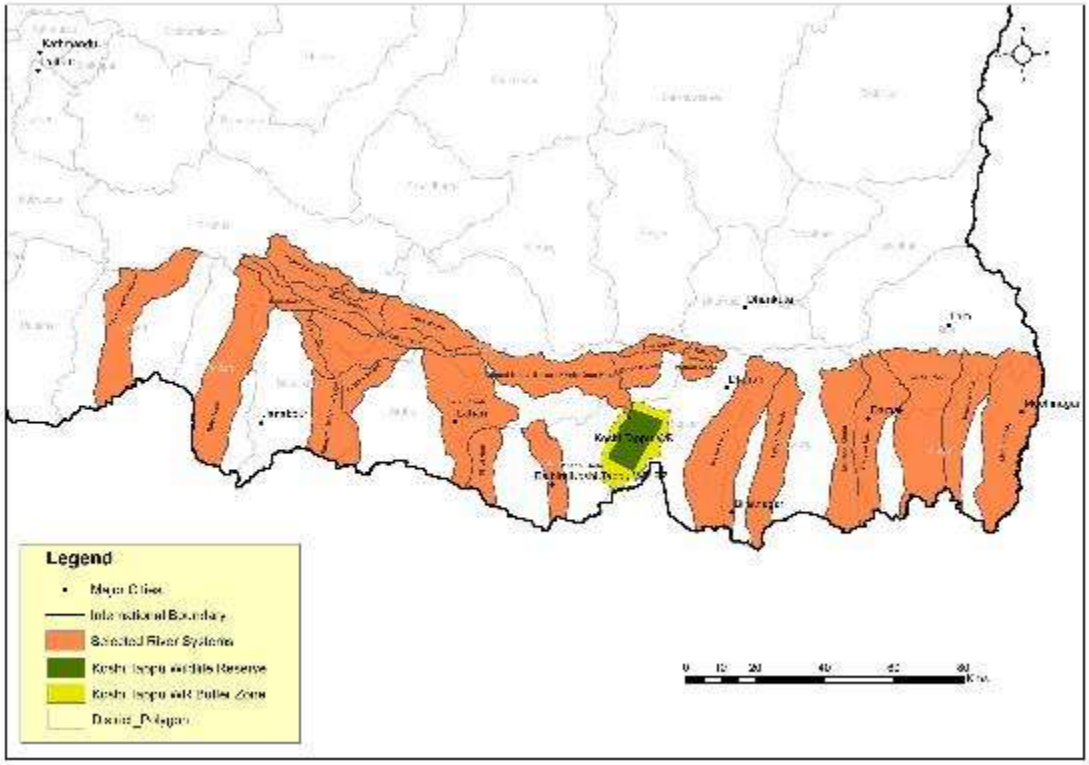

Figure 17: Overview of protected areas within the BRCRN project area.

Forest Resources and Biodiversity

90. Forests cover 32% of the project area, the majority of which are found in the Churia hills and Bhavar regions.[73]Nine types of forests (including Khair-Sissoo Forest, Sal Forest, Terai Mixed Hardwood Forest, Lower Mixed Broadleaf Forest and Pine Forest) are found within the Churia hills region and four types of forests (Sal Forest, Khair-Sissoo Forest, Sal-Terai Mixed Hardwood Forest and Terai Mixed Hardwood Forest) are found in the Terai-Madhesh and Bhavar regions.[74] A 2015 report on the State of Nepal's forests showed the Churia region to be home to 281 tree species, 186 shrub species and 322 species of herbaceous plants (including flowering plants and pteridophyte).[75] Non-timber forest products (NTFPs) found within this landscape include a total of 666 species of flora (240 trees, 144 shrubs, 187 herbs, 70 climbers, 22 ferns and 3 epiphytes) and 74 species of animal derivatives.[76]
91. When analysing the land use change and in particular the loss of forests within this project area for the assessment period of 2000 to 2015, the following findings and trends can be drawn:[77]

[73] DFRS/FRA 2014; DFRS/FRA 2015
[74] Ibid.
[75] Ibid.
[76] Ibid.
[77] Ibid.

- Forest area declined from 275,867 ha in 2000 to 271,340 ha in 2010 (-4,527 ha in total). This represents an annual deforestation rate of 0.16% for this 10-year period. This rate is coinciding with the deforestation rate derived for the national REDD+ process to establish the National Forest Reference Level (FRL) for the Churia region for the same assessment period;
- However, using the latest forest loss assessment during 2010 and 2015, a dramatic increase of deforestation can be perceived. Forest areas has decreased to 227,276 ha which represents an annual deforestation rate of 3.2%; over the whole historical assessment period of 15 years, the average deforestation rate is 1.2%;
- Based on the spatial analysis the following patterns of deforestation could be observed: 75% of this loss was located in the Churia hill zone, and 20% in the Bhavar zone; 54% of the forest loss was located on slopes ranging from 10-30°; 68% of the loss appeared in a distance of 0-0.5 km to roads; 62% of this loss was located in distances of 2-5 km from the grid; and almost 100% of the forest loss appeared in a distance of 2-5 km from settlements.

92. Direct, or proximate, drivers of deforestation within the Churia region include the over-utilization and exploitation of resources (fuelwood collection, uncontrolled grazing, NTFP collection, illegal logging), agricultural expansion and degradation, development or expansion of infrastructure and the need for building materials and national land use change and biophysical conditions (Figure 18Figure 18:).[78] Underlying drivers of deforestation arise from the interlinkage of economic/financial factors, policy, institutional and governance-related factors, socio-political factors, demographic factors and technological factors.[79] A more detailed description of the specific drivers and underlying causes is available in the Feasibility study.

[78] UN-REDD 2014; Community consultations for the BRCRN project
[79] Ibid.

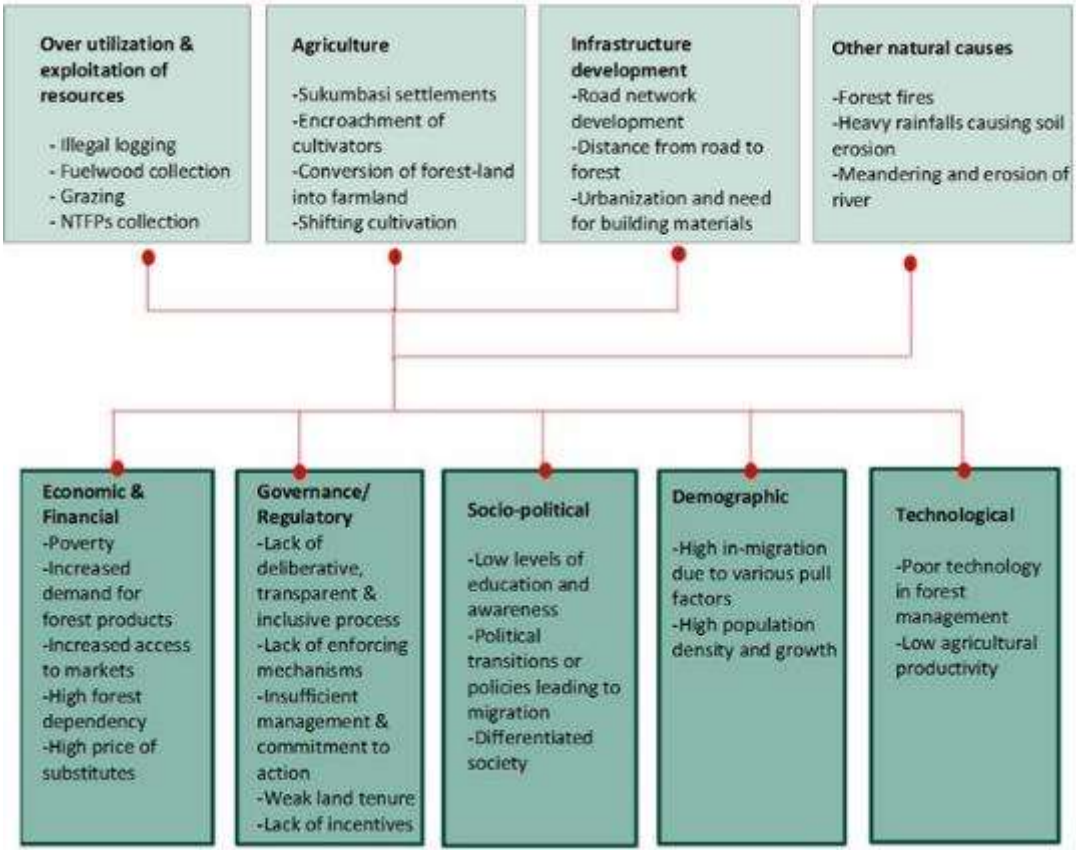

Figure 18: Proximate (top row) and underlying drivers (bottom row) of land use change in the Churia region

Source: Adapted from UN-REDD 2014

3.1.5 Water resources

Surface Water

93. The Churia region is composed of a multitude of river systems. A total of 164 river systems have been identified to cross through the entire Churia region in Nepal. Of these, 27 rivers originate from the Himalayas and flow throughout the year, 76 originate from the Middle Hills and flow throughout the year, 48 originate from the Churia region and flow only during the rainy season, and the remaining 13 originate from the Terai-Madhesh region and flow throughout the year.[80]

94. The impacts of climate change on Nepal water sources are difficult to predict and are under debate. Glacier melt is an essential renewable water source that feeds into all of the country's rivers. An increase in temperature will lead to glacier retreat and some estimates show

[80] PCTMCDB 2017

that around 20% of glacier mass could be lost with just a 1˚C increase in temperature.[81] Higher winter temperatures also mean that more precipitation will come in the form of rain, rather than snow, further accelerating deglaciation and contributing to earlier snowmelt and increased rate of glacial melt.[82] This, along with the reduction in both glacier cover and winter snows will lead to reduced snowmelt during spring and summer, posing a serious threat to water security during the dry season. In addition, higher rates of glacial melt increase the risk of Glacier Lake Outburst Floods.[83] Although in the short term the increased rate of glacial melt will increase glacier-fed river flows, in the long term, this will decrease Nepal's water supply, making the country's irrigated lands vulnerable and effecting downstream livelihoods and ecosystems.

95. Water resources are under stress in the project area due to climate change and unsustainable land use practices. Issues faced in the mid-hill and Churia region regions include:[84]
    - Deforestation and forest degradation, vegetation loss
    - Unsustainable/ unsuitable land use practices
    - Soil erosion and land degradation
    - Land abandonment and encroachment leading to accelerated runoff
    - Spatial and temporal variability in precipitation
    - Deteriorating water quality and water-related diseases
    - Limited meteorological data and monitoring
    - Exposure to water-related natural disasters (flooding, landslides, droughts).
96. Flooding and landslides are a major challenge for Nepal during the monsoon period, especially in the Churia region of Nepal (Figure 19). In 2017, flooding in Nepal from January to September resulted in the destruction of 43,400 houses, 191,700 partially damaged houses, the displacement of 20,900 families, and the death of at least 160 people (Figure 20).[85] In addition, the loss to agriculture production due to floods in 2017 was estimated at over US$5.74 million, which has a major impact only rural livelihoods and food security.[86]

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84 Bricket et al. 2014; PCTMCDB 2017

85 UN Office of the Resident Coordinator Nepal 2017

86 Ibid.

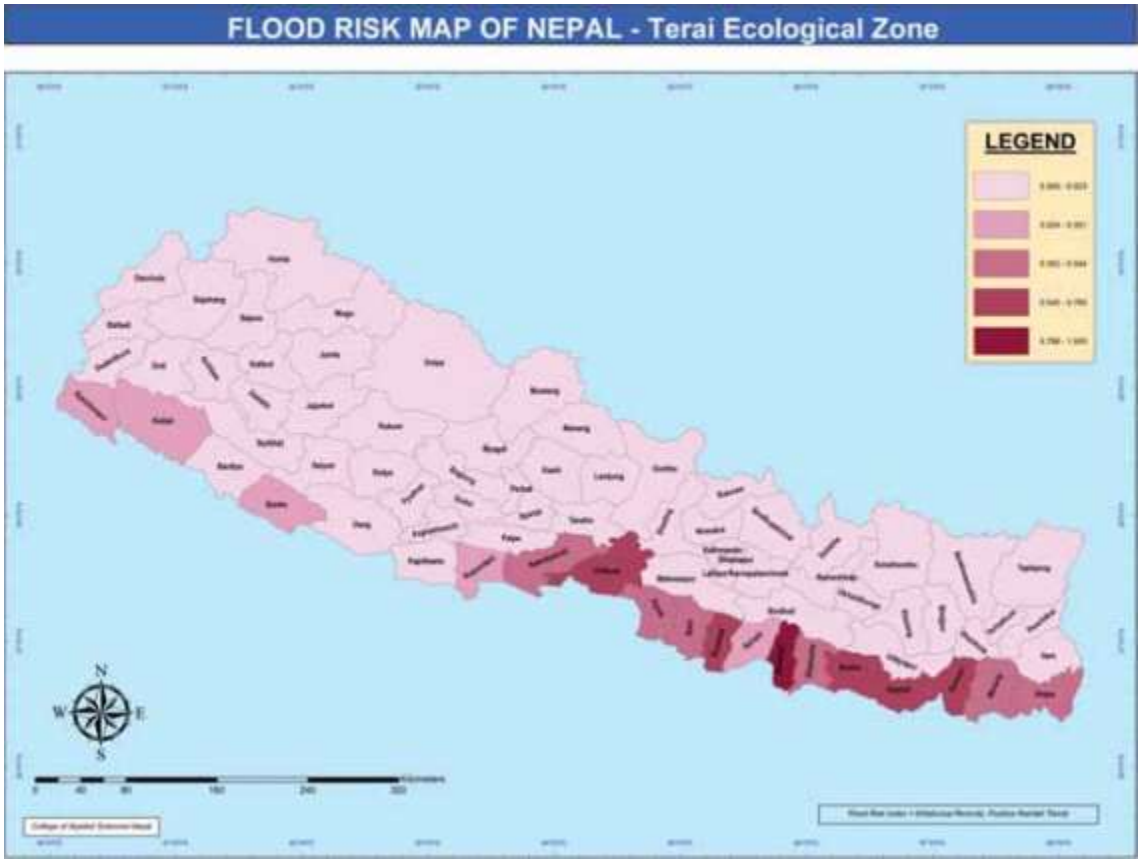

Figure 19: Map demonstrating areas at high risk for floods

Source: MoPE 2010a

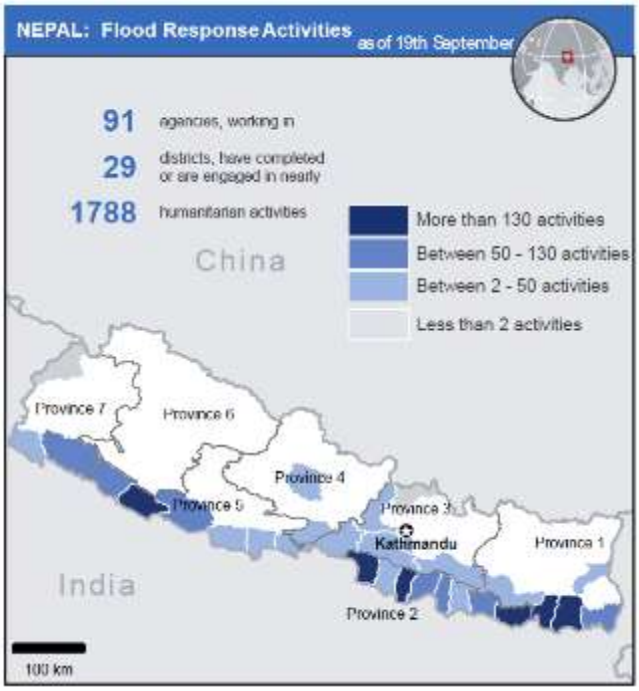

Figure 20: Overview of flood response activities in Nepal as of September 19, 2017

Source: United Nations Office of the Resident Coordinator Nepal 2017

97. Within the project area one river system originates from the Himalayas, five from the mid-mountains and the remaining originate in the Churia hills. Within the 26 vulnerable river systems, 96,000 ha are considered susceptible to flooding, where at least 700,000 people are settled (Figure 21). Around 150,000 ha are considered as ´*high*´ to ´*medium*´ risk areas in terms of slope instability that is susceptible to landslides and erosion, with over 94,000 people settled in such areas. Increasing exposure to extreme precipitation events with climate change, further exacerbated by unsustainable land management and the lack of sufficient climate-change adaptation measures, will continue to negatively impact the region's economy, environment and livelihoods of the people not only living within the region, but will also have a transboundary impact in neighboring India.

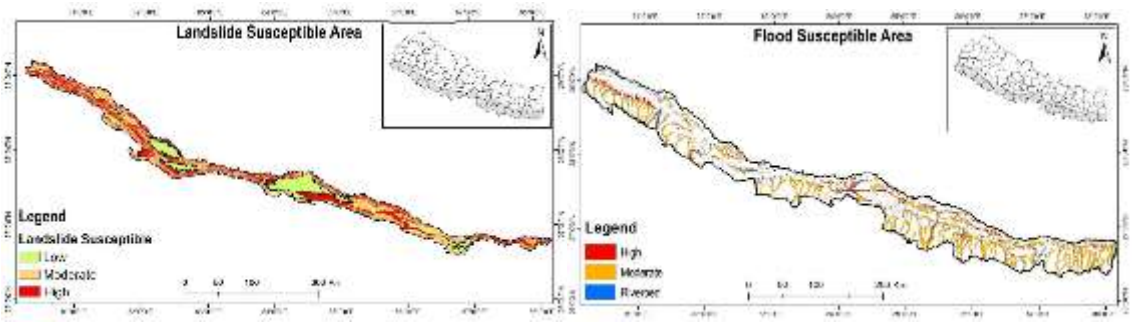

Figure 21: Overview of a) landslide susceptible areas and b) flood susceptible areas in the Churia region of Nepal

Source: PCTMCDB 2017

Groundwater

98. Especially in the Terai-Madhesh region, groundwater remains one of the most important resources, contributing significantly to household consumption and irrigation.[87] The groundwater present in the Terai-Madhesh region comes from the infiltration of rainwater in the Churia hills and Bhavar zones. In turn, the rise and fall of groundwater levels in the Terai-Madhesh is determined by the Churia Hills and Bhavar regional rainfall levels and management practices.

99. This close relationship between downstream groundwater availability and upstream rainwater infiltration, precipitation, ground absorption power and aquifer quality, stresses the importance of upstream-downstream integrated management systems. The soft soils of the Bhavar region allow for rapid recharging of groundwater from rainfall. However, as forests are degraded and cleared and infrastructure construction continues in the Bhavar region, the natural recharge capacity decreases.

[87] PCTMCDB 2017

100. Groundwater recharge is also not uniform from east to west due to differing rainfall patterns and soil properties. Seasonal differences in precipitation also have a strong impact on groundwater recharge, where recharge rates drastically decline during the dry season.

101. Although Nepal is rich in water resources, poor and inadequate water management systems have led to reduced water quality.[88]Local reports reveal a decreasing trend of groundwater levels across the Bhavar and mid-Terai-Madhesh regions, affected by reduced groundwater recharging, increasing population and intensifying water extraction activities.[89]Current challenges with water stress and security will only be exacerbated under the effects of climate change, requiring adaptation strategies for the water resources.

3.2 Socio-economic conditions

Poverty

102. Nepal is a low-income economy with a per capita income of $766.90 In 2014, Nepal achieved a score of 0.116 according to the multidimensional poverty index[91] (MPI), with an estimated 26.9% of the country´s population affected by multidimensional poverty, equivalent to around 7.5 million people.[92] Focusing on income-related poverty, approximately 15% of the population is considered to be living below the poverty line of $1.99 per day.[93]

103. The country has experienced rapid development in the last two decades and the government has made substantial progress in working toward its goal to graduate to a lower-middle-income country by 2022. The government is committed to tackling poverty, and has been committed to the implementation of measures to meet the Sustainable Development Goals (SDGs), in addition to national targets. Nepal has made large strides in addressing poverty at the national level; the country´s Human Development Index (HDI)[94] value has improved from 0.476 to 0.558 from 2005 to 2015.[95]

104. While Nepal has made substantial efforts to advance gender equality and social inclusion in the country, it is still a major challenge for the country to eradicate poverty and promote equality and inclusive development. Women´s HDI values (0.538) continue to lag behind men's (0.582)[96]. Janajatis (0.482), Dalits (0.434), and Muslims (0.422) experienced lower HDI values in comparison to other high castes such as Brahmans (0.538) and Chhetris (0.538).[97]

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[88] World Bank 2012
[89] Ibid.
[90] MoF 2016
[91] MPI considers three core dimensions as a measure of poverty: i) health (nutrition, child mortality), ii) education (years of schooling, children enrolled) and iii) standard of living (e.g. cooking fuel, toilet, water, electricity, floor, assets). Additional information can be found at: http://hdr.undp.org/en/content/multidimensional-poverty-index-mpi
[92]UNDP 2016
[93]Ibid.
[94]HDI takes into account three dimensions to provide an estimation of to assess the development of a country. It is based on three dimensions: long and healthy life (life expectancy at birth, knowledge (expected ears of schooling, mean years of schooling), a decent standard of living (GINI per capita). Additional information can be found at: http://hdr.undp.org/en/content/human-development-index-hdi
[95] UNDP 2014
[96] UNDP 2016
[97] UNDP 2014; UNDP 2016

While the general trend of inequality is decreasing in the country, it remains a major challenge that will be continually addressed in the coming years.

105. The livelihoods of the people living in the Churia Terai-Madhesh region of Nepal are heavily dependent on natural resources. Many households depend on subsistence and commercial agriculture for their livelihoods, and many households directly depend on forests for a variety of resources including fuelwood, timber, fodder and other NTFPs.

Agricultural Land

106. The agricultural sector in Nepal was responsible for approximately one third of the country´s gross domestic product (GDP) in 2016.[98] Half of the agricultural GDP comes from crop production, followed by livestock (25%), vegetable production (10%), forest products (8%), and other products (7%).[99] Farming systems in the project area are characterized by integrated crop and livestock subsistence farming. Livestock production includes goats (50% of livestock population in Nepal), cattle (29%), buffalo (14%) and other species (7%).[100] Production of cash crops (especially maize, barley, sugarcane and vegetables) occur, especially in the Terai region.

107. Agriculture is the main source of livelihoods in this region, where 74% of the female labor force and 51% of the male labor force were primarily employed in the sector (62% average).[101] The proportion of women´s employment in the agricultural sector has grown since 2011, due to the closing of other industries that employed women (especially carpet and garment industry), and due to the migration of male household members to urban centers or to other countries for labor.[102] This trend is referred to as the ´feminization´ of agriculture, which represents a major barrier to women as the sector offers ´low-return employment´, and is relatively labor intensive which has helped contribute to growing time-poverty for women. The abandonment of agricultural land has also grown as a result, where communities are no longer able to manage the same amount of agricultural land as before due to migration and related trends.

108. The following Table 4 provides a summary of common agricultural land use and challenges for the sector within the BRCRN project area.

109. Effects of climate change are projected to have significant impacts on farming systems, with planting and harvesting seasons slowly shifting, crop yields decreasing, water availability and rainfall patters changing, pests and diseases in both crops and livestock appearing, and the occurrence of natural disasters increasing.[103]

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[98] World Bank Indicator Database; https://data.worldbank.org/indicator
[99] Adhikary 2017
[100] CBS 2014 in Adhikary 2017
[101] UN Women 2016
[102] Ibid.
[103] IFAD 2010; World Bank 2011; World Bank Think Hazard Tool http://thinkhazard.org/en/

Table 4: Overview of agricultural activities within the project area, and promoted climate-resilient practices

	Churia Hills	Bhavar	Dun Valley and Terai Plains
Agricultural Land Use	▪ 13% cultivated land, majority of terrain unsuitable for agriculture ▪ Rain-fed low-yield fallow agriculture, with different crops including maize, upland rice, vegetables and mustard, among other crops[104] ▪ Some production in upland terraces. ▪ Some cultivation also occurs on sloping land that is unsuitable for agriculture leading to accelerated erosion and sedimentation. ▪ Low-adoption of soil and water conservation practices ▪ Inappropriate agricultural practices accelerate erosion and sedimentation, which lead to productivity losses and increase the vulnerability of down steam communities to climate change	▪ 35% cultivated land ▪ Maize, millet, grains, potato, ginger, cardamom, and temperate fruits, particularly citrus, are the main crops grown. ▪ Agricultural production is limited due to unsteady supply of water (primarily rain-fed), and increasing soil degradation. ▪ Soil fertility declining due to soil erosion, organic matter depletion, acidification, forest degradation and cultivation on marginal land. ▪ Surface water availability declining due to deposition of boulders and sediments on riverbeds. ▪ Low-adoption of soil and water conservation practices. ▪ Inappropriate agricultural practices accelerate erosion and sedimentation, which lead to productivity losses and increase the vulnerability of down steam communities to climate change.	▪ 40% of Dun Valley and 83% of Terai cultivated within BRCRN area ▪ Rice bowl of Nepal, is the center of grain production in Nepal, and a key contributing area to the agricultural GDP of Nepal. ▪ Highly fertile soils allow for the cultivation of rice, wheat, chickpeas, lentil, oilseeds, sugarcane, among other crops. . Lentil and mustard are the main crops cultivated in the winter season[8] and a key income source in the Terai region, along with sugarcane. ▪ Constraints in dry season are water availability and soil fertility. Declining soil fertility is attributed to: soil erosion, organic matter depletion, acidification, forest degradation and cultivation on marginal land among other factors.[105] ▪ 40% of agriculture in the Terai can be irrigated throughout the year ▪ Commercial agricultural practices in the Terai increasingly use mechanization ▪ Low-adoption of soil and water conservation practices
Livestock	▪ Many households have small livestock (goats, sheep, rams or pigs), some families have buffalos. Majority of production is for household sub-	▪ Many households have small livestock (goats, sheep, rams or pigs), some families have buffalos. Majority of production is for household sub-	▪ Many households have small livestock (goats, sheep, rams or pigs), some families have buffalos. Majority of production is for household subsist-

[104]MoFSC 2014
[105]Shrestha et al. 2013

	Churia Hills	Bhavar	Dun Valley and Terai Plains
	sistence using low-yield traditional practices, including free-grazing in forested areas (contributing to forest degradation and erosion)	sistence using low-yield traditional practices, including free-grazing in forested areas (contributing to forest degradation and erosion)	ence using low-yield traditional practices, including free-grazing in forested areas (contributing to forest degradation and erosion) ▪ Some commercial production occurs that includes stall feeding and attention to animal nutrition and feed.
Climate-induced hazards	▪ Landslides, wildfires, water-scarcity, extreme heat	▪ Flooding, landslides, wildfires, water scarcity and extreme heat	▪ Wildfires, flooding, extreme heat, water scarcity, silt accumulation on agricultural land
Focus of climate resilient agriculture practices within the BRCRN project	▪ Green-manure/ cover-crops ▪ Mulching ▪ Composting (in areas with severe nutrient deficiency) ▪ Terracing ▪ Contour bunds ▪ Rainwater harvesting ▪ Conservation agriculture (maize) ▪ Agroforestry – shade cropping and intercropping ▪ Improved livestock management	▪ Green-manure/ cover-crops ▪ Mulching ▪ Composting (in areas with severe nutrient deficiency) ▪ Terracing ▪ Contour bunds ▪ Rainwater harvesting ▪ Intercropping ▪ Conservation agriculture (maize, wheat) ▪ Agroforestry – alley cropping, shade cropping and intercropping ▪ Improved livestock management	▪ Green-manure/ cover-crops ▪ Mulching ▪ Composting (in areas with severe nutrient deficiency) ▪ Rainwater harvesting ▪ Intercropping, relay-cropping ▪ Conservation agriculture (maize, wheat) ▪ Agroforestry – alley cropping, shade cropping and intercropping ▪ Improved livestock management

Forests

110. Inhabitants of the BRCRN project area are heavily dependent on forests for diverse products and socio-cultural services. Forests provide communities with timber for construction, fuelwood, livestock fodder, along with other various NTFPs. Many poor households sell firewood and other forest products in order to supplement their income from other sources for meeting their subsistence requirements – thus serving as a safety net for many families. Forests further serve as an area for recreation and eco-tourism (e.g. picnic spots, walking trails). Many communities, especially indigenous communities, have a strong cultural link to the natural environment.

111. This dependence on natural resources makes these populations highly vulnerable to the effects of climate change, especially considering the exposure of such communities to climate-induced natural disasters including floods, landslides and droughts. Such hazards are expected to increase in frequency and impact due to the catalyzing role of unsustainable natural resource management compounded by climate change.

112. Despite being located primarily in the Churia hills and Bhavar regions, these forests are also used by mid- and distant users from the Terai region – given the lack of forest resources in the Terai region and communities´ continued resilience on forest resources for their livelihoods.[106]

Land Tenure

113. Land rights and land tenure are a politically sensitive agenda in Nepal. There is an issue of access to land in rural areas.

114. At present, all land in Nepal is considered as the property of the state. But before 1950 there were two types of land tenure systems namely- Raikar as the land owned by the state, and Kipat as the land owned by certain ethnic communities.[107] After 1950, the Raikar land was allocated to individuals with all rights from use to sell the land, however, the owner of such land had to pay taxes to the government. The Raikar land tenure was further divided into four categories with specific features of tenure arrangements. After 1964 most of the customary land tenure systems have been abolished. Some of the remaining tenures were abolished during systematic and compulsory cadastral surveying and preparation of basic land records or land register. The present land tenure systems are as follows (Figure 22):

- Private land with absolute ownership- where land can be hold by the owner or may lease or mortgage or sell.
- Public and government- where the land belongs to the government but is used by public or community, but the government land is handled by itself.
- Trust land or Guthi land- land allocated to the trust or Guthis.

[106] Satyal Pravat and Humphreys 2013
[107] Regmi 1978

<table>
<tr><th rowspan="6">Land tenure type</th><th colspan="6">Land tenure system</th></tr>
<tr><th colspan="2">Registered (Statutory)</th><th>Religious</th><th>Customary</th><th colspan="2">Non-registered</th></tr>
<tr><td>Raikar</td><td>Private</td><td rowspan="4">Does not exist</td><td rowspan="4">Does not exist</td><td>Non-formal</td><td>Socially accepted
Legally recognized
Unregistered</td></tr>
<tr><td rowspan="2">State</td><td>Government</td><td rowspan="2">Informal</td><td rowspan="2">Socially accepted
Legally not recognized
Unregistered</td></tr>
<tr><td>Public</td></tr>
<tr><td>Guthi</td><td>4 types (Guthi, Birta, Jagir, Raiya)</td><td>Encroachment</td><td>Socially not accepted
Legally not recognized
Unregistered</td></tr>
</table>

Figure 22: Current land tenure system in Nepal

Source: Dahal 2018

Table 5: Land tenure categories and their features

Categories of land tenure	Special features
Raikar- state ownership	
▪ Guthi	Government granted land to certain communities for religious and social uses or to charitable institutions.
▪ Birta	During Rana and Saha regime, government granted land to their loyal servicemen such as upper class armies, priest, teachers and other individual those having remarkable achievements.
▪ Jagir	Government granted land to their servicemen instead of paying them cash salary
▪ Rajya	The land given to the defeated rulers in the battle during the unification of the country with aim to ensure that the defeated rulers will extend support to the state.
Kipat Communal ownership	Under this land tenure, certain areas of land were owned by ethnic communities mainly Limbu in the east of Nepal. There is no authority of the state over such land. This was abolished by the second land act amendment of 1966 which required registration of land.
Khaikar	Land registered under the name of a person and divided and cultivated by other individuals by paying the tax to the owner. This system was ended when cultivators became owners of the land with full tenancy rights.
Rakam	This is a system of land tenure where government assigned land as jagir and guthi under Raikar categories and given to cultivators providing unpaid labor to government on a compulsory basis to meet government requirement.

Source: Dahal 2018

Agricultural land

115. If we compare the economy and land tenure situation with agriculture sector, there is only 21 percent of the land under farming, where approximately 66 percent of the population

are involved, and majority of them are functionally landless.[108] About 3 percent of the owners control about 15 percent of the total cultivated lands.[109] The absentee landlordism and land abandonment have been the result of increasing number of youth migration, declining agricultural productivity and prevalence of high unemployment and underemployment at local level.[110] This has also resulted in the encroachment of forest land (0.1 million) in Terai.

116. There is no hard and fast rule in sharing benefits between landowner and tenant of share cropped lands. In some places, they share crop yield in fifty-fifty basis, while in some cases, it is 40% and 60% sharing mechanisms between landowner and tenant based on mutual agreement between the parties respectively. Basically, the benefit sharing arrangements are also guided by the contribution of major production inputs by the parties. Farmers in Nepal have traditionally integrated forestry and agricultural practices on their registered land, and have done so for generations for income and employment generation and livelihood improvement. Farmers are interested to plant trees only on land which is legally registered in the name of cultivator and their family members as private agricultural land. Small forest plots on the edges of farm lands have provided fuel wood, timber and fodder, and the standing trees help in conserving biodiversity, controlling soil erosion and sequestrating carbon. Private forest covers an area of about 54,900 ha and MOFE is targeting 200,000 ha private forest covers by the year 2025.[111]

117. Tree ownership and land holdings are closely correlated with larger holdings practice extensive tree farming and fruit gardening for making profit, whereas small holders have hesitation in growing trees due to the shading effects of trees on understory crops. Tenants pay their rents in grain or cash. There is no provision to pay rent with trees or tree products. Therefore, they do not like to plant trees in rented lands and shared cropped lands. There are no rules in Nepali law for dealing with the adverse effect of the tree shade from one farmer's fields on his neighbor's crops. This problem is now becoming the cause of conflict between neighboring farmers. Landowners face certain difficulties in turning their lands over to tenant farmers. The lack of clarity and frequent changes in the land laws enacted during the past few decades (particularly land reform) have created a situation of insecurity and mistrust between land owners and tenants. This coupled with labor scarcity in villages has led to increased private tree farming rather than agroforestry practices. In rural areas of Nepal, there are some lands not having land ownership certificate but claim as private land. Such lands are not planted with trees due to the land and tree tenure problems. There is no policy provision for growing fruit trees and some other cash crops in community forests and other national forests, and community level government lands. Dual ownership of trees in resettled areas, and conflict between forest rules and regulations and Local government act in paying tax of tree products and other forest resources have created major problem in land use and management.

Forest tenure

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[108] Kanel 2010
[109] Pandit and Bevilacqua 2011; Kanel 2010
[110] Pandit and Kumar 2010
[111] MoFSC 2016

118. Forest tenure is divided into public and private forests (Table 6). The forest management system under public tenure category is also diversified. The table below presents an overview of the various tenure categories of forest management and their status.

Table 6: Forest areas (in ha) 2004 to 2015 under various forest tenure regimes

	2004	2008	2010	2015	%
National forests					
Government forests				3,480,000	57.0
Community forests	1,153,848	1,229,669	1,381,736	1,898,917	31.1
Leasehold forests	1,677	6,483	8,014	42,835	0.7
Collaborative forests	6,670	3,944	22,929	61,709	1.0
Protected forests				416,675	6.8
Buffer zone CF				198,550	3.3
Private forest				**2056**	**0.03**
Total				**5,800,000**	**100**

Source: *DoF 2015*

119. **Government Managed Forests:** By and large, government forests over which local people have limited rights are distant from settlements. More than two thirds of the total forest area (85%) is still managed by Department of Forest as national forests. Of this, 61% is managed by government and the rest fall under community and leasehold forest management regimes. Of the government managed forests, almost 10% has been traditionally managed by local people and de facto, local people have continued to access over these forest resources. However, the Department of Forests as mentioned above is the caretaker and manager of these forests.

120. The management objectives are oriented towards protection and extraction of timber, whereas NTFPs are often less focused on within the management plan. As in most other parts of Nepal, due to the remote location of these forests and shortage of adequate tools at its disposal, the DOF has not been able to successfully manage and protect these forests and therefore many parts of these forests are degraded and turn into abandoned land. So far, the main work of the District Forest Office (DFO), has been the issuance of licenses to private contractors for timber cutting and for NTFP collection. The licenses issued by the DFO for timber cutting and NTFP collection are available in the respective district, but their data at national level has not been integrated.

121. **Community forestry:** A part of the national forests is allocated to the local forest user groups (FUG) as community forestry. Community forestry is the largest community-based tenure regime in Nepal. Based on the Forest Act 1993, local people form a community forest user group (CFUG) and request the District Forest Office to hand over an identified patch of forest as community forest. Initially community forestry was initiated to restore the degraded middle hills and to supply basic forest products to rural people. As of September 2015, 18,961 FUGs have been established managing around 1.89 million ha of forest which is 31% of Nepal´s forests. The rights CFUGs enjoy are mainly operational (access and use); and collective choice (management and exclusion). Since the CFUGs do not have alienation rights, security of their tenure is an issue. Though there is no defined period or legal guarantee of continuity, the management plans are to be renewed within a five to 10 years' period and are renewable indefinitely.

122. Despite insecurity of tenure, community forestry has significantly contributed to the protection of forests in the middle hills of Nepal.[112] Most of the CFUGs are able to manage forests and generate a group fund. Such funds are being used for local community development activities such as school building construction, road and trail maintenance and construction; provide irrigation facilities, constructing community buildings, etc.[113] CFUGs have developed policies to support poor and disadvantaged members in a community in a variety of ways. For example: special preferential quota for membership of the executive committee and benefit sharing for Dalits and poor, obligatory 50% women participation in all executive committee, and providing funds to support income generating activities. In some cases, CFUGs have funded poor students for their education and health.

123. **Leasehold Forests:** The government allocates patches of forest land for 40 years lease to a group of ten households those identified as poor. These group will protect, manage, develop and restore forest, and use products from the forestland. This specifically targets the poorest among the poor within the community with aim to improve livelihoods and eventually to alleviate the poverty of those identified poor households living adjacent to degraded forests. Despite its limited coverage, leasehold forestry has become popular amongst poor households because it has helped to improve forest condition and contributed to the livelihoods of the members. However, due to procedural complexities and limited ability of leasehold groups to access financial and technical assistance from the involved organizations the progress in terms of scaling up of this model has so far been relatively slow compared to the expansion of community forestry. Furthermore, the progress is constrained as most of the forests allocated to leasehold groups are degraded and demand intensive and costly restoration efforts.

124. **Collaborative forestry:** After the revision of the Forest Policy in 2000, the government of Nepal developed a new regime under community based forest tenure specifically to manage large block forest in the Terai region, calling it collaborative forestry. This production model includes a benefit sharing scheme between the District Forest Office (DFO), local government (District Development Committee) and local forest users. Unlike community forestry, the rights of users are limited as only the 50 % of benefits from timber harvesting and sale will go to community group and the decisions are collectively made by the collaborators. The key objectives of collaborative forestry are to meet local demand of users and demand for commercial use of forest products, and to reduce poverty by creating employment while enhancing biodiversity. Local residents living within 5 km from the forest are considered as primary users of collaborative forestry. Collaborative forestry also follows the principles of participatory forest management and has been trying to maintain equity by providing preferential treatment to poor households (discounted price on timber purchase etc.), and encouraging women to participate in decision making.

125. **Private forestry:** The scale of private forests in Nepal is insignificant so far, making up only 0.01% of total forest area, but slowly people are being encouraged toward establishing registered private forests as per Forest Act 1993. Some have started doing agro forestry within

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[112]Kanel and Dahal 2008
[113]Dahal and Chapagain 2008

their private agriculture land or renting other people's land for private forestry with an arrangement of having tree tenure. In any case, private forests provide direct economic benefits to the individual as 100% benefit goes to the private owner. These days' farmers with abandoned agricultural land are shifting their priority from agriculture farming to tree farming due to a shortage of labor for farming and better income from trees.[114] However, there are some legal restrictions on growing and selling certain species on private land, and also VAT is imposed on commercial sale of the forest products. Registration of private forestry is a legal requirement to have rights to harvest timber and to sell timber commercially. The complicated process of private forest registration at District Forest Office at times demotivates private landholders from growing forest trees in their farm land. Nevertheless, increasing interest from people indicates that private forests are perceived to contribute to livelihoods and income through employment generation and sale of forest products. In addition, private forests could help in maintaining local environmental conditions and reducing pressure on native forests.

3.3 Potential future changes foreseen as a result of the planned activities

126. The overarching future change expected from this project is the reduced climate vulnerability of forest-dependent rural communities throughout the Churia region. The majority of the proposed activities are cross-cutting in nature, with adaptation and mitigation benefits, supporting both climate-resilient and low-emission development pathways.

127. The project aims to:

- Increase awareness of risks from climate change and unsustainable natural resource management in the project area, as well as risk-reduction measures and climate-resilient SNRM;
- Build the capacities of local and provincial governments to effectively carry out climate-resilient landuse planning and management, and support the mainstreaming of such topics into provincial and local strategies and plans;
- Develop at least 10 courses/ modules for extension services on climate-resilient land use practices, integrating in local and indigenous knowledge, experiences from piloted projects in Nepal, as well as international best practices that are well adapted for the project area
- Strengthen policies for climate responsive planning and development, through the development of3 climate-resilient provincial strategies and 26 action plans that will indirectly benefit all 3.2 million people living within the project area;
- Increase the adaptive capacities of members of 750 community-based organizations (including at least200,000 households and 960,000 people), through trainings on climate-risks and climate-resilient land use and through technical support to implement such measures;

[114] Gimlour 2016

- Implement climate-resilient agriculture practices on at least 60,965 ha of agricultural land to enhance land productivity and food security, reduce soil erosion, sedimentation and land degradation, and will enhance soil carbon;
- Restore at least 206,227 ha of critical forest, wetland and grassland ecosystems;
- Support the adoption of soil and water conservation practices to reduce erosion and sedimentation, improve water security, and to enhance groundwater recharge;
- Establish gully stabilization measures on 8,689 ha, and river bank stabilization measureson 8,098 ha (~800km in total) to reduce exposure to climate-induced risks such as flooding and landslides;
- Provide technical assistance to implement afforestation and reforestation measures on 22,598 ha of private and public lands for distant forest users, especially in the Terai, to reduce pressure on natural forests for fuelwood, timber, NTFPs and forage;
- Establish the Churia Knowledge Centre, with an online database and 3 provincial hubs (anchored in Provincial Ministry (Watershed Management Section), to enhance monitoring, knowledge sharing and information dissemination;
- Increase the generation and use of climate information in decision making processes through the demonstration/ scaling up of proven climate-resilient activities, supporting information consolidation and dissemination, enhancing extension, building capacities and improving monitoring and knowledge sharing systems;
- Ensure gender equality and social inclusion by promoting proportional representation, and providing a differentiated approach that aims to empower disadvantaged groups who have experienced inter-generational discrimination and those groups who are highly vulnerable to climate-change.

3.3.1 Projected impacts of changes introduced through the BRCRN project

128. By implementing climate-resilient SNRM measures at scale, manifold additional benefits will be generated by the project, to both rural and urban populations,through strengthening communities´ and ecosystems´ resilience to climate change including increasing temperatures, changes in seasonal precipitation (e.g. arrival of monsoon, intensity of monsoons). It will further increase the resilience of communities´ and ecosystems to climate change trends (increasing temperature and precipitation), includingclimate change hazards that the region is particularly vulnerable to: in particular extreme heat, water scarcity, wild fires, flooding and landslides. Sedimentation and flooding is a major issue that is not only experienced downstream in the Terai region of Nepal, but also in northern India which experiences high sediment loading and riverbed aggradation from the Churia region in Nepal. Thus, the project will help reduce the risk and severity of water-induced disasters and river bank erosion downstream, through reduced erosion and sedimentation as a result of SNRM.

129. Fewer incidences of livelihood loss and death resulting from flash floods will be seen, as water recharge systems will be improved and soil and water ecosystem services become more robust. The adoption of climate-resilient land use practices in targeted areas, e.g. river bank restoration and critical ecosystems, will help improve the resilience of ecosystems to

climate-related hazards. Targeted measures, taking into account the differentiated vulnerabilities of different beneficiaries, will help ensure the most vulnerable people are reached within the project area and that their adaptive capacities are built.

130. On a landscape level, this project will reduce the alarming rate of land degradation that is currently converting downstream farmland into infertile sandy riverbeds. Through improving overall management of watershed areas and supporting the restoration of 206,227 ha of degraded forests, wetlands and grasslands, this project will create significant visible environmental benefits throughout the river system. The current soil erosion and top soil loss resulting from forest degradation upstream and leading to rising and widening of riverbeds and accumulation of silt loads down-stream will be reduced. The declining carrying capacity of rivers, currently causing riverbed rising, river bank cutting, flash flooding, siltation of reservoirs and barrages and desertification of agricultural lands, will be addressed. Forestry management practices, connecting critical catchments and improving soil and water conservation will manifest as increased productivity and resilience of down-stream communities. Gully and riverbank stabilization measures, along with implementation of emergency warning systems, will further contribute to improve river bank health and increased resilience of both up-stream and down-stream communities.

131. By maintaining functional wildlife corridors to connect protected areas throughout the Terai region, an increase in native flora and fauna populations is foreseen. Given the large proportion of Nepal's total biodiversity and ecosystems found in the Churia landscape and the importance of corridors for the continuation of viable populations, the establishment and protection of these corridors will lead to greater protection of Nepal's critical species and ecosystems. The establishment of viable wildlife corridors will also help reduce the occurrence of human-wildlife conflict. Although the development of wildlife corridors alone is not sufficient to curtail human-wildlife conflict, along with other interventions, such as installing proper fencing, holding training on animal behavior, and incorporating wildlife into early warning systems, corridors play a crucial role in protecting both wildlife and humans.[115] The establishment of corridors along the Churia foothills of Kokrha, Patnali, Gideri, duar khola and Sunkoshi riversystems will improve the connectivity with the Koshi Tappu Wildlife Reserve. Such corridors can also help relieve the wild buffalo-induced conflicts seen in Saptari and Sunsari areas. In these areas wild buffalo and boar take a large toll on wheat, potato and paddy crops, and occasionally cause human injury and even death.[116]BRCRN conservation efforts can contribute to alleviate the crop loss experienced around Koshi Tappu Reserve, along with reducing human-human and human-institution conflicts that arise with human-wildlife conflicts. These corridors will also address the increasing number of wild elephant related incidents, and corresponding high human fatality rates, experienced as these elephants move from India through Nepal.[117]

132. Along with restoring ecosystem services and rehabilitating degraded forests and lands, the Outputs of this project are expected to lead to a reduction of over 17.78 million tCO_2eq over

[115] Acharya 2016
[116] Limbu and Karki 2003
[117] Acharya 2016

a 20-year period. The adoption of sustainable climate smart land use practices such as climate resilient agriculture, agroforestry and tree planting, improved livestock management, restoration and sustainable management of forests and the plantation of commercial timber species will increase carbon sequestration capacities. The volume of carbon sequestered will continue to grow with time and as project Outputs are replicated and scaled up throughout the country.

133. The adaptation benefits of this project strengthen the institutional backbone of communities and government institutions to deal with climate change. Provincial and local government authorities will be trained on climate-resilient land use, improving institutional capacities on climate risks, as well as low-carbon and climate-resilient land use planning. Such measures will be further mainstreamed into provincial strategies (Provincial Climate-Resilient Land Use Strategy and Provincial Disaster Risk Reduction Plans), and river system level action plans.

134. Capacities of CSOs will further be strengthened, particularly at the local and provincial level, where many capacity gaps exist due to the ongoing political transition and subsequent restructuring. Vertical and horizontal multi-stakeholder coordination and communication regarding climate change, SNRM and climate risks will be improved, promoting coordination across sectors and among diverse stakeholders. Multi-stakeholder and improved coordination platforms will also be established to support project implementation, ensuring such organizations develop a sense of ownership and to improve coordination for project implementation. Resulting strategies and action plans for climate-resilient land use planning and SNRM in the region will provide a roadmap and allow for mainstreaming sustainable and resilient future planning and development.

135. Measures will target the most vulnerable areas, especially areas that are highly susceptible to flooding and landslides, as well as other critical areas identified at the sub-river system level. Activities will further target the most vulnerable people living within these vulnerable river systems, including poor households, indigenous peoples and Dalits. Additional measures will be further targeted to overcome barriers to participation for marginalized groups, including trainings to enhance leadership and empower such groups).

136. Project activities will enhance the adaptive capacities of members of 750 community-based organizations. A participatory and inclusive approach will be utilized that aims to empower community-based organizations to improve their awareness of climate change and associated risks, and to support them to map out the adaptation needs of their members to build resilience at the local level. Such an approach will allow differentiated priorities, contexts and vulnerabilities within and among community-based organizations to be considered, where communities are able to identify and prioritize measures that are well suited to their context.

3.3.2 Theory of change- how the project supports adaptation and mitigation

137. As a result of this project, an enabling environment to support transformative change toward low-carbon and climate-resilient development pathways will be established and provide the foundation for the improvement and strengthening of disaster preparedness and adaptive management throughout the country. Through mainstreaming SNRM and climate

change in planning processes and enhancing institutional learning within both government and local community-based user groups, as well as supporting investments to scale up climate-resilient practices, increased resilience and low-emission development is expected to be seen, with overall improvements in livelihood resilience, health, water and energy security, and engagement and empowerment of women and vulnerable groups throughout Nepal.

138. The following figure depicts the project´s theory of change (Figure 23).

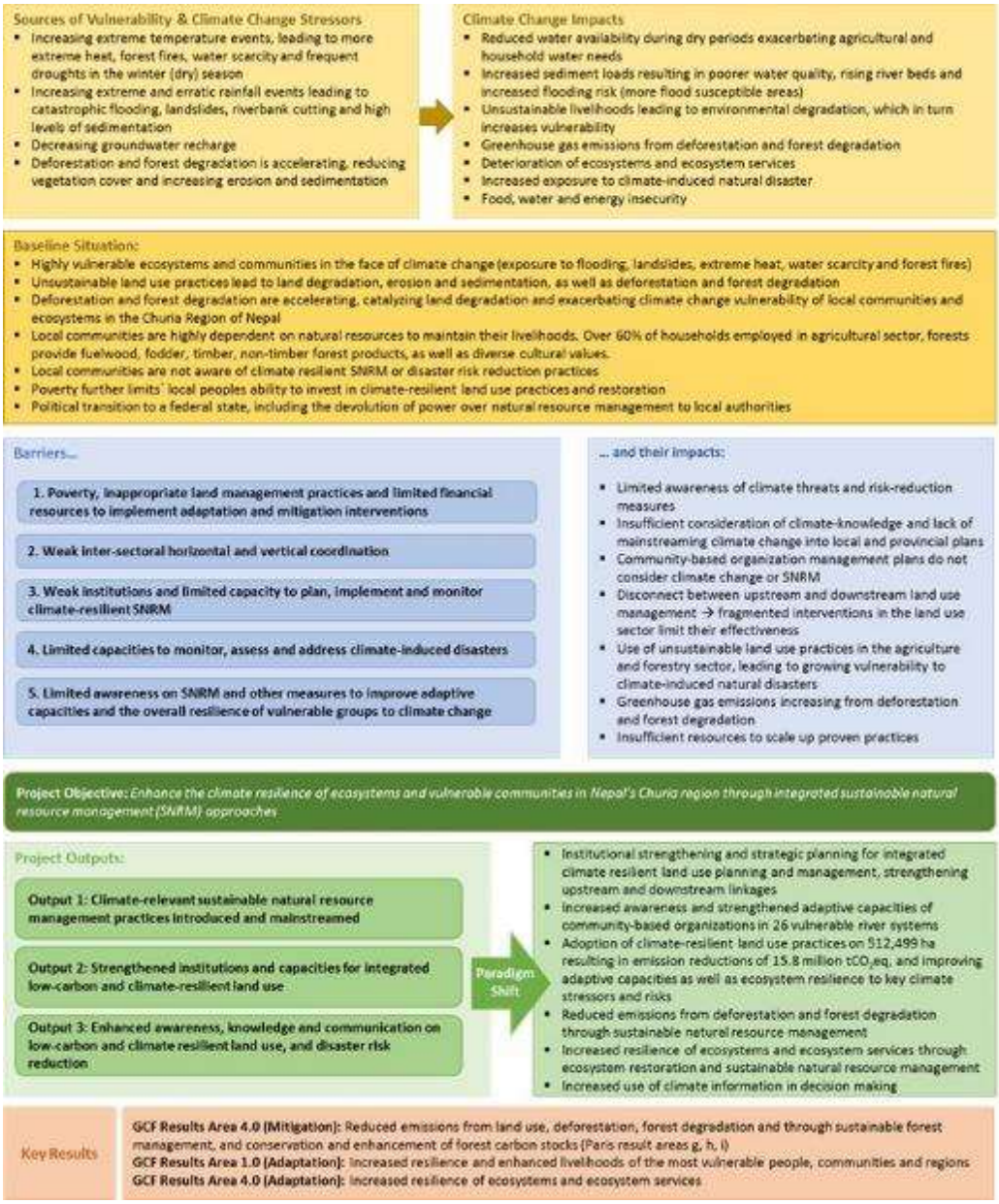

Figure 23: Theory of change for the BRCRN project

4 LEGAL AND INSTITUTIONAL FRAMEWORK

Policy Alignment

139. The Government of Nepal is committed to addressing issues of climate change mitigation and adaptation, especially in line with livelihood improvement, as testified by the country's ratification of the United Nations Framework Convention on Climate Change (UNFCCC) in 1994. Nepal endorsed the Kyoto Protocol (2002), the Paris Agreement (2016), and submitted the 1st and 2nd National Communication Report of GHG (2004 and 2014) and Nationally Determined Contributions (NDC) to United Nations Framework Convention on Climate Change (UNFCCC). Within the country´s NDC, measures to support climate change mitigation and adaptation are described, including efforts to support institutional strengthening, policy mainstreaming, knowledge management, as well as mitigation and adaptation-specific actions. Nepal´s NDC however notes that while it is one of the most vulnerable countries to climate change, that given its LDC status and ongoing recovery from the devastating 2015 Earthquake, the country requires additional bilateral and multilateral grant support to meet its climate change targets and commitments. The BRCRN project is closely aligned with the country´s NDC, specifically targets b, e, j and k, and represents an important cross-cutting approach within one of the most vulnerable areas in Nepal.[118]

140. There are further synergies between the project and other international conventions to which Nepal is a signatory member, including the Convention of Biological Diversity (CBD), United Nations Convention to Combat Desertification (UNCCD), and the Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW). Nepal also voted in favor of the United Nations Declaration on the Rights of Indigenous Peoples.In addition, Nepal has taken proactive steps toward achieving the global Sustainable Development Goals since their development in 2016 through forming three high-level committees to steer, coordinate and implement relevant national programs, with the aim of becoming a middle income country by 2022.[119]The BRCRN project is also directly correlated with the SDG goals related to climate action, life on land, reduced inequalities and gender equality, along with indirectly contributing to several other goal areas.

141. Nationally, Nepal has initiated various national strategies, policies and plans to support climate change mitigation and adaptation, including the elaboration of its Climate Policy (2011) and the mainstreaming of such topics across sectors through sector strategies and development plans. Nepal's Thirteenth and Fourteenth Development Plans recognize the role of forests in contributing to both climate adaptation and mitigation efforts, and calls for the conservation, sustainable management and use of forests and watersheds, along with emphasizing the development and dissemination of environmental friendly agricultural technologies and agro-biodiversity conservation and promotion. Nepal's Forestry Sector Strategy (2016-2025) aims to, among other things, supports the adaptive capacity of local communities and forest ecosystems, and promotes biomass-based renewable energy. Nepal's Forest Sector Policy (2015) envisions contributing to local and national development (improved livelihood opportunities) through sustainable management of forests, biodiversity, as well as watersheds. Nepal's Forest Act (1993) and Forest Regulation (1995) serve as the core legislative instruments to regulate forest tenure and management, and empower communities to sustainably manage their resources. Additional legislations and associated

[118]http://www4.unfccc.int/ndcregistry/PublishedDocuments/Nepal%20First/Nepal%20First%20NDC.pdf
[119] National Planning Commission 2017

policies are also in place to address forest degradation, and within the Churia region, the President Chure-Tarai Madhesh Conservation and Management Master Plan is the main guiding document for conservation efforts (including areas of climate change, forestry management, watershed conservation etc.).BRCRN activities also align with Nepal's National REDD+ Strategy which aims to reduce emissions from deforestation and forest degradation. Substantial research and consultations have been conducted within the framework of REDD+, which have been taken into consideration in this report and have informed the design of the BRCRN project. The development of REDD+ has also provided key lessons learned and generated substantial knowledge on sustainable forest management and SNRM, including developing a framework foundation and promoting interventions that facilitate gender equality and social inclusion (GESI).

142. BRCRN´s activities will thus strengthen and reinforce Nepal's regulatory and legal frameworks, promote the development of additional low-emission policies, and improve climate-responsive planning and development in the region. The BRCRN project is well-aligned with the various national public policies that support sustainable development in the Churia region of Nepal.

Social and Environmental Policies

143. To support project implementation, it is necessary that a comprehensive set of social and environmental policies are in place to ensure that livelihoods and the environment are safeguarded from potential negative impacts. A summary of the existing relevant laws, policies and strategies that will help safeguard local people and the environment is provided in Table 7.[120] More detailed information on international conventions, policies and legislation related to indigenous peoples and social inclusion is provided in Chapter 8. Greater detail related to gender is provided in the Gender Assessment and GAP prepared for the project.

Table 7: Major policies, strategies, plans and acts that are aligned with the BRCRN project

Relevant policies, strategies, plans & acts	Key features
14th Development Plan of Nepal	▪ Country´s development plan to support sustainable development in Nepal ▪ Promotes gender equality and social inclusion across sectors, promoting inclusive and equitable development ▪ References key challenges in the Churia region including upstream downstream connections, and the risks to downstream communities due to the fragile, unsustainable development of the Churia region, and

[120]It should be noted that with the political and institutional transitions ongoing in Nepal due to the 2017 elections, many national policies, strategies and acts will need to be revised and adjusted in accordance with the new political and governance system. The project has been designed in accordance with the Local Government Operation Act (2017), the act providing the overview for governance, including institutional arrangements, roles and responsibilities at the local level. The overarching framework developed by the national development agenda and international agreements will remain.

Relevant policies, strategies, plans & acts	Key features
	the need to improve access to benefits from forest, and to control deforestation and forest degradation. Further stresses the need to support climate change mitigation and adaptation to reduce deforestation, enhance livelihoods and support disaster risk reduction. ▪ Promotes the implementation of integrated conservation activities within river systems, with an emphasis on upstream and downstream impacts/ planning
Local Government Operation Act (2017)	▪ Provides detailed information on the roles, responsibilities and coordination mechanisms. Rural municipalities and municipalities shall make rules required under its defined domains or jurisdictions to operate the given responsibilities and regulate procedures, while complying with provincial and national laws. ▪ Local Governments in charge of natural resource management at the local (rural municipality) level (Article 18) ▪ Local government can implement climate change mainstreaming into local plans, including GESI, and building institutional capacities through making operational guidelines, procedures and criteria.
President Chure-Tarai Madhesh Conservation and Management Master Plan (2017)	▪ Provides strategic direction for the conservation of the Churia area ▪ Promotes the integrated management of upstream and downstream land use activities and an integrated landscape approach ▪ Includes measures to strengthen the participation of women, Dalits, indigenous groups and marginalized communities including skill (e.g. skill oriented capacity building, participation in community-based organizations, etc.) ▪ Supports poverty reduction in pursuit of the national goal of *'Prosperous Nepal'* through conservation and sustainable management of resources and ecosystem services
Nepal's Nationally Determined Contributions (2016)	▪ Provides impacts of climate change across sectors including water resource management (stressing reduced water availability and increased droughts and floods), agriculture, food security and renewable energy ▪ Prioritizes climate-resilient sustainable land and forest management, ecosystem rehabilitation and restoration, strengthening community-based NRM, and improving agricultural techniques ▪ References the legitimate rights of all Nepali people, including disadvantaged social groups over biological resources
Forest Policy 2015, National Forest Strategy (2016)	▪ Focuses on forest productivity and the sustainable provision of forest products and services, while improving biodiversity, watershed and ecosystem services, entrusting forestry sector organizations, ensuring climate resilience, and improving livelihoods ▪ Provides system for equitable distribution of timber and firewood from government and community managed forests, particularly to forest-dependent poor households, socially marginalized groups and families affected by natural disaster ▪ Measures to enhance participation and capacities of women, Dalits, ethnic minorities and indigenous peoples (promoting proportionate representation, improved representation in leadership positions within forest institutions, etc.), ultimately promoting gender equity, inclusive devel-

Relevant policies, strategies, plans & acts	Key features
	opment and socio-economic development, particularly for poor households, women, Dalits, indigenous persons, and other marginalized groups.
Constitution of Nepal (2015)	▪ Guarantees people's welfare and all-round-progress through economic, social and cultural transformation, while defending and strengthening political achievements and their development ▪ Maintains the rule of law by protecting and practicing human rights and implements international treaties and agreements ▪ Ensures the right to equity, where there shall be no discrimination in the application of general laws (Article 18) ▪ Guarantees good governance by ensuring equal access to services provided by the State and making public administration clean, competent, impartial, transparent, accountable and participatory ▪ Expands and develops the means, administration and responsibilities if federal units for the management of resources ▪ Requires maintenance of national forest area goals and incorporation of state policies to control forest encroachment
Community Forestry Guidelines (2015)	▪ Details requirements for Community Forestry User Groups, including the mandatory provision of 50% representation of women in the executive committee, and guarantee of at least 1 major position (president or secretary) filled by a woman.
Revised Land Use Policy (2015)	▪ Re-categorizes the country into various land use zone and devises Federal, Provincial, & Local-level land use plans ▪ Ensures the use of land and land resources follow guidelines set in land use plans to mitigate natural and human created disastrous hazards ▪ Applies minimum property valuation and progressive tax system
Agriculture Development Strategy (2015-2035)	▪ Sets forth priorities to move toward self- reliant, sustainable, competitive, and inclusive agriculture sector that drives economic growth and contributes to improving livelihood, food and nutrition security leading to food sovereignty ▪ Includes strategies for poverty reduction, agricultural trade competitiveness, and establishing higher and more equitable income and rights for farmers ▪ Includes various measures targeted at the most disadvantaged rural population including poor households, women, indigenous peoples, Dalits and other marginalized communities, especially with a focus on improved food security.
Churia declared as Environment Conservation Area (2014)	▪ Based on the stipulation in the Environment Protection Act (1997) 10 (1), declares Churia area as a conservation area due to the area's geological fragility and sensitivity, rich biodiversity, watershed conservation needs and importance to several endangered species
Climate Change Policy (2011)	▪ Promotes clean energy and sustainable natural resource management to improve livelihoods by mitigating climate change impacts, adapting a low-carbon economy development strategy and reducing greenhouse gas emissions

Relevant policies, strategies, plans & acts	Key features
	▪ Includes measures aimed to promote gender equality and social inclusion, including ensuring the participation of poor people Dalits, marginalized indigenous communities, women, children and youth in the implementation of climate change-related programs.
President Churia Conservation Program (2011)	▪ Integrates land, water, and forest management to ensure ecological balance ▪ Includes provision of livelihood support for people through appropriate management of resources, promoting social harmonization and the strengthening of local people engagement in resource management and building upstream-downstream linkages
Forest Encroachment Control Strategy (2011)	▪ Prohibits the conversion of forests into other land-use systems, with the exception of forests utilized for nationally prioritized projects ▪ Provides strategies to control forest encroachment
Nepal National Adaptation Programme of Action (2010)	▪ Promotes community-based adaptation through integrated management of agriculture, water, forests and biodiversity; building and enhancing adaptive capacity of vulnerable communities; community-based disaster management for facilitating climate adaptation; and empowering vulnerable communities through sustainable management of water resource and clean energy supply ▪ Specifically sets priority actions for reducing land degradation through sustainable land and forest management, improved agricultural value chains, restoring degraded areas and promoting climate related research, information and awareness
Churia Area Program Strategy (2008)	▪ Establishes local ownership over non-biological natural resources (water, sand, boulders) with negotiated rights & responsibilities to ensure effective resource management ▪ Promotes people-led biodiversity conservation by involving rural households and their CBOs to strengthen the tie between conservation and sustainable livelihood opportunities
Ministry of Forest and Soil Conservation (MoFSC) Gender Equality and Social Inclusion (GESI) strategy (2008)	▪ Aims to assist government, non-government, donor and private sector bodies working in the forestry sector to institutionalize gender and social inclusion within their organizations, projects and programs. Guides organizations working in the forestry sector to be responsive and inclusive through identifying and addressing four key thematic areas including: i) GESI sensitive policies and strategies, ii) good governance and inclusive institutional development, iii) GESI-sensitive budgeting, programming and monitoring, and iv) equitable access to resources and benefits.
Irrigation Policy (2003)	▪ Details the requirements for Water User Associations, including the provision that at least 33% of WUA must be women.
Water Resource Strategy (2002)	▪ Recognizes the connection between human activities, natural factors, and risks of severe flooding and environmental deterioration, economic loss, and displacement of people and that this calls for improved holistic watershed management ▪ Provides roadmap to strengthen institutional capacities, implement watershed and aquatic ecosystem programs, and meet long-term requirements for social and ecological sustainability

Relevant policies, strategies, plans & acts	Key features
Land Use Policy (2002)	▪ Establishes zone divisions for agriculture farm, forest, pasture, settlement, urban development, industrial state, wasteland, wetland, herbal production area etc. and provides land use plans based on zonation
National Foundation for Development of Indigenous Nationalities Act (2002)	▪ Established the National Foundation for Development of Indigenous Nationalities (NFDIN), an independent organization that works as the link between the Government and indigenous peoples with the mandate to implement programs that support the development of all indigenous peoples and to recommend to the government strategies to improve the social, economic and cultural development of indigenous peoples. ▪ Defines indigenous peoples (*Adivasi/Janajati*) and promotes the overall development of indigenous peoples, preservation and promotion of traditional knowledge, skill and technology, inclusion of indigenous peoples in decision processes and building of an equitable society.
Buffer Zone Management Guidelines (1999)	▪ Clarifies the the roles, functions, duties and responsibilities of community institutions (user groups, functional groups, user committees, sub-committees and buffer zone development committees) related to community and forest development.
Local Self-Governance Act (1999)	▪ Requiresa minimum 20% representation of women on village and ward-level development committees. It is considered the first step in which women's representation was formally recognized by the government. Currently, this number stands at 25% at ward levels, and at least one position (mayor and deputy-mayor) must be filled by a woman.
Environment Protection Act (1997), Environment Protection Regulation (1997)	▪ Makes compulsory to produce Environment Impact Assessment (EIA) and Initial Environment Examination (IEE) for any proposed projects/ interventions to ensure no significant adverse impacts and that potential impacts are controlled ▪ Related activities that would require an IEE (related to BRCRN project): i) monoculture plantations in block (within Terai 50-500 ha; Churia hills 25-100ha); ii) Management plan preparation for protected watersheds; iii) pro-poor leasehold forests covering more than 50 ha; iv) forest handover to community as community forests (within the range of 500-750 ha); v) river control measures on a continuous length spanning over 10km. All project activities will comply with the Environment Protection Act and Environmental regulation, however is unlikely that project activities will trigger IEE as the project will focus on smaller-scale interventions.
Buffer Zone Management Regulation (1996)	▪ Ensures that the rights of local people over their land and resources are respected during the establishment of buffer zone areas. User committees can be formed to manage and use certain forest products in buffer zone areas and Buffer Zone CFUGs and Buffer Zone Religious Forest User Groups (RFUGs) are allowed to manage allocated forest lands based on an approved management plan.
Forest Act (1993), Forest Regulations (1995)	▪ Serves as the core regulations that guide forest tenure and forest management ▪ Designates prohibited activities in all types of forests and gives Community Forest Users groups the authority to control illegal harvest of timber in community forests

Relevant policies, strategies, plans & acts	Key features
	▪ Gives the government ability to declare any part of national forest as community forests or protected forest given 'special environmental, scientific &/or cultural importance' ▪ 2016 amendment of Forest Act states that management, utilization and benefit sharing of environmental services (including carbon services) will be prescribed in the 6th amendment of the Forest Regulation
National Environment Policy & Action Plan (1993)	▪ Stipulates Churia hills as a fragile and sensitive region that should be conserved and designated as a Protection Forest
Fourth Amendment of National Parks and Wildlife Conservation Act (1992)	▪ Established the provision of Buffer Zones in order to address local livelihood needs and involve local communities in national park conservation activities.
Wildlife Reserve Rules (1977)	▪ Determines the access and activities allowed within reserves. Without written permission from designated authorities, building any infrastructure, occupying any land, grazing, cutting or obstructing any trees, plants, or bushes, retrieving any meat and mining or disturbing any stones, sand, mineral, river or water body is considered illegal. Other rules related to fines, vehicle use, permits and waste are also laid out.
National Parks and Wildlife Conservation Regulations (1974)	▪ Sets forth the services that are allowed to be operated in national parks or reserves, who can be granted access to the parks, provisions on hunting and required related licenses and the fees and procedures related to the above activities.
National Parks and Wildlife Conservation Act (1973)	▪ Defines four categories of protected areas: national parks, strictly controlled nature reserves, hunting reserves and conservation areas. ▪ Within these areas, activities including hunting, building of houses or any structure, clearing or cultivating any and or harvesting any crops, pasturing or watering any domesticated animal or bird, cutting, burning or damaging trees, bushes, or other forest products and mining are prohibited without the permission of an authorized officer.

5 APPLICABLE SAFEGUARD POLICIES

144. This ESMF has been prepared to support the proposed project ´*Building a Resilient Churia Region in Nepal*´ (BRCRN), developed by the Government of Nepal and submitted to the GCF. The project is further supported by the Food and Agriculture Organization of the United Nations (FAO), in their role as the GCF Accredited Entity. Thus, the project has been screened against FAO´s Environmental and Social Safeguard Policy, as well as the GCF Environmental and Social Safeguards.

5.1 FAO environmental and social standards

145. FAO has nine Environmental and Social Standards (ESS) that have been established to help manage and improve FAO environmental and social performance through a risk and outcome based approach (Table 8):

Table 8: Overview of Environmental and Social Standards of the FAO

Standard	Description
ESS 1: Natural Resource Management	Impact of the proposed project on the degradation of natural resources, and loss of ecosystem services resulting from the escalating competition over natural resources (including land, water, biodiversity, landscapes, and water bodies). ESS1 focuses on the abiotic environment (e.g. soils, land, water, security of tenure and climate).
ESS 2: Biodiversity, ecosystems and natural habitats	Risks associated with the variety and variability of animals, plants and microorganisms at the genetic, species and ecosystem levels that are essential to support the structure and function of productive ecosystems.
ESS 3:Plant Genetic Resources for Food and Agriculture	Prevention of genetic diversity loss and unintended environmental and social consequences through promoting sustainable crop improvements and production. ESS3 calls for the assurance that transfer of Plant Genetic Resources for Food and Agriculture (PGRFA) respects farmers' rights and equal access to benefit sharing.
ESS 4: Animal – Livestock and Aquatic- Genetic Resources for Food and Agriculture	Risks associated with the sustainable management of animal and aquatic resources, including loss of genetic diversity and unintended environmental and social consequences. Animal Genetic for Food and Agriculture (AnGR) includes any animal species that are used or may be used for the production of food and agriculture.
ESS 5: Pest and Pesticide Management	Risks regarding adverse impacts of pesticides on the health and safety of communities, consumers, and the environment. ESS5 encourages Integrated Pest Management (IPM) and recognizes the contribution of pesticides to effective crop and food production but promotes the reduction of pesticides reliance.
ESS 6: Involuntary Resettlement and Displacement	Protection of households from forced eviction and minimization of any social and economic impacts from land restriction or resources use restrictions that may arise. ESS6 encourages the inclusion of measures to improve/restore living conditions, productive assets, and tenure security of any persons displaced, either physically or economically.

Standard	Description
ESS 7: Decent Work	Recognition of the need for full and productive employment to reach food security and poverty reduction. In order to fulfill ESS7 this project must promote access to rural employment, ensure fair non-discriminatory and equal opportunities, support workers including disadvantaged and vulnerable categories of workers, and apply the international labor standards, including the prevention and elimination of child labor.
ESS 8: Gender Equality	Proposed project impact on gender roles and opportunities and gender mainstreaming, along with project contribution to achieve gender equality for sustainable interventions in the agriculture and rural sectors.
ESS 9: Indigenous People and Cultural Heritage	Risks to indigenous knowledge, cultures and traditional practices, right to self-determination and tangible and intangible cultural heritage for current and future generations. ESS9 ensure the project follows Free, Prior and Informed Consent (FPIC).

Source: FAO 2015

5.2 Project risk classification

146. The FAO Project Environmental and Social Screening Checklist was prepared (Annex 4), and the project was identified as a Category B (*moderate risk*) project, where:[121]

147. **There are identified potential diverse environmental and social impacts**

- Potential risks of environmental contamination based on the inappropriate disposal of alternative renewable energy technologies, especially solar PV systems with lead-batteries
- Changes in land use due to the mainstreaming of climate-resilient SNRM practices and promotion of improved livelihood practices could discriminate against some members of society, especially poor and marginalized communities (e.g. if they are no longer able to freely graze in forested areas).
- Potential for site-specific impacts due to the establishment of small-scale infrastructure such as check dams, stone bunds, and the conservation of conservations ponds (removal of soil could lead to increased sedimentation if not properly managed)
- Activities on private land can only be implemented on areas with clear land tenure, although this could be a barrier to engage poor and marginalized households, who may not have secure land tenure. Nonetheless, this represents only a small proportion of project activities, and further activities will be targeted to ensure the empowerment and engagement of poor and marginalized households within the project (e.g. targeted measures, and supporting the establishment of at least 40 public forest user groups that are primarily comprised of marginalized households)
- Women, indigenous peoples, and marginalized minority groups (including Dalits, among other groups), often experience discrimination and may face additional barriers to their participation and engagement
- Timber harvesting and forest management without sufficient protective equipment or with inappropriate practices could lead to personal injuries.

[121] FAO 2015

148. **Potential impacts are not unprecedented in the project area**

- Proposed activities have been piloted in the Churia area by diverse stakeholders and have demonstrated proof of concept (cf. Feasibility Study for additional information)
- Knowledge-focused activities (Output3) aim to enhance knowledge, information and communication to support the implementation of good practices, integrating experiences from piloted projects, international best practices, and local and indigenous knowledge. Such practices will ensure that good practices are applied, and where possible risk avoidance and mitigation measures are further integrated where necessary. Institutional strengthening as well as trainings and extension support on climate-resilient practices will help ensure that good practices are applied, and that risk-mitigation or avoidance measures are also disseminated and applied.

149. **Potential impacts are limited to the project´s footprint**

- Verification of project impacts will focus on the BRCRN project area.

150. **Potential impacts are neither irreversible or cumulative**

- Potential adverse impacts from the project are reversible and non-cumulative, as long as beneficiaries correctly apply the proposed practices within the BRCRN project
- Participatory climate-resilient land use planning, based on operational guidelines from local community-based organizations/ user groups, with support from government authorities will help ensure that the implementation of activities for Output1 are well planned and effectively monitored. Output3 will further strengthen the quality of information available on climate-resilient practices, as well as knowledge dissemination practices for both government officials, CSOs and local people that will help to mitigate risks. Strengthening networks at the local and provincial level will further ensure that clear support pathways are established to manage potential risks or adverse impacts. Technical assistance and the assignment of local resource persons, will ensure technical support is available to local community-based organizations, and that clear and effective communication pathways with the project management team are established. Given this structure, it ensures that potential adverse impacts can be either avoided or effectively mitigated in a timely fashion.

151. **Potential adverse impacts can be addressed by the use of recognized good management or pollution abatement practices, and there is a demonstrated record of their successful use in the project area (upstream and downstream).**

- The use of participatory climate-resilient land use planning, promotion of good practices, provision of ongoing technical support, and establishment of clear and effective communication to strengthen vertical and horizontal coordination will help effectively and efficiently mitigate potential adverse impacts. Proposed activities have been successfully implemented and have a clear proof of concept, which have demonstrated the successful application of activities based on good practices, as well as the successful implementation of mitigation measures.

152. An exclusion list of the activities the project will not finance can be found in Annex 2.

5.3 Green Climate Fund safeguards

153. The GCF has provisionally adopted the Performance Standards and directives of implementation of the International Financial Corporation (IFC).[122]There are eightIFC Performance Standards that include the main environmental and social considerations that must be takeninto account when designing and implementing a project. The IFC standards are congruent with the FAO Environmental and Social Standards (Table 9).

Table 9: Alignment of IFC Performance Standards and FAO Environmental and Social Standards

IFC Performance Standards (PS)	FAO Environmental and Social Standards (ESS)
PS 1. Assessment and management of environmental and social risks and impacts	ESS 1. Natural resource management ESS 8. Gender equality
PS 2. Labour and working conditions	ESS 7. Decent work
PS 3. Resource efficiency and pollution prevention	ESS 5: Pests and pesticide management
PS 4. Community health, safety and security	ESS 7. Decent work (partially)
PS 5. Land acquisition and involuntary resettlement	ESS 6. Involuntary resettlement and displacement
PS 6. Biodiversity conservation and sustainable management of living natural resources	ESS 2. Biodiversity, ecosystems and natural habitats ESS 3. Plant genetic resources for food and agriculture ESS 4. Animal – livestock and aquatic – genetic resources for food and agriculture
PS 7. Indigenous peoples	ESS 9. Indigenous peoples and cultural heritage
PS 8. Cultural heritage	

Sources: GCF/B.07/11; FAO 2015

5.4 FAO applicable safeguards

154. Table 10 provides an overview of the FAO safeguards triggered within the FAO Environmental and Social Screening Checklist:

Table 10: FAO safeguards triggered for the BRCRN project

FAO Safeguard	Safeguard Triggered?	Justification
ESS1: Natural Resource Management	No	The project will support the adoption of proven climate-resilient and sustainable land management practices, and thus will generate positive environmental benefits in terms of natural resource management.

[122] GCF/B.07/11

FAO Safeguard	Safeguard Triggered?	Justification
		With the management of water resources, contour bunds, stone walls, and check dams (under 5 m in height) will be implemented for disaster risk reduction and to enhance water management. In Section 6 there is additional information included on how potential small-scale site-specific impacts and risks will be avoided and/or mitigated. The project will not result in a negative change to existing legitimate tenure rights. The main beneficiary is local community-based organizations/ user groups, which represent an important form of tenure that has provided improved tenure rights to local peoples. The exclusion list in Annex 2 further ensures the project will not finance activities deemed ´*high risk*´.
ESS2: Biodiversity, Ecosystems and Natural Habitats	Yes	One of the project´s 26 prioritized river systems (core intervention area), specifically Adherei Khola, Baruwa Khola and Duar Khola River System, slightly overlaps with the Koshi Tappu Wildlife Reserve. The project will not support interventions within the wildlife reserve or its buffer zone. All project activities will abideby Nepal´s legal framework, specifically the Buffer Zone Management Regulations (1996) and Buffer Zone Management Guidelines (1999, e.g. supporting sustainable management, restoration activities and ecotourism via community-forest user groups). Project activities are anticipated to have a positive impact on the protected area, especially considering studies have found that sedimentation due to deforestation and unsustainable land use upstream have had negative impacts within the reserve.[123] A biodiversity management framework has been developed to ensure that project activities do not result in any negative impacts to the protected area (Section 9). The project will not support the conversion of natural ecosystems to another land use, but will instead promote the restoration of ecosystems. All project activities are targeted for different land uses (e.g. climate-resilient agriculture to be implemented on agricultural lands, restoration activities for degraded ecosystems, etc.). The project will not increase the current impact on the environment, as it will promote sustainable land use practices which will generate more environmental benefits than business-as-usual practices. Within Activities1.9, 1.10 and 1.11 forest plantations will be established on non-forested land (abandoned, unproductive or under-utilized agricultural land or degraded land) to reduce wood consumption from native forests. Theseare seen as low risk activities as the species include native species, and non-native species that are locally adapted and do not pose a risk for invasion. Site-species matching will ensure that appropriate species are established given the site-specific conditions. More information on risk mitigation and this measure can be found in Section 6.

[123] Chettri et al. 2016

FAO Safeguard	Safeguard Triggered?	Justification
ESS 3: Plant Genetic Resources for Food and Agriculture	Yes	The project will not introduce crops and varieties that are previously not grown in the project area. The project will support the establishment of forest plantations (horticulture, commercial timber, fodder banks), and agroforestry activities on 23,800 ha. Plantations and agroforestry systems will be established using species already used, adapted and grown in the region. No seeds or planting material will be imported for this project. The project will support the establishment and management of planted forests, which is seen as a moderate risk. The project is however aligned with the Government of Nepal´s Land Use Policy, Environmental Protection Act and Environmental Protection Regulations, and the Forest Act and Forest Regulations, among other national legislation (cf. Section 4), and will adhere to the national forest sector strategy and relevant policies (incl. CFUG Operational Guidelines).
ESS 4: Animal-Livestock and Aquatic – Genetic Resources for Food and Agriculture	No	The project will not introduce non-native or non-locally adapted species, breeds, genotypes or other genetic material to the project area. Promotion of more sustainable practices (reduced free grazing, in place for stall-feeding or managed pastures), will reduce forest degradation and result in positive environmental impacts.
ESS 5: Pest and Pesticide Management	No	The project will not result in the procurement or direct supply of pesticides or agrochemicals.
ESS 6: Involuntary Resettlement and Displacement	No	The project will not allow any involuntary resettlement or displacement. Project activities are unlikely to influence local people's access to forest resources on private land. For all interventions on private land, proof of legality of land tenure or use rights must be demonstrated. The location of the site must also be known with GPS coordinates. Investments on private land will focus on primarily the implementation of agriculture investments, and technical support for forestry activities (i.e. activities on non-forested land, and forestry activities limited to technical support instead of direct investments). Direct investments in public land forests (on either non-forested land or highly degraded forested land) will focus on supporting public land forest users to benefit from sustainable management of their forest resources. In instances where it is highly degraded, plantations for fuelwood, fodder materials, horticulture and timber will be supported (based on community-consultations and priorities) by direct investments for public land forest users groups, comprised of highly vulnerable and households. Measures will be decided based on participatory processes together with community-based organizations, and participation in the project is voluntary and based on FPIC. Interventions will not focus on strict law enforcement, and will instead focus on sustainable alternative land use

FAO Safeguard	Safeguard Triggered?	Justification
		practices that promote sustainable climate-resilient SNRM. If communities decide to implement protective measures in highly sensitive or degraded areas, it will only be implemented based on consultation with community-based organizations and where necessary alternative land use targeting especially highly vulnerable and marginalized households will be jointly developed.
ESS 7: Decent Work	No	The project will not result in the direct employment of staff. Employment opportunities will likely be generated as a byproduct of the project, but not directly. Occupational health and safety (OHS) activities will be taken seriously for the implementation of the project activities. While majority of project activities are low risk, forestry activities in Output 1 could be seen as a moderate risk. Safety equipment and OHS trainings will be conducted. Risk control measures are described in Section 6.
ESS 8: Gender Equality	No	The project will support gender empowerment and equality, and has been designed to take into account the specific needs and priorities of women and girls. A gender assessment and Gender Action Plan have been developed for the BRCRN project.
ESS 9: Indigenous peoples and cultural heritage	Yes	Indigenous peoples comprise 31% of the population in the BRCRN project area, and will be included as direct beneficiaries within the BRCRN project. An Indigenous peoples and social inclusion planning Framework has been established within the context of the BRCRN project, in consultation with diverse indigenous peoples, as well as representatives from indigenous federations and organizations in Nepal, to ensure the project causes no harm to indigenous peoples (Section 8). The planning framework further ensures that efforts will be made to respect, include and promote indigenous peoples issues during project implementation, including their right to Free, Prior and Informed Consent (FPIC). The project anticipates to generate numerous additional benefits to indigenous peoples, and the project has been designed to take into account the different contexts, priorities and vulnerabilities of indigenous peoples living within the project area.

6 ENVIRONMENTAL AND SOCIAL RISK MANAGEMENT

155. The following Figure provides an overview of FAO´s environmental and social risk management approach:

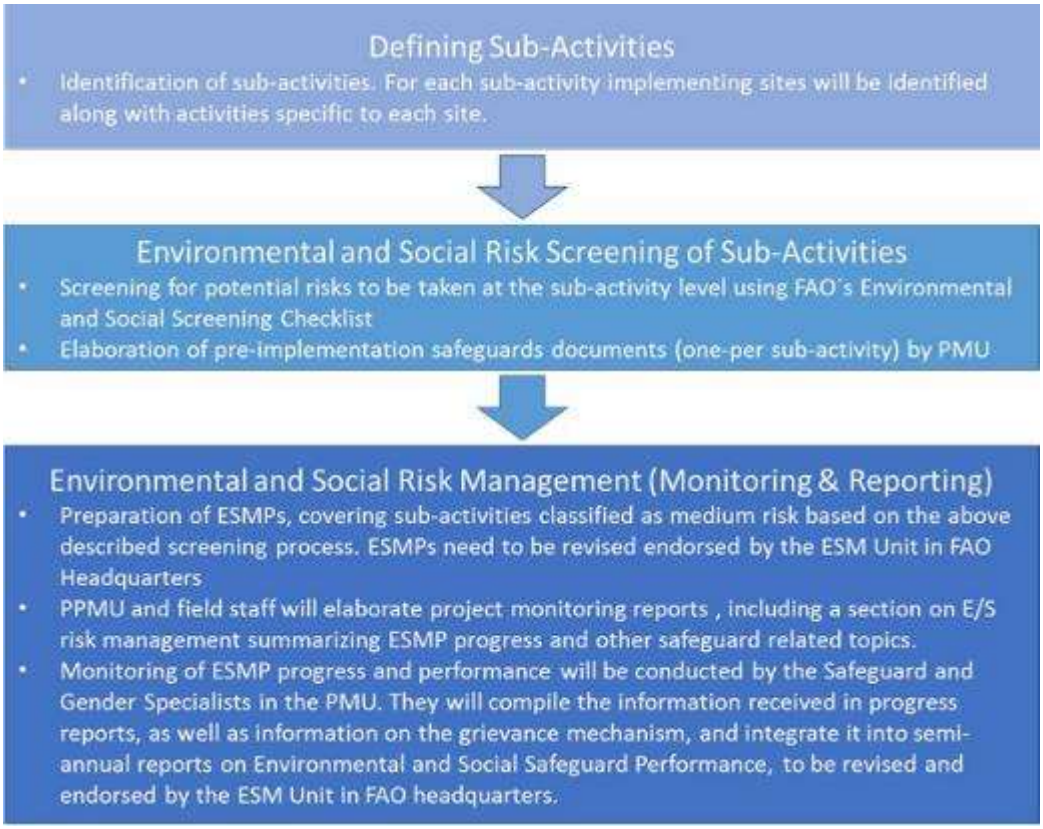

Figure 24: Overview of FAO´s environmental and social (E&S) risk management approach

6.1 Step 1: Defining Sub-Activities

156. The BRCRN project is expected to have far greater environmental and social benefits than adverse impacts. The potential adverse impacts from the project are likely to be small and site-specific. However, it is key that such impacts are identified early during the planning cycle and mitigation measures integrated into project planning and implementation. It is recommended that screening for risks are undertaken at the sub-activity level. Specific interventions will be identified during the implementation of Component 2, where specific sites, beneficiaries and sub-activities will be identified. In this context, sub-activities will be identified during years 1 and 2 (through the implementation of Sub-Components 2.1 and 2.2). For each sub-activity, implementing sites will be identified along with activities, including capacity building, training, and stakeholder engagement information specific to each site.

6.2 Step 2: Environmental and Social Risk Screening of Sub-Activities

157. Eachactivity will be screened using FAO´s environmental and social screening checklist (included in Annex 4). Once the implementation sites, beneficiaries and sub-activities are identified (step 1), a screening checklist will be completed per activity and signed off by the Safeguards and Gender Specialists within the Project Management Unit (PMU).It is important to note that ESMP screening will begin especially in year 2, and it will be a gradual and ongoing process in year 2 and perhaps part of year 3, as different CBOs are consulted and engaged in the planning process. The results of the screening checklists will be aggregated by the safeguards specialist. This will be sent to the FAO ESM Unit for endorsement. Screening will ensure that:
    - The activity is permissible and in line with Nepal´s legal framework and regulatory requirements of the project
    - An appropriate level of environmental assessment is conducted, based on the level of expected impacts.
158. While the nature, magnitude, reversibility and location of impacts are main elements in the screening of sub-activities, expert judgment will be a central factor in deciding whether a sub-activity should be included in the environmental and social management plan (see following Sub-section).
159. The environmental and social screening checklist cross-checked by Safeguard and Gender Specialists (as necessary) will result in the following screening outcomes: (i) determination of the category for further assessment; and (ii) determination of which environmental assessment instrument should be applied.
160. Pre-implementation safeguards documents (one per sub-activity) will be prepared by the Safeguards and Gender Specialists within the PMU prior to the implementation of activities within Component 1. The following documents and information will be provided for the specific project interventions:
    - Description of activities to be carried out in all sites
    - Description of each implementing site:
        - Geography and specificities in terms of activities
        - Beneficiaries and stakeholders
        - GPS coordinates and map of the site
    - For all interventions in the Adherei Khola, Baruwa Khola, Duar Kholariver system, coordinates of beneficiary intervention sites will be assessed prior to the implementation of investments to assure there is no overlap with the Koshi Tappu Wildlife Reserve nor its buffer zone (see Chapter 9 for more information on the project´s Biodiversity Management Framework).
    - Description of the stakeholder engagement process that was carried out in the inception phase and the stakeholder engagement plan to be carried out during implementation
    - Breakdown of information by site about the grievance mechanism and disclosure

6.3 Aggregated results of the environmental and social screening checklists per sub-activity, approved and signed by the ESM Unit in FAO Headquarters. Step 3: Environmental and Social Management Plans, Monitoring and Reporting

161. Sub-components where possible environmental and social risks have been identified will develop environmental and social management plans (ESMP) that include information on the mitigation measures, indicators, responsibilities and timeframe where the completion of such measures are expected. An ESMP will be developed for sub-activity, which will be informed by the described activity screening process.

162. While the nature, magnitude, reversibility and location of impacts are main elements in the screening of sub-activities, expert judgement will be a main factor in deciding whether an ESMP is required for an Activity or not.

163. The ESMP should include:

- **Mitigation measures:** Based on the environmental and social impacts identified from the checklist, the ESMP should describe with technical details, each mitigation measure, together with designs, equipment descriptions and operating procedures as appropriate.
- **Monitoring:** Environmental and social monitoring during the implementation of the activities, in order to measure the success of mitigation measures. Specifically, the monitoring section of the ESMP provides:

  A specific description and technical details of monitoring measures that include the parameters to be measured, the 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.

  Monitoring and reporting procedures to ensure early detection of impacts that necessitate particular mitigation measures and to provide information on the progress and results of mitigation (e.g. by annual audits and surveys to monitor overall effectiveness of this ESMF.
- **Institutional Arrangements for M&E:** The ESMP should also provide a specific description of institutional arrangements, i.e. who is responsible for carrying out mitigation and monitoring measures for operation, supervision, enforcement, monitoring of implementation, remedial actions, financing, reporting and staff training). Additionally, the ESMP should include an estimate of the costs of the measures and activities recommended so that necessary funds are included. The mitigation and monitoring measures recommended in the ESMP should be developed in consultation with all affected groups to incorporate their concerns and views in the design of the ESMP.

164. Once the pre-implementation documents with ESMPs are endorsed by the ESM unit in FAO, the safeguard specialist will ensure ESMPs are included and reported upon, along with stakeholder engagement in the context of the monitoring plan.In this context, field staff (PMU staff in coordination with provincial and local authorities and extension agents) will be responsible for monitoring the progress as relevant in the monitoring plan, as well as to iden-

tify any potential risks that may emerge through the implementation phase. This information will be compiled in progress reports and templates, including a section on environmental and social risk management.

165. Information from progress reports will be received by the safeguard and gender specialist in the PMU who will compile the information received in the progress reports, as well as information related to grievances in a semi-annual report on the Environmental and Social Safeguards Performance to be endorsed by the ESM Unit in FAO.

6.4 Potential environmental and social risk mitigation measures

166. Potential negative impacts and proposed mitigation measures have been identified for each of the three project Componentsand will serve as a basis to prepare the ESMPs:

Table 11: Potential adverse impacts and proposed mitigation measures for Output 1

Potential Adverse Impacts	Mitigation Measure(s)
▪ Changes in land use activities or regulations in communal lands could have disproportionate impacts on some community members	▪ Decision-making processes will be based off of the organization/ user group´s operational guidelines and protocols. Community-forest user groups (CFUGs) have operational guidelines (2014) that state that at least 50% of the management committee must be women, and proportionate representation from poor, lower-caste groups, minority ethnic groups and indigenous peoples. Either the chairperson or the secretary of the committee must be a woman. GESI considerations and pro-poor measures have been integrated operational guidelines and laws, which will help ensure the integration and participation of diverse people, including women, indigenous peoples, and marginalized minority groups. ▪ All community-based organizations will be required to register with local authorities in order to participate in project, and local authorities will assess to what extent they meet the respective operational guidelines in terms of GESI and representation of women, poor families, indigenous groups, lower-castes and ethnic minorities. Registration will also serve as a safeguard to ensure that the land use rights are secured for the CBOs, as well as private forest users, as formal government certificates will be provided. The registration process is supported within Component 2 (see the note on land registration below). ▪ Land use planning and capacity building processes will be participatory, and will ensure proportional representation of such groups in project workshops and capacity building sessions/ trainings. ▪ In addition, additional trainings will be developed and targeted for women, indigenous peoples and marginalized minority groups to help overcome barriers that may be specific to their group (e.g. leadership trainings, business literacy trainings). This will make sure that such communities are aware of the benefits of sustainable natural resource options, and that revised management plans are able to account for any potential negative impacts that these groups may experience (e.g. providing additional support to such households to benefit from agroforestry systems, etc.). ▪ Interventions will not focus on strict law-enforcement. Where communities decide that additional protection measures are needed (e.g. in an area of highly degraded forest, or in areas with high susceptibility to landslides), based on community-based organization consultation processes, the risk of current measures will be discussed with all members of the organization, and further support will be provided to find alternatives that are accessible to all members of community-based organizations, including where necessary the provision of additional support for highly vulnerable and/or marginalized households (e.g. developing fodder banks). ▪ In the instance where any household feels discriminated against or has a problem with the project, they are able to access the programs grievance redress mechanism. The project´s grievance redress mechanism will be clearly explained to project beneficiaries. Also, local resource persons and partner organizations will also be made aware of the mechanism, and can further provide support to local people to make complaints if necessary.
▪ Site-specific impacts due to the construction of small-scale infrastructure such as contour bunds, stone walls, and check dams (under 5 m	▪ Small-scale site-specific impacts could arise due to the project´s activities, especially the construction of small-scale infrastructure such as contour bunds, stone walls, check dams,[124] and water retention ponds/ conservation ponds. ▪ The construction of small-scale infrastructure for watershed management (contour bunds, stone walls, and check dams) will only be conducted in areas identified in action plans (Activity 1.1.4), or in existing integrated watershed management (IWM) plans or river system management plans. This

[124] The project will only support the establishment of check dams under 5m in height.

Potential Adverse Impacts	Mitigation Measure(s)
in height), as well as conservation/ water retention ponds. This will particularly include small-scale soil loss and potential sedimentation in bodies of water due to construction activities. ▪ Maintenance costs and management ▪ All activities will be screened against the regulations in the Environmental Protection Act and Environmental Protection Regulations to ensure compliance.	will ensure that such infrastructure is planned in an integrated manner and has the most effective impact, and to ensure that DRR/ land use management/ engineers and/or watershed planning experts have been engaged in the design of these measures. These measures will be reviewed considering normal flows, and potential risks, including extreme weather events. ▪ Conservation ponds will be designed by local authorities in cooperation with local communities. Plans for conservation ponds will be revised and approved by local government authorities to ensure that ponds are appropriately planned. Technical assistance will be provided to community-based organizations during the construction process, and local resource persons will be trained on appropriate maintenance and reporting to local authorities. ▪ Local authorities will oversee construction plans, implementation of construction and post-construction monitoring. Regular inspection and maintenance will be conducted by local resource persons (trained by local authorities) and local government authorities. Annual reporting on the maintenance and monitoring of these measures will be done local authorities, and reported to the PMU M&E specialist. ▪ All construction activities will take place during the dry season, to limit damage due to monsoon rains and to limit soil erosion and sedimentation. The removal of soils (e.g. with the construction of conservation ponds) will be stored in areas away from river banks and bodies of water, and will be reused in the form of compost returned to community-based user groups to use for agricultural purposes. An EMP will be developed to ensure appropriate monitoring is in place. ▪ Maintenance costs for soil and water conservation measures will be clearly communicated prior to implementation/ construction. An operational management plan will be developed for all community-based organizations who adopt such practices, which will clearly communicate management needs and maintenance requirements, and establish a plan for financing future maintenance costs based on operational guidelines and procedures of the respective community-based organization. Local resource persons and local government officials will be trained on monitoring, management and maintenance of such investments to lower costs.
▪ Site-specific impacts due to the inappropriate planting of tree species based on site conditions. ▪ Exotic tree species could lead to biodiversity loss and non-locally adapted species could be invasive.	▪ Guidance on site-species matching will be developed for the BRCRN area (Activities 2.1.2,; Activity 3.2.1), providing information on key tree species that are adapted to the area and their ideal site-conditions. It will further identify areas where certain tree species should not be planted based on site-conditions. In addition to native species, the project will only promote tree species which are already locally adapted and do not pose a risk to the local biodiversity. It will ensure compliance with Nepal´s Forestry Policy (2015). ▪ When non-native tree species are to be used as pioneer species to restore highly degraded forests, all activities will be reviewed by the relevant local forest authority and will require approval prior to implementation. ▪ Investments in establishing plantations will only occur for public land forest user groups, comprised of primarily marginalized households, primarily in the upstream-Terai (focus on distant forest users). Plantations will be less than 25 ha in size in the Churia hills and less than 50 ha in size in the Terai. Management plans for such user groups will be developed in a participatory manner with such user groups, combined with ongoing extension support and trainings, and will be submitted to the relevant local authority for approval prior to plantation establishment. Such investments may include locally adapted exotic species in addition to native species, however where possible measures will focus on native species. Forest management plans will be designed by a forestry expert, based on site-species matching to reduce risks of negative impacts and ensure that the plantation is appropriate for the site conditions and beneficiary context. Management plans will comply with national Forest Policy (2015), as well as the Environmental Protection Act and Regulations – including screening to see if activities trigger an IEE or an EIA. An IEE will be required if monoculture plantations are within the range of 25-100 ha in the Churia hills or within the range of 50-500 ha in the Terai, however planned activities for Activity

Potential Adverse Impacts	Mitigation Measure(s)
	1.1.3 are not expected to exceed 25 ha in the Churia or 50 ha in the Terai, but instead will focus on smaller scale plantations to reduce the collection of fuelwood and fodder from natural forests by distant forest users. All plans will be revised and approved by the PMSU and relevant local government officials before interventions are implemented. ▪ The establishment of small-scale community-based nurseries will comply with relevant national legislation (Forest Policy, Environmental Protection Act), and will promote equitable hiring policies ensuring equitable employment opportunities for women, indigenous peoples, Dalits and other marginalized households. ▪ All activities will comply with Nepal´s legal framework, as described in Section 4 (e.g. Forest Policy, Environmental Protection Act and Environmental Protection Regulations, among others). ▪ Technicians from local forest authority who will support the implementation of Activities1.2.1 – 1.3.4 will be trained in sustainable forest planning and management, including site-species matching and risk mitigation. Technical assistance will be provided for the preparation of plans, and once approved further assistance will be provided to support community-based organizations with the implementation of these plans. Local resource persons will be provided trainings in good practices, and will maintain communication with local authorities. ▪ The project will not permit the clearing forests, wetlands or other critical ecosystems for plantation establishment. Site-visits will be conducted by local authorities during the management plan preparation process to ensure that the site is adequate, and to collect information to support monitoring activities (GPS coordinates, baseline data, etc.). Tree-planting activities will be permitted based on approved plans (CBFM plans will be approved by the local forest authority of the respective Province, whereas plans for public land forests will be approved by the forest authority of the local government).
▪ Human-wildlife conflicts could occur due to extended forest cover nearby the farmlands and improved habitat. On the other hand such conflicts could be reduced due to improved habitat and connectivity.	▪ Integrated strategic planning for climate-resilient land use at the provincial and river system level will take into account habitat connectivity and aim to enhance wildlife corridors with the potential to limit human wildlife conflicts. ▪ Local government officials will be trained on human-wildlife conflict management within training activities for Activity 2.2.2, and appropriate trainings (e.g. training to reduce crop depredation through changed cropping pattern and innovative technology) can be provided to local resource persons and community-based organizations as needed. Trainings will likely be particularly relevant for communities within the Adherei Khola, Baruwa Khola, Duar Khola river system, due to the proximity to the Koshi-Tappu Wildlife Reserve.
▪ Occupational health risks (injuries) due to the use of inappropriate forest management practices without appropriate safety equipment	▪ Trainers/ extension staff supporting the implementation of activities related to forest management will be trained on OHS good practices, protocols and equipment, who will then train project beneficiaries involved with the establishment of forest plantations, agroforestry systems, and sustainable forest management. ▪ The project will support the procurement of safety equipment including cut-resistant pants and protective goggles that should be used by beneficiaries to reduce risk. Beneficiaries will receive training on the use of appropriate forest management practices and on protective equipment and risk mitigation practices.

Potential Adverse Impacts	Mitigation Measure(s)
▪ Forest fires in both natural forests and planted forests	▪ Trainings on proactive ´fire-smart´ management practices (e.g. appropriate design of fire lines, how to detect risky practices/ climatic conditions), will help local people and community-based organizations to proactively monitor, avoid or mitigate forest fire risks in forested areas. It will further provide them with skills for improved fire-fighting practices. ▪ Forest fire risks will be monitored by local resource persons within community-based organizations who will improve awareness within their organization about potential risks ▪ Beneficiaries of Activities1.2.1 – 1.3.4 will be required to develop forest fire protocols, that focus on prevention while also include an emergency protocol for forest fires. ▪ Safety equipment procured for sustainable forest management and forest fire control measures by local users, including firefighting equipment.
▪ Site-specific impacts from biogas plants	▪ Nepal uses primarily fixed dome belowground biogas plants. ▪ Biogas plants when inappropriately managed may lead to potential site specific impacts. The inappropriate use of the biogas digester may lead to sanitation issues with bio-slurry, often applied to farm land. Such actions could lead to contamination of soils and groundwater with pathogens. However, Nepal has been implementing biogas projects since 1955 and has long-standing experiences in supporting the scaling up of this technology. Risks associated with the inappropriate use of the bio-digester or management of the biogas technology can be mitigated by providing trainings as well as information materials to biogas users by AEPC and biogas service providers, as well as through continued monitoring and training after equipment installation. ▪ Trainings of local resource persons will support ongoing information exchange, and the PMSU will oversee ongoing monitoring. ▪ An EMP will ensure that such measures are regularly monitored.
▪ Discrimination of women	▪ At least 50% of project beneficiaries will be women, including proportional representation from indigenous groups and marginalized communities (including Dalits) ▪ Gender Action Plan includes measures to promote women´s empowerment and gender equality within the framework of the BRCRN project.
▪ Discrimination or limited engagement of Indigenous Peoples, Dalits and other marginalized groups	▪ Indigenous peoples and social inclusion planning Framework includes measures to the engagement and participation of indigenous peoples within the framework of the BRCRN project. ▪ Invitation of indigenous federations, Dalit organizations and ethnic minority organizations to participate within the project management platforms (PSC and PCU), as well as in the role of project partners supporting awareness raising, training processes and implementation activities ▪ Targeted measures for social inclusion are cross-cutting and mainstreamed into project activities (e.g. trainings for CSOs representing marginalized groups, targets for trainers to come from marginalized groups, business literacy trainings for members of marginalized or highly vulnerable groups) ▪ Promotion of proportional representation within project beneficiaries of indigenous peoples, Dalits and marginalized communities ▪ Knowledge and communication focused activities (Output3) will include information from national experiences, international best practices as well as local and indigenous knowledge (including Activities3.1.1 and 3.2.2 with a strong focus on improving awareness of local and indigenous knowledge for climate change adaptation). The integration of knowledge from diverse actors into extension and knowledge sharing platforms will promote social inclusion, and also allow diverse groups to build on local experiences and knowledge.

Potential Adverse Impacts	Mitigation Measure(s)
	▪ Training of trainers for the for the implementation of project activities should include men and women from indigenous groups, Dalit communities and other marginalized groups ▪ Investments in forestry within Output 1 will focus on public land forest user groups that are primarily comprised of marginalized households, which will support such groups to overcome financial hurdles to invest in climate-resilient land use practices and reduce their reliance on Churia forests for fuelwood, fodder and forage. ▪ Participatory land use planning in Output2 will help ensure that plans are included that empower and engage highly vulnerable households, including indigenous peoples and Dalits. ▪ Provincial climate-resilient land use plan will include a section highlighting the strategy and key considerations/ measures for gender equality and social inclusion. ▪ LRPs who speak local languages should support trainers as well as awareness raising and information dissemination processes
▪ Anticipated private sector investments may not be realized in a timely manner to support implementation.	▪ Cooperation and coordination with the private sector will begin from project inception, and the project will implement awareness raising programs to help engage private sector actors. ▪ Additional support will be provided to help producers organize, and build their capacities to coordinate and negotiate with the private sector. Business training workshops will be conducted for members of community-based organizations, which will help to build their capacities to interact and coordinate with the private sector, and efforts will support these actors to make professional business plans for climate-resilient investments.
▪ Project activities could have a negative impact on the Koshi Tappu Wildlife Reserve	▪ Biodiversity Management Planning Framework has been elaborated in Section 8 to avoid, mitigate and manage risks. Project activities are expected to have a positive impact on the protected area.

Note on land registration:

- An official certificate demonstrating the registration of CBOs, or private forest land is required for all project beneficiaries prior to the implementation of project activities (CBO management plan development, implementation of climate-resilient SNRM, etc.).Given the context in the Nepal, the project will support the registration of CBOs with the relevant local forest authorities (e.g. District Forest Officers, Chief District Officer). The registration of forest-CBOs and private forests is described in the Forest Act (1993),[125] and water/irrigation user groups and other CBOs under the Association Registration Act (1978).[126] On-the ground activities (besides information dissemination, and FPIC) will not be conducted until official registration certificates are obtained. For public land forest user groups, FPIC principles will be followed prior to showing the registration in most cases, as the project will play a more active role in supporting the establishment and registration of such groups, involving more intense capacity building of marginalized households.

[125] For more information refer to: http://extwprlegs1.fao.org/docs/pdf/nep4527.pdf
[126] For more information refer to: http://www.icnl.org/research/library/files/Nepal/Associations.pdf

- For private forest owners, they will need to provide a "Land Ownership Certificate" from the Nepali Government. Extension agents will support the confirmation and documentation of official documents. When they request application for seedlings and participation in the private forestry sub-activity, they will check the official land ownership documents, and collect a scanned copy or picture. They will further register the landowner(s) in the nursery´s data base (with information on the number of seedlings requested, survival records, area planted, etc.).
- Once the trees are planted (1 year after planting the seedlings), the private land owners will need to register their forest as a private forest. Private forest owners must apply for a "Certificate of Private Forest", which is the official document for private forests (as described in the Forest Act, 1993). [127]They must register their planted forest, and receive a formal certificate in return. The project will require that participating private forest owners provide this certificate as proof of government registration and ownership in order to participate in the project.

[127]To receive the certificate private forest owners have to apply at the district forest office (although the responsible authority may change with the ongoing political transition), providing key information including the area of the land acquired and boundaries, information concerning ownership or possession of the land, among other information (see Sub-section 1 of the Forest Act).

Table 12: Potential adverse impacts and proposed mitigation measures for Output2

Potential Adverse Impacts	Mitigation Measure(s)
▪ Potential conflicts within local community-based user groups over land use boundaries (e.g. grazing areas, NTFP collection, etc.)	▪ Agreements indicating that Free, Prior and Informed Consent has been achieved with each participating community-based organization will be created during the implementation of Activity 2.2.2.. Such agreements will be made prior to the implementation of interventions at the community-based organization level. Such agreements are required for community-based organizations to participate in the project as beneficiaries (see Section 8 for further information on the process). ▪ Local level land use planning based on participatory local-level planning processes based on consultations with members of local community-based organizations/users groups, including women, indigenous peoples and people from marginalized minority groups. Through the application of a local participatory process, climate resilient SNRM and land use planning is integrated based on communities priorities and local context. ▪ Trainers and project management will be trained in GESI, and it local community-based groups will need to demonstrate that women, indigenous peoples and marginalized minorities have been consulted within their organization/ users group. ▪ Awareness raising and capacity building on climate-resilient land use planning and SNRM, based on piloted good practices, will ensure that local communities are aware of climate risks and risk-reduction measures, such as climate resilient SNRM and the diverse co-benefits. ▪ Clear dissemination of land management plans and potential changes to members of community-based organization/ users group through LRPs to ensure community members are aware of potential adjustments ▪ Promotion of proportional representation and targeted measures for marginalized groups will ensure that diverse perspectives are taken into consideration in land use planning, and that beneficiaries from diverse socio-economic and socio-cultural backgrounds participate in the project. ▪ Strong focus on capacity building within all project activities will also help raise awareness of climate risks and the link between climate change and natural disasters with unsustainable natural resource management, as well as the benefits of climate-resilient SNRM. ▪ Technical assistance will support communities to adopt sustainable alternative climate-resilient practices. For instance, if one community decides to restrict grazing in community forests, measures will be developed for sustainable fodder production, ensuring a pro-poor and socially inclusive approach is developed based on participation of diverse members of the users group. ▪ Participatory land use planning processes (Activities2.1.2-2.2.2) will ensure that local people, including marginalized communities, are consulted over potential interventions and intervention sites. ▪ Interventions will not focus on strict law-enforcement. Where communities decide that additional protection measures are needed (e.g. in an area of highly degraded forest, or in areas with high susceptibility to landslides), based on community-based organization consultation processes, the risk of current measures will be discussed with all members of the organization, and further support will be provided to find alternatives, including where necessary additional support for highly vulnerable and/or marginalized households (e.g. developing fodder banks). ▪ In the case where any household/ person feels discriminated against or has a problem with the project, they are able to access the project´s grievance redress mechanism.
▪ Potential conflicts over the selection of priority intervention areas.	▪ Decision making is transparent and supporting studies and information (reports, minutes from consultations and workshops) are made publicly available ▪ Stakeholder consultations on provincial level-strategies and river system level action plans identifying critical ecosystems and priority intervention sites

	▪ Strong focus on capacity building within all project activities will also help raise awareness of climate risks and the link between climate change and natural disasters with unsustainable natural resource management, as well as the benefits of climate-resilient SNRM. ▪ In the case where any household/ person feels discriminated against or has a problem with the project, they are able to access the project´s grievance redress mechanism.
▪ Information dissemination may not reach all people including illiterate people (36% of project inhabitants)	▪ In order to ensure the widest dissemination local and accessible disclosure tools including audiovisual materials as well as flyers, brochures, videos and community radio broadcasts, and publications will be utilized in addition to other tools (produced under Output 3). Furthermore, particular attention will be paid to farmers, indigenous peoples, illiterate or technologically illiterate people, people with hearing or visual disabilities, people with limited or no access to internet and other groups with special needs. ▪ Board/ committee members of community-based organizations and Local Resource Persons will be local focal points who are able to facilitate ongoing communication with project beneficiaries ▪ Local CSOs and project partners will be important to support information dissemination and communications at the local level, using locally accepted practices such as community-meetings, workshops, among other practices
▪ In practice in may be challenging to have equal participation due to gender discrimination, especially against women from indigenous groups and marginalized minority groups	▪ At least 50% of project beneficiaries will be women, promoting proportional representation from indigenous groups, Dalit communities and other marginalized groups ▪ Gender Action Plan includes measures to promote women´s empowerment and gender equality within the framework of the BRCRN project. The plan includes detailed measures that target women and aims to empower them within the project, whilst taking into account their differentiated contexts and vulnerabilities. ▪ PMU M&E specialist and PPMU staff will regularly monitor the implementation of the GAP, and work together with CSOs and other actors to strengthen the engagement of women within the project.
▪ Potential discrimination in participation and engagement of indigenous peoples and marginalized minority groups ▪ Lack of culturally appropriate practices, technical assistance and information dissemination for the implementation of Activity 1.3	▪ Indigenous peoples and social inclusion planning Framework (Section 8) includes measures to the engagement and participation of indigenous peopleswithin the framework of the BRCRN project. ▪ Invitation of indigenous federations, Dalit organizations and other organizations representing marginalized communities, among other CSOs to participate within the project management platforms (PCU and PSC) ▪ Establishment of minimum participation targetsbased on proportional representation of highly vulnerable groups, including indigenous peoples (31%) and Dalits (13%). ▪ Training of trainers for the consultations and workshops, as well as extension support should include men and women from indigenous groups, Dalit communities and other marginalized groups ▪ LRPs who speak local languages should support trainers as well as awareness raising and information dissemination processes. Budget dedicated to support the translation of key documentsinto local languages where necessary. Knowledge and information dissemination processes will also take into account that many beneficiaries are illiterate, and thus diverse dissemination measures and streams will be pursued (radio, community presentations, workshops, networks, among others). ▪ Trainings targeted for highly vulnerable groups included within project activities (including trainings on leadership and skill development)

Table 13: Potential adverse impacts and proposed mitigation measures for Output3

Potential Adverse Impacts	Mitigation Measure(s)
▪ Barriers for local beneficiaries to access information	▪ Information dissemination will occur through a variety of channels and formats to ensure that diverse beneficiaries and stakeholders are able to access such materials. Dissemination will include a variety of formats including audiovisual methods, documents, online resources, provincial information hubs, dissemination through CSOs, community-presentations, among others. ▪ Local resource persons, and where necessary translators, can be used to support the dissemination of information when translation is necessary. Trainers will also include women, indigenous peoples and people from marginalized groups. ▪ Targeted trainings, highlighted in Annex 1, will be conducted to address skill gaps and support the empowerment of marginalized and/or highly vulnerable groups. ▪ Board/ committee from community-based organizations will also be responsible for ensuring and supporting information dissemination within their organization. Communication pathways will be clearly discussed prior to the implementation of community-level activities.
▪ In practice in may be challenging to have equal participation due to gender discrimination, especially against women from indigenous groups and marginalized minority groups	▪ At least 50% of project beneficiaries will be women, including promotion proportional representation from indigenous groups, Dalit communities and other marginalized groups ▪ Gender Action Plan includes measures to promote women´s empowerment and gender equality within the framework of the BRCRN project. ▪ Federal and Provincial PMU M&E specialistwill regularly monitor the implementation of the GAP, and work together with CSOs and other actors to strengthen the engagement of women within the project.
▪ Potential discrimination in participation and engagement of indigenous peoples and marginalized minority groups	▪ Indigenous peoples and social inclusion planning Framework includes measures to the engagement and participation of indigenous peoples within the framework of the BRCRN project (Section 8). ▪ Invitation of indigenous federations, Dalit organizations and ethnic minority organizations to participate within multi-stakeholder coordination entities within the project management structure ▪ Establish targets for proportional representation of highly vulnerable groups, esp. indigenous peoples (31%) and Dalits (13%) ▪ Training of trainers for project consultations, trainings and workshops should include men and women from indigenous groups, Dalit communities and other marginalized groups. All trainers will undergo a training on GESI to ensure gender-sensitive and socially inclusive approaches are applied for extension and trainings. ▪ LRPs who speak local languages should support trainers as well as awareness raising and information dissemination processes ▪ Inclusive planning process, ensuring proportional representation and engagement ▪ Business literacy trainings to be provided to women's groups, as well as indigenous peoples groups and Dalits to enhance their understanding of business and the private sector. Business development support will be available to marginalized groups, ensuring proportional representation, to help such groups develop attractive bankable business plans, improving access to private sector finance. ▪ DRR plans and awareness raising measures will help to raise awareness of climate risks and risk reduction measures, which will help many marginalized communities as they often live in highly vulnerable areas and are often directly dependent on natural resources for their livelihoods.

7 STAKEHOLDER CONSULTATION AND ENGAGEMENT

7.1 Stakeholder identification

167. Stakeholder consultation and engagement is at the core of the project. Close cooperation with project partners and extensive stakeholder consultation during project design has provided valuable feedback and shaped the project into its current form. The continuous engagement of stakeholders in project implementation is also envisioned, as described in Chapter 7.3.

168. Stakeholders are defined as actors within the following groups of actors: government, local communities, community-based organizations, civil society organizations/ NGOs, private sector, international development cooperation and international organizations. Key project stakeholders were initially identified through discussions with the NDA, MoFE and FAO during the initial concept design phase. Additional stakeholders were identified as the project developed, especially once the target districts and river systems were identified. CSOs/NGOs were also asked to identify further key stakeholders. In each project district local consultations were held with a combination of CBOs and local communities, CSOs/NGOs, local government, among other stakeholders. Consultations ensured the participation of diverse stakeholders, including women, indigenous nationalities, Dalit people and other marginalized minority groups. To ensure effective engagement of indigenous peoples, NEFIN provided contacts to local representatives and community leaders in the project area. Summaries of all consultations conducted can be found in Annex 3.

169. The specific CBOs and project beneficiaries are not known, and will be identified through the implementation of sub-component 2.1. Participation in this project is voluntary and based on the principles of FPIC (described in Section 8.5.3). A more detailed baseline of these groups will be collected, including detailed stakeholder identification, and collection of socio-economic information.

7.2 Overview of stakeholder consultation and engagement in project design[128]

170. Throughout the process these diverse stakeholders expressed their views, expectations, concerns and ideas for the BRCRN project. In total, over420 people were consulted during project preparation through various workshops at the national and district level, one-on-one meetings with CSOs (at the national and local level), local community-based organizations and communities. The following paragraphs provide a brief summary of the consultations conducted, however more detailed meeting summaries, photos and attendance sheets are available in Annex 3.

[128] Note: Meeting and workshop agendas, minutes and attendance sheets are available in Annex 3.

National Inception Workshop and Bilateral Meetings with Civil Society Organizations (CSOs)

171. An inception workshop was conducted in Kathmandu on November 21, 2017 where the project concept and proposal development processes, including the plan for stakeholder consultations, was presented to 42 participants, from the government, civil society organizations and the private sector. This first workshop served as an important platform to receive early feedback on the project concept and proposal development process. After the inception workshop, various meetings were conducted in Kathmandu with relevant civil society organizations, including NEFIN, NIWF, FEDO and HIMAWANTI, to receive feedback on the concept note and on planned field consultations.[129]

Technical Committee Meetings and Bilateral Meetings with Government Officials

172. In total, five Technical Committee Meeting (TCMs) were held throughout the project development process to receive cross-sectoral feedback from government officials on project design, the validation of findings and agreements (e.g. vulnerability assessment criteria and project area selection).[130]The third TCM was held with diverse government officials, where the proposed consultation processes and (including which stakeholders to engage) were discussed, among other topics. During the project development process, ongoing bi-lateral meetings were organized with diverse government officials to discuss project-specific topics in addition to regular TCMs.

Local Consultations

Local consultations were held with local communities, local community-based organizations, civil society organizations (NGOs, youth clubs, trader groups) private sector actors and local government representatives from December 21-28, 2017 in the districts of Jhapa, Ilam, Morang, Sunsari, Udayapur, Saptari, Siraha, Dhanusha, Mahottari, Sarlahi and Sindhuli. In total, 268 local community-members were consulted (60% men; 40% women). Among participants, 45% were indigenous peoples (Adivasi/ Janajati), 30% hill origin high caste people, 25% Madheshi, 6% Dalits, and the remaining were from other ethnic groups. Additionally, two regional workshops in Itahari and Lahan districts were conducted to receive feedback on the proposed project, where an additional 74 participants attended. Major focus of the consultations was to confirm the environmental problems and challenges faced by the communities, and to receive feedback on the proposed project activities and to identify potential risks or concerns.

Final Consultation Meetings and Validation Workshop

173. Avalidationwas held in Kathmandu on March 25, 2018 to present the project proposal and ESMF.[131]Participants unanimously validated the proposal and noted its relevance for the Churia region of Nepal, as well as the country´s efforts and commitments to address climate

[129] Inception workshop agenda and attendance list is included within Annex 3.
[130] Agendas and attendance lists for these meetings are included within Annex 3.
[131] The workshop agenda, minutes and attendance sheets are in Annex 3.

change. Additional bi-lateral meetings with CSOs, and the technical management committee were conducted to provide feedback on the proposed project, ESMF and gender assessment and action plan.

Consultation process with indigenous peoples and marginalized ethnic minorities

174. During the stakeholder engagement process, consultation with indigenous people was held and the process for FPIC was initiated as per FAO´s corporate policy on indigenous peoples (more detailed information is available within the Indigenous peoples and social inclusion planning Framework withinSection 8). Consultations were also conducted with organizations and local peoples from marginalized ethnic groups to receive their feedback, and ensure that the project promotes social inclusion and the empowerment of such groups. Annex 3 provides an overview of all of the consultations conducted along with meeting summaries and attendance sheets.

Consultations on gender in the context of the BRCRN project

175. Nepal strives to work towards equality of women and marginalized minority groups. International and national gender specialists were hired to conduct a gender analysis, and to support the elaboration of a Gender Action Plan to promote the empowerment of women and gender equality within the BRCRN project. Diverse bilateral consultations and local focus groups were held with women and women's organizations, including women from indigenous groups and marginalized minority groups, which contributed to the gender assessment and gender action plan. In addition, a gender workshop was held on February 21, 2018 to validate the gender assessment and GAP. Such groups were also invited to the project validation workshops in March 2018. Additional details on the consultations can be found in Annex 3.

7.3 Stakeholder consultations for project implementation

176. As described above, the BRCRN project has been designed based on extensive consultations with diverse stakeholders at the national, regional and local level. It is anticipated that regular stakeholder consultations will continue during the implementation of the BRCRN project to inform stakeholders of the project´s progress, support capacity building and awareness raising, validate findings and present results, among other topics.

177. FAO and MoFE will provide regular updates, including on their website and through the use of other forms of media including print, radio, reports and presentations. Information will be presented in Nepali, English, as well as local languages where appropriate.

178. A telephone number will also be communicated to project beneficiaries and stakeholder where they are able to discuss inquiries related to the project, raise concerns or file a complaint.

179. At the national level, stakeholders will be invited to participate in PSC meetings, bi-annually, to discuss pertinent topics. Participation will be invitation-based, and with a focus on key discussion topics of the meeting.

180. Stakeholders are invitedto maintain permanent representationwithin the PCUs within each province to support project coordination and the communication of project progress and M&E. PCU meetings will be held quarterly in each province (4 meetings per province per year, in total 12 meetings per year), and will serve as an important platform to disseminate information on project progress, opportunities for coordination and to receive and address feedback from diverse stakeholders. Within the PCU stakeholders will provide technical advice and support the coordination of activities together with the PPMU.

181. Annual project reporting will further provide an overview of consultations and workshops conducted, and provide insight into upcoming events for the following year. A communication and information dissemination plan will be elaborated by the third year of project implementation.

182. Participation within the BRCRN project is voluntary, and FPIC will be a core underlying principle which is applied to all community-based organizations. In order to participate in the project FPIC principles will be followed in consultations with all 750 community-based organizations representing the related local communities, given that many community-based organizations have members from diverse socio-cultural and ethnic backgrounds. It will follow the FAO FPIC Manual for Project Practitioners (see Section 8.5.3 for more detailed information). Once CBOs are identified within Component 2, consultations will occur to inform the CBOs of project activities, as well as the possibility for them to directly participate in the BRCRN project. This process will ensure full information is provided in a timely manner before project implementation, emphasizing that participation in the project is completely voluntary and that in case of non-compliance with the concurred arrangements, indigenous peoples have the right to withdraw their consent following the procedure established and mutually agreed upon according to FPIC principles. Information on the project´s grievance redress mechanism will also be circulated at that time (see Chapter 7.5 and 8.9).

183. Each Activity planned for the BRCRN project further has their own stakeholder engagement events, and activities targeted towards awareness raising. Examples of stakeholder engagement include:

- Consultations and workshops on provincial-level strategies and action plans for climate-resilient land use,
- Consultations and workshops on provincial disaster risk reduction plans
- Consultations and workshops on local traditional knowledge for climate change adaptation
- Meetings with CSOs on proposed training modules, and to discuss lessons learned and experiences on GESI
- Establishment of private forest owner and CFUG networks to improve coordination and communication
- Awareness raising workshops
- FFS, trainings and extension services for climate-resilient land use
- Information dissemination, trainings and workshops on CKC

- Annex 1 provides a more detailed overview of planned stakeholder consultation events and workshops during the ESMF work plan.

7.4 Disclosure

184. Disclosure of relevant project information helps stakeholders effectively participate. The FAO will disclose information in a timely manner, that is accessible and culturally appropriate, placing due attention to the specific needs of community groups which may be affected by project implementation (such as gender, literacy, differences in language or accessibility of technical information or connectivity).

185. For moderate risk projects, the FAO will release the applicable information as early as possible, yet no later than 30 days prior to project approval. The 30 day period commences only when all relevant information requested from the project has been provided and is available to the public.

186. FAO will undertake disclosure for all moderate risk projects. For this, a disclosure portal has been established to publicly disclose projects´ documentation related to environmental and social safeguards (environmental and social analyses, environmental and social impact assessments, Environmental and Social management frameworks, Indigenous peoples and social inclusion plans and other relevant documents). The website is: http://www.fao.org/environmental-social-standards/en/.

187. In order to ensure the widest dissemination and disclosure of project information, including any details related to applicable environmental and social safeguards, local and accessible disclosure tools including audiovisual materials such as flyers, brochures, videos and community radio broadcasts will be utilized in addition to other tools. Furthermore, particular attention will be paid to women, indigenous peoples, marginalized minority groups (including Dalits), illiterate or technologically illiterate people, and people with hearing or visual disabilities, people with limited or no access to internet and other groups with special needs. The dissemination of information among these groups will be carried out with the project counterparts and local actors such as municipalities, producers´ associations, indigenousfederations, organizations representing marginalized minority groups, women's organizations, government and other regional actors.

7.5 Grievance redress mechanism

7.5.1 FAO grievance mechanism

188. The grievance redress mechanism is designed to ensure that no individual or group are financially impacted by making a grievance or complaint. Any cost that may be associated with the preparation or issuance of a legitimate complaint or grievance (e.g. engaging a qualified person to assist the complainant) will be covered by the grievance mechanism. Special efforts will be made to ensure the grievance redress mechanism is available for all people, and that women, indigenous, marginalized and other vulnerable groups have equal access and bear no negative repercussions for filing any complaints or grievances.

189. The FAO is committed to ensuring that its programs are implemented in accordance with the organization´s environmental and social standards. 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 (OIG) with the mandate to independently review the complaints that cannot be resolved at that level.

190. The 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, which applies to all FAO programs and projects (Guidelines for Compliance Reviews Following Complaints Related to the Organization´s Environmental and Social Standards).

191. 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 OIG in accordance with the Guidelines. Project managers will have the responsibility to address concerns brought to the attention of the focal point.

192. 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.

7.5.2 Project-level grievance mechanism

193. A grievance mechanism has been devised to acknowledge and address any negative impacts of complaints that arise as a result of the project. Any grievances should be analyzed and mitigated as quickly as possible to avoid any tensions or conflicts. The grievance mechanism proposed here is cost effective as it is integrated into the institutional mechanism of the project.

194. The objectives of the grievance redress mechanism are to:

- Provide affected people an avenue through which they can voice their concerns and dissatisfactions;
- Create a platform in which stakeholders and community members can freely raise concerns and complaints to be effectively addressed;
- Demonstrate to project stakeholders and communities that they play an important role in project design and implementation;
- Follow up and report on efforts to take corrective action.

Grievance Principles

195. The formal legal system in Nepal gives government agencies, the local government, quasi-judicial and juridical agencies and local communities the responsibility to accept feedback and grievances. In this project, the following guiding principles will be applied in the grievance redress mechanism, given the related policies and provisions in Nepal:

Table 14: Grievance principles to be applied in the Grievance Redress Mechanism

Grievance Redress Mechanism Principle	Related Policies and Provisions
Legitimacy	▪ The Forest Act 1993 and Forest Regulation 1995: The District Forest Officer (DFO) holds responsibility to receive feedback and grievances related to forestry sector ▪ Good Governance (Management and Operation) Act, 2008: The ministry, departments and districts/ local agencies have responsibility to receive feedback and grievances and take necessary steps to address feedback and grievances in a given timeframe. ▪ Local Self-Governance Act, 1999: Establishes a Mediation Council for grievance redress at the local government level and interested people or groups can register grievances at these councils
Accessibility	▪ Good Governance (Management and Operation) Act, 2008: Governments are required to post a Citizen Charter in a visible place and all agencies must appoint spokesperson and FGR officer to provide information to stakeholders about GRM ▪ In order to ensure the widest dissemination and disclosure of project information, including the contact details and information on how to file a complaint, local and accessible disclosure tools including audiovisual materials as well as flyers, brochures, videos and community radio broadcasts will be utilized in addition to other tools. Furthermore, particular attention will be paid to farmers, indigenous peoples, illiterate or technologically illiterate people, people with hearing or visual disabilities, people with limited or no access to internet and other groups with special needs. The dissemination of information among these groups will be carried out with the local project counterparts and local actors such as municipalities, community-representatives, community-based organizations, CSOs (including indigenous federations, Dalit organizations, women's organizations, FECOFUN and others) provincial governments, among others.
Predictability	▪ The Forest Act 1993, Forest Regulation 1995, National Parks and Wildlife Reserve Act 1973, Good Governance (Management and Operation) Act 2008, the Local Self-Governance Act 1999, Rights to Information Act 2007, Commission for the Investigation of Abuse of Authority Act 1991 and General Code 1964 all provide clear judicial and quasi-judicial procedures with indicative timeframes for each stage. These pre-determined types of process and means of monitoring implementation must be followed.
Fairness	▪ Legal Aid Act, 1997: Requires the provision of legal aid for those unable to protect their rights due to financial or social reasons ▪ Rights Information Act, 2007: Empowers people to obtain needed information from relevant public agencies, bodies or institutions ▪ Constitution of Nepal, 2015:Ensures that all citizens are equal before the law and that nobody can be denied equal protection of law

Grievance Redress Mechanism Principle	Related Policies and Provisions
Rights Compatibility	▪ The Forest Act 1993, National Parks and Wildlife Reserve Act 1973, Local Self-Governance Act 1999, Land Act 1964, and Land Revenue Act 1978 give quasi-judicial jurisdiction to different agencies for grievance redress and these agencies are required to apply the rule of law and due process of law by the Constitution of Nepal
Transparency	▪ Good Governance (Management and Operation) Act, 2008: Gives responsibility to maintain transparency in grievance mechanism to the ministry, department and district/ local agencies. ▪ Rights to Information Act, 2007 and Constitution of Nepal, 2015: all citizens have right to seek information on any matter concerning him/ her or the public.

Adapted from: FCPF/ MoFSC 2017

Grievance Review Dissemination

196. As the grievance mechanism is instated in order to provide a platform for concerns to be voiced by any party, it is important that the method in which grievances can be made is effectively distributed to all stakeholders and community members within the project area. Information regarding the grievance redress mechanism will be distributed to all stakeholders and communities through:
    - Inception workshop for BRCRN Project at the national level, and in each of the three project provinces.
    - Information sessions and community meetings, including the provision of information both orally and through informative materials
    - Brochures regarding BRCRN grievance redress mechanism (produced in Nepali and local languages), distributed to diverse stakeholders including local and provincial CSOs
    - FAO Nepal webpage
    - Included as part of any other communication material that is designed and distributed during project implementation

Table 15: Overview of grievance review procedure

Steps	Procedures
1. Receive and register	▪ Community organizations, households, individuals or other stakeholders submit their grievances to the PMU safeguard officer and supporting officers within PPMUs. ▪ Safeguard Officerswill receive grievances or feedback through telephone/SMS, email, feedback/complaint box or other written or oral formats.
2. Acknowledge, screen, assess and assign	▪ PMU-M&R specialist will screen each grievance to ensure eligibility and either will assign staff to assess and investigate the grievance or forwards the grievance to higher institutional levels if too complicated to be addressed at the respective level

	▪ Officers responsible for the investigation and addressing the grievance prepares and presents report on grievance with potential resolution options
3. Respond and address	▪ PMU-M&R specialist proposes options to address the grievance to the complainant and any other related parties to reach an agreement
4. Implement and monitor	▪ PMU-M&R specialist requests to implement the agreed upon redress option and, along with input from other PMU officers, assigns a relevant officer to monitor the progress and effectiveness of implementation
5. Report	▪ PMUM&R specialist prepares a report, based on a standardized template, on the status of all grievances. This report is then submitted to the National Project Director (NPD) and the PMU´s Safeguard Officer. ▪ The report will be available on the official website for public access

Grievance Structure

197. The grievance redress mechanism has been designed to address any complains or grievances to the project. The designed structure has the grievance first flow through an internal national process, where most issues are expected to be addressed. Within this internal structure, the grievance will first be filed to the local municipality (as per the LGOA 2017), who will also share the grievance report with the PPMUs. The Chief Administrative Officer will process the grievance and, if not possible to be solved will transfer the grievance to the PPMU. If it is not possible to address the grievance within the local municipality, PMU or PSC level, the grievance will be transferred to the FAO national representative, and can be further transferred to the FAO Regional Representative at the Regional Office for Asia and the Pacific. When considered necessary, the FAO Regional Representative will upscale the case to the Office of the Inspector General.

198. The following Figure provides an overview of the proposed grievance redress mechanism:

Level 1: The complaint should be submitted directly to the Local Municipality (as per LGOA 2017), who will also share with the Provincial PMSU the filed grievance. The Chief Administrative Officer will receive and begin processing the grievance. The complaint can be provided in writing or orally to the representatives directly. At this stage the grievance will be registered by the PPMU and investigated by the Local Municipality.

Local Municipality Level (Chief Administrative Officer)	Should respond in 10 working days upon receiving the reported grievance. *Contact for Local Chief Administrative Officers in project municipalities to be included within 6 months of project inception*

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Level 2: The complaint should be submitted directly to the PPMU. The PPMUwill receive and begin processing the grievance. The complaint can be provided in writing or orally to the representatives directly. At this stage, the grievance will be registered and investigated by the PPMU.

PPMU	Should respond in 10 working days upon receiving the reported grievance. *Contact for PMU Safeguard Officer to be included within 6 months of project inception*

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Level 3: If the grievance cannot be solved at the provincial level, then the PPMU should send the grievance to the PMU. If the grievance is related to inter provincial jurisdiction issues, the PMU Safeguard Officer can send the reported issue directly to the National Project Director and PSC.

Project Coordination Unit (PCU, provincial level)	Should respond in 10 working days after consultation with the PPMU *Contact for PMU Safeguard Officer to be included within 6 months of project inception*

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Level 4: If the grievance cannot be solved at the provincial level (PPMU) or federal level (PMU), then the PMU safeguards officer will send the grievance to the PSC, in coordination with the National Project Director.

Project Steering Committee (PSC)	Should respond in 10working days after consultation with PMU Safeguard Officer. *Contact for PMU Safeguard Officer to be included within 3 months of project inception*

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Level 5: In the instance where national authorities cannot solve or address the reported grievance, the Chair of the PSC will send the grievance to the assigned national FAO Representative

FAO Representative in Nepal	Should respond in 10 working days after consultation with the PMU Safeguard Officer and NPD. FAO Representation in Nepal, PO Box 25, UN House, Pulchowk, Kathmandu; 01 5523200; FAO-NP@fao.org

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Level 6: The national FAO representative can ask for advice or assistance from the FAO Regional Office for Asia and the Pacific (FAO RAP). If the grievance cannot be solved by the Country Office, the reported grievance can be transferred to the regional office.

FAO Regional Representative in Asia and the Pacific	Should respond in 5 working days after consultation with FAO Country Office.

	FAO Regional Office for Asia and the Pacific, Maliwan Mansion, 39 Phra Athit Road, Bangkok 10200, Thailand; +66 2 281 7844

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Level 7: Only in particularly difficult cases will the FAO Regional Office for Asia and the Pacific request the assistance of the FAO Inspector General. If transferred to the Inspector General, the Inspector General will follow its Office´s protocol to address the grievance.[132]	
Office of the Inspector General (OIG)	To report potential fraud and misconduct, contact FAO OIG via the following contact information: Confidential hotline: (+39) 06 570 52333 Confidential Fax: (+39) 06 570 55550 Email: investigations-hotline@fao.org

Informal and Customary Grievance Review

199. Customary practices of different community, ethnic and religious groups to manage conflicts will also be integrated into the formal grievance mechanism. In many instances grievance cases have been addressed in an informal manner by local communities under the direction of community or traditional leaders. For example, in the Tharu community, meetings called ´Bhalvansa´ are held to manage grievances, and thus the M&R specialist will consult Bhalvansa leaders when addressing related grievances. The M&R specialist will consider the opinions or recommendations of leaders from any informal redress mechanisms before making any decisions.

Resolution

200. Once a grievance has been addressed and the party that filed the grievance has accepted the solution, an agreement should be signed by all involved parties. Records of all grievances made and addressed should be preserved in order to ensure continued compliance and a transparent grievance review mechanism.

[132] Additional information on guidelines and protocols of the Inspector General´s Office can be found at the following link: http://www.fao.org/about/who-we-are/departments/office-of-the-inspector-general/en/

8 INDIGENOUS PEOPLES AND SOCIAL INCLUSION PLANNING FRAMEWORKS

8.1 Indigenous Peoples' Planning Framework

201. The Indigenous Peoples' Planning Framework (IPPF) will be applied in all locations within the project area where Indigenous Peoples are the sole beneficiaries.

202. 'Excluded´ or marginalized groups in Nepal are defined as include those who have experienced inter-generational discrimination and have been systematically excluded due to their "*economic [situation], caste, ethnicity, gender, disability, sexual orientation, and geographical reasons*" (GESI Working Group 2017). This includes groups including women, poor people, Dalits, Adivasi/ Janajati, Madheshis, Muslims, people with disabilities, third-gender and people living in remote areas.[133]Initiatives in Nepal which are focused on social inclusion and support to marginalized communities therefore tend to include Dalits along with vulnerable indigenous groups.

203. Within community-based organizations in the project area, many groups are heterogeneous comprising men and women from diverse ethnic and socio-cultural backgrounds, including members from different indigenous groups, Dalits, Madheshis, among others. Thus, social inclusion and safeguarding the rights of indigenous peoples, Dalits and other marginalized/excluded communities must be cross-cutting throughout the project´s activities, and monitored in a responsive and proactive manner.

204. In line with the relevant international legal framework, the FAO Policy on Indigenous and Tribal Peoples, and the FAO Environmental and Social Management Guidelines, the following Indigenous Peoples and Social Inclusion Planning Framework has been developed to ensure that all due efforts will be made to respect, include and promote issues important to Indigenous Peoples, Dalits and other excluded/ marginalized groups during project implementation, including their right to Free, Prior and Informed Consent (FPIC).The framework will constitute the basis for the engagement of Indigenous Peoples, Dalits and other excluded/marginalized groups[134] as project stakeholders, promote ongoing consultations and communication throughout the project´s lifespan, develop a feedback and grievance mechanism, clarify monitoring and evaluation arrangements, promote measures to minimize and mitigate any potential adverse effects and ensure project activities are implemented in a culturally-appropriate manner.

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[133]For more information refer to the note on vulnerability in Section 2.3.

[134]Note: 'Excluded´ or marginalized groups include those who have experienced inter-generational discrimination and have been systematically excluded due to *economic [situation], caste, ethnicity, gender, disability, sexual orientation, and geographical reasons*" (GESI Working Group 2017). This includes groups including women, poor people, Dalits, Adivasi/ Janajati, Madheshis, Muslims, people with disabilities, third-gender and people living in remote areas. For more information refer to the note on vulnerability in Section 2.3.

8.1.1 Baseline information

8.1.1.1 Indigenous Peoples in Nepal

205. In Nepal, indigenous peoples are popularly known as Adivasi or Janajati. The Act to Establish the Foundation for the Development of Indigenous Nationalities (2002) defines Indigenous Nationalities as "…*ethnic groups or communities who have their own mother tongue and traditional customs, different cultural identify, distinct social structure, and written and oral history*".[135] While 59 indigenous nationalities are formally identified within this act, a technical committee established by the Government of Nepal in 2010 identified 81 Adivasi/ Janajati groups in Nepal.[136] There are over 9.5 million indigenous peoples living in Nepal, representing around 35% of its population.[137]

206. The Nepal Federation for Indigenous Nationalities (NEFIN) has categorized the indigenous nationalities of Nepal into four geographical regions (Mountain, Hills, Inner-Terai and Terai), and five categories of developmental status based on their level of socio-economic development (advanced, disadvantaged, marginalized, highly marginalized and endangered; Table 16).[138] Over half of Indigenous Nationalities of Nepal are considered marginalized or highly marginalized. Ten indigenous nationalities are considered endangered, of which 50% are in the hill region and the remaining 50% in the inner-Terai and Terai regions.

Table 16: Classification of Indigenous Nationalities of Nepal based on ecological zones

Ecological zone	Advanced	Disadvantaged	Marginalized	Highly marginalized	Endangered
Mountain (18)	Thakali (1)	Bara Gaunle, Byanshi, Chhairotan, Marpahali-Thakali, Sherpa, Tangbe, Tingaule (7)	Bhote (Bhutia), Dolpo, Larke, Lhopa, Mugali, Topkegola, Walung (7)	Siyar, Lhomi (Shingsawa), Thudam (3)	
Hill (23)	Newar (1)	Chantyal, Gurung, Jhirel, Limbu, Magar, Rai, Yakha, Hyolmo (8)	Bhujel, Dura, Pahari, Phree, Sunuwar, Tamang (6)	Baramu, Thami, Chepang (3)	Bankariya, Hayu, Kushbadiya, Lepcha, Surel (5)
Inner Terai (8)			Darai, Kumal (2)	Bote, Danuwar, Majhi (3)	Raji, Raute, Kusunda (3)

[135] http://www.nfdin.gov.np/
[136] Before, the Government of Nepal listed 59 indigenous nationalities in Nepal.
[137] CBS 2011; Indigenous Peoples´ Network for SDGs 2017
[138] NEFIN 2004

Ecological zone	Advanced	Disadvantaged	Marginalized	Highly marginalized	Endangered
Terai (10)			Dhimal, Gangai, Rajbanshi, Tajpuriya, Tharu (5)	Dhanuk, Jhangad, Satar (3)	Kisan, Meche (2)
Total: 59	**2**	**15**	**20**	**12**	**10**

Source: NEFIN 2004

207. Many indigenous peoples utilize the following strategies to maintain their livelihoods:[139]
    a. Nomads (Rautes)
    b. Foraging and horticulture (Chepang)
    c. Foraging, agriculture, horticulture (Hayu, Raji and Thami)
    d. Horticulture and agriculture (Baramo, Bhujel, Chantyal, Dura, Fri, Lumbu, Lapcha, Magar, Pahari, Rai, Sunuwar, Surel, Tamang and Yakkha)
    e. Pastoralism, agriculture and industrial activities (Bara Gaunle, Takali, Byansi, Chairotan, Gurung, Jirel, Larke, Siyar, Tangbe, Thakali, Tin gaunle)
    f. Agriculture (Bote, Majhi, Danuwar, Darai, Dhanuk, Dhimal, Gangai, Jhangad, Kisan, Kumal, Meche, Rajbanshi, Santhal, Tajpuria, Tharu, Rajbanshi)
    g. Agriculture and industrial activities (Marphalis, Thakali, Newar)
208. Although many indigenous groups have been able to control their traditional way of life in the mountain areas, in the Hills, inner-Terai and Terai regions, indigenous peoples have been gradually losing control due to the cultural, economic and political influence of more dominant groups.[140] The majority of indigenous peoples lost ownership and control of their ancestral lands by the 1960s due to land policies such as *Birta* (feudal rulers allocating land for patronage), *Jagir* (land given in lieu of salary) and the abolition of *Kipat* (communal/collective land ownership) land tenure systems.[141] The establishment of national parks, wildlife reserves andother protected areas has also sometimes clashed with indigenous claims to lands, including forced relocation.[142] As a result of these socio-economic and political factors, many marginalized indigenous communities are located in remote, marginal or hazard-prone areas.
209. This, along with the heavy dependence of indigenous and marginalized communities on natural resources for livelihoods, makes indigenous, Dalit and excluded/marginalized groups disproportionally affected by climate change. Although climate effects are cross sectoral, rural livelihoods are most affected and become increasingly vulnerable as climate variations affect the natural resources base on which these livelihoods and cultures are dependent.

[139] IFAD 2012
[140] IFAD 2012
[141] Gurung 2009
[142] IFAD 2012

210. In terms of poverty, in 2011 indigenous peoples[143] experienced lower Human Development Index (HDI) values in comparison to the national average (0.482 in comparison to 0.558 nationally).[144] Such values are more pronounced when comparing differences between indigenous peoples living in the hill/ mountainous regions and those living in the Terai region, with HDI values of 0.509 and 0.473 respectively.[145] The Nepal Living Standards Survey (2011) further identified that nationally, 28% of Mountain/Hill indigenous peoples and 7% of Inner-Terai/ Terai indigenous peoples live in poverty based on the National Poverty Headcount Ratio (slightly higher than the national average of 25%).[146]

8.1.1.2 Indigenous Peoples within the project area

211. Diverse indigenous nationalities reside in the BRCRN project area, where 31% of inhabitants are indigenous peoples (Adivasi/ Janajati, approximately 997,036 people).[147] People from 55 indigenous nationalities can be found in the project area,[148] although there are certain groups which are more predominant than others. The distribution of such groups depends on the district and region (Churia hills, Bhavar region, inner-Terai, etc.). In the Eastern part of the project region, Rai, Limbu and Dhimal are the predominant indigenous nationalities. In the central part of the BRCRN project area, the Magar, Kumal, Danuwar and Sunuwar. Magar and Tamang nationalities have a more significant presence. The Lepcha nationality[149] is primarily found in the district of Ilam, and to a lesser extent in Jhapa, Morang and Udayapur.

8.1.1.3 Representation of Indigenous Peoples in Nepal

212. Several organizations and networks have been created to promote indigenous and social inclusion priorities within Nepal. At the regional level, the Nepal Federation of Indigenous Nationalities (NEFIN) is affiliated with 56 indigenous peoples' organizations and is linkedto the Asia Indigenous Peoples' Pact.[150] The National Network of Indigenous Women (NNIW) in Nepal is associated with the Asian Indigenous Women's Network and is working to establish a distinct identity and space for indigenous women in the women and gender equality movement within the indigenous peoples' movement.

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[143] Excluding Newars who had a HDI value of 0.565; UNDP 2014
[144] UNDP 2014; HDI takes into account three dimensions to provide an estimation of to assess the development of a country. It is based on three dimensions: long and healthy life (life expectancy at birth, knowledge (expected ears of schooling, mean years of schooling), a decent standard of living (GNI per capita). Additional information can be found at: http://hdr.undp.org/en/content/human-development-index-hdi
[145] UNDP 2014
[146] Ibid.; http://cbs.gov.np/nada/index.php/catalog/37
[147] CBS 2014; Based on VDC level data
[148] Ibid.
[149] Listed as endangered groups in Nepal.
[150] IFAD 2012

213. Nationally, several grass-roots level indigenous peoples' organizations exist. Although many traditional indigenous peoples' organizations have disappeared, some have survived and have served as models for bodies set up by other castes and ethnic groups.[151] Modern indigenous peoples' organizations can be categorized into six main groups: (1) Indigenous peoples' ethnic organizations such as NEFIN; (2) Indigenous peoples' professional and occupational groups such as Lawyers for Human Rights of Nepal's Indigenous Peoples; (3) Indigenous peoples' NGOs such as Non-governmental Organization Federation of Nepal's Indigenous Nationalities; (4) Indigenous peoples' political parties such as the Nepa: *Rastriya* Party and *Sanghiya Lokatantrik Rastriya;* (5) Indigenous peoples' fronts , networks and alliances, such as the Indigenous Peoples Mega Front; (6) Indigenous peoples' independent intellectuals.[152]

8.1.2 National policies and international commitments

214. Historically indigenous peoples have often experienced cultural discrimination, economic exploitation, social exclusion and political oppression. The political consolidation of Nepal under a feudal regime throughout the 19th and 20th centuries discriminated against these groups, as did the Panchayat regime of the 1950s-80s.[153] The creation of national parks in the 1970s also displaced many indigenous peoples from their ancestral lands and led to loss of customary rights of indigenous peoples over land, forest and water resources.[154]

215. Issues of social exclusion and discrimination came to the forefront after the 1990 democratic movement opened the floor for conversation regarding Nepal's Indigenous Peoples.[155] The Constitution of 1990 and Interim Constitution of 2007 recognise the distinct cultures and rights of Indigenous Peoples. The Constitution of Nepal (2015) includes a Right to Equality stating that all citizens should be equal before the law, that they should not be denied equal protection and that nothing should bar the making of special provisions for the protection, empowerment or advancement of those lagging behind, including Indigenous Peoples. A sub-article dealing with social justice and inclusion exists and it supports the securing of rights to Indigenous Peoples to live with their respective identities, be included in decision making processes and have their traditions, culture and social practices preserved and maintained.

216. The first legislation specifically on Indigenous Peoples, The National Foundation for Development of Indigenous Nationalities Act was passed in 2002. The law established the National Foundation for Development of Indigenous Nationalities (NFDIN), an independent organization that works as the link between the Government and Indigenous Peoples with the mandate to implement programs that support the development of all Indigenous Peoples and to recommend to the government strategies to improve the social, economic and cultural development of Indigenous Peoples. This act replaced the previous National Committee for Development of Nationalities with NFDIN, which defines Indigenous Peoples

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[151] IFAD 2012
[152] Ibid.
[153] Gurung 2009
[154] Ibid.
[155] ADB 2010

(*Adivasi/Janajati*) and promotes the overall development of Indigenous Peoples, preservation and promotion of traditional knowledge, skill and technology, inclusion of IPs in decision processes and building of an equitable society.

217. Nepal has also ratified the International Convention on the Elimination of All Forms of Racial Discrimination in 1971 to secure the rights of Indigenous Peoples, Dalits and others who have suffered racial discrimination.[156] The ratification of the International Labour Organization (ILO) Convention 169 in 2007 further represents Nepal's commitments to address the needs of indigenous nationalities.[157] In particular, the ILO Convention states that Indigenous Peoples have the right to self-determination and can freely determine their political, economic, social and cultural status and development. Although there have been many difficulties in the efficient implementation of these treaties and conventions, the ILO Office in Nepal has actively been engaging with the Nepali Government and Indigenous Peoples to support their implementation. Nepal has also made several other international commitments to non-discrimination, gender equality and social justice. These include, among others:
    - Universal Declaration of Human Rights
    - Declaration on the Rights of Persons Belonging to National or Ethnic, Religious and Linguistic Minorities
    - Beijing Declaration and Platform for Action
    - Durban Declaration and Programme of Action
    - International Decades of the World's Indigenous People
    - United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP)
218. The constitution of Nepal (2015) states that it is the responsibility of the state to make "special arrangements to ensure the rights of Adivasi Janajatis (indigenous ethnic groups) to lead a dignified life with their respective identifies, ensuring their participate in decision making processes that concern them, and preserving and maintaining the traditional knowledge, skills, experience, culture and social practices of Adivasi Janajatis and local communities" (Article 51, j, 8).

8.1.3 Key findings and analyses of impacts, risks and opportunities

219. As described in Chapter 2.3 of the ESMF, the population in the core BRCRN intervention area (i.e. within 26 river systems) is over 3,216,428 - around 11% of Nepal´s population. Indigenous Peoples (Janajati/ Adivasi) make up 31% of the area's population.
220. Climate change will have a disproportionate adverse impact on Indigenous Peoples. These groups are often more vulnerable to climate change and climate-induced natural disasters due to inter-generational discrimination (social and economic exclusion), they are usually heavily dependent on natural resources to maintain their livelihoods, and they often live in

[156] Ibid.
[157] Ibid.

high risk areas that are often along river beds or in susceptible landslide or erosion areas.Therefore, the project is in their direct interest as it will strengthen the resilience of Indigenous Peoples living in vulnerable river systems.

8.1.3.1 Potential impacts of the BRCRN project on Indigenous Peoples

221. Given the ethnic and socio-cultural diversity within the project area, and often within CBOs, promoting participatory land use planning that takes into account the differentiated vulnerabilities, priorities and contexts within community-based organizations will be important for project implementation. Participation in the project is voluntary, and FPIC will be a cross-cutting principle applied to ensure that free, prior and informed consent is provided prior to the implementation of any activities (cf. Section 8.3).

222. The project will support men and women from indigenous communities living in vulnerable river systems to increase their awareness of climate change and future risks, and to support them to adopt climate-resilient farming practices. Such measures will reduce ecosystem degradation, improve agricultural yields through improved soil fertility and improved access to water sources as well as reduced erosion, and support the sustainable use of forest resources. It will ultimately reduce the vulnerability of Indigenous Peoples and ecosystems to climate-induced hazards and projected impacts.

223. The project is based on a participatory approach in line with the principles of FPIC, so that Indigenous Peoples are able to adopt measures that are well suited to their local context and differentiated vulnerabilities. Various measures aim to strengthen awareness on local indigenous knowledge and practices, and to mainstream such information into trainings. Capacity building will also be provided to train indigenous resource persons and extension agents on climate-resilient land use practices, including indigenous knowledge.

224. The project aims to cause no harm to Indigenous Peoples, including through loss of livelihood or impacts on their cultural identify. Indigenous Peoples consulted identified that the project addresses many issues that affect their livelihoods including climate change, climate-induced natural hazards, and land degradation trends in the area. They noted that water scarcity and extreme heat already impact their agricultural production, and that flooding and landslides further negatively impact Indigenous Peoples within the project area. Forest and land degradation also further negatively impact their livelihoods through reducing the abundance and quality of forest products, including medicinal herbs and NTFPs.

225. Due consideration was given to the following potential impacts and mitigation measures within the context of the project:

    a. Potential displacement of land use activities: It was identified as critical that the project does not result in the displacement of Indigenous Peoples' social and economic activities. While the project aims to support investments in climate-resilient agriculture, ecosystem restoration of forests, wetlands and grasslands, and tree planting in non-forested areas, investments will be made primarily on public land where management by community-based groups is permitted. Participation in the project is voluntary, and the principles of FPIC will be followed in consultations with all participating organizations representing Indigenous Peoples, prior to the implementation of local-level workshops and local interventions (Output 1). In instances where critical ecosystems are jointly

identified by Indigenous Peoples and project staff, alternative land uses will be discussed – taking into consideration the priorities and differentiated vulnerabilities of Indigenous Peoples. Discussed alternative sub-activities will only be implemented based on the full consent of the interested Indigenous Peoples and in close coordination with the competent authority. The project will neither be involved in supporting strict law enforcement, nor in challenging the traditional use of forest, land and water resources by Indigenous Peoples.

Sub-project screening will also ensure that appropriate management plans are adopted and monitored to minimize social and environmental risks and impacts from the project. Project activities will be implemented in line with Acts and Regulations adopted by the Federal, Provincial and Local Government bodies, respecting the customary rights of Indigenous Peoples over land and forest resources. It is anticipated that the project activities will reduce the likelihood of negative or adverse impacts on customary land tenure and livelihoods of Indigenous Peoples.

b. Exclusion or limited influence within community-based organizations: While community-based organizations have integrated social inclusion and policies related to enhancing the engagement of all groups, in practice there are occasionally challenges to fully engage Indigenous Peoples into decision making processes. The project will support full, effective and proportional representation of Indigenous Peoples within the context of project activities, including through the recognition of Indigenous Peoples' Organisations (IPOs) active within the project area as a category of CBOs within the project beneficiaries. It will further promote targeted activities to support Indigenous Peoples to be aware of their rights and opportunities within community-based organization management structures, and to promote leadership and skill development within the framework of the project.

8.1.3.2 Consultations with Indigenous Peoples

226. The project development team ensured that Indigenous Peoples were duly informed, in a transparent and impartial way, about the project activities being proposed. Iterative discussions on the proposed project activities were conducted from November 2017 to May 2018 with the related outcomes being documented and made available to all parties (meeting summaries and attendance sheets available in Annex 3).

227. Representatives from NEFIN and NIWF were present at the Project Inception Workshop on November 21, 2017. Consultations with NEFIN and NIWF occurred in December to discuss the proposed project and the planned field consultations. The concept note was shared with NEFIN as well as the tentative project target districts, and NEFIN provided a list of contacts within the proposed project districts whom they recommended to contact for local consultations. NEFIN also provided information from consultations with the Govern-

ment on the Government´s proposed REDD+ Emissions Reduction Program and Forest Investment Program, where extensive consultations were conducted, of which many comments were relevant for the BRCRN project.[158]

228. At the local level, consultations were held with diverse communities and community-based organizations, as well as local trader groups and youth clubs. In total, 10 local consultations were conducted specifically with indigenous communities, in addition to numerous other consultations with local community-based organizations with mixed-membership. Of the 268 people consulted at the local level, 45% were indigenous peoples. Additional regional workshops were held in Lahan and Itahari, where NEFIN representatives were invited among other stakeholders.

229. Consulted communities were in favor of the project, noting that climate change, climate-induced hazards and land degradation have a negative impact on their livelihoods, many of which are dependent on agriculture and forests, and some groups also livestock.Table 17 below provides a summary of the consultation meetings and recommendations from communities. More detailed summaries are available in Annex 3.

230. In February 2018, a targeted Gender Workshop was held in Kathmandu to present the draft Gender Assessment and Action Plan. Half of the participants in the workshop were indigenous women, who provided valuable insight into how to empower women, including women from diverse socio-cultural and ethnic backgrounds, within the context of the BRCRN project (more information is provided in Section 8.6 below for further information).

231. Due to scheduling conflicts, attempts to meet NEFIN and other indigenous organizations in March to present the consultation results and proposed recommendations, communication pathways and grievance mechanism were unsuccessful. Representatives from NEFIN were also unable to attend the project validation workshop on March 25, 2018. In the validation workshop, the refined project concept was presented along with the proposed monitoring framework, gender action plan and safeguard approach. While safeguard considerations were presented, it was clearly noted that additional consultations with NEFIN and other indigenous organizations would be required to present the findings of the field consultations, refined concept and proposed safeguard framework.

232. Follow up discussions were held with NEFIN and representatives from the Center for Indigenous People´s Research and Development on the Indigenous Peoples and Social Inclusion Planning Framework, as well as the project proposal in September 2018.

[158] Documents provided included the Report of the Consultation Workshop on Nepal´s ER-PD (2016), the Recommendations of Indigenous Peoples of Nepal on Forest Investment Program (FIP) and Dedicated Grant Mechanism (2017), Position Statement of Indigenous Peoples on Emissions Reduction Program of Nepal (2016).

Table 17: Overview of consultations with a focus on indigenous peoples in the context of the BRCRN project and the main topics addressed/ recommendations*

Date and Location	Entities Consulted	Main topics addressed and recommendations
December 4, 2017, 10:30-12:00, NEFIN CCPP Office, Kathmandu, Nepal	Nepal Federation of Indigenous Nationalities (NEFIN)	**Agenda**: Presentation of project proposal to be submitted to GCF, and discussion on perspectives on the project and recommendations for its feasibility **Feedback/ Recommendations**: ▪ A tentative list of areas in the Churia-Terai region was identified as potential target sites: Ilam, Jhapa, Morang, Sunsari, Udayapur, Saptari, Siraha, Dhanusha, Mahottari, Sindhuli, and Sarlahi. Contacts for the project area were shared by NEFIN and contacted for the identification of stakeholders to consult with during the local consultations. ▪ The importance of knowledge and learning-oriented interventions, particularly incorporating the knowledge of indigenous peoples, was emphasized and will be considered in designing the project measures and full and effective participation of indigenous peoples in institutional set-up. ▪ Relocating people in the upstream forested areas (which often have major environmental, cultural, political and socio-economic impacts) was deemed unsustainable; instead best practices, capacity building and incentives for sustainable land management were discussed e.g. agroforestry. It was emphasized that relocation is not permitted within the framework of the BRCRN project. The concept of sustainable land management should include all aspects of sustainability (i.e. cultural, social, economic, political and environmental meanings and values of land). For indigenous peoples, land carries multiple meanings and values. ▪ The importance of interventions on sustainable land use management was also emphasized, along with the need to account for regional differences when planning the value chain and NTFP project components. Cultural values of NTFPs should be taken into account ▪ NEFIN's caution of interventions promoting strict law enforcement and land tenure was made clear (this so is because the existing forest act of Nepal disrespects the rights of indigenous peoples over natural resources. Indigenous peoples have been fighting to secure their rights over land and natural resources including forest. It was emphasized that the project will not focus on strict law enforcement, and will instead focus on incentives for sustainable land management and sustainable alternatives. ▪ NEFIN's priority of ensuring equitable and fair benefit sharing for IPs, their adequate participation in the program and do-no-harm policy was also noted and it was agreed that the program will take into account international conventions, agreements and commitments made by Nepal, especially in regards to IPs. NEFIN agreed to provide further information on their stance on REDD+ and the FIP, which are as follows: ▪ Key points: 1. Criminalization of indigenous peoples for using their land/forest for their livelihood and cultural needs is always a threat. 2. Militarization against indigenous peoples' access to land and forest has often been experienced. ▪ Ensure: 3. **Institutional architecture** with full and effective participation of the representative organizations of indigenous peoples and of the customary institution of IPs. 4. **Governance structure:** indigenous peoples' access to, and participation in, decision-making structures. 5. **Intervention activities/project activities** need to be economically, socially, culturally and environmentally viable and valuable. 6. **Benefits:** Balance monetary value with social, cultural and environmental benefits 7. **Implementation approach and methods of the Project activities** should be based on human rights-based approach and contributing to climate change adaptation and mitigation at large. 8. **Development, implementation and monitoring of Indigenous Peoples Plan (IPP)** should be by and for indigenous peoples.

Date and Location	Entities Consulted	Main topics addressed and recommendations
		9. **Land tenure**: respect customary land use and ownership of indigenous peoples 10. Paradigm shift from 'do –no-harm' to 'do-good'. 11. The framework,'Indigenous Peoples Planning Framework" must be specific to indigenous peoples only. It is good to link with other plans and frameworks such as Gender Action Plan and the Environmental and Social Framework. But also, it is important to keep the framework exclusive to IPs so that it can guide the future Indigenous Peoples' Plan (IPP). 12. Consistency in the terminologies. We recommendto use the terms such as "indigenous peoples", "the knowledge of indigenous peoples", "customary institutions", "customary law", "Indigenous People Organization (IPOs)" 13. Better not to use the term interchangeably, for example: Indigenous Peoples Organizations (IPOs) are not the same as CBOs representing local and other marginalized communities …
December 13, 2017, 13:45-14:45, NIWF Office, Kathmandu, Nepal	National Indigenous Women´s Federation (NWIF)	**Agenda**: Presentation of project proposal to be submitted to GCF, and presentation of NIWF and perspectives on the project. **Feedback/ Recommendations:** ▪ An overview on Nepal's indigenous peoples, their traditions, local produce and connection to natural resources was presented. ▪ The disadvantaged faced by IPs, including government-imposed restrictions on NR use, displacement as an effect of globalization and economic forces, access to modern seeds and displacement of native plants were discussed. The causes of deforestation, from the perspective of NIWF, were presented. ▪ Indigenous men and women are differently affected by climate change; women have a higher dependence on natural resources (some groups even more than others). Many IPs, especially women, are also unaware of future climate change risks and ways to cope with its challenges, mitigation activities, government policies and related training efforts. ▪ Given that IPs, especially women, possess knowledge on functional natural resource management practices, and engage in some malfunctional practices as well, there is a great need for information sharing between groups.
Local Consultations		
December 21, 2017, 09:00-11:00, Shree Antu, Ilam	Lepcha/ Rong Community in Shree Antu, Illam	**Indigenous Nationalities: Lepcha/Rong** **Agenda:** Discussion on climate change and drivers of land use change, presentation of GCF project proposal, followed by discussion, feedback and recommendations on the proposal. **Feedback/ Recommendations:** ▪ The Lepcha community is especially vulnerable to climate change impacts due to their high dependence on forests and agriculture, small land holdings, semi-literacy, vulnerability to landslides, and reduced production of major cash crop (tea) due to rainfall variations. The community reports increased temperature and changes in rainfall patterns that have allowed them to start growing other crops such as a local variety of chili and orange but has put their other agricultural practices at risk. ▪ Both men and women participate in agricultural and livestock activities but women work in the household sphere while men take part in the community sphere. Women often do not have land ownership or opportunities to access trainings and education. ▪ They report declining water supply but increase in both forest coverage and health due to the handing over of forests to local communities, the promotion of stall feeding and prevention of open grazing. Most households are members of the community forest programs, have planted broadleaf

Date and Location	Entities Consulted	Main topics addressed and recommendations
		trees to stabilize the landscape and believe that community and private forestry are effective in maintaining greenery, protecting the Churia and producing income. ▪ Current coping strategies and potential livelihood improvement opportunities include growing a new cardamom variety, shifting from traditional cereal crops to cash crops, entering organic tea production, raising improved cattle variety and ecotourism. The community gave their support to implement program interventions with livelihood co-benefits and also voiced need for agricultural inputs, technical support and linkage development to agricultural markets.
December 22, 2017, 13:00 Sukhani, Illam/ Jhapa	Indigenous Women in Kankai Watershed	**Indigenous Nationalities: Limbu and Rai** **Agenda**:Discussion on climate change and drivers of land use change, presentation of GCF project proposal, followed by discussion, feedback and recommendations on the proposal. **Feedback/ Recommendations:** ▪ This settlement was established in the early 1980s ▪ The main sources of livelihoods are agriculture, small businesses, setting firewood and foreign employment/ remittances. Women are predominantly involved in service provision. ▪ Highly vulnerable groups dependent on subsistence farming in marginal lands and riverbanks are affected by floods, erosion and land degradation ▪ Recommendations of activities that address both conservation and livelihood needs included vegetable farming and livestock raising, skill development for handicrafts and off-farm employment, awareness raising, timber and non-timber forest product plantations, and promotion of grass cultivation, fodder trees and stall feeding
December 22, 2017, 15:00-17:00, Kankai, Illam/Jhapa	Indigenous Men from Kankai Watershed	**Indigenous Nationalities: Limbu** **Agenda**:Discussion on climate change and drivers of land use change, presentation of GCF project proposal, followed by discussion, feedback and recommendations on the proposal. **Feedback/ Recommendations:** ▪ The main sources of livelihood here are wage labour, agriculture with livestock management, small businesses (selling of local brew), the selling of firewood and foreign employment. ▪ The participants noted the following climate change impacts: temperature increases, erratic rainfall, end of prolonged misty rains and drying up of water springs ▪ Recommendations for project activities included promoting livestock-related activities like goat and pig keeping, bee-keeping, carpentry and bamboo-based construction. For women, supporting local cloth weaving and the promotion of small businesses to improve livelihoods was also suggested. There was interest in the installation of ponds on riverbanks for conservation and livelihood purposes.
December 22, 2017, 16:00, Kharkhola, Sunsari	Indigenous Group in Patnali Watershed	**Indigenous Nationalities: Magar and Newar** **Agenda**:Discussion on climate change and drivers of land use change, presentation of GCF project proposal, followed by discussion, feedback and recommendations on the proposal. **Feedback/ Recommendations:**

Date and Location	Entities Consulted	Main topics addressed and recommendations
		▪ The participants listed open grazing in the forest, illegal harvesting of forest products, extraction of river bed materials (i.e. sand, boulders, gravels), unsustainable agriculture practices, encroachment of lands in the upstream areas, inappropriate/unscientific management of natural resources and forest fires as major causes for degradation in Churia ▪ A focus on poverty alleviation, employment and income generation of locals, as well as landscape level planning and implementation of concrete actions was suggested for the proposed project. E.g. awareness raising campaigns, developing stall feeding practices, river embankment construction, tree plantations etc.
December 23, 2017, 09:00-11:00, Damak, Ratu River System	Indigenous Women's Group in Damak	**Indigenous Nationalities: Dhimal** **Agenda:** Discussion on climate change and drivers of land use change, presentation of GCF project proposal, followed by discussion, feedback and recommendations on the proposal. **Feedback/ Recommendations:** ▪ Although Dimal families used to own more than 67ha of land, now many own less than 2.1ha or are landless/ marginal farmers due to displacement promoted by the arrival of new people after the establishment of TarabariDipo (forest wood supply depo) and the malaria eradication project. ▪ Dimal people are highly dependent on farming and are experiencing reduced water availability and shifting rainfall patterns, affecting farming productivity. ▪ Cited causes of deforestation include river mining/ crusher industries, tree cutting/smuggling, open grazing and lack of awareness. ▪ Potential livelihood enhancement activities include bee keeping, goat raising, piggery, poultry, fishery, mushroom farming, weaving cloth (women), tourism, and fish ponds. The introduction of these activities must be linked with improved market and road networks, increased awareness of forest conservation and plantation strategies, and conservation of Dhimal culture. ▪ They recognize the strong linkage with upstream communities and advocate the addressment of encroachment, illegal settlements, tree cutting, open grazing and poverty issues in upstream communities.
December 23, 2017, 09:00-11:00, Damak, Ratu River System	Indigenous (Dhimal) Community Group in Damak	**Indigenous Nationalities: Dhimal** **Agenda**:Discussion on climate change and drivers of land use change, presentation of GCF project proposal, followed by discussion, feedback and recommendations on the proposal. **Feedback/ Recommendations:** ▪ Women and men are active in separate domains, men in the public domain and women in the household domain. Women are mainly involved in the household activities, vegetable farming and livestock management, with main sources of living being weaving of clothes, making local brew, and selling bhakka (special food made of flour) ▪ Dhimal women are impacted heavily by increasing water shortage, with water scarcity affecting household consumption, vegetable farming and other agricultural activities, as men are largely absent from the home sphere (working off-farm jobs or have migrated to foreign countries for work) ▪ Participants are interested in skill development in areas such as small businesses, vegetable farming, goat raising, tourism, hotel and services and weaving, to diversify livelihoods
December 23, 2017 17:00-18:00	Indigenous Community	**Indigenous Nationalities: Rai** **Agenda:** Discussion on climate change and drivers of land use change, presentation of GCF project proposal, followed by discussion, feedback and recommendations on the proposal.

Date and Location	Entities Consulted	Main topics addressed and recommendations
Sunakham-chu River Watershed Udayapur	in Udaya-pur	**Feedback/ Recommendations:** ▪ The main drivers of deforestation in the Churia were identified as illegal harvesting of sal trees, and it was noted that deforestation is linked to other environmental problems, especially landslides and flooding, which have major impacts on local livelihoods. ▪ Many households grow maize, beans, and fruits, among others. The local people do not have knowledge of climate-resilient farming and livestock management practices. ▪ It was emphasized that the project should support local livelihoods, taking into account local people's dependence on the agriculture and forestry sector´s for their livelihoods. Communities mentioned activities such as bamboo plantations, broom-grass (amriso) cultivation, cardamom cultivation and banana plantations as interesting to the community.
December 25, 2017 16:00 Mohanpur, Mahuli, Sap-tari	Womens Group (with high participa-tion from indigenous women)	**Indigenous Nationalities: Limbu, Rai, Magar and Tamang** **Agenda**: Discussion on climate change and drivers of land use change in their community, presentation of the GCF project proposal, discussion, feedback and recommendations **Feedback/ Recommendations:** ▪ Main economic activities here include farming and livestock management. The village is heterogeneous in terms of case and ethnic groups, leading to caste based social discrimination and inequalities. Although gender differences can be seen in household and public domains, both women and men are involved in household and agriculture activities. ▪ Livelihood improvement options for the BRCRN project include introducing improved or hybrid varieties of cattle (all households have at least some livestock but do not have funds to invest in improved variety), off season vegetable farming (issues of irrigation), utilizing barren lands for fodder trees, address irrigation issues, and grass plantations. ▪ They attribute forest degradation to over exploitation, human made fires, and political movements such as Maoist and Madeshi movements. Women now experience difficulties collected fodder, ground grasses, and water causing great time-poverty.
December 25, 2017, 09:00 Balan Khola Wa-tershed	Terai Com-munity (in-cluding Madheshis and Tharu peoples) in Balan Khola Watershed	**Indigenous Nationalities: Tharu** **Agenda**:Discussion on climate change and drivers of land use change, presentation of GCF project proposal, followed by discussion, feedback and rec-ommendations on the proposal. **Feedback/ Recommendations:** ▪ Participants indicated a strong connection to Churia forests due to the presence of a sacred site within, where offerings are made for community prosperity; it was suggested that this site be promoted as a tourist destination ▪ Respondents stressed that there are no cookie cutter solutions applicable to the community due to the diversity in the groups of people living in the area, and that project planning should take this into account. I.e. Tharu people do not often engage in livestock management (which other high caste hill groups do), and rather give more priority to farming, fishery and duck keeping ▪ The Musahar are landless and need support in terms of vegetable farming, to help promote their livelihoods
December 25, 2017, 16:30-18:30, Balan River	Tharu In-digenous Community in Balan	**Indigenous Nationalities: Tharu** **Agenda**:Discussion on climate change and drivers of land use change, presentation of GCF project proposal, followed by discussion, feedback and rec-ommendations on the proposal. **Feedback/ Recommendations:**

Date and Location	Entities Consulted	Main topics addressed and recommendations
System, Siraha	River System	▪ Farming and horticulture are the main livelihood strategies, with mango production being the main source of cash generation. Agriculture production is decreasing due to irrigation and labour shortages. There is a lack of awareness about climate change. ▪ The community reports population growth, settlement encroachment, illegal harvesting, open grazing, and people-induced forest fires to be main causes of forest degradation. ▪ They suggest stall feeding, plantation of fodder trees and grasses, provision of leasehold farming to landless, small and medium sized farmers and planting trees in Ailani lands to help protect the forests. ▪ Livelihood support in terms of check dam construction to combat landslides, promotion of mango, turmeric, ginger, fodder and grass plantations, integrating forest management with fodder production, and provision of training and technology to process mango into a variety of products to promote local employment were suggested.
December 26, 2017, 14:00 Gausala, Mahottari	Indigenous Group of Terai in Mahottari	**Indigenous Nationalities: Tharu** **Agenda**:Discussion on climate change and drivers of land use change, presentation of GCF project proposal, followed by discussion, feedback and recommendations on the proposal. **Feedback/ Recommendations:** ▪ Farming and horticulture are the main livelihood strategies here; paddy, dalhan, oilseeds, and vegetables are produced. Mango cultivation is becoming popular and is a source of cash generation in the area. ▪ Respondents expressed interest particularly in the promotion of stall feeding, plantation of fodder trees on the banks of rivers, and plantation of fodder trees in Ailani land, as part of the proposed GCF project. ▪ Respondents noted that in Gausala Village, villagers have traditionally been producing mangoes. Raw mango is sold to local traders, however, receiving support in the form of trainings, knowledge and technology to facilitate the production of jam, pickle, candy and related mango products would create more employment opportunities locally, including for women and poor people.

Note: additional consultations with mixed communities (indigenous and non-indigenous households) and community-based organizations were conducted, with high participation from indigenous peoples. These consultations represent the consultations that had a stronger focus on indigenous-specific issues and recommendations. Annex 3 contains attendance sheets and summaries of all consultation meetings.

8.2 Social Inclusion Planning Framework

233. The Social Inclusion Planning Framework (SIPF) will be applied in all locations within the project area, except those where the IPPF applies.

8.2.1 Baseline information

8.2.1.1 Dalits and other excluded/marginalized groups in Nepal

234. **Dalits**, though in many respects one of the most marginalized communities in Nepal, are not considered indigenous, nor do they self-identify as such. The Dalits are a "low caste" group which have experienced inter-generational discrimination, and are considered one of the most marginalized groups in Nepal. In Nepal there are an estimated 3.6 million Dalits living (around 13.6% of the population). Within the Dalit caste, Dalits are often divided into two categories: hill Dalits (i.e. Dalits living in the mid-hills and Churia range), and Terai Dalits (i.e. Dalits living in the Terai plains. Dalits are among the most poor castes and ethnicities in Nepal. While Dalits make up over 22.1% of poor people in Nepal, Hill Dalits comprise nearly 69% of poor Dalits.[159] They have a Human Development Index of 0.434, lower than the national average of 0.574, and have lower life expectancy rates, lower adult literacy, less formal education, and often have lower incomes.[160]Terai Dalits have lower HDI scores than hill Dalits (0.400 in comparison to 0.446), primarily due to them having comparatively lower income, education and literacy, whereas Hill Dalits have lower life expectancies and income.[161]

235. Dalit peoples may live in more remote areas that are farther away from urban centers. Dalit households are also more likely to be landless, and/or live in areas that are highly vulnerable to natural disasters (along riverbanks, near steep slopes).

236. **Madheshi**s are people living in the Terai plains of Nepal. Many indigenous peoples (Tharus), Dalits, other backward classes, as well as higher caste Brahmans and Chhetris living in the Terai plains may also identify as Madheshi, which makes it confusing and difficult to understand the extent of marginalization and barriers faced by Madheshis as it comprises such a diverse group of men and women, as well as ethnicities.[162]

237. **Muslims** comprise only 4-5% of Nepal´s population, and thus they are less populous than Dalits and indigenous peoples. The majority of Muslims (~97%) in Nepal live in the Terai plains. They make up only 3.5% of the country´s poor, however they have the lowest HDI out of the main castes/ethnic groups in the country with a score of 0.422. They also tend to have lower education, and often suffer discrimination due to their religious beliefs and cultural practices.[163]

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[159]UNDP 2014
[160]UNDP 2014
[161]UNDP 2014
[162]GESI Working Group 2017
[163] UNDP 2014

238. Other excluded and marginalized groups include people with disabilities, LGBTQIA persons, and people living in remote areas. Initiatives are needed that promote social inclusion, including sensitization, to help overcome discrimination and other barriers faced by these groups.[164]

8.2.1.2 Dalits and other excluded/ marginalized groups in the project area

239. There are over 418,100 Dalit men and women living within the project area (13% of inhabitants), of which 69% live in the Terai (i.e. Terai Dalits), and the remaining 31% live in the Churia hills (i.e. Hill Dalits).[165]The population of Terai Dalits is higher in some districts, such as Saptari and Dhanusa.

240. Other types of excluded/ marginalized ethnic and religious groups present in the core project area include:[166]
    a. Terai-origin Madhesi People: over 900,500 men and women (28%)
    b. Muslims: over 160,800 men and women (5%)

241. While the project aims to support proportional representation in CBOs, it is not recommended to set specific indicators at this stage, as the specific CBOs and locations of sub-activities are unknown (will be determined in Component 2). More detailed social information should be collected on the specific selected CBOs and their members, as there can be substantial variation in the presence of ethnic groups and castes within the project area (e.g. depending on if more CBOs are selected within the Churia hills versus the upper-Terai). Once the specific CBOs are selected, detailed indicators promoting proportional representation of Dalits and other excluded/ marginalized groups can be set.[167]

8.2.1.3 Representation of Dalits and other excluded/ marginalized groups in Nepal

242. The International Dalit Solidarity Network is active in Nepal and works against caste-based discrimination, and several national Dalit organizations and networks exist, including: the Nepal National Dalit Social Welfare Organization, the Feminist Dalit Organization of Nepal (FEDO), the Dalit Alliance for Natural Resources Nepal (DANAR) and the Dalit NGO Federation, among others.

243. Various international organizations also support the empowerment of marginalized communities through their projects, and notably a group of 18 development partners (i.e. International Development Partners Group, Nepal) has formed a Gender Equality and Social Inclusion (GESI) Working Group to support the development of a common framework for gender equality and social inclusion. Along with these organizations, the United Nations Organizations, Office of the Higher Commissioner for Human Rights, World Bank, the Asian Development Bank and other international NGOs are also active.

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[164]GESI Working Group 2017

[165]CBS 2014; Based on 2014 VDC data

[166]Information on other groups was unavailable at the project target region level (data collected from 2014 VDC data).

[167]See ESMP and IP-ISP development processes in Chapter 6 and in Chapter 8.5 for more detailed information on CBO-level data collection

244. The Ministry of Federal Affairs and General Administration (MoFAGA) has a Dalit and Adivasi/Janajati (Indigenous Peoples) coordination committee, and the government has further established National Commissions for Women, Dalits, Indigenous Nationalities, Madheshis, Muslims, Tharus and a National Inclusion Commission, among other institutions to support social inclusion within the country.[168]

8.2.2 National policies and international commitments

245. Historically Dalits and members of other excluded/marginalized groups have often experienced cultural discrimination, economic exploitation, social exclusion and political oppression. The political consolidation of Nepal under a feudal regime throughout the 19th and 20th centuries discriminated against these groups, as did the Panchayat regime of the 1950s-80s.[169]

246. Issues of social exclusion and discrimination came to the forefront after the 1990 democratic movement.[170] The Constitution of 1990 and Interim Constitution of 2007 accept caste, ethnic, linguistic and religious diversities and the Interim Constitution included provisions to support gender equality and social inclusion. The Constitution of Nepal (2015) includes a Right to Equality stating that all citizens should be equal before the law, that they should not be denied equal protection and that nothing should bar the making of special provisions for the protection, empowerment or advancement of those lagging behind, including women, and marginalized groups. A sub-article dealing with social justice and inclusion exists and it supports the prioritization of employment for single women, the rehabilitation of *kamaiya* (bonded laborers), *kamlari*, *haruwa, charuwa, haliya*, landless and squatters.

247. Nepal has also ratified the International Convention on the Elimination of All Forms of Racial Discrimination in 1971 to secure the rights of indigenous peoples, Dalits and others who have suffered racial discrimination.[171] Nepal has also made several other international commitments to non-discrimination, gender equality and social justice. These include, among others:

- Universal Declaration of Human Rights
- Declaration on the Rights of Persons Belonging to National or Ethnic, Religious and Linguistic Minorities
- Beijing Declaration and Platform for Action
- Durban Declaration and Programme of Action
- International Decades of the World's Indigenous People
- United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP)

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[168] GESI Working Group 2017
[169] Gurung 2009
[170] ADB 2010
[171] Ibid.

8.2.3 Key findings and analyses of impacts, risks and opportunities

248. As described in Chapter 2.3 of the ESMF, the population in the core BRCRN intervention area (i.e. within 26 river systems) is over 3,216,428 - around 11% of Nepal´s population. Women make up 51% of the population.[172]Diverse cultural, ethnic and caste groups inhabit the project area:[173] Terai-Origin Madheshi peoples (28%), hill-origin high caste (19%), Terai Dalits (9%), Hill Dalits (4%) and Muslims (5%), and others (4%). The majority of community-based organizations have heterogeneous membership in terms of caste, ethnicity and socio-cultural backgrounds.

249. At least 77% of inhabitants of the BRCRN core intervention area are from groups who have experienced some form of inter-generational socio-economic exclusion (including Dalits, Madheshis, and Muslims, refer to the note on vulnerability and exclusion in ESMF Chapter 2). Climate change will have a disproportionate adverse impact on these groups. These groups are often more vulnerable to climate change and climate-induced natural disasters due to inter-generational discrimination (social and economic exclusion), they are usually heavily dependent on natural resources to maintain their livelihoods, and they often live in high risk areas that are often along river beds or in susceptible landslide or erosion areas (especially Dalits).Therefore, the project is in their direct interest as it will strengthen the resilience of some of the most vulnerable and marginalized people in vulnerable river systems.

8.2.3.1 Potential impacts of the BRCRN project on Dalits and other excluded/ marginalized groups

250. Given the ethnic and socio-cultural diversity within the project area, and often within CBOs, promoting participatory land use planning that takes into account the differentiated vulnerabilities, priorities and contexts within community-based organizations will be important for project implementation. Participation in the project is voluntary, and FPIC will be a cross-cutting principle applied to ensure that free, prior and informed consent is provided prior to the implementation of any activities (cf. Section 8.3).

251. The project will support men and women from Dalit caste, and other excluded/marginalized groups, among others, living in vulnerable river systems to increase their awareness of climate change and future risks, and to support them to adopt climate-resilient farming practices. Such measures will reduce ecosystem degradation, improve agricultural yields through improved soil fertility and improved access to water sources as well as reduced erosion, and support the sustainable use of forest resources. It will ultimately reduce the vulnerability of communities and ecosystems to climate-induced hazards and projected impacts.

252. The project is based on a participatory approach in line with the principles of FPIC, so that community-based organizations are able to adopt measures that are well suited to their

[172] Ibid.

[173] CBS 2014 – based on VDC level data (Ward level data unavailable for 2014; and 2011 ward-level data does not include information on caste/ethnicity/cultural groups.

local context and differentiated vulnerabilities. Various measures aim to strengthen awareness on local knowledge and practices, and mainstream such information into trainings. Capacity building will also be provided to train local resource persons and extension agents on climate-resilient land use practices, including local knowledge.

253. Due consideration was given to the following potential impacts and mitigation measures within the context of the project:
    - In instances where critical ecosystems are jointly identified by community-based organizations and project staff, alternative land uses will be discussed with communities – taking into consideration the priorities and differentiated vulnerabilities of indigenous peoples and other marginalized groups. Discussed alternative sub-activities will only be implemented based on the full consent of the interested local communities and the related community-based organizations and in close coordination with the competent authority.
    - Sub-project screening will also ensure that appropriate management plans are adopted and monitored to minimize social and environmental risks and impacts from the project. Project activities will be implemented in line with Acts and Regulations adopted by the Federal, Provincial and Local Government bodies, respecting the customary rights of indigenous peoples and local communities over land and forest resources. It is anticipated that the project activities will reduce the likelihood of negative or adverse impacts on customary land tenure and livelihoods of indigenous peoples.
    - Exclusion or limited influence within community-based organizations: While community-based organizations have integrated social inclusion and policies related to enhancing the engagement of all groups, in practice there are occasionally challenges to fully engage Dalits and other marginalized groups into decision making processes. The project will support full, effective and proportional representation of marginalized men and women within the context of project activities. It will further promote targeted activities to support marginalized groups to be aware of their rights and opportunities within community-based organization management structures, and to promote leadership and skill development within the framework of the project.

8.2.3.2 Consultations with Dalit men and women, and other marginalized/excluded groups

254. Local consultations were held with Dalit men and women, however it was not possible to meet a local group of only Dalit men and/or women (Annex 3 provides meeting summaries, photos and attendance sheets for all consultations). All the groups were mixed-groups, however some had a high proportion of Dalits attending. Local consultations were also conducted with Madheshi people, however some indigenous peoples and Dalits also identified as both Madheshi and/or indigenous or Dalit, yet may have only checked one box. Only ethnic information was collected, and thus data on consulted local people from other marginalized/excluded groups is not available. Additional consultations at the national level were conducted with FEDO and DANAR, in private meetings and in workshops.

255. The project was well received by these groups, and they noted the importance of the project to address key vulnerabilities, especially given these groups´ reliance on agriculture and land use to maintain their livelihoods. Nonetheless, they emphasized the importance of designing a socially inclusive project and considering barriers that are specific to different groups of beneficiaries. Key findings are as follows (a detailed description is provided in ESMF Annex 3):

- Dalit and Madheshi men and women notice that degradation is becoming more prominent, and that the local environment is not the same that it used to be. However, they are often poor, landless and dependent on forests and other natural resources to maintain their livelihoods.
- Dalit people, especially women, in the Churia and Terai region are particularly vulnerable to natural hazards (such as flooding, landslides, drought), as well as climate change. Many Dalit people live in ´high risk´ areas, such as in areas prone to landslides or in areas along vulnerable river banks. Majority of Dalit people are not aware of climate change risks, nor measures to increase their resilience and preparedness for natural disasters or climate risks. While natural disasters continue to have a major impact on Dalit peoples living in the Terai/Churia region, it was noted that climate change will further impact them and have major impacts on their livelihoods (e.g. increased water scarcity). Water scarcity was noted as a major challenge which currently many dalit communities and especially women face. This includes a lack of clean drinking water and water for agriculture. With climate change if nothing changes, water scarcity could be further exacerbated and Dalit peoples will become increasingly vulnerable and impacted by climate change.
- Marginalized groups (especially Dalit caste) often face discrimination and additional barriers to access resources. They also may experience difficulties on their own to sell products at markets (with one community noting that non-Dalit men and women do not like to buy milk from Dalit people)
- While there is some Dalit representation in community forest user groups, their participation is perceived by many Dalit people to be tokenism. It was discussed that many of these groups are captured by elites. When Dalits participate in such groups it is most frequently men participating – Dalit women are rarely engaged in such groups due to lack of awareness, capacities and time-poverty. They mentioned while policies are developed which aim to increase the percent of Dalits participating in such groups, that there is still a long way to go before ensuring developing meaningful representation. While CBOs provide many benefits, targeted measures related to GESI are needed (sensitization, positive discrimination policies, leadership trainings, among others)[174].

[174]E.g. Specific training for Dalit women could be developed, and could include approaches such as training trainers within the communities to help build awareness and capacities within communities. They mentioned that key activities for Dalit Women will include awareness raising, capacity building increasing engagement and involvement of Dalit peoples, particularly Dalit women, within sustainable land use and disaster risk reduction to help strengthen the livelihoods of Dalit men and women.

- Specific indicators and a responsive monitoring system should be developed that helps ensure the engagement of Dalit peoples, especially Dalit women. This will not only improve project management, but also knowledge management and learning.
- Sustainable natural resource management and climate resilient land use practices, as well as flood risk reduction measures and emergency warning systems are of utmost importance to help Dalits and other marginalized/excluded housholds increase their resilience to climate risks and natural hazards. The example of conservation ponds was discussed by many communities as a measure which can have many social, environmental and economic benefits in addition to improving water security, and helping alleviate time poverty (especially in the dry season).
- Public land forests are seen as an important investment to support marginalized/ excluded, poor and landless households, and such investments should be accompanied by technical support and capacity development.
- Educational backgrounds and capacities need to be taken into account, considering many marginalized persons may not have a formal education. Information dissemination is not sufficient, and there needs to be on-the-ground technical support, including initiatives targeted to proactively engage marginalized/excluded and highly vulnerable households.
- Participants emphasized that project documents should be in local languages to avoid exclusion by language, and using innovative formats in case beneficiaries are illiterate.

8.3 Gender assessment and action

256. Four consultations were conducted with a focus on indigenous women in the framework of the BRCRN project: one consultation with the Nepal Indigenous Women's Federation (NIWF) and three local level consultations (with primarily Dhimal, Limbu, Rai, Magar and Tamang women). Additional consultations were also held with the Feminist Dalit Organization, women only-focus groups (including indigenous, Dalit, and Madheshi women), as well as with representatives from other CSOs such as the Himalayan Grassroots Women´s Natural Resource Management Association (HIMAWANTI), Forest Action Nepal and the Community-based Forestry Supporters´ Network (COFSUN), on topics related to gender and the engagement of women (Annex 3 provides a more detailed list of all consultations conducted, including consultations with diverse stakeholders, including indigenous women, and Dalit women, among others). In addition, a gender workshop was conducted for the project where 50% of the participants were indigenous women.
257. Within these consultations, it was highlighted that there is substantial diversity among women, including indigenous women (both between different indigenous nationalities, and within groups), Dalit women, and Madheshi women. Thus, it was emphasized that the project needs to take into account the differentiated vulnerability of women. It was further discussedthat women, especially indigenous women and Dalit women, are often more vulnerable to climate change, as they have a higher dependence on natural resources (although some indigenous groups more than others). It was noted that while indigenous women have often noted changes in the climate, that they may not be aware of the future

risks that climate change poses, as well as coping strategies. It was discussed in consultations that Dalit women often live in highly vulnerable areas (e.g. along river banks, near landslide prone areas), and are often extremely vulnerable to natural disasters, and climate change.

258. Traditional indigenous and local knowledge is important, includes several good practices to support climate change adaptation. However, it was nonetheless highlighted that capacity development on climate-resilient agriculture would also be appreciated, especially related to agriculture and agroforestry, as well as ecosystem restoration.

259. It was noted by many indigenous women and Dalit consulted that environmental degradation is a major issue within the project region, and has a major impact on their livelihoods including reduced soil fertility, land degradation, reduced water, and increased collection times for natural resources, among other impacts.

260. Consulted women noted that the project´s interventions are relevant, noting many recommendations to support improved livestock practices, vegetable farming, agroforestry, and ecotourism and skill development. Ecotourism was mentioned by various communities as interesting as it can support their livelihoods while also supporting the conservation of their culture and tradition.

261. In addition to the local consultations, a gender workshop was conducted on February 21, 2018 in Kathmandu to present and validate the gender assessment and action plan. In total, 50% of participants were indigenous women who noted the relevance of the Gender Action Plan and the importance of including targeted measures to empower women within the framework of the project. More detailed meeting minutes are included in Annex 3.

262. Recommendations provided from indigenous women, Dalit women and women from other marginalized/excluded groups were well aligned with the project, and measures to support their empowerment have been integrated into the Gender Action Plan (including translation services for materials and consultations, targeted measures on skill development to make women aware of their rights and roles within community-based organizations, trainings on leadership and empowerment as well as business literacy, interventions and support for ecotourism, and ensuring women can access farmer field schools, trainings and extension services, among others).

263. NIWF, FEDO, DANAR and other organizations representing indigenous and/or Dalit women, as well as other women's organizations, will be invited to have a permanent position on the PCUs, engaging them in the implementation of the project through improving coordination, communication and monitoring of the gender action plan and measures targeted for indigenous women.

8.4 Measures to avoid, minimize and mitigate negative impacts, and enable additional positive benefits

8.4.1 Guiding principles

264. The following guiding principles will be applied in the development of foreseen consultation activities within the framework of the BRCRN project.

265. The focus is based on human rights: these include the right to self-determination, the right to development with identity, the right to Free, Prior and Informed Consent, the right to full and effective participation at every stage of any action that may affect them directly or indirectly, the rights over land and other natural resources on which indigenous peoples depend for survival, collective rights that include recognition of their specific histories, languages, identities and cultures but also recognition of their collective rights to the lands, territories and natural resources.

266. Another important right of indigenous peoples relates to cultural distinctiveness and their right not to be subjected to forced assimilation or destruction of their cultures. In fact, indigenous peoples are entitled to live in accordance with the traditions and the customs that underlie their integrity and way of life. In this regard, the State must respect and acknowledge the different institutions and representative authorities, as well as the decision making process of indigenous peoples. As such, processes and procedures must be in line with their livelihoods, traditions and customs. In order to ensure this, the State must guarantee:

- Equality of rights. Assure the recognition of prerogatives inherent to all people, because of their human condition;
- Good faith. To assure an honest and fair interaction that is not misleading and based on the value of the word, building a harmonious and honest relationship respecting the agreements that assure trust;
- Multiculturalism. Based on respect for cultural and geographical diversity, implying the management of relationships in a horizontal and equitable manner.

8.4.2 Integration of recommendations into project design

267. The following measures to strengthen indigenous peoples´ participation within the project have been identified through various consultations with indigenous peoples, Dalit men and women, and other project stakeholders at the national, regional and local level, as well as through the development of the Forest Investment Program (FIP) and Emission Reductions Program Document (ER-PD) in Nepal, which also include sustainable interventions in the land use sector:

268. FPIC and existing national laws and international commitments related to indigenous peoples, Dalit men and women, and other marginalized/excluded communities must be respected. The project must comply with indigenous customary laws and practices. The project will require that FPIC principles are followed in consultations with all participating community-based organizations and relevant representative organizations (described in Chapter 8.1) before land use investments are implemented (i.e. during Activity 2.2.2, more information in Section 8.4.3).

269. Promoted climate-resilient land use practices should not adversely affect biodiversity, social and/or environmental integrity (see Chapter 9 for the project´s Biodiversity Management Framework). The project must ensure that no harm is caused to indigenous peoples, Dalit men and women, and other project beneficiaries. The project further seeks to have strong social, environmental and economic co-benefits to the greatest extent possible, as further described in section E of the GCF funding proposal.

270. The project must guarantee that no activities will have negative implications for customary land tenure, livelihoods, ancestral territories or cultural heritage sites of indigenous peoples. Project activities should not restrict indigenous peoples' use of forests and pasture lands that they have been customarily managing for generations.
271. Activities with a focus on knowledge and learning were identified as very important for local communities and indigenous peoples, and such measures need to promote and incorporate local and traditional knowledge of indigenous peoples. Traditional practices, customary practices and local knowledge will be respected through extensive consultations and engagement of communities, ensuring promoted practices are aligned with priorities and preferences. Activities 3.1.1 and 3.1.2 will help support the knowledge consolidation process, and engage indigenous peoples at the national, provincial and local level on climate change and local indigenous knowledge.
272. Trainers will be trained on appropriate data collection measures, and opportunities for collaboration with project partners will be sought out to ensure data collected reflects the priorities and contexts of BRCRN project inhabitants, including indigenous peoples and marginalized groups. Trainers will include indigenous men and women.
273. Outreach, extension/ technical support at the community-level, workshops and capacity building activities will be socially inclusive, aware of culturally diverse contexts and norms, and take into consideration local knowledge. Where necessary, the project will ensure the availability of translators (either from within the community or from external sources, if necessary) to facilitate the dissemination of knowledge and information. Translation can be provided for oral workshops, extension materials and other project-related materials (e.g. videos, radio programs, publications, etc.).
274. Livelihood interventions were identified as important to support the transition to climate-resilient development pathways, including measures that include capacity building and provision of support and incentives for communities to adopt and scale up sustainable climate-resilient land use practices.
275. The projectwill apply participatory and inclusive approaches that take into account regional and cultural diversity within the project area. Activity 2.2.2 allows for local-level land use planning to be based on participatory processes with community-based organizations, where prioritized activities are identified based on the community-based organization´s priorities, context and differentiated vulnerabilities. Participatory exercises within Activities 2.1.2-2.2.2 will further help identify the most vulnerable areas and people within community-based organizations, supporting the implementation of targeted measures that take into account their unique vulnerabilities.
276. Proportional representation will be promoted, including the participation of indigenous men and women, as well as opportunities to engage indigenous youth (e.g. within school eco-clubs). Such representation and engagement will be closely monitored throughout all activities. Leadership training should actively target indigenous people, Dalits, and other marginalized/ excluded groups, and further awareness raising conducted for these groups to inform them of their rights within CBOs.
277. Extension services should encourage the hiring of Dalit men and women, indigenous men and women, and men and women from other marginalized/excluded groups.

278. Capacity building and trainings will be provided for all members of the PMU, as well as local and provincial government authorities (including trainers and extension agents) on GESI within the context of the BRCRN project. Trainers will be trained on issues specific to indigenous peoples and marginalized groups, and ensure that training is suitable (e.g. taking into consideration time poverty and promoting time-saving activities, ensuring culturally appropriate materials are used, the availability of translators if necessary, etc.). GESI will be mainstreamed in training modules for the project. Training modules will include input from NEFIN, DANAR, FEDO, women´s organizations and other organizations representing marginalized/ excluded groups.
279. Engagement of indigenous peoples and Dalit men and women in project monitoring and knowledge management activities. Participation of indigenous federations and organizations representing Dalits, and other marginalized/excluded groups in PCU will ensure that regular reporting is conducted, and will enhance the accountability of the project. More detailed arrangements for monitoring and knowledge management will be identified during the inception phase and the elaboration of the indigenous peoples and social inclusion plan.

Implementation Arrangements

280. Indigenous peoples and marginalized groups have been involved in project development through ongoing consultations at the local regional and national level, and project design has been informed by the recommendations and comments provided by such stakeholders.
281. Institutional arrangements should provide a space for indigenous representatives to follow project implementation and to provide a space for continuous communication and coordination at all relevant levels. PCUs will serve as a key multi-stakeholder body for ongoing communication with diverse stakeholders within each of the three project provinces. Representatives from indigenous federations and organizations will be invited to maintain permanent representation on PCUs in each province.
282. Relevant local and provincial CSOs representing indigenous peoples should be continuously engaged with project implementation, and opportunities for institutional strengthening supported.
283. Trainers and local resource persons will include indigenous men and women.
284. A safeguard representative in the PMU and supporting staff in the provincial PPMUs will oversee the monitoring of the IPP within the BRCRN results management framework.

Budgetary Allocations

285. A section of the budget will be specifically allocated for the capacity building and institutionalization of existing organizations representing indigenous nationalities at the national, provincial and local level. Activities will include organizational strengthening and technological strengthening.

286. Budget allocations will also include the salaries, wages, or stipends for trainers and translators from indigenous communities. Trainers will be provided with the necessary resources and place to collect and transmit traditional knowledge, and provide technical support tailored to local contexts and priorities.
287. Budget allocations will further include resources for conducting the FPIC process during Activity 2.2.2, including funds for consultations, provision of informative materials and translation. Additional resources will be available for the implementation of the indigenous peoples and social inclusion plan.

Monitoring and Evaluation

288. Given the political transition, all participating community-based organizations will be registered with the relevant authority. During this process, geographic and demographic information for each community-based organization will be collected to help monitor project implementation and to support ongoing monitoring of GESI.
289. While monitoring project activities, indicators will ensure that:
   - Contributions made to the consolidation of culture, including through educational and training processes, are included in monitoring and evaluation process;
   - Indicators work to unify indigenous peoples and no indicators will put any one indigenous group at a disadvantage or provide any reason for conflict within indigenous group´s
   - Sacred places or ceremonial sites are respected in the planning and implementation of project activities
290. A detailed strategy for monitoring, evaluation and reporting will be elaborated in the inception phase in the Indigenous peoples and social inclusion plan, which will be jointly elaborated with NEFIN and other indigenous organizations.

8.4.3 Ensuring FPIC for project implementation

291. Participation within the BRCRN project is voluntary, and FPIC will be a core underlying principle which is applied to all community-based organizations. In order to participate in the project the principles of FPIC will be followed in consultations with all 750 community-based organizations representing the related local communities, given that many community-based organizations have members from diverse socio-cultural and ethnic backgrounds. Consultations will be conducted according to the process detailed by FAO in the FPIC Manual for Project Practitioners.
292. In order to effectively consult and engage with indigenous peoples, Dalits and other excluded/ marginalized communities[175] during project implementation, the following process will be followed:

[175]Note: 'Excluded´ or marginalized groups include those who have experienced inter-generational discrimination and have been systematically excluded due to *economic [situation], caste, ethnicity, gender, disability, sexual orientation,*

- Once project sites have been identified through the process detailed Component 2,[176] project activities will be grouped into sub-activities (see ESMF Chapter 6.1, "Defining Sub-Activities").Considering the activities to be implemented in each river system will be very similar in nature and scale across the implementation area, it is proposed that screening for potential risks is undertaken at sub-activity level. Sub-activities constitute a valid tool to identify expected impacts and mitigation and monitoring measures. Identification of sub-activities will take place during the implementation of Component 2, especially in the second year of project implementation, based on the critical ecosystem restoration plans developed. For each sub-activity, implementing sites will be identified along with sub-activities, including capacity building/training and stakeholder engagement information specific to each site.

293. Consultations, following the principles of FPIC, will be held with *all* participating community-based organizations. It is understood that this will involve:
    a. Consultation and consent **prior** to commencement of CBO-level activities (Sub-component 2.2 and Component 1). This involves providing CBO members, in particular indigenous peoples, Dalits and other members of excluded/ marginalized groups, the time needed to discuss based on a decision-making timeline identified by the respective CBOs.
    b. Consent must be **free** – i.e. given voluntarily and without coercion, intimidation or manipulation. It will also be obtained through a process which is sensitive and relevant to CBO members, in particular indigenous peoples, Dalits and other members of excluded/ marginalized groups.
    c. Provision of **information** to CBO members, in particular indigenous peoples, Dalits and other members of excluded/ marginalized groups, in relevant languages, in a clear consistent, accurate, transparent and accessible way that is culturally sensitive. Information will also be given on an ongoing basis throughout the project, thus it is not a one-time transfer of communication, rather an ongoing relationship between communities and project implementers/ practitioners.
    d. **Consent**, which refers to the collective decision made by the CBO members, in particular indigenous peoples, Dalits and other members of excluded/ marginalized groups, reached through their own customary decision-making processes. The consent must be sought and granted (or withheld) according to the unique formal or informal political-administrative dynamic of each community.

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and geographical reasons" (GESI Working Group 2017). This includes groups including women, poor people, Dalits, Adivasi/ Janajati, Madheshis, Muslims, people with disabilities, third-gender and people living in remote areas. For more information refer to the note on vulnerability in Section 2.3.

[176] Component 2 supports the identification of specific CBOs for the implementation of all other project activities. Within Sub-component 2.2, community-based organizations will be informed on project activities and the possibility for them to directly participate in the BRCRN project. This process will ensure full information is provided in a timely manner before CBO management plans are elaborated in Sub-component 2.2, and prior to the implementation of CBO-level investments in component 1, emphasizing that participation in the project is completely voluntary and that in case of non-compliance with the concurred arrangements, indigenous peoples have the right to withdraw their consent following the principles of FPIC.

294. A proposed template for such a process will be developed together by the Ministry of Forests and Environment, FAO, NEFIN and other indigenous organizations during the project inception phase, guided by the FAO FPIC Manual for Project Practitioners. Interventions targeting community-based organizations will not be implemented until consultations have been completed and consent is obtained according to FPIC principles.

295. Once consent for project interventions has been established, these interventions will be closely monitored according to the work plan for Indigenous Peoples and Social Inclusion Management Plan (see below), which will build off of the work plans developed for the IPPF and SIPF (see Annex 1). Regular reporting will be conducted through project reports, PCU meetings, PSC meetings and at stakeholder events and consultations (including those identified in Annex 1 and further described in Section 8.10).

296. Affected peoples are able to submit a complaint or grievance at any time during project implementation through the project´s grievance redress mechanism (see Section 8.9 below).

297. Participation in the project is voluntary, and if local communities decide they are no longer interested in the project they are able to freely leave the project in accordance with FPIC principles.

8.4.4 Development of Indigenous Peoples Management Plans (IPMPs) and Social Inclusion Management Plans (SIMPs)

298. As indigenous peoples, Dalits and other excluded/ marginalized groups are present throughout the project area, Indigenous Peoples Management Plans (IPMPs) and Social Inclusion Management Plans (SIMPs) must be prepared for each of the 26 river systems (1 per river system). IPMPs and SIMPs will be drafted by the project recruited safeguards experts. IPMPs must practically explain how social inclusion will be ensured in the project area, as it relates to the indigenous peoples; and SIMPs must explain how it will be ensured in the context of Dalits and other excluded/ marginalized groups present. The Provincial Safeguard and Gender Specialists, in coordination with recruited safeguard experts, will bear overall responsibility for:

    a. Screening activities and assessing (i) potential negative impacts on the indigenous peoples, Dalits and persons from excluded/ marginalized groups, and (ii) potential barriers that may inhibit relevant them from participating in (and benefiting from) the activities;
    b. Developing IPMPs and SIMPs that include risk mitigation measures to address potential negative impacts identified, as well as other measures to overcome barriers to exclusion and promote inclusion;
    c. Overseeing the timely and effective delivery of the IPMPs and SIMPs, the day-to-day implementation of which will be led by a range of project staff (in close consultation with the PMU´s Safeguard and Gender Specialists) as per the general working arrangements between the project-recruited safeguards specialists and other project staff described in Annex 9 of the ESMF;
    d. Overseeing responses to grievances from CBO members, especially indigenous peoples, Dalits and people from other excluded/ marginalized groups, to ensure they

are properly addressed, either in accordance with the general grievance redress mechanism to be established for this project (as outlined in Section 7.5.2 of the ESMF) or in line with a separate grievance redress mechanism established for the indigenous peoples, if this is expressed as their preference during IPMP development (as outlined in Section 8.9); and

e. Ensuring effective monitoring of the implementation of IPMPs and SIMPs in collaboration with the project-recruited monitoring specialists, and ensuring timely andinformative reporting on IPMP and SIMP implementation is prepared for review by the PMU and FAO E&S Management Unit.

297. The following information must be detailed in the IPMPs and SIMPs:

- Description of indigenous peoples, Dalits, and members of excluded/ marginalized groups present, including any relevant social/political arrangements, unique decision making processes, and baseline information about their social and economic conditions.
- Description of activities to be conducted in the area.
- Detail the FPIC process which was followed for that community, and include proof of iterative discussions and (if obtained) consent – including conditional consent – or proof of refusal to participate in the project.
- Results of the consultations carried out according to the principles of FPIC, including:
  - Positive and negative impacts expected based on the sub-project activities;
  - Preferred Grievance Redress Mechanism or any instances in which project activity-implementation will differ as a result of the preferences of the minority community; and
- Description of how consultations will continue being held throughout implementation.
- If applicable, IPMPs and SIMPs will: identify mitigation measures to address potential negative impacts identified, as well as additional actions/measures geared toward promoting greater social inclusion to ensure indigenous peoples, Dalits and people from excluded/ marginalized groups can benefit from project activities/support; indicators to be used to monitor implementation of the IPMPs and SIMPs; roles and responsibilities for implementing specificactions/measures included in the IPMPs and SIMPs, as well as monitoring and reporting; and timeframes forthe implementation of the IPMPs and SIMPs. These will be added to the monitoring plan of the overall project to ensure the safeguards performance is regularly reported upon, along with regular stakeholder engagement per site.
- Clearly describe how participatory monitoring and reporting will be conducted at that site, following the timeline provided in the overall ESMF and detailing any additional requested monitoring measures needed.

8.5 Community-based natural resource management

299. The project will strengthen community-based natural resource management within the project area, building on the successful model of community-based natural resource management developed in Nepal.

300. Community-based organizations are inclusive and democratic institutions despite heterogeneous structure, and often include mixed-membership of people from diverse nationalities, ethnicities and socio-cultural background. Within operational acts and guidelines for such organizations there are guidelines for social inclusion. Such groups should include proportionate representation from poor, lower-caste groups, minority ethnic groups and indigenous peoples.[177] While there are challenges in maintaining social justice and equity through implementing such policies at the local level, the project represents an important opportunity to raise awareness within such organizations of the policies and rights for indigenous peoples and marginalized minority to groups, and to provide opportunities to strengthen their capacities to take on more active roles within the organization, and to support the adoption of climate-resilient land use management.

301. Targeted support will be provided for highly marginalized and vulnerable communities, also focusing on raising awareness, developing leadership skills, and taking into account learning approaches tailored to such groups (e.g. if there are higher levels of illiteracy, lower awareness of certain technology, among other factors).

302. Access to and sustainable management of natural resources will be further strengthened in the project area. Tree planting will be supported in the Bhavar and Terai areas where lack of access to community-forests or forested land has been identified as a challenge for communities.[178] The project will support the formalization of public land forest user groups, and will support direct investments for these groups to improve degraded forests and increase access to sustainably managed forest resources. Investments in sustainable forest management and ecosystem restoration will enhance the provision of ecosystem services, improving forest quality and promoting sustainable use of natural resources, while also enhancing the resilience of ecosystems and local communities to climate change. Investments in climate-resilient agriculture, especially in the Churia and Bhavar areas, will help reduce soil erosion and sedimentation, improve ground water recharge and enhance the resilience of the local communities and ecosystems to climate change throughout the project area.

8.6 Benefits of the measures

303. In general, based on the consultations held, local communities, including Indigenous and Dalit men and women, among others, expressed interest in the project and noted that the proposed activities would increase their resilience and benefit their livelihoods. It was emphasized as important that the selection of such measures should be based on a participatory process, where community-based organizations are able to select interventions in the land use sector that are suitable for their context, considering differentiated vulnerabilities and priorities.

304. Improved knowledge on climate change, climate change risks and risk reduction measures will help communities to build their adaptive capacities. Measures such as Activities 3.1.1-

[177] Pandey and Paudyall 2015
[178] Kanel 2005 in Smith 2013

3.1.2, which aim to improve awareness on local and indigenous knowledge will further help ensure that such valuable knowledge is recognized and applied.

305. Interventions in the land use sector, especially agriculture and ecosystem restoration, were identified as important given that many indigenous communities in the project area maintain their livelihoods through diverse activities, differing among communities, including agriculture, foraging, horticulture and pastoralism.

306. The project includes targeted measures to engage the most vulnerable groups, including indigenous peoples, Dalits and other excluded/ marginalized groups. Such measures aim to enhance their participation within community-based organizations, and to also support poor households and marginalized communities to invest in ecosystem restoration and sustainable natural resource management, while also strengthening their adaptive capacities and overall resilience to climate change.

8.7 Tenure arrangements

307. Direct project interventions will focus on public land, including public land that has been handed over to community-based organizations for their management (where CBOs will either hold formal certificates awarded by the responsible government authorities, or the project will support them to register their CBO).No activities are planned that would negatively affect the legitimate tenure rights of individuals, communities or others.

308. Technical support will be provided to private land forest owners (on non-forested land), however they will need to demonstrate land use rightsin order to participate in the project (i.e. Land Ownership Certificates issued by the Government). No direct-project investments will occur on this land, and it is anticipated that such interventions will not limit local people´s access to forest resources.

8.8 Grievance redress mechanisms

Informal and Customary Grievance Review

309. The M&R specialist will consider the opinions or recommendations of leaders from any informal redress mechanisms before making any decisions. Customary practices of different community, ethnic and religious groups to manage conflicts will be integrated into the formal grievance mechanism (described in Section 7.4.2 above). In many instances grievance cases are addressed in an informal manner by local communities under the direction of community or traditional leaders. For example, in the Tharu community, meetings called *´Bhalvansa´* are held to manage grievances, and thus the M&R specialist will consult Bhalvansa leaders when addressing related grievances.

310. As described in Chapter 8.5.3 IPMPs and SIMPswill be developed together with indigenous federations and organizations, as well other organizations representing Dalits and other excluded/marginalized groups during the inception phase and first year of the project will provide a detailed approach for indigenous peoples, Dalits, and other excluded/marginalized groupsto place grievances, which provides the opportunity for customary grievance reviews.

8.9 Costs, budgets, timetables, organizational responsibilities and monitoring, evaluation and reporting.

311. During project inception, an Indigenous Peoples Plan (IPP) will be developed together with NEFIN and other indigenous people'sorganizations. A Social Inclusion Plan (SIP) will also be developed together with organizations representing Dalits and other excluded/marginalized groups. During this process, risk mitigation measures, timeline, responsibilities and plans for monitoring and reporting will be revised.

312. The implementation of the IPPF and IPP, and of the SIPF and SIP, will be overseen by the project´s Indigenous Peoples and Social Inclusion Specialist, in coordination with PMU´s Safeguard and Gender Specialist and PPMU staff at the provincial level. Bi-annual progress reports will be delivered to representatives from indigenous organizations (including NEFIN and NIWF), Dalit organizations (e.g. FEDO and DANAR), and other NGOs. Updates will be further provided in PCU meetings, where federations and organizations representing indigenous peoples, Dalits and other excluded/ marginalized groups will be invited to have permanent representation.

313. A proposed timeline with responsibilities and indicators for monitoring is included within Annex 1.

314. Costs for the elaboration and implementation of the IPPF and IPP, and of the SIPF and SIP have been included into the budget, and are summarized in Annex 1.

9 BIODIVERSITY MANAGEMENT FRAMEWORK

9.1 Introduction

315. The risk to biodiversity from the BRCRN project is considered to be low. The project expects to generate substantial positive environmental benefits from the restoration of degraded critical ecosystems, sustainable management of forest and natural resources, and the scaling up of climate-resilient land use practices that will not only increase the resilience of ecosystems and local communities to climate change, but will also reduce land degradation and deforestation. In particular, the project expects to:

- Reduce emissions from deforestation and forest degradation on 186,246 ha of land
- Implement improved grassland management on 19,369 ha
- Implement sustainable forest management in 186,246 ha of forested land, including support for forest restoration and rehabilitation, with a co-benefit of supporting biodiversity conservation
- Support in restoration of degraded forests and tree planning in non-forested land to improve habitat and facilitate free movement of wild animals (especially mega fauna) and reduce pressure in natural forest for fuelwood, forage and timber respectively;
- Enhance the adoption of appropriate climate-resilient agricultural practices to reduce erosion and sedimentation that contribute to land degradation and agricultural expansion, and that contribute to exacerbated impacts from flooding in downstream areas. Such measures will further reduce the application of pesticides and herbicides.
- Support wetland restoration through the implementation of soil and water conservation measures to support livelihoods and fresh water biodiversity conservation;
- Support to establish and operate bio-briquette plants using fibers of alien plants to suppress their invasion and colonization in natural forests and improve health of forests and ecosystem services;
- Build capacities and develop informational materials (farmer field schools, guidelines, among others), on climate resilient land use practices, including protective measures to handle invasive species, forest fire prevention and appropriate management, among information on improving response to other environmental risks.

316. The project is further expected to improve awareness of climate change and climate-resilient sustainable natural resource management, which is expected to increase awareness on the importance of mainstreaming climate change mitigation and adaptation measures in their forest and farmmanagement

317. No direct project interventions will be implemented in protected area core protection areas or buffer zone of the Koshi Tappu Wildlife Reserve. However, restoration activities in river systems are expected to have a positive impact on creating connectivity and corridors for free movement of wild life between wildlife Reserves, Buffer zone forests and adjoining public and community managed forests; which is important for improving gene pool as well as adaptation for habitat shift due to climate change in long-run.

9.2 Objectives and biodiversity approach

318. The objective of this Biodiversity Management Framework is to describe the planned approach taken by the BRCRN project to safeguard biodiversity resources, and to manage and mitigate potential impacts that could arise during project implementation.

319. Biodiversity is seen as a cross-cutting additional benefit of project activities, and the project is aligned with Nepal´s National Biodiversity Strategy and Action Plan (2014-2020). Notably, the strategy and action plan highlights the importance of the Churia landscape, noting the importance of awareness raising on the *"fragility, vulnerability and importance*" of the Churia region of Nepal.[179]

320. Project Outputs and activities are expected to generate diverse positive impacts, as documented in the following Table:

Table 18: Overview of project impact on biodiversity

Component/ Sub-component	Impact on Biodiversity
Component 1. Scaling up climate-resilient sustainable natural resource management (SNRM)	
Sub-component 1.1 Climate resilient land use practices are adopted	▪ Reduced erosion and sedimentation from agricultural land ▪ Improved soil fertility and water availability ▪ Transition to improved livestock management practices (e.g. fodder banks, stall feeding, etc.) will reduce free grazing in forested areas leading to reduced degradation and soil erosion ▪ Reduced degradation of agricultural land will improve agro-biodiversity conservation;
Sub-component 1.2 Natural forest ecosystems are better maintained and protected	▪ Improved habitat and conservation of ecosystem services on 206,277 ha of land due to ecosystem restoration and sustainable management, supporting biodiversity conservation ▪ Improved capacities and action to suppress invasion and colonization of invasive species ▪ Improved habitat and extended connectivity facilitate free movement of wild life that will reduce Human wild life conflict and support in biodiversity conservation (mainly big wild animals) ▪ sustainable management of degraded forests will enhance the in-situ conservation due to improved forest health,; ▪ Reduced vulnerability to climate-induced hazards that impact ecosystem function and quality in 26 vulnerable river systems ▪ Improved awareness of invasive species, and eradication strategies. The adoption of climate-resilient practices will help limit the spread of such species.[180]
Sub-component 1.3 Forests and tree cover	▪ Reduced pressure on natural forests for fuelwood forage and timber ▪ Increased vegetation cover on abandoned or degraded lands provide extended habitat for birds and big animals;

[179] MoFSC 2014c
[180] MoFSC 2013

Component/ Sub-component	Impact on Biodiversity
are restored and maintained in the river system landscape	▪ Supports in Ex-situ conservation of game animals;
Component 2. Strengthening institutions and planning for climate-resilient SNRM	
Sub-component 2.1 Planning for climate-resilient SNRM is enhanced	▪ Improved integrated planning at the river system level will help to mainstream biodiversity conservation in local level (Municipality level) development planning ▪ Climate-resilience mainstreamed into 3 provincial-level strategies; ▪ Critical ecosystems identified at the local level ▪ Improved capacities at the provincial and local level on climate change risks and climate-resilient land use planning and management will improve the long-term management of biodiversity, promoting sustainable climate-resilient land use with strong biodiversity co-benefits ▪ Scaling up of measures for DRR that may also have biodiversity benefits (e.g. establishment of green buffer zones along riverbanks, forest restoration, etc.) ▪ Reduced deforestation and forest degradation due to increased awareness of negative impacts from unsustainable NRM, and due to the adoption of DRR and SNRM practices ▪ Reduction in ecosystems affected by climate-induced natural disasters ▪ DRR and climate change adaptation mainstreamed into planning processes for disaster risk planning at the provincial level, with substantial benefits for safeguarding ecosystems and ecosystem function
Sub-component 2.2 CBOs are equipped to scale up climate-resilient SNRM	▪ Improved awareness of climate risks and their impacts on ecosystems and local livelihoods, as well as climate-resilient land use practices that will reduce the vulnerability of local people and ecosystems to climate change ▪ Participatory mapping will identify the most vulnerable people and ecosystems, and develop tailored approaches to promote climate-resilient land use practices based on local communities´ context and priorities. Strengthened local ownership will help create improved commitment to climate-resilient land use, with strong biodiversity co-benefits as described in Output 1.
Component 3. Improving knowledge, awareness, and local capacity for climate-resilient SNRM	
Sub-component 3.1 Local knowledge on climate-resilient SNRM is enhanced	▪ Identification of local and indigenous knowledge on climate change adaptation that can support communities in the region to adapt to climate change through the sustainable management of natural resources ▪ Improved awareness of climate change and climate change adaptation measures in the land use sector that strengthen ecosystem resilience
Sub-component 3.2 The extension system is equipped to promote climate-resilient SNRM	▪ Extension support materials are centered around good climate-resilient practices for the land use sector, taking into account best practices and local and indigenous knowledge, promoting good practices that support biodiversity conservation and enhance the resilience of ecosystems to climate change

Component/ Sub-component	Impact on Biodiversity
	▪ Improved knowledge and information to support the eventual scaling up of climate-resilient interventions to reduce exposure, build adaptive capacities and enhance the resilience of ecosystems ▪ Improved use of climate information in decision making and planning processes

321. Thus, the project will provide a unique approach that's based on not only direct investments to enhance the resilience of local communities and ecosystems, but will also strengthen institutional capacities at the provincial, local (rural municipality) and community-based organization level, and will improve awareness, knowledge and communication. Together, these measures will help to support a transformation towards climate-resilient agricultural practices in the land use sector.

322. In the context of the ESMF, once the project beneficiaries are identified (Activity 2.2), an environmental and social screening exercise will be carried out under Activity 2.3 using FAO´s environmental and social screening checklist. This tool will help identify sub activities that require mitigation measures, including those discussed in Section 6 of this document. For sub-activities that require mitigation measures, and environmental and social management plan will be developed to be monitored thought he implementation phase.

9.3 Biodiversity characterization

323. The project will be implemented in 26 river systems with different potentiality for of conserving biodiversity, ecosystems and ecosystem services. As stated in Section 3.1, the project region is critical in terms of ecosystem and biodiversity. Of the 188 ecosystems of Nepal, 14 are found within the Churia hills and another 12 are founding within the Terai Madhesh region. In terms of biodiversity, of the total 1,988 species of flora and fauna in Nepal, 1,308 are found within the Churia-Terai Madhesh landscape.[181] Flagship species, including tigers, elephants, rhinos and wild-buffalo, are also found within these habitats, as well as 321 or the Nepal's 493 endangered species of flora and fauna.[182]

324. There is one protected area located in the project intervention area: the Koshi-Tappu Wildlife Reserve, which was declared Nepal´s first Ramsar site. The following sub-sections provide an overview of the protected area, as well as measures adopted by the BRCRN project to safeguard biodiversity within the wildlife reserve and ensure the project does no harm.

[181] MoFSC 2014ª; PCTMCDB 2016
[182] Ibid.

9.4 Koshi Tappu Wildlife Reserve

9.4.1 Overview

325. The reserve is located within the lower tropical bioclimatic zone and is below 500m of elevation within the Terai physiographic zone. The reserve is made up of five main ecosystem types: Khair-Sissoo riverine forest, pseudo steppe with graminae, cultivated land, Terai cultivated land and water bodies.[183] The main vegetation type in the area is riverine Khair-Sissoo and mixed broad leaf forest. The Sapta Koshi is one of the three main tributaries of the Ganges, and in the monsoon months there is intense and rapid flooding.

326. Some 514 species of flora have been recorded in the area, including six plant species listed in the specific threat categories of IUCN and CITES.[184] Twenty-three species of mammals, 527 species of birds, 17 species of amphibians and reptiles and 105 species of fish have also been documented. Thirteen of the 23 mammal species are protected by CITES and symbolic mammal species of the area include the wild water-buffalo (Babalus arnee) and the Gangetic dolphin (Platanista gangetica). Of the 527species of birds, 12 species are globally threatened and 101 species are endangered within Nepal. The Koshi Tappu Wildlife Reserve is the only area in Neal where the Water cock (Gallicrex cinerea) and Abbott's babbler (Malacocincla abbottiI) can be found. Rufous vented prinia (Prinia burnessi nepalicola) is recorded only within the boundary of this reserve (Baral, 2016). This reserve also serves as the most important wetland for migratory water birds in Nepal and one of the most important in Asia.[185] Seventeen of the amphibian and reptile species found in the reserve are nationally threatened, of which six are globally threatened. Nine species of fish found in Koshi Tappu Wildlife Reserve are listed in various threatened categories, with eight species being vulnerable and one species considered endangered.[186]

327. In terms of biodiversity conservation, the Koshi Tappu Wildlife Reserve has led to several significant achievements. These include the evacuation of domestic buffaloes from reserve areas, translocation of wild water-buffaloes within Nepal, support of over 5,000 waterfowls, increase in bird sighting as well as number and frequency of migrating birds, decrease in reported wildlife deaths, and prevention of human-wildlife conflicts, with only 13 human casualty from wildlife encounters between 2009 and 2018.[187] The wildlife reserve is also used for various research purposes including studies on crop damage and livestock depredation, economics of the wild buffalo, prospective challenges in the reserve buffer zone, elephant-human interface and habitat studies on riverine forests, Arna habitat, and swamp partridge.

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[183]Bhuju et al. 2007
[184]Bhuju *et al.* 2007.
[185] Thapa. 2009.
[186]Bhuju *et al.* 2007.
[187]Ibid.

9.4.2 Buffer zone management in the Koshi Tappu Wildlife Reserve

328. The buffer zone of the Koshi Tappu Wildlife Reserve covers 173.5km^2 and includes four municipalities and one Rural municipality from the districts of Sunsari, Saptari and Udayapur, representing a total of 84,423 people from 14,865 households.[188] There is one Buffer Zone management committee, 9 user committees and 469 user groups within the Koshi Tappu Wildlife Reserve Buffer Zone.[189] User committees act as the mediator between the user groups and the Buffer Zone councils for the implementation of resource conservation and community development programs.

329. The Koshi Tappu Wildlife Reserve Buffer Zone was originally established in order to halt the illegal harvesting that arose after the declaration of the area as a reserve and to provide for the basic needs of the local people. After the National Park and Wildlife Conservation Act was instated in 1973, the protection of biodiversity came in direct conflict with the needs of communities and the traditional forest-related dependence and practices within these communities to meet livelihood needs. Thus, the fourth amendment of the National Park and Wildlife Conservation Act in 1992, created the provision of Buffer Zones for protected areas, creating an area of low human interference around the park and involving the local communities in park management activities. Buffer zones in Nepal have taken an ecosystem approach in which both resource conservation and sustainable human development objectives are intertwined. Buffer zones aim to provide an alternative resource base for local livelihoods in order to reduce dependence on park resources, compensate for local communities for any depredation caused by wildlife and to create park-people harmony to ensure long-term conservation success. Buffer zone management programs executed by DNPWC, with support from various partners such as UNDP and WWF, have led to positive development such as up-lifting socio-economic conditions of Buffer zone communities, local institutional strengthening, gender mainstreaming, pilot conservation activities and park resource mobilization.[190]

330. Forest resources within the Koshi Tappu Wildlife Reserve have been gradually handed over to the communities under the community forestry approach. Within the Koshi Tappu Buffer Zone, 157.63 ha of forest area has been handed over for community forestry, with 15 user groups, and proposed one representing 2,931 households having access to buffer zone community forest resources.[191] The outcome of these buffer zone community forests differ from community forests in the rest of the country in that the primary focus is to restore lost habitat for wildlife, with the secondary focus being to supply communities with basic needs like fuelwood, fodder and income through nature tourism. However, buffer zone forest products are not allowed to be sold outside the buffer zone area. Other buffer zone initiatives include anti-poaching initiatives, infrastructure development, relief distribution to wildlife victims and ecotourism promotion. The Buffer Zone Management Guidelines outline that 30% of park revenue invested in buffer zones is to go to conservation, 20% to

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[188] Chettri *et al.* 2016.
[189] Bhusal, 2012.
[190] Bhusal, 2012.
[191] Ibid.

income generation and skill development, 10% to conservation education and 10% to administration.[192] Through these activities and provisions, much progress has been made on the side of social mobilization, community human resource development, conservation and development awareness and community finance generation and mobilization within the Koshi Tappu Wildlife Reserve Buffer Zone.

9.4.3 Livelihoods linked to the protected area

331. Before the establishment of the area as a reserve, the area was used by local communities for fishing, hunting, grazing, livestock and collecting fodder, fuelwood and other resources. Local communities are still highly dependent on the ecosystem of the reserve. Agriculture is the main livelihood source for over 87% of the households within the area and only 20% of the households are food secure.[193] Along with agricultural activities, livestock is the other major economic activity, with a livestock density on average of 1.5 cattle per household.[194] Households are also highly dependent on forest products, with the greatest dependency on firewood, followed by thatch, timber and grasses. There also exists great dependency on the wetland ecosystem services, including fish, driftwood, pater and snails.[195] The dependency of the local population on a variety of Koshi Tappu Wildlife Reserve products are shown in the following Figure.

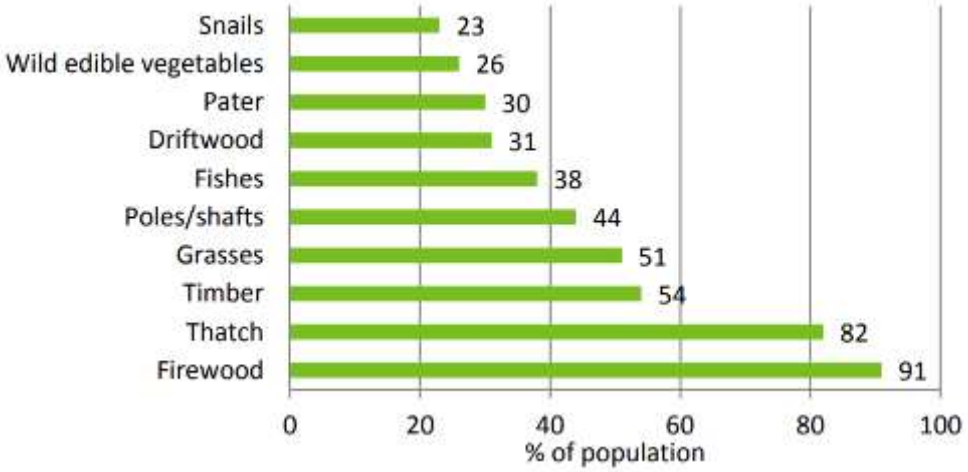

Figure 25: Percent of local population dependent on products from Koshi Tappu Wildlife Reserve

Source: Chettri et al. 2016

[192] Ibid.
[193] Chettri *et al.* 2016.
[194] Ibid.
[195] Chettri *et al.* 2016.

9.4.4 Challenges faced by the protected area and related BRCRN actions

332. As noted above, one protected partially overlaps with one of the 26 BRCRN prioritized river systems (Adherei Khola, Baruwa Khola and Duar Khola River System): the Koshi Tappu Wilfdlife Reserve (Figure 26). The core protected area has an overlap of 31 ha, while the buffer zone overlaps 471 ha with Adherei Khola, Baruwa Khola and Duar Khola River system.

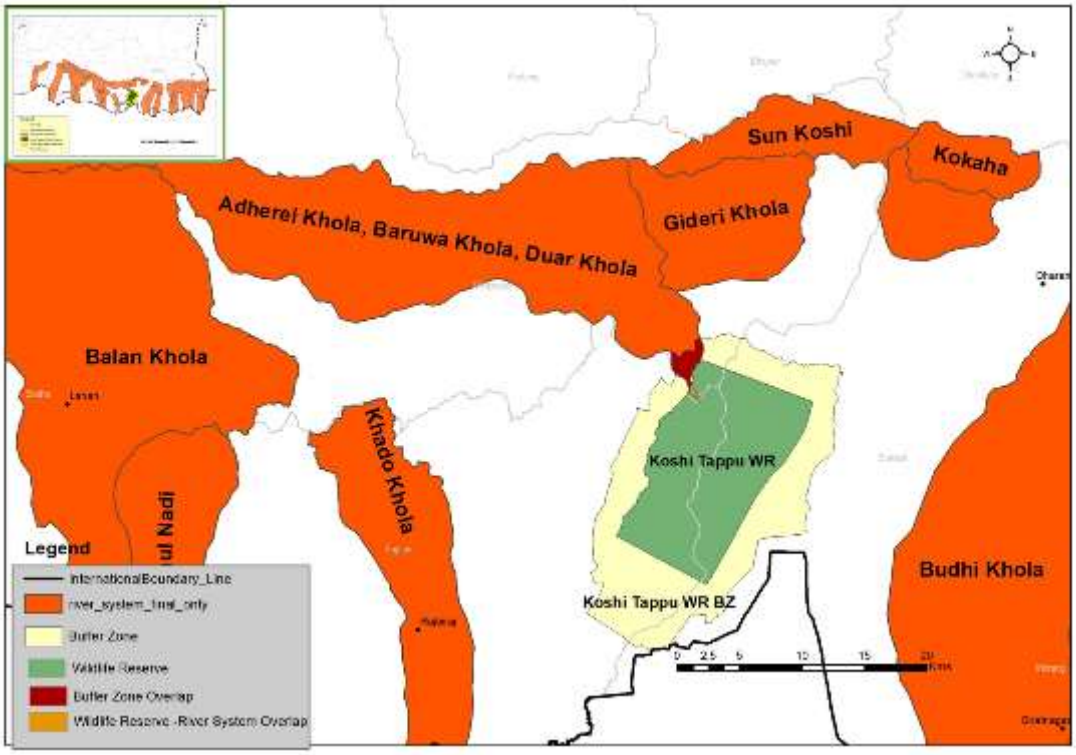

Figure 26: Overview of protected areas within the BRCRN project area.

333. No direct project interventions will be implemented in protected area core protection areas or buffer zone of the Koshi Tappu Wildlife Reserve. All project activities will be in compliance with the National Buffer Zone Management Regulation (1996) and Buffer Zone Management Guidelines (1999; more information below). All project activities will maintain a minimum 50m distance to the buffer zone of the national park. For all activities in the Adherei Khola, Baruqa Khola and Duar Khola river system, GPS coordinates will be collected and assessed to ensure that sufficient distance between project interventions and the protected area is maintained. Field visits within Activity 2.3 will further ensure that implemented activities are appropriate and will not have a negative impact on the protected area.

Positive Impacts

334. The project is anticipated to provide positive environmental impacts for the Koshi Tappu Wildlife Reserve due to the implementation of climate-resilient measures in upstream areas which will reduce sedimentation, decreasing the impact and exposure to flooding within the

reserve. It will further improve groundwater recharge upstream, improving access to water sources during dry season for wild animals in core and buffer zone forests. Measures will also provide alternatives for the unsustainable harvesting of forest products, reducing pressure on native forests for forest products including fuelwood, fodder, timber and NTFPs.

335. Furthermore, the project will take into account habitat connectivity and aim to enhance wildlife corridors with the potential to limit human wildlife conflicts. Local government officials will be trained on human-wildlife conflict management within training activities in Activity 3.6 to support the implementation of measures in Output1, and appropriate trainings can be provided to local resource persons and community-based organizations as needed.

336. The establishment of corridors along the Churia foothills of Kokrha, Patnali, Gideri, duar khola and Sunkoshi river systems will improve the connectivity for mega fauna of the Koshi Tappu Wildlife Reserve for free movement to adjoining natural and planted forests. Such corridors can also help relieve the wild buffalo-induced conflicts seen in Saptari and Sunsari areas. In these areas wild buffalo and boar take a large toll on wheat, potato and paddy crops, and occasionally cause human injury and even death.[196] BRCRN conservation efforts can contribute to alleviate the crop loss experienced around Koshi Tappu Reserve, along with reducing human-human and human-institution conflicts that arise with human-wildlife conflicts. These corridors will also address the increasing number of wild elephant related incidents, and corresponding high human fatality rates, experienced as these elephants move from India through Nepal.[197]

337. By maintaining functional wildlife corridors to connect protected areas throughout the Terai region, an increase in native flora and fauna populations is foreseen. Given the large proportion of Nepal's total biodiversity and ecosystems found in the Churia landscape and the importance of corridors for the continuation of viable populations, the establishment and protection of these corridors will lead to greater protection of Nepal's critical species and ecosystems. The establishment of viable wildlife corridors will also help reduce the occurrence of human-wildlife conflict. Although the development of wildlife corridors alone is not sufficient to curtail human-wildlife conflict, along with other interventions, such as installing proper fencing, improving awareness of climate change risks and their impact ecosystem services and local livelihoods, as well as holding trainings on animal behavior, corridors play a crucial role in protecting both wildlife and humans.[198]

338. By promoting sustainable forest management and reducing forest degradation it is anticipated that the project will reduce the spreading of invasive species (including *Mikania mirantha, Chromolaena odorata, Ipomoea carne asp, Fistulosa sp., Lantana camara and Parthenium hysteophorus*).[199]Unsustainable activities leading to forest degradation, such as

[196] Limbu and Karki 2003
[197] Acharya 2016
[198] Acharya 2016
[199] MoFSC 2013

grazing and the use of vehicles in forested areas, can lead to the spreading of these materials.[200] The project will support communities to identify and remove such species of plants, support forest restoration with desired plant species and support management regimes that limit the risk of invasive species by promoting sustainable natural resource use.[201]

339. In general, it is expected the project will have numerous positive impacts on biodiversity in the entire project region.

Negative Impacts

340. While negative impacts are not anticipated, potential impacts are highlighted in the following Table:

Table 19: Overview of potential negative impacts on biodiversity from project activities

Negative Impact	Likelihood	Impact	Risk Level
Increased human wildlife conflict due to improved habitat	Possible[202]	Low	Low
Increased competition with non-native tree species	Rare	Low	Low
Site-specific impacts (e.g. sedimentation) due to small-scale infrastructure construction	Possible	Low	Low[203]
Invasive species could be transported by vehicles, supporting the spread of the species	Possible	Medium	Low

341. A detailed analysis of potential negative impacts will be carried out with the elaboration of the biodiversity management plan during project inception and the implementation of Activity 2.3 (described in more detail in Section 6).

[200] Ibid.
[201] Ibid.
[202] On the one hand improved habitat could lead to increasing populations and increased human-wildife conflict, but it could also lead to reduced human-wildlife conflict due to improved habitat.
[203] Considered low as the project will train communities on invasive species identification and appropriate management. Promoted management regimes are likely to limit the spread of invasive species.

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ANNEXES

Annex 1: ESMF Work Plan

Annex 2: Project Exclusion List

Annex 3: Documentation of Stakeholder Consultations and Workshops

Annex 4: FAO Environmental and Social Screening Checklist

Annex 5: Site Selection Approach

ANNEX 1: ESMF WORK PLAN AND BUDGET

The following Table provides an overview of the work plan for the ESMF, Indigenous Peoples and Social Inclusion Planning Framework and Biodiversity Management Framework.

Table A1.1: ESMF Work Plan

Activity	Task	Indicator	Project Year 1				Project Year 2				Project Year 3				Project Year 4				Project Year 5				Project Year 6				Project Year 7				Responsibility	Costs	
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		Exclusively dedicated for ESMF	Included in Project activities
Monitoring and Reporting																																	
PMC	Monitoring and reporting on safeguards performance and stakeholder engagement	Progress reports																													Gender and Safeguards Specialists within PMU and PPMU, together with partner organizations including indigenous, Dalit and women organizations, among others	223,737	223,737
Environmental and Social Screening and Assessment																																	
2.1.2	Identification of sub-activities and intervention sites	List of sub-activities and potential intervention sites																													PMU team in coordination with PSC, PCU and PPMUs	96,300	408,633
2.1.2	Environmental and social screening of sub-activities	Environmental and social Screening Checklist																													FAO Safeguard Specialist	10,700	408,633
2.1.2	Environmental and social assessment and drafting of safeguards related documentation for compliance (ESMPs)	Pre-implementation documents per sub-activity																													Safeguard/ Indigenous People/ Gender/ Biodiversity Experts	54,998	54,998
2.2.1	Agreements on Free Prior Informed Consent with each participating community-based organization.	Agreements signed prior to implementation of workshops																													PMU M&R specialist in Coordination with National Project Director (NPD)	110,296	110,296
Capacity Building of Project Staff																																	
2.1.1	Capacity building of project staff on ESS and GESI	Training of project management staff on ESS and GESI (training logs and reports).																													Safeguards Specialist within PMU in cooperation with the NPD	14,980	276,702
2.1.1	Trainings for provincial and local governments on climate-threats, as well as gender-sensitive and socially inclusive low-carbon and climate resilient planning	Training logs and reports																													PMU staff/ NPD	5,778	276,702
2.1.1	Training government authorities and trainers to conduct workshops with community-based organizations on climate-resilient land use planning	Training logs and reports																													PMU staff/ NPD	75,328	276,702
3.2.2	Training of extension staff, local resource persons and trainers for the scaling up of climate-resilient SNRM (Activities 1.1-1.3)	Training logs and reports																													PMU staff/ NPD/ MoFE/ MoALMC/ MoITFEstaff	227,268	227,268
3.2.2	Training of extension staff, project partners and local resource persons	Training logs and reports																													PMU staff/ MoFE/	159,831	159,831

Activity	Task	Indicator	Project Year 1				Project Year 2				Project Year 3				Project Year 4				Project Year 5				Project Year 6				Project Year 7				Responsibility	Costs	
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		Exclusively dedicated for ESMF	Included in Project activities
	for study on local indigenous knowledge and information consolidation																														MoALMC/ MoITFE staff in cooperation with indigenous organizations/ federations		
3.2.3	Training of extension staff, government officials, local resource persons and trainers on the CKC, including online system and regional hubs	Training logs and reports																													PMU staff	92,555	92,555
2.1.3	Training of extension staff, government officials, local resource persons and trainers to support trainings on risk management planning and management.	Training logs and reports																													PMU staff/ MoFE/ MoHA/ MoITFE/MoWREI staff	175,266	175,266
2.1.3	Trainings on for local governments on local level risk management planning best practices and considerations for rural municipalities	Training logs and reports																													PMU staff/ MoFE/ MoHA/ MoITFE/MoWREI staff	75,649	75,649
Stakeholder Engagement																																	
PMC	Invitation of stakeholders to participate on PCUs	Invitation letters																													NPD/ PMU safeguard officer	428	34,668
PMC	Multi-stakeholder PCU Meetings (four times a year in each province – 12 PCU meetings per year)	Meeting summaries, attendance sheets																													NPD/ PMU Staff/ MoITFE	23,112	23,112
2.1.1	Workshops for CSOs on climate change and climate-resilient land use	Meeting summaries and attendance sheets, photos																													PMU Staff/ MoFE/ MoITFE	75,328	75,328
2.1.2	Consultations (provincial-level) on strategies and river system level action plans	Meeting summaries and attendance sheets, photos																													PMU Staff/ MoFE(MoITFE	11,556	11,556
2.1.2	Validation of provincial strategies and river system level action plans	Meeting summaries and attendance sheets, photos																													PMU Staff/ MoFE/ MoITFE	16,692	16,692
2.2.2	Workshops for community-based organizations on climate-resilient land use planning and SNRM	Meeting summaries and attendance sheets, photos																													PMU Staff/ MoFE/ MoITFE	374,500	374,500
2.2.1	Establishment of 26 private forest owner networks	Official documents declaring the creation of the network																													PMU Staff/ MoFE/ MoITFE	6,955	6,955
2.2.1	Establishment of 26 networks of CFUGs	Official documents declaring the creation of the network																													PMU Staff/ MoFE/ MoITFE	13,910	13,910
3.1.1	Community consultations and workshops with a focus on traditional knowledge for climate change adaptation	Meeting summaries and attendance sheets, photos																													PMU Staff/ M&E specialist/ MoFE/ MoITFE in coordination with indigenous organizations/ federations	142,711	142,711

Activity	Task	Indicator	Project Year 1				Project Year 2				Project Year 3				Project Year 4				Project Year 5				Project Year 6				Project Year 7				Responsibility	Costs	
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		Exclusively dedicated for ESMF	Included in Project activities
3.1.1	Multi-stakeholder validation workshops to present guidelines and findings from dissemination processes	Meeting summaries and attendance sheets, photos																													PMU Staff/ M&R specialist/ MoFE/ MoITFE in coordination with indigenous organizations/ federations	17,120	17,120
3.1.1	Meetings with CSOs to discuss proposed training modules, to receive feedback to ensure they promote gender-equality and social inclusion	Meeting summaries and attendance sheets, photos																													PMU Staff/ MoFE/ MoITFE	4,788	95,765
3.1.2	Awareness raising on prepared modules for CSOs and other stakeholders (meetings, information sharing)	Communication plan																													PMU Staff/ MoFE/ MoITFE	22,727	227,268
3.2.3	Trainings for CSOs and community-based organizations on the CKC	Meeting summaries and attendance sheets, photos																													PMU Staff/ MoFE/ MoITFE	92,555	92,555
2.1.3	Stakeholder consultation workshops in each province on the risk management plans	Meeting summaries and attendance sheets, photos																													PMU Staff/ MoFE/ MoITFE	175,266	175,266
2.1.3	Multi-stakeholder validation workshops on provincial risk management plans	Meeting summaries and attendance sheets, photos																													PMU Staff/ MoFE/ MoITFE	75,649	75,649
1.1.1	Farmer field schools and trainings	Attendance sheets, photos																													PMU Staff/ MoFE/ MoITFE	1,023,434	1,023,434
Environmental and Social Screening and Assessment																																	
Cross-cutting	Identification of sub-activities	List of sub-activities																													Safeguard Specialist within FAO project management unit	60,000	-
Cross-cutting	Environmental and social (E&S) screening of sub-activities	E&S Screening Checklists																													Safeguard Specialist within FAO project management unit		
Cross-cutting	E&S assessment and drafting of ESMPs	1 ESMP per sub-activity																													Safeguard Specialist within FAO project management unit		
Monitoring and reporting																																	
Cross-cutting	Monitoring and reporting on safeguards performance and stakeholder engagement	Semi-annual progress reports on stakeholder engagement, and ESMPs																													Safeguard Specialist within FAO project management unit	-	Included within total project monitoring costs
		Annual compilation of E/S safeguards performance																													Safeguard Specialist within FAO project		

Activity	Task	Indicator	Project Year 1				Project Year 2				Project Year 3				Project Year 4				Project Year 5				Project Year 6				Project Year 7				Responsibility	Costs	
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		Exclusively dedicated for ESMF	Included in Project activities
																															management unit		
Indigenous peoples planning Framework																																**Exclusively dedicated for IPPF**	**Included in Project Activities**
PMU	Indigenous Peoples and Social Inclusion Specialist hired for project management unit	Specialist hired																													Project Director	120,000	-
PMC	Invitation of representatives from indigenous federations, to participate in PCUs	Participation of groups in PCU																													NPD/ PSC/ FAO	285.2	9,202
2.1.1	Participatory development of an Indigenous Peoples Plan, based on the IPPF	IPP elaborated																													Project´s Indigenous Peoples and Social Inclusion Specialist in coordination with representative organizations	-	Budget included in ESMP development
2.1.1	Participatory development of a work plan with indigenous peoples representatives	Work plan created and implemented																													Project´s Indigenous Peoples and Social Inclusion Specialist in coordination with representative organizations	1061.4	34,240
2.2.2	Workshops for CSOs, including indigenous organizations, on climate change, climate-change risks and climate-resilient land use in each province	3 workshops (1 per province), consultation attendance sheets and reports																													Indigenous Peoples and Social Inclusion Specialist/ MoFE/ MoITFE in coordination with indigenous organizations/ federation to raise awareness	179.2	5,778
2.1.2	Consultation workshops on provincial level strategy and river system level action plans promote proportional representation within consultations	3 workshops (1 per province) Consultation attendance sheets and reports																													Indigenous Peoples and Social Inclusion Specialist and Safeguard and Gender Specialists	358.4	11,556
2.2.2	Workshops on climate-resilient land use planning and SNRM for members of 750 CBOs, ensuring 31% of beneficiaries are comprised of indigenous peoples, of which 50% are women	Workshops conducted, attendance sheets and reports																													Trainers will provide reports to PMC and PCU, who will provide the reports to safeguard specialist within the FAO project management unit	5804.8	374,500

Activity	Task	Indicator	Project Year 1				Project Year 2				Project Year 3				Project Year 4				Project Year 5				Project Year 6				Project Year 7				Responsibility	Costs	
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		Exclusively dedicated for ESMF	Included in Project activities
3.1.1	Identification of local indigenous practices for climate change adaptation, and integration into informative materials	Report, Workshop Meeting Summaries, Guideline																													Indigenous Peoples and Social Inclusion Specialist/ MoFE/ MoALMC/ MoWREI/ MoITFE in cooperation with indigenous organizations/ federations and other CSOs	142,711	142,711
3.1.1	Development of capacity building plan for indigenous traditional knowledge	Capacity building plan																													Indigenous Peoples and Social Inclusion Specialistn cooperation with indigenous organizations/ federations	17,120	17,120
3.2.1	Integrating local indigenous practices for climate change adaptation into modules for extension services/ farmer field schools.	Local indigenous practices mainstreamed into each module.																													Indigenous Peoples and Social Inclusion Specialist/ MoFE/ MoALMC/ MoWRE/ MoITFE I in cooperation with indigenous and Dalit organizations/ federations and other CSOs	7,009	95,765
3.2.1	Consultations with indigenous organizations/ federations on meta module on farmer field schools and extension approach, for trainers and extension agents, to ensure that the approach is culturally-sensitive and that it promotes gender equality and social inclusion.	Meeting summaries and attendance sheets																													Indigenous Peoples and Social Inclusion Specialist/ MoFE/ MoALMC/ MoWREI/ MoITFE in cooperation with indigenous organizations/ federations	2,675	95,765
3.2.2	Training of trainers for farmer field schools and extension, including indigenous men and women	Training reports and attendance sheets																													Indigenous Peoples and Social Inclusion Specialist and Safeguard and Gender Specialist/ MoFE/ MoALMC/ MoWREI/ MoITFE in coordination with indigenous	7045.4	227,268

Activity	Task	Indicator	Project Year 1				Project Year 2				Project Year 3				Project Year 4				Project Year 5				Project Year 6				Project Year 7				Responsibility	Costs	
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		Exclusively dedicated for ESMF	Included in Project activities
																															and Dalit organizations and federations		
3.2.3	Trainings for CSOs, including indigenous federations and organizations on CKC	Training reports and attendance sheets																													Indigenous Peoples and Social Inclusion Specialistand Safeguard Specialist/ MoFE/ MoITFE in coordination with indigenous and Dalit organizations and federations	2869.4	92,555
3.1.2	Establishment of Eco clubs in school, that promote the engagement of indigenous boys and girls	Membership sheet																													Indigenous Peoples and Social Inclusion Specialistand Safeguard Specialist/ MoFE/ MoITFE in coordination with indigenous and Dalit organizations and federations	53,500	160,500
3.2.3	Mainstreaming local indigenous adaptation practices and knowledge into the CKC	Materials uploaded into online CKC and available in provincial hubs. Plan for communication (input and dissemination) elaborated with indigenous organizations and CSOs.																													Indigenous Peoples and Social Inclusion Specialist/ MoFE in coordination with indigenous organizations and federations	4,120	41,195
2.1.3	Indigenous organizations provide feedback on Provincial DRR plans	Provincial DRR plans include chapter on indigenous peoples and social inclusion. Workshop attendance sheets and summaries, meeting minutes from bilateral meetings.																													Indigenous Peoples and Social Inclusion Specialist/ MoFE/ MoITFE in coordination with indigenous organizations and federations	8,763	175,266
2.2.1	Formalization/ institutionalization of at least 100 public forest user groups, which primarily include poor and marginalized households, where at least 50% of members are women with proportional representation of indigenous peoples	Registration documents																													Provincial safeguard specilistss will report to Safeguard Specialist within Federal PMU	2380.5	76,799
Component 1 Activities	Implementation of climate-resilient land use practices on at least 512,498	Project reports																													Indigenous Peoples and Social	3465380.3	36,060,148

Activity	Task	Indicator	Project Year 1				Project Year 2				Project Year 3				Project Year 4				Project Year 5				Project Year 6				Project Year 7				Responsibility	Costs	
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		Exclusively dedicated for ESMF	Included in Project activities
	ha, engaging at least 750 CBOs containing over 831,168 beneficiaries, where 31% of beneficiaries are indigenous people (of which 50% are indigenous women)																														Inclusion Specialistand Safeguard Specialist and PMU in coordination with indigenous organizations and federations		
Cross-cutting	Participatory monitoring of ESMP and stakeholder engagement (including FPIC and IPPF-related measures), ensuring social inclusion in the monitoring process	Project reports																													Safeguard Specialist within FAO project management unit in coordination with Indigenous Peoples and Social Inclusion Specialist	-	Included in ESMP budget
Social inclusion planning Framework																																**Exclusively dedicated for SIPF**	**Included in Project Activities**
PMC	Invitation of representatives from Dalit organizations and other CSOs representing marginalized/excluded groups to participate in PCUs	Participation of groups in PCU																													NPD/ PSC/ FAO	634.8	9,202
2.1.1	Participatory development of a Social Inclusion Plan, based on the SIPF	SIP elaborated																													Project´s Indigenous Peoples and Social Inclusion Specialist in coordination with representative organizations	-	Budget included in ESMP development
2.1.1	Participatory development of a work plan with Dalits, and other marginalized/excluded group representatives	Work plan created and implemented																													Project´s Indigenous Peoples and Social Inclusion Specialist in coordination with representative organizations	2362.4	34,240
2.2.2	Workshops for CSOs on climate change, climate-change risks and climate-resilient land use in each province	3 workshops (1 per province), consultation attendance sheets and reports																													Indigenous Peoples and Social Inclusion Specialist/ MoFE/ MoITFE in coordination with indigenous organizations/ federation to raise awareness	398.8	5,778

Activity	Task	Indicator	Project Year 1				Project Year 2				Project Year 3				Project Year 4				Project Year 5				Project Year 6				Project Year 7				Responsibility	Costs	
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		Exclusively dedicated for ESMF	Included in Project activities
2.1.2	Consultation workshops on provincial level strategy and river system level action plans promote proportional representation within consultations	3 workshops (1 per province) Consultation attendance sheets and reports																													Indigenous Peoples and Social Inclusion Specialist and Safeguard and Gender Specialists	797.6	11,556
2.2.2	Workshops on climate-resilient land use planning and SNRM for 750 community-based organizations, ensuring 13% of beneficiaries are Dalits, of which 50% are women	Workshops conducted, attendance sheets and reports																													Trainers will provide reports to PMC and PCU, who will provide the reports to safeguard specialist within the FAO project management unit	12920.3	374,500
3.2.2	Training of trainers for farmer field schools and extension, including representatives of Dalits and marginalised groups	Training reports and attendance sheets																													Indigenous Peoples and Social Inclusion Specialist and Safeguard and Gender Specialist/ MoFE/ MoALMC/ MoWREI/ MoITFE in coordination with indigenous and Dalit organizations and federations	15681.6	227,268
3.2.3	Trainings for CSOs on CKC, including federations and organizations representing Dalits and marginalised groups	Training reports and attendance sheets																													Indigenous Peoples and Social Inclusion Specialistand Safeguard Specialist/ MoFE/ MoITFE in coordination with indigenous and Dalit organizations and federations	6386.6	92,555
2.2.1	Formalization/ institutionalization of at least 100 public forest user groups, which primarily include poor and marginalized households, where at least 50% of members are women with proportional representation of Dalits and other marginalized groups	Registration documents																													Provincial safeguard specilistss will report to Safeguard Specialist within Federal PMU	5298.5	76,799
Component 1 Activities	Implementation of climate-resilient land use practices on at least 512,498 ha, engaging at least 750 community-based organizations containing over 831,168 beneficiaries, where 13% of	Project reports																													Indigenous Peoples and Social Inclusion Specialistand Safeguard Specialist	7713265.7	36,060,148

Activity	Task	Indicator	Project Year 1				Project Year 2				Project Year 3				Project Year 4				Project Year 5				Project Year 6				Project Year 7				Responsibility	Costs	
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		Exclusively dedicated for ESMF	Included in Project activities
	beneficiaries are Dalits (of which 50% are women)																														and PMU in coordination with indigenous organizations and federations		
Cross-cutting	Participatory monitoring of ESMP and stakeholder engagement (including FPIC and SIPF-related measures), ensuring social inclusion in the monitoring process	Project reports																													Safeguard Specialist within FAO project management unit in coordination with Indigenous Peoples and Social Inclusion Specialist	-	Included in ESMP budget
Biodiversity Management Framework																																	
PMC	Monitoring and reporting on implementation of biodiversity management plans	Project reports																													PMU Safeguards Specialist in coordination with biodiversity specialists	192,921	192,921
PMC	Elaboration of biodiversity management plan for Activities 1.1-1.15	3 biodiversity management plans (1/ activity)																														3,531	192,921
2.1.2	Analysis and consultations to identify specific practices and activities with a potential impact on biodiversity	Report																													Biodiversity Specialist	27,499	54,998
2.1.2	Identification of priority areas with biodiversity importance	26 River System Climate-resilient action plans, with a section on biodiversity hotspots in each river system																													Biodiversity Specialist/ PMU staff	408,633	408,633
2.1.2	Revision of proposed interventions based on consultations with community-based organizations, considering local biodiversity hotspots	Implementation proposals of community-based organizations reviewed																													Biodiversity Specialist/ PMU staff	110	110,296
3.2.2	Trainings for extension agents and trainers on biodiversity management within the context of the BRCRN project	Training materials, attendance sheets and reports																													Biodiversity Specialist/ PMU staff	22,727	227,268
3.2.2	Elaboration of manual on site-species matching and good practices for forestry activities	Manual elaborated and published																													PMU Staff	9,566	95,658
Gender Action Plan																																	
Cross-cutting	Monitoring and reporting on GAP	Project reports																													PMUM&R specialist in cooperation with women's organizations/ CSOs	-	Included in regular budget
Output 1: Reduced greenhouse gas emissions and enhanced resilience to climate change through investments in innovative technology and practices in the forest and agriculture sectors																																	

Activity	Task	Indicator	Project Year 1				Project Year 2				Project Year 3				Project Year 4				Project Year 5				Project Year 6				Project Year 7				Responsibility	Costs	
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		Exclusively dedicated for ESMF	Included in Project activities
PMC	Ensure training and engagement of women in adopting climate-resilient land use practices. Time and locate trainings taking into account women's work schedules and accessibility to ensure maximum participation and outreach, coordinate with local women's organizations to build on existing networks and best practices for outreach	▪ Extension services ensure that women are able to access extension services (at least 50% of beneficiaries are women*), and that 50 % extension staff are women*																													PMUM&R specialist in cooperation with women's organizations/ CSOs	87,312	87,312
1.1.1-1.1.3	Women adopt and benefit from climate-resilient agricultural practices.	▪ At least 250 community-based organizations adopt climate-resilient agricultural practices (50% of beneficiaries are women*)																													PMU M&R specialist in cooperation with women's organizations/ CSOs	1,463,760	2,927,520
1.2.1-1.2.2	Women adopt and benefit from restoration and sustainable management of degraded natural forests, critical watersheds and wetlands to avoid emissions, enhance sequestration and improve other ecosystem services (incl. biodiversity conservation).	▪ Restoration activities implemented on ~206,227 ha, which benefits at least 750 community-based organizations in 26 critical river systems (of which at least 50% of beneficiaries will be women*)																													PMU M&R specialist in cooperation with women's organizations/ CSOs	2,143,804	4,287,608
1.3.2	Women benefit from tree planting on private and public lands to release pressure on natural forests for fuelwood, timber and forage	▪ At least 50 private forests owned by women registered by local government ▪ At least 100 public land forests registered by local government, of which 50% are established by women user groups* ▪ 24,958 ha of plantation forests established, where at least 50% of beneficiaries are women*																													PMU M&R specialist in cooperation with women's organizations/ CSOs	5,608	11,215,633
Output 2: Strengthened institutions and capacities for integrated climate-resilient land use																																	

Activity	Task	Indicator	Project Year 1				Project Year 2				Project Year 3				Project Year 4				Project Year 5				Project Year 6				Project Year 7				Responsibility	Costs	
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		Exclusively dedicated for ESMF	Included in Project activities
PMC	Gender focal points assigned in multi-stakeholder project coordination entities	▪ Gender Focal Point Assigned in PSC and PCU																													National Project Director (NPD) in coordination with gender focal point from Ministry of Forests and Environment (MoFE) and federal and PPMU safeguard officers	1,070	21,400
PMC	Invitation of CSOs representing women (including indigenous women's groups and Dalit women's groups, among others) to participate on PCUs	▪ At least one women´s group participates in each provincial PCU*																													PMU Gender and Safeguard Officer	1,070	23,112
2.1.2	Engagement of women and women's organizations in identifying vulnerable areas, critical ecosystems and integration of women's issues in sub-river system level SNRM planning;	▪ At least 26 multi-stakeholder workshops, where GESI topics to be discussed and implemented, women's organizations to be invited to workshop																													PMU Gender and Safeguard Officer	21,347	408,633
2.1.2	Identification of female beneficiaries who are working with existing SNRM projects and / or those who are interested in introducing SNRM and DRR practices as *´champions´*	▪ Identification of champions to support the implementation of activity 2.2 as well as Outputs 1 and 3																													PMU Gender and Safeguard Officer with support from representatives from women's organizations/ CSOs	21,347	408,633
2.1.2	Provincial climate-resilient land use planning strategies and river system level action plans include a sub-section on gender	▪ 3 provincial strategies and 26 action plans include sub-section on gender																													PMU M&R specialist	5,500	54,998
2.2.2	Strengthen outreach to women, including women from indigenous nationalities and marginalized groups.	▪ 10 trainings on leadership, rights, climate risks and climate-resilient land use planning targeted for women*																													PMU M&R specialist	6,420	374,500
2.2.2	Mainstreaming adaptation and mitigation measures at the community level, with a focus on forests, water and land management practices/ operation guidelines through active participation of women, indigenous peoples and marginalized groups;	▪ Trainings for 750 community based management organizations, of which at least 50% are women*																													PMU M&R specialist	187,250	374,500
Output 3: Enhanced awareness, knowledge and communication on climate-resilient land use and disaster risk reduction																																	
3.1.1	Respect and document local knowledge from women, including	▪ Women's organizations invited to 6																													PMU M&R specialist	4,815	142,711

Activity	Task	Indicator	Project Year 1				Project Year 2				Project Year 3				Project Year 4				Project Year 5				Project Year 6				Project Year 7				Responsibility	Costs	
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		Exclusively dedicated for ESMF	Included in Project activities
	women from indigenous nationalities, Dalit caste, and other marginalized groups	provincial consultation workshops and validation workshops																															
3.1.1	Respect and document local knowledge from women, including women from indigenous nationalities, Dalit caste, and other marginalized groups	▪ 78 community consultations (~3 per river system) least 50% of people consulted should be women*																													PMU M&R specialist in cooperation with women's organizations/ CSOs	69,550	142,711
3.1.2	User group associations as well as women's groups, indigenous peoples, Dalits, marginalized minority organizations engaged in info documentation, and dissemination (networks). Women's networks support awareness raising campaigns to engage women.	▪ 125 broadcasts regarding Churia Conservation related news and views, including broadcasts in local languages																													PMU M&R specialist	346,145	346,145
3.2.2	Trainers trained on GESI within the context of the BRCRN project, and measures to improve the engagement of women, indigenous peoples and marginalized groups in knowledge consolidation, dissemination and extension.	▪ Trainers should include people from diverse socio-cultural backgrounds, and translation services should be available for trainings or consultations in local languages.																													PMU M&R specialist	22,727	227,268
3.1.2	Support establishment of 130 eco-clubs, with participation from boys and girls to become engaged on topics related to climate change and climate-resilient land use	▪ 130 eco-clubs established, with 50% girls																													PMU M&R specialist	80,250	160,500
3.2.2	Trainers should include people from diverse socio-cultural backgrounds, and translation services should be available for trainings or consultations in local languages.	▪ At least 50% of trainers should be women*																													PMU M&R specialist	113,634	227,268
3.2.2	Trainers trained on GESI within the context of the BRCRN project, and measures to improve the engagement of women, indigenous peoples and marginalized groups in knowledge consolidation, dissemination and extension.	▪ Trainers include women, indigenous peoples, Dalits and other marginalized groups. Trainings in local languages are available with support from trainers and local resource persons																													PMU M&R specialist in cooperation with women's organizations/ CSOs	22,727	227,268
3.2.1	Training modules and guidelines for extension and technical assistance to be designed taking into account GESI.	▪ 10 training modules include sub-sections on i) gender and ii) social inclusion																													PMU M&R specialist	20,330	95,765

Activity	Task	Indicator	Project Year 1				Project Year 2				Project Year 3				Project Year 4				Project Year 5				Project Year 6				Project Year 7				Responsibility	Costs	
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		Exclusively dedicated for ESMF	Included in Project activities
	Extension modules each include a section on i) gender and ii) social inclusion																																
3.1.2	Exposure visits for trainers and government staff include participation of women	▪ 50% of beneficiaries should be women*																													PMU M&R specialist	7,244	14,488
3.2.3	Engagement of women in the design and operation of the Churia Knowledge Center	▪ Women's organizations are invited and participate in 3 workshops on the CKC																													PMU M&R specialist	10,700	88,275
3.2.3	Engage women in monitoring and knowledge management activities	▪ Women support the monitoring of environmental and social characteristics in the BRCRN project area, where at least 50% of resource persons trained are women*																													PMU M&R specialist	8,828	88,275
3.2.3	Integrate information on GESI into CKC knowledge, and communicate gender-related issues linked to climate change and unsustainable natural resource management	▪ GESI portal established within online CKC, and GESI materials available in regional hubs																													PMU M&R specialist	8,828	88,275
3.1.2	Engage youth, boys and girls, in learning opportunities related to climate change, SNRM, and DRR through the Churia Knowledge Center	▪ CKC presented to 130 eco-clubs in schools, with 50% participation of girls in clubs																													PMU M&R specialist	16,050	160,500
2.1.3	Raise awareness of women in vulnerable communities about climate-induced disasters and risks and the link with unsustainable NRM, as well as SNRM, DRR measures	▪ Increased awareness of women in 26 vulnerable river systems climate change risks																													PMU M&R specialist in cooperation with women's organizations/ CSOs	175,266	175,266
2.1.3	Engage women including indigenous peoples and marginalized groups in the development of provincial DRR plans.	▪ 3 consultation workshops and 3 validation workshops, with women's organizations invited to each workshop.																													CSOs to support participation of women in consultation workshops (awareness raising).	10,700	175,266
3.2.3	Integrate women´s, including, indigenous peoples and marginalized minority groups, priorities´ into disaster risk management plans and guideline development through consultations with women in local-community based organizations, and through engaging with local networks	▪ Provincial DRR plan includes a section on i) gender and on ii) social inclusion																													PMU M&R specialist	7,565	75,649

*promoting proportional representation of highly vulnerable groups including indigenous women (31%) and Dalits (13%)

ANNEX 2: PROJECT EXCLUSION LIST

The following is the Project Exclusion List, a list of activities that the BRCRN project will not support:

- The project will not support activities that result in a negative change to existing legitimate tenure rights
- The project will not involve the involuntary resettlement of households
- The project will not support the construction of medium to large infrastructure (e.g. dams above 5m in height)
- Activities that may increase greenhouse gas emissions substantially
- The project will not be implemented in protected areas
- The project will not support the direct supply of agro-chemicals
- The project will not support the clearing of native forests
- The project will not use non-locally adapted species.
- The project will not include interventions within protected areas.

ANNEX 3: DOCUMENTATION OF STAKEHOLDER WORKSHOPS AND CONSULTATIONS

Overview of Consultations

The following Table provides a summary of the stakeholder consultations conducted for the elaboration of the BRCRN project funding proposal.

Table A3.1: Stakeholder consultations

Identification of Stakeholder	Date	Participants (#)	Location
Inception Workshop For Proposal Development (multi-stakeholders)	2017/11/21	42	Summit Hotel, Lalitpur
HIMAWANTI	2017/12/01	2	SEEPORT Office Lalitpur
Nepal Federation of Indigenous Nationalities	2017/12/04	1	NEFIN CCPP Office, Kathmandu
Feminist Dalit Organization	2017/12/13	4	FEDO Office, Lalitpur
National Indigenous Women´s Federation	2017/12/13	2	NIWF Office Kathmandu
Federation of Community Forestry Users (FECOFUN)	2017/12/13	1	FECOFUN Office, Kathmandu
Consultations with community groups in BRCRN proposed project districts	2017/12/21-28	207	Various
Consultations with other actors (local government, federations, etc.) in BRCRN proposed project districts	2017/12/21-28	14	Various
Multi-stakeholder project workshop in Itahari, Sunsari	2017/12/20	37	Hotel Pathibhara, Itahari, Sunsari
Multi-stakeholder project workshop in Lahan, Siraha	2017/12/24	45	Hotel Simrik, Lahan, Siraha
Gender workshop with various multi-stakeholder participants (MoFSC, HIMAWANTI, FEDO, COFSUN, Forest Action Nepal)	2018/02/21	7	AGENO, Kathmandu
Project Validation Workshop	2018/03/25	30	Hotel Himalaya, Kathmandu
TOTAL	**2017/11 to 2018/03**	**392**	

1. **Summary of key risks and impacts identified from the stakeholder engagement/ consultation**

In general, the project was well received by all actors consulted. The presented activities received positive feedback, and communities and user groups were able to identify activities that would be well-suited to their local context.

Business as usual practices were identified as having numerous negative impacts and posing substantial risks to communities and their livelihoods. Communities noted that deforestation has a negative impact on their livelihoods, but often noted that they were not aware of alternative practices, and that many communities do not have the technical capacities or financial means to invest in improved practices.

While communities agreed that the project would likely generate largely positive social and environmental impacts, some potential risks and challenges were identified:

- Patriarchal value system is still strong at the local level, and women mentioned that some men may prohibit their wives or female family members to participate in trainings. It was noted however in the GAP that the proposed measures were suitable and seen as important to empower women and strengthen their engagement within the project. Many projects within the Churia region have been piloting approaches to empower women and strengthen their engagement in forest and agriculture sector activities.
- Some communities noted that they are experiencing increasing wild fires due to dry conditions. Thus, in activities focusing on forest restoration or forest plantations it will be necessary to include trainings and planning for forest fires to safeguard communities and their investments.
- Improved connectivity and health could lead to more wildlife, and some communities are concerned about human-wildlife impacts. Some communities focused primarily on the positive impacts from more wildlife (e.g. ecotourism, cultural importance), while others were concerned about their crops and livelihoods. Some stakeholders also discussed that improved habitat connectivity could reduce human-wildlife conflicts. Nonetheless, it was identified as important that trainings are available if necessary for communities affected by human-wildlife conflicts.
- It was often emphasized that indigenous peoples and marginalized groups (e.g. Dalit caste) may face discrimination or additional barriers to access resources. While those consulted were in favor of the project – they continued to emphasize the importance of designing a socially inclusive project and considering barriers that are specific to different groups of beneficiaries.
- Indigenous groups emphasized the importance of maintaining local and traditional knowledge, and to ensure that the program causes no harm to indigenous peoples, and that the project is designed in a way to provide additional benefits.
- Women's groups highlighted the importance of having targeted measures for women, considering differentiated contexts and vulnerabilities among women. It was further highlighted that skill-development opportunities in climate-resilient value chains should be pursued for women, and that measures should also support women to access finance (e.g. through supporting business plan development, associativity, among other measures)
- A major market constraint for many local communities is poor road connectivity. While roads have environmental impacts (e.g. dirt roads lead to increased erosion and sedimentation, clearing of habitats, increased access to forest resources, often leading to increasing deforestation and forest degradation), it was highlighted that this is a key challenge for strengthening commercial value chains in the Churia.

2. Have the applicable documents adequately addressed the key risks and impacts in #1?

No ☐ **Yes** ☑

3. What tools or approaches have been used, e.g. focus groups, rapid rural appraisals, etc.?
Direct meetings with organizations and relevant stakeholders, as well as focus groups in communities and multi-stakeholder workshops in both Kathmandu and in the project region.

4. Has there been a free, prior and informed consent (FPIC) agreement on the process and the decision made? (i.e. an indigenous peoples' plan)
Indigenous groups and marginalized minority groups have been continually informed of the processes since project development began, and consulted throughout the process, including both at the national, regional and local level. The Indigenous Peoples Planning Framework has been elaborated in the ESMF, and outlines the next steps towards achieving FPIC for beneficiary communities (within Activity 2.5).

5. Do the directly-affected communities feel that their concerns are responded to in a timely and appropriate manner?

No ☐ **Yes** ☑

6. Have any of the stakeholders raised any concerns about the project?

No ☐ **Yes** ☑

All of the stakeholders consulted were in favor of the project, noting that climate change and unsustainable natural resource management are major challenges that the region faces. While many people in communities can see the impacts from both climate change and unsustainable natural resource use, there is often a knowledge gap in linking such negative impacts and land use, and limited awareness of disaster risk reduction measures and sustainable land use practices. Proposed project activities received positive feedback, with communities noting that such activities are relevant given their local context.

It was mentioned by various stakeholders that the project´s strong focus on the local level is important given the ongoing political transition and to ensure that management rights for local community based organizations/ user groups are not taken away or weakened. It is important that the community can decide how to mainstream climate-resilience into management plans (Activity 1.3), ensuring that plans are designed based on local priorities and contexts. Community-based organizations were identified as a key entry point to strengthen adaptive capacities and resilience in the region, given the groups´ important role in engaging women, indigenous peoples, Dalits and marginalized groups. Public forest user groups were particularly identified as having a major potential to strengthen the livelihoods and resilience of poor and marginalized households.

Consulted communities also stressed the importance of addressing the following topics within the project:

- Human-wildlife conflicts: On the one hand, improved habitats could lead to less encounters with animals, but on the other hand it could increase animal populations.

- Improved forest law enforcement and control to help reduce forest encroachment, in addition to measures aiming to improve sustainably sourced timber products (such as those included within Output 2).

Many stakeholders discussed the issue of land tenure in the Churia. While many communities noted that the establishment of illegal settlements has declined, especially since the end of the civil war, it has resulted in many people living in the Churia hills without holding secure land titles. Some of the stakeholders think the project should also address highly complex and land tenure issues, while other stakeholders noted that the issue is highly politicized and goes beyond the scope of the project. There was a general consensus that community-based organizations/ users groups should be the key project beneficiary as they represent diverse groups which allow communities to benefit from natural resources, including households without secure land tenure.

The following pages provide a more detailed overview of the consultations through the provision of Meeting Summary: and attendance sheets.

9.5 Inception Workshop

Date: November 21st, 2017
Time: 9:00-14:00
Location: Summit Hotel, Lalitpur, Nepal
Attendees: See Attached Sheet

Agenda for National Inception Workshop:

Proposed Time	Description	Presenter(s)/ Moderators
09:00-9:20	Registration and Tea/Coffee	
09:20 -9:25	Chairperson, FAOR and guests in Dias	Mr. Dhanajaya Paudyal, Chief, FACD, MFSC; Representatives of NDA, MoF
09:25 - 09:30	Welcome Remarks from FAO	Dr. Somsak Pipoppinyo FAOR –Nepal
09:30 -9:40	Self-introduction and Re-cap of previous meetings	Resham Dangi
09:40– 10:10	Mission's general observation on project boundary, scale and potential result areas to be considered and key spatial analysis to identify project;	Matthias Seebauer & Ashwin Dhakal
10:10 - 10:35	Drivers (stressors) and shocks impacting social and ecological systems in Churia region and proposed methodologies to design appropriate interventions.	Mr. Ramu Subedi, Ben Vickers & Jochen Statz
10:35 - 10:50	Key considerations for GCF funding proposal development: Lessons learnt from successful Proposal submissions and approval.	Laura Kiff
10:50– 11:10	Coffee Break	
11:10–11: 35	Proposed Theory of Change to ensure enhanced adaptive and transformative capacity of the Forest Ecosystems and Ecosystem services in Churia region;	Ben Vickers & Jochen Statz
11:35 – 12:00	Proposed Objectives and Methodologies to identify key value chains to be included in the feasibility study component for the GCF funding proposal of BRCRN	Ishwor Neupane & Jochen Statz
12:00-12: 25	Presentation on methodological approaches to identify vulnerable groups, & safeguard considerations in Proposed BRCRN project.	Laura Kiff
12:25–12: 45	Next steps and time line	Jochen Statz
12:45– 13:00	Closing Remarks by Chair	Mr. Dhanajaya Paudyal, Chief, FACD, MFSC;
13:00- 14:00	Lunch	

Meeting Summary:

Background: As per one of the follow-up actions agreed in stakeholder consultation held on 8th September; FAO had completed recruitment of consultants. To kick-start the funding proposal preparation process, 3rd technical committee meeting (TCM) was organized on 14th November. This TCM endorsed scoping mission's schedule to set the project boundary and use methodological approaches for feasibility study. As per the guidance received project boundaries and potential result areas were identified in consultation with field officials and local communities. In consultation with NDA/MoF and MoFSC; FAO country office organized a half-day inception workshop to share field observation as well as update on FAO' quality assurance procedure.

Objective: Purpose of this workshop was to share detail work plan and methodologies/ process envisioned to develop funding proposal.

Take home messages:

- Natural disasters due to geology and extreme weather event are obvious in Churia region. Analyze drivers of ecosystem degradation in upstream, triggering factors in mid-way and vulnerability in downstream. Also consider, beside natural and economic stressors, there are other important forces such as weak institutions, acute marginalization, ambiguity in land tenure and so forth. In this outset, local institutions could be considered effective tools for SNRM;
- Forests in Bhavar are important buffer zone to maintain soil fertility and recharge hydrological functions. Upstream-downstream linkages can be improved through extending collaborative forests , Public land forests and Agro-forestry;
- Livestock is important livelihoods assets in Churia; consider to improve its value chains and productivity enhancement through feed management;
- Knowledge management is important For SNRM in Churia and it should align with evolving institutions in changed political context of Nepal;

Follow-up actions: Field consultation and **v**alidation will be held as per work plan

National Inception Workshop on Proposed "Building a Resilient Churia Region (BRCRN) in Nepal"
21st Novemer 2017 at Hotel Summit

Attendence Sheet

S.N.	Name	Organization
1	Mohan Pandel	REDD IC
2	Naya Sharma	Forest Action
3	Resham Dangi	FAO
4	Ben Vickers	FAO
5	Matthias Seebauer	UNIQUE
6	Jochen Stahl	UNIQUE
7	Laura Kiff	UNIQUE
8	Tilak Prasad Rijal	NPCS

National Inception Workshop on Proposed "Building a Resilient Churia Region (BRCRN) in Nepal"
21st Novemer 2017 at Hotel Summit

Attendence Sheet

S.N.	Name	Organization
1	MANJU DHIMAL	NIW federation
2.	Tungo B. Rai	NEFIN
3	Ishwor Neupane	SEEPORT
4	Prem Pokhrel	DSCWM
5	Bishnu Thakali	NFN
6	Hari Acharya	FenFIT
8	Anil Kumar Ranjit	FenFIT Nepal

National Inception Workshop on Proposed "Building a Resilient Churia Region (BRCRN) in Nepal"
21st Novemer 2017 at Hotel Summit

Attendence Sheet

S.N.	Name	Organization
1.	prakash Singh Thapa	DSCWM
2.	Binod Singh	FACD/ MFSC
3.	Bagar K. Rimal	FACD-MFSC
4	Ambika P. Gautam	KAFCOL
5.	Arjun Dhakal	METROK
6.	Pragyajan Y Rai	ICF-RP
7.	Ajit Kumar Gupta	FNCCI
8	Keshar Man Shrapit	Freelance
9.	Dr. Binod Sha	FAO

National Inception Workshop on Proposed "Building a Resilient Churia Region (BRCRN) in Nepal"
21st Novemer 2017 at Hotel Summit

Attendence Sheet

S.N.	Name	Organization
1	Dr. Keshav Prasad Pramy	Ministry of Livestock Dev.
2.	Dr. Akhileshwar L. Karna	Dept. of Plant Resources
3	Gehendra K. Upadhyaya	MoFS
4	HEMLAL ARYAL	President - Cheese Board
5	Anil Upadhayay	NGO Federation of Nepal
6	Sujan Rana	MoLD

National Inception Workshop on Proposed "Building a Resilient Churia Region (BRCRN) in Nepal"
21st Novemer 2017 at Hotel Summit

Attendence Sheet

S.N.	Name	Organization
1.	Mr. Dhananjaya Pandyal	MFSC, FACD
2.	Dr. Yubak D. GC	MoF / Secretary
3.	Dr. Somsak Pipopinyo	FAO / FAOR
4.	Mr. Mohan Raj Kafle	DoF

National Inception Workshop on Proposed "Building a Resilient Churia Region (BRCRN) in Nepal"
21st Novemer 2017 at Hotel Summit

Attendence Sheet

S.N.	Name	Organization
1	Sampait Yadav	DoF
2.	Dr. Manish Raj Pandey	NTNC
3.	Dr. Binod Dawadi	Tribhuvan Uni
4.	Ashwin Dhakal	SEEPORI
5	Matthias Seebauer	UNIQUE
6	Sirjana Shrestha	MoFSC
7.	Rajesh Thapa	FAO

9.6 Regional Workshops

9.6.1 Regional Workshop No. 1 - Sunsari

Stakeholder workshop on Project Formulation Process for GCF with key stakeholders of Five Districts (Jhapa, Ilam, Morang, Sunsari and Saptari)

Date : December 20, 2017
Venue: Hotel Pathibhara, Itahari, Sunsari
Time : 10 am -16 pm (6 hours)

Meeting Attendees: *(see attached list)*

Meeting Schedule:

1. Presentation of project proposal to be submitted to GCF by Ramu Subedi on the behalf of the national constant team
2. District- wise discussion and Presentation
3. Perspectives on the project and recommendations for its feasibility

Meeting Summary:

The project development team provided an overview of the proposed project, including its three core outputs and 11 supporting activities.

One of the participants stated that project should address three major components;

- Awareness raising programs
- Greenhouse gas (GHG) reduction initiatives
- Livelihood support activities

Participants also stated that integrated water management program should be included in the project, linking together water, soil and vegetation issues as an interlinked system. Participants insisted the project duration to be at least 10 years in order for project components to be made reality on the ground. A Dalit participant stated that project documents should be in local languages to avoid exclusion by language. Participants also recommended the project to include promoting plantation of NTFPs such as Chirito, Majito, Katahar (jackfruit) and harro, which will help support local livelihoods and play a positive role to support natural resource management.

Participants raised several reasons for the degradation of Churia environment including unscientific and haphazard settlements, agriculture practices such as traditional plowing systems, open grazing systems, and uncontrolled and unscientific mining. To protect the Churia region from these factors, participants recommended shifting from open grazing to stall feeding, diversify livelihoods to include non-agriculture based livelihoods, and end mining. Some participants noted that the treatment of forest and river systems as separate entities in development modalities is also preventing Churia conservation. In order to protect forest diversity, forest and river systems must be linked together.

Pasupati Dhungana, Chief of District Livestock Development Office Ilam, stated that there are many opportunities to improve local livelihoods such as stall feeding, promotion of improved

livestock breeds, fodder utilization, livestock marketing, and the protection of local and climate friendly verities of livestock. In order to reduce GHG emissions, Dhungana emphasized the use of green grass instead of straw as fodder, the promotion of bio-gas and the prioritization of poultry farming. In regards to institutional capacity building, Dhungana saw the role of the local government as crucial for activity implementation and that the leadership role should be given to the province level while the implementation role should be given to the local level of rural municipalities.

District wise summary of the group work

1. **Ilam District**

Participants from Ilam reported several challenges in the Churia region of the district including scattered settlements, subsistence livelihoods, rapid population growth and limited knowledge on efficient resources use. It was reported that the Churia region is not good for agricultural products, especially cereal crops, but provides ample opportunity for horticulture which is essential to trap. The participants see several opportunities for livelihood improvement for those residing in the Churia region. These include prioritizing horticulture, improving livestock for dairy products and meat and harvesting NTFPs. However, water scarcity remains the main barrier for irrigation as well as for livestock. Therefore, the participants emphasized the need to improve water recharge technology.

The evidence of climate change has been clearly noticed in the Churia region. The frequency of forest fire, events of heavy and short rainfall and surface run-off has increased. Participants noted that rainfall declined and had a major impact on agriculture. Although Rong, Mai, Mangsebung and Chulachuli are all located in the Churia region of Ilam, they face different challenges. For instance, Rong Rurual Municipality struggles from landslides, whereas Mai, Mangsebung and Chulachuli are afflicted with deforestation due to illegal abstraction of forest products. Nonetheless, participants reported overall increase in forest conditions due to the establishment of community forests, resulting in reduced deforestation, degradation and encroachment.

Participants noted that linkage and coordination between different governmental and non-governmental stakeholders is required to address the issue of the Churia region. A single organization cannot do it effectively, and as users of Churia region resources, inhabiting communities should be represented and their needs addressed by the proposed project.

Participants raised recommendations of activities to promote local livelihoods as well as preserve the Churia environment and reduce GHG emissions. They include installing bio-gas, promoting improved livestock varieties and install feeding, conserving local seeds, diversifying livelihood to include horticulture and cash crops (e.g. broom-grasses, betel-nut, mango, lichi, jackfruit, lemon) and conducting seasonal and off-seasonal vegetable farming and oil seed farming. It is noted that it is easy tasks to the local due to changing weather (increasing foggy weather days) and lack of irrigation facilities. The simultaneous marketing of agro-products, however, is also essential, as is the promotion of bio-char and bio-briquette.

2. **Jhapa Districts**

Participants from Jhapa reported several causes for Churia deforestation including illegal mining and crusher industries, encroachment of forest area, lack of awareness, lack of ownership, unmanaged farming systems, forest fires and open grazing. To combat these challenges, it was noted that open grazing should be controlled, stall feeding should be promoted, plantations of fodder trees/plants or grasses on *ailani/*open land and forest areas should be initiated, terrace farming in steeplands should be recommended and Resource Conservation Technology (RCT) system should be introduced in traditional farming practices. It was also noted that scientific management of scattered settlements is necessary and the regular and effective monitoring of the area is essential. Moreover, local people should be involve in the project.

The major impact of climate change in Jhapa is over flooding in rivers. The settlements most vulnerable to flooding are located in the banks of the Ratuwa River, the Kamal River, the Kankai River, the Biring River, the Mawa River, the Ninda River, the Tanting River, the Hadiya River and the Mechi River. Adibasi Janajati and Dalits are highly affected as they traditionally live nearby the forest and depend on the forest culturally and economically. However, this does not mean other groups who live in and nearby the Churia region are not also affected by the Churia degradation.

Participants also pointed out that the recognition of the strong link between farming and forestry for agricultural practices is essential to curtail Churia degradation. The linkage between upstream and downstream areas is also essential to understand as flooding in the rivers will largely affect to the downstream areas.

3. Sunsari District

Within Sunsari district the Churia covers Baraha Municipality and Dharan Metropolitian City, totaling around 10,000 hectors. There are three major sub-watershed located in the Churia region: the Barahchhetra sub-watershed area, the Sardu sub-watershed area and the Panchkanya sub-watershed area.

Participants noted several challenges facing the Churia region including encroachment of forest, uncontrolled mining, lack of water sources, subsistence farming system, inactive CFUGs, poverty, lack of fodder for livestock, and forest fires. Current land use practices were also noted as a main cause of Churia deforestation and participants stressed the need for the government to define and strictly utilize lands for different purposes such as forest, agriculture, market and settlement. Women, marginalized, Adivasi Janajati, Dalits and Khas-Aryan are the main populations affected by Churia degradation, as their livelihood and everyday lives are directly reliant on the Churia forest.

In order to promote conservation of the Churia region, participants recommended several activities such as river and rivulets control programs, construction of embankment, bamboo plantations, tree plantations on the banks of rivers, mining control, construction of ponds, subsidy provision for irrigation cannel construction and terracing, and distribution of small farm technology. Providing subsidies in resettlement for the development of integrated settlements as well conducting awareness raising education programs for conservation and creating scholarship opportunities were also recommended. Participants pointed out several stakeholders whose roles will be very important in these conservation effort, among which are the local government, forest office, soil conservation office, local forest groups, FECOFUN, NEFIN, Dalits networks, Churia Conservation Group, Churia Conservation Development Committee etc.

For the improvement of local livelihoods, participants pointed out several activities to be promoted like subsidy and training in farming (small farmer technology & terracing), plantation of fodder plants and grasses, keeping and promotion of improved varieties of livestock, and subsidy in fishery and mushroom farming. It was noted that there is opportunity for lemon, tejpat, jackfruit, ginger, turmeric, lapsi, betbansh, broom grass and amala. However, in many areas, people do not have land certificates, leading to barriers in promoting vegetable farming (e.g. Shrilanka Tappu of Sunsari is ideal for vegetable farming but locals lack land certificates).

4. Morang District

Participants from Morang district pointed out the main challenge in the Churia region as the inability to uplift/improve local livelihoods through sustainable resource management. Other challenges include the management of land, forest, water resource, floods and landslides. In order to address land management issues, respondents recommended the application of carrying capacity of land, implementation of scientific management system/technique in farming and use of low intensive ploughing method in farming. To protect water resource, it was noted to construct a run off harvesting dam, protect and preserve wetlands and water springs and provide irrigation cannels. Participants pointed out the increasingly devastating impacts of flooding in Morang district due to uncontrolled and unscientific mining in Churia region and insisted that scientific and systematic management of mining is essential. In general, participants noted the lack of inter-sectoral linkages to promote conservation efforts and the need for development projects to be 'environmentally friendly.' For example, constructing roads without properly considering drainage (both natural and artificial), the events of landslide have rapidly increased and will continue to increase.

Participants noted that climate change has led to shifting of the weather calendar, making it unpredictable and erratic. Likewise, temperature has increased, events of landslide, flooding, heavy rainfall and drought have increased, water resources/springs have dried, and there have been increased events of disease in crops, livestock and humans. The impacts of climate change are felt more heavily by people living below the poverty level and depended on farming for their livelihood. Participants noted critical areas to be Kerabari Rural Municipality, Letang Bhogeteni Municipality and Miklajung Rural Municipality, with the watershed areas of the district being Gachhiya/Kadam, Lohandra, Budhikhola, Chisang, Das Morangi, Telikhola, Soltikhola, Bakraha Khola, and Mawa Khola.

In terms of Churia forest degradation, participants pinpointed poverty, unmanaged settlements, unscientific farming systems, improper law implementation, encroachment, open grazing practices, forest fires, and illegal harvesting of forest products as major causes. Participants voiced that the local people/community, local representatives, Community Forest User Groups, Farmers Groups, Livestock Groups, and government agencies are equally responsible for the management of Churia region. An increase in interest in Churia management was noted, with local interest and participation in Churia management increasing. Likewise, local organization, communities, local club and social organization and networks were also described to be increasingly active in the management of livestock. Other proposed methods to increase conservation efforts include the identification of plantation areas and tree plantation (e.g. bamboo, khayar etc), management of seasonal rivers/rivulets, and the empowerment of local communities.

5. Saptari District

Participants discussed the fragility of the Churia region within their district, noting that there are fragile watersheds that are highly susceptible to erosion. They further noted that the system has the challenge of having both too much and too little water (prone to both flooding in the monsoon season and droughts in the winter season).

In this district it was identified that deforestation and haphazard collection of forest products is leading to the removal of vegetation and degradation in the province. Deforestation is caused by the unsustainable harvesting of timber and non-timber forest products, over-grazing, forest fire and encroachment. Other environmental challenges present in the district include ongoing land degradation (linked with deforestation and forest degradation) and soil erosion. Such trends lead to landslides, sedimentation and river bank cutting. It was further noted that the mining of riverbed materials is also problematic. While many people are aware of the negative ongoing environmental trends, it was noted that because of poverty and the lack of alternate livelihood opportunities within the province that many people are dependent on forests and agricultural lands to maintain their livelihoods. They further mentioned that there is no sustainable forest product supply system, and thus no alternative for communities. In terms of forest fires, it was noted that most fires are caused by negligence or by intentional fires for encroachment and grazing that become out of control.

Participants noted that drought in the winter (dry) season is a major issue for many communities, stating that may communities may even suffer from a lack of drinking water during this time. They have further noted declining ecosystem health and biodiversity, increased water stress, reduced land productivity and an increase in natural disasters (flooding, droughts, sedimentation, shifting water courses, river bank cutting and desertification within riparian areas). They noted the issues on these trends not only have major impacts on human settlements, but are also causing losses in agricultural productivity.

Participants agreed that the project is important for supporting climate-resilient and improved land use practices in the district. Many participants were particularly interested in measures aimed at soil and water conservation, forest management and reforestation (especially to restore forest cover in the Churia hills), plantation development, land rehabilitation, climate-resilient livestock practices (including agroforestry and pasture management), and climate-resilient agricultural practices. Examples of successful land rehabilitation practices were discussed, as well as successful experiences in micro-catchment protection, stream bank protection and bio-engineering. Participants discussed the importance of linking upstream-midstream and downstream management (promoting an integrated management approach).

Beyond direct interventions the importance of capacity building of local authorities and local people was highlighted as critical to support the scaling up and implementation of such activities. It was further discussed that interventions should also find a way to engage women, poor households, indigenous peoples and other marginalized groups.

1. *Photo from Itahari Workshop*

2. *Photo from Itahari Workshop*

LIST OF PARTICIPANTS

Meeting Description: Consultation meeting with Key Stakeholders of Ilam + Jhapa + Sunsari Morang + Saptari

Location: Hotel Patkibhara, Ithari, Sunsari

Date & Time: 20th December 2017 / 10.00 AM TO 4 PM.

#	Name	Organization
1	[illegible]	[illegible]
2	सुरत लाल चौधरी	[illegible]
3	[illegible]	[illegible]
4	गोविन्द प्रसाद [illegible]	[illegible]
5	विष्णु ब. मण्डारी	जिल्ला वन कार्यालय, सप्तरी
6	राजकुमार चौधरी	[illegible]
7	प्रेमराज घिमिरे	नेफिन (NEFIN)
8	अखिलेश कु. साह	[illegible] विराटनगर
9	[illegible]	[illegible]
10	डा. विनोद प्रसाद देवकोटा	जिल्ला वन कार्यालय मोरङ

LIST OF PARTICIPANTS

Meeting Description: Consultation Meeting with Key Stakeholders of Ilam + Jhapa + Sunsari Morang + Saptari

Location: Hotel Pokhbara, Itahari, Sunsari

Date & Time: 20th Dec, 2017, 10 A.M. to 4 pm.

#	Name	Organization
21	Renuka Adhikari	Freelancer
22	RASHMIRA PRADA NEPADULA	D F O SUNSARI
23	Usha Khatiwada	[illegible]
24	Krishna pd Bhattarai	Dh. S. O Jhapa
25	Anjana Pudi	D.F.O, Jhapa
26	Dhruba Kanal	Dalit Samanya Samiti, Jhapa
27	Mana Raj Rai	DFO, Sunsari
28	Uttam pasuwa	Dalit Samaj Bikas Mandal
29	[illegible]	[illegible]
30	Ritesh Bhushan Baral	DFO, ILAM

LIST OF PARTICIPANTS

Meeting Description: Consultation meeting with key stakeholders of Ilam + Jhapa + Sunsari morang + Saptari

Location: Hotel Pallibhang, Dharan, Sunsari

Date & Time: 20th Dec, 2017,

#	Name	Organization
11.	[illegible]	[illegible]
12	[illegible]	[illegible]
13	राजेश पौडे	जि०प०से०का० [illegible]
14	[illegible]	जि०प०से०का० इलाम
15	मनोज कुमार यादव	जि०कृ०वि०कार्यालय मोरङ
16	बालकुमार परियार	नेपाल दलित वर्ग
17	दिपेन्द्र उरांव	अखिलो जनजाति
18	[illegible]	- " - " -
19	प्रविण कुमार [illegible]	जिरमु संस्था [illegible]
20	इन्द्र कुमार [illegible]	[illegible] महासंघ (Ilam) NEFIN

LIST OF PARTICIPANTS

Meeting Description: Consultation meeting with Key stakeholders of Ilam + Jhapa + Sunsari + morang + Saptari

Location: Hotel Patkibhar, Itahari, Sunsari

Date & Time: 20th Dec, 2017, 10Am to 4pm

#	Name	Organization
31	Niraj Pd. Dahal	P.C.T.M.C.D.B.
32	Bhagirath Yadav	DADO, Saptari
33	Kajiraj Khatri	D.L.S.O Ilam
34	Yogendra Bahadur Chaung	Belbari chasang, Sajedai Bani
35	gunsman Tamang	NEFIN. Sunsa
36	Ashok K. Singh	DLSO, Saptari
37	TOKB Tamang	FECOFUN
38	Arjun Dhakal	Project development
39	Ramu Gautami	Project Development
40	Ishwor Neupane	Project development
41	Ashwin Dhakal	Project development
42	Jibon Pandel	Project development

9.6.2 Regional Workshop No. 2- Siraha

Stakeholder workshop on Project Formulation Process for GCF with key stakeholders of Five Districts (Sarlahi, Siraha, Mohattari, Dhanusha, Udayapur)

Date : December 24, 2017
Venue: Hotel Shimrik, Lahan, Siraha
Time : 8:30 am -15:30 pm (7 hours)

Meeting Attendees: *(see attached list)*

Meeting Schedule:

1. Presentation of project proposal to be submitted to GCF
2. District wise discussion and presentation
3. Perspectives on the project and recommendations for its feasibility

Meeting Summary:

1. Udayapur Districts

The district is heterogeneous in terms of caste/ethnic groups. The major ethnic groups are Magar, Rai, Tharu, Danuwar, Majhi, Bote, Sherpa, Tamang and Sunuwar, but Brahmin, Chhetri, Dalits and Madhesi and Muslim also reside in the district. Majhi, Bote, Tharu, Mushar and Danuwar reside nearby the Triyuga River, Jogidaha and Tawa Khola. The main sources of livelihood include farming, livestock keeping and remittance. In addition, selling of forest products, collection and selling of sand, soil and stone, selling of bamboo, goat and turmeric are other livelihood sources. Flooding, landslide and soil erosion, along with human-wildlife conflicts (especially elephants), forest fires, storms, hail and earthquakes are major issues of the district. Respondents stated that the impact of climate change can be seen in the increase of erratic rainfall (flood and drought), hail, thunder, lighting, harmful insects and water scarcity, reduced productivity of crops and fodders, increased sterility in livestock, and expansion of banmara (Asteraceae species) in forest areas. The four major watersheds in Udhayapur are Triyuga watershed, including Baruwa, Kanga, Hadiya, Shiwai and Danuwar Khola, upper part of the Balan River, eastern part of the Gideri River, and Tawarkhola and Baidyakhola watershed located in the western part of the district.

Participants noted several drivers of Churia degradation such as rapid population growth, encroachment, unmanaged settlements, unemployment, open grazing, forest fires, increasing events of floods and droughts and landslides connected with rural road construction, locally termed 'Destroy of land in the Name of Development.' For the management of Churia region, it was noted that plantation of trees and scientific management of forest are required. A strong linkage must also be made between forest and farming systems. Participants raised the need to plant bamboo and broom grasses on the bank of rivers and rivulets, implement suitable policies and programs, plan settlements, preserve water sources, control landslides and seasonal flooding, control river banks, promote small irrigation systems, restrict open grazing and develop infrastructure to conserve the region. Barriers facing conservation efforts include the lack of effective state policies and programs to bring landless people in the mainstream and the lack of training and awareness programs to support local and youth unemployment. Participants voiced the need to provide skill and capacity development trainings, apply scientific management of settlement, emphasize quality of education, and make linkage with financial institutions.

Proposed strategies to promote local livelihoods include horticulture and vegetable farming, improved livestock farming (goats, chickens, pigs, cows, and buffalo), bamboo and boom grass plantations, turmeric production, promotion of lease farming and the implementation of livestock and crop insurance. Horticulture opportunities include cultivating turmeric, mango, lychee, jackfruit, banana and papaya. Establishing milk collection centres, goat and chicken collection and selling centres and producing handicrafts from sal, bhorla and bamboo plants was also raised as possible livelihood enhancement opportunities. However, support through skill development training and programs, strengthened cooperatives, increased access and connection to capital, markets and roads and access to credit facilities and loans is required. Participants stressed that local groups (CFUGs, LSG, Farmer Groups, Water User group, etc), community based organizations, local government, Line agencies, NGOs/INGOs, private sectors, and other concerned organizations need to play a role in both conservation and livelihood development activities and initiatives.

2. Siraha district

The major caste and ethnic groups in the district are Tharu, Tarai caste groups (Yadav, Shah, Mahato etc.), Magar, Dalits, Brahmin and Chhetri. Rai, Limbu, Magar, Tamang, Gurung, Lama are the groups mainly living within the Churia area. Due to climate change, participants note that sources of water are gradually drying up and time needed to fetch water has increased. Likewise, villagers cannot get forest products like timber, fodder, firewood as quickly as before and experience increased time poverty. Participants aslso reported that events of drought and heavy rainfall have increased, temperature has increased, productivity of cereal crops like paddy has reduced, availability of fodder, timber, grasses and leaf-litter has declined, biodiversity has declined, and cases of disease in humans, livestock and crops has increased. Participants reported that major natural disasters in the district in the last 10 years have been landslides, earthquakes, uncontrolled forest fires (in 2072/73), and also drought and flood. It is noted that Balan, Ghurmi, Bataha, Khuti, Gagan, Kamala, Sarre are the more vulnerable location and hot spots in the district in terms of climate change.

Participants noted many challenges facing the Churia region including unplanned settlement, migration, poverty, unemployment, open grazing of livestock, illegal harvesting of forest resources, deforestation, encroachment, lack of water resources, lack of irrigation facilities, forest fires, uncontrolled mining of rivers, unplanned construction of road in Churia forests, increased forest based industries (brick factories, saw mills) and crusher plants, unintended political intervention, and the growing of small plants in the forest. Main barriers to conservation efforts include unemployment, illiteracy, lack of skill knowledge, threat of wild life, loss of human life due to forest fire, flooding and its impact on livelihood, lack of road connectivity. For the protection and preservation of Churia region, the participants saw several options including the control of illegal harvesting of forest products, planned grazing, planned settlement and control of mining in the rivers. To manage the Churia region, CFs should be oriented toward Churia conservation, the keeping of improved hybrid livestock and scientific farming systems should be promoted, and alternative sources of energy for cooking should be provided. For successful management of the Churia region, policy reform is also required and participants noted that the Churia can only be protected and preserved after relocating Churia settlements. In other word, the government should include the principle 'Churia without settlement' in their policies. Likewise, the participants saw reform in social practices, scientific utilization of land and improvement of economic life as also required for effective conservation.

In terms of livelihood improvement, participants noted opportunities in livestock keeping, fisheries, commercial farming of cash and cereal crops, bee keeping, horticulture plantations like mango plantations, poultry farming, and plantation of NTFPs like satawari, harro, barro, amala, and wild onion. There are also possibilities for the dairy industry, cold store, juice factories (bel and mango), processing of fishes and meat, processing of NTFPs and eco-tourism. For these activities, support in the form of awareness raising training as well as subsidies in different business, soft loans, transformation of technology, distribution of improved and high yielding varieties of seeds, promotion of irrigation facilities and insurance of livestock and crops will be needed. Issues regarding accessing good market prices for agricultural products must also be addressed to ensure equal benefits to farmers. It was noted that there is high opportunity for local expansion of local product but the improvement of local markets is needed to reduce local poverty. Participants identified local political parties, civil society, representatives of the local government and journalist as important stakeholders while stressing the need for participation of Janajati, women and poor in Churia management through awareness training related to forest management.

3. Sarlahi District

The Churia region of this district is inhabitant by Tamang, Magar, Newar, Danuwar, Majhi, Bhamin and Chherit and Dalits. In other parts of the district, Tarai caste groups, Dalits, and Musalman are found. Women and Dalits are more vulnerable groups in the Churia region due to the scarcity of water resource as well as their dependence on natural resources for their livelihood. The main sources of livelihood of the people in Sarlahi are agriculture, livestock, wage labour, NTFPs and illegal harvesting of forest products and mining. The main watershed areas of the district are the Bankekhola, Kalinjor, Jhim/Phuljor, Lakhandehi, Gorahi and Bagamati. Respondents reported experiencing climate change through declining water sources, groundwater level and agricultural productivity, more days of heavy rain and no rain and increasing out-migration rates. It is reported that the Lakhandehi River is the more vulnerable place of the district. Last year, 8 people lost their lives due to summer flooding and villagers annually lose more than a hundred bighas of cultivated land due to the flooding of Lakhandevi River. Other vulnerable areas include the Jhim Khola, the Bagmati River which highly affects Mushar and Jajanati, Narayan and Pattarkot VDCs and low land areas located in the south of Churia.

The main issues the Churia region face in this district are illegal harvesting of forest products, encroachment, open grazing, forest fires, unplanned settlement and farming, uncontrolled mining, construction of rural road without engineering, growing population in Churia region and poverty. In order to address these issues, participants stress the necessity for planned settlements, livelihood or Income Generating programs (IGP), integrated forest and watershed management and implementation of land use policies. Participants believe the preservation of the watershed is the basis of conservation success and that proper land use, livelihood improvement, plantation of trees on river banks, construction of ponds, support of community forestry and promotion of stall feeding for livestock can play a vital role to preserve the Churia region. Respondents noted that for the protection of the Churia region, it is required to declare Churia region as protected area and to strictly implement land use policies. Local users, line agencies (e.g. District Forest Office, DSCO, DADO, DLO), CFUGs, and the local government must be involved in all conservation efforts. Barriers that these conservation efforts face include the lack of land certificates, poverty, lack of awareness, poor transportation, flooding, landslides and earthquake.

In terms of livelihood improvement, there is opportunity for horticulture activities and the growing of citrus, guava, mango, pineapple and pomegranate, fisheries, vegetable farming, bee keeping, livestock

keeping and organic farming. Opportunities to farm maize, paddy, wheat, millet, turmeric, ginger and green vegetables along with harvesting NTFPs (medicinal plants), broom grasses, bamboo and its shoot and babiyo also exist. In addition, there are also possibilities for different agro-based industries like tomato processing industry, paper industry, bee keeping, saint stick industry and leaf-plate industry. Support in terms of empowerment and technical training, implementation of integrated activities and IGAs, linkages and access to markets and subsidies in fodder and health services were requested.

4. Dhanusha District

The district is comprised of Tamang, Managar, Majhi, Rai, Brahmin, Chhetri, Dalits and Tarai caste groups, with Dalits and Musalman being the main caste and ethnic groups. Women, Dalits and indigenous people are especially vulnerable in this region. The main sources of livelihood in the district are farming and livestock keeping, collection of forest products, small businesses (hotel, dairy, leaf-plate industry, mushroom farming, saint stick industries etc.), commercial farming of NTFPs and horticulture, and fisheries. Charnath-Chhetra, Aurohi-Chhetra, Rato-khola, Badhari-Khola, Kamala River are the main watershed areas of the district. The main natural disasters facing the district are flooding, landslide/soil erosion and drought. Several impacts of climate change on everyday lives of the people were noted including changing rainfall patterns, increased hot days in the summer, increased cold days in the winter, appearance of new diseases, reduced cultivated land and productivity, increased barren land, increased hopelessness among farmers and increased sterility in livestock. Water sources are also drying up, ground water levels are declining, and agricultural productivity and quality of products is declining. Proposed climate change coping strategies included providing subsidy or economic support for improved livestock keeping, improving crop seeds, fertilizers and fodder seeds, introducing new technologies and arranging trainings, workshops and seminars. Participants identified the vulnerable hotspots of the district as the Kamala River area, Aurohi-Chhetra, the Rato-Khola, the Badahari Khola, the Baluwa Khola, the Basadi Khola and the Jalad River. The main problems in the Kamala River areas are soil erosion and landslide whereas flooding in other areas.

Participants from Dhanusa district reported several reasons for Churia degradation including illegal harvesting of forest products, open grazing, forest fires, practices of slash and burning, encroachment and lack of awareness among the local people. It was noted that soil erosion and landslides have been widely seen in the Churia region due to uncontrolled mining, deforestation, haphazard establishment of the crusher industry, unplanned expansion of transmission line through the Churia region, lack of land use policy implementation and weak government agency monitoring. Major barriers to conservation efforts include the converting of cultivated land into sand covered land (bagar). The dryin up of existing sources or water springs has also led to a lack of drinking and irrigating water and the destruction of crops by wildlife (e.g. monkeys, Nilgai (wild cow), elephants, Bandel and birds), challenging livelihoods and further straining conservation efforts.

For the conservation of the Churia region, participants raised several recommendations such as developing green belt through the involvement of CF, establishing good relations between upstream and downstream communities and promoting of NTFP (kurilo, sitanel, Amala, Bel) cultivation and horticulture, especially mango farming. In terms of livelihood improvement, suggestions of promoting fisheries through pond construction along river banks, constructing reservoir ponds and check dams in the rivers systems, enhancing tourism, establishing leaf-plate and bamboo related industries, promoting improved livestock varieties and poultry farming, making broom-grass products and emphasizing NTFP plantations were

raised. It was noted that there are also possibilities for the production of cereal crops (paddy, wheat, millet, maize), lentils, beans, oil seeds, potato, tomato, fruits, NTFPs, betbansh, bel and amala, harro, barro and broom grass in the district. In addition there are some processing centers for agro-products (e.g. Kurilo processing center is located in Mithila Municipality, Siraronel Processing center and Fruits Processing center in Dhalkebar) that can be further developed. Respondents see the key stakeholder to be forest depended communities, community forest user groups, local people, local government, NGOs, CBOs, clubs and government line agencies.

5. Mohattari District

The district is comprised of two major ethnicities, Madheshi and Pahadi, but is home to many casts including Koiri, Yadav, Muslim, Bhumihar, Tamang, Vote, Magar, Bahun, Chhetri, Newar, Majhi, Sudi, Teli, Kanu, Kalwar, Nuniya, Badi, Mushar, Chamar, Paswan, Tharu etc. Indegnous groups present in the area include Tharu, Danuwar, Magar, Tamang, Majhi, Magar and Vote. Especially vulnerable communities were identified as Mushahar, Badi, Kami Damai, Thokar, Malah, Lohar and Veriyar. The major livelihood sources for district households are agriculture and livestock husbandry, local businesses, extraction of natural resources and remittance. The major natural disasters the district face earthquakes, periodic floods during the rainy season, regular forest fires, long dry seasons for agriculture, decreasing land fertility, increasing foggy periods in the low lands and high rates of disappearing NTFPs and wildlife. Participants reported feeling the effects of climate change in the altering ecosystem cycle, rising and widening river beds, increased surface run off and decreased infiltration rates, river sedimentation in agricultural lands and settlements, decreasing water table and drying up water sources, changing cropping and breading seasons, and increasing habitat loss and related changes in wildlife behaviour. The effects of climate change have also influenced the communities through decreasing per capital agricultural income leading to the changing of professions, increasing out-migration rates and dependence on foreign employment. Three main hotspots in terms of climate change effects and vulnerability were identified as:

- Ratu: Bardibas, Kisan Nagar, Pashupatinagar, Bhangaha, Singayahi, Rauja, Loharpatti, Balwa Sarpallo, Badiya Banchauri, Sadha, Bathanaha, Bakhari, Jaleshawor
- Maraha: Tuteshawor and Banke Maraha CFM, Khayarmara, Piple Kharka, Budhuwa Kholsi, Gaushala, Belgachhi, Nigaul, Fulkaha, Raghunathpur, Khayarbani, kheshraha
- Banke: Khayarmara, Kantibajar, Parariya, Magarthana

The main issues facing the Churia range and the NRM sector were noted to include over exploitation, unplanned urbanization and cultivation, decreasing soil fertility and ecosystem functions, agricultural labour shortage, illegal markets, haphazard infrastructure development, political penetration, inadequate political commitment, lacking baseline information on natural resource conditions, and the overall fragility of the Churia range due to its young geology. Other barriers that face ongoing conservation efforts include the current political transformation, overlapping and unclear roles of government line agencies and issues regarding land ownership.

To promote Churia conservation, participants recommended the construction of soil conservation measures in river and tributary systems, grass plantations, demonstration plots, reclaiming river lands through river training works and fruit plantations, building conservation ponds, constructing green roads, managing watersheds as an entire unit, promoting plantation on private lands, upgrading animal husbandry, conducting irrigation projects and establishing collection centres for agricultural goods. Through

these activities, co-benefits of revised policies, improved technical strength of farmers, and improved modalities of financial support (through donors, government, banks, co-operatives) can also be achieved. Although participants noted potentially risks in terms of the changing political system, they saw ample opportunity for farm forestry, agro-forestry, stall feeding, biogas and ICS, cottage industries, fund mobilization, fruit tree cultivation, and eco-tourism and homestay development. Respondents also noted great potential for scaling up and strengthening agricultural markets in the area. Possibilities include establishing processing facilities for rice, dairy products, fish, sugarcane, bamboo and tobacco as well as cultivating mushrooms and fruits. The district also has ideal conditions for growing paddy, maize, wheat, sugarcane, establishing vegetable farming, and harvesting timber, fodder and firewood. For this, the support in the shape of agricultural loans, agricultural and livestock insurance, fertilizer and seed supply in time and at subsidy rates, irrigation networks, and technical input to both farmers and manpower were requested.

The respondents see that the key stakeholder in project activities should be governmental bodies at the federal, provincial and local levels, government line agencies, users living near the Churia region, community forests and collaborative forests, political parties, media, women's groups and other marginalized and vulnerable groups.

However, in order to achieve these interventions and conserve the Churia, support in the form of alternate local employment opportunities, scientific settlements in Churia region (e.g. Musahar Basti Bardibas), publicizing and providing alternative construction materials, cost defined programs and loan facilities without requiring guarantees is needed. Capacity building in terms of training, political and social commitments, and participation of targeted groups in the entire planning process and the embodiment of the Green Reservation Concept were also noted to be required. Participants also noted the importance of upscaling and dissemination success stories. This could be established through several strategies such as exposure visits, project replication on new sites, ensuring involvement of government line agencies throughout the planning process to allow for scaling up of governance, and providing on spot planning.

3. Photo - Lahan Workshop

Photo - Member of provincial parliament from Udayapur in workshop

SNs Consultation of Lahan

LIST OF PARTICIPANTS

Meeting Description: Consultation with key stakeholders of five districts (

Location: Hotel Simrik, Lahan. Siraha.

Date & Time: Dec 24, 2017 — 10 Am - 4Pm.

#	Name	Organization
1.	Bechan Kr. Mahato	DSCO, Mahottari
2.	DR, Jeevan Kr Singh	DLS.O Mahottari
3	Ramlala Sah	collibortion forest
4	Ram Narsh Chaudhary	D.L.S.O
5	[illegible] Chaudhary	Dhanusha
6	Rama Pandey	HIMAWANTI Nepal - Sarlahi
8	Hira lal Sharma	DFO Mahottari
9.	Ram Sewak Thakur	DADO Udayapur
10	Dr Ram Narayan Mandal	Dist. Livestock office, Udayapur
11	Ram Avtar Yadav	DADO Siraha.

Page

LIST OF PARTICIPANTS

Meeting Description: Consultation with Key stakeholders of five districts

Location: Hotel Simrik, Lahan.

Date & Time: Dec 24, 2017 10 am – 4 pm

#	.....Name	Organization
12	Ganga Pd. Yadav	DFO Siraha, Lhn
13	Chandradeo Mahato	[illegible]
14	BADRI RAJ DHUNGANA	DIST. SOIL CONSERVATION OFFICE, LH
15	Bipin Humar Jha	Dist. Soil. Cons. Officer, Dhanusha
16	Rekha [illegible]	[illegible]
17	Manoj Ku.	[illegible] (WAN)
18	Rameshwar Pandit	[illegible]
19	Dipak Jung Thapa	Mithila Munci pality
20	Somprasad Sharma	Federal
21	Shyamlal Mahto	FECTUN

Page

LIST OF PARTICIPANTS

Meeting Description: Consultation workshop with key stakeholders of five district (Udayapur + Sarlahi + Mahottari + Dhanusha + Siraha)

Location: Hotel Amari, Lalitpur

Date & Time: December 2017, 10 am

#	Name	Organization
22	Kumar Ghimire	FECOFUN
23	Sunil Kumar Singh	DFO Siraha
24	Rajendra Pd. Yadav	DSCO, Sarlahi
25	Naresh Thakur	DFO, Sarlahi
26	Ashok Kumar Jha	D.F.O. Dhanusha
27	Keshab Bahadur Magar	Nepal Udayapur
28	Babu Dev Jha	DFO, Udayapur
29	Birendra Chaudhary	FECOFUN Siraha
30	Anita Chaudhary	Bakanmai CFUG Tarogna
31	[illegible]	[illegible]

LIST OF PARTICIPANTS

Meeting Description: Constitution of five districts

Location: Hotel Sinnie, Lahan, Siraha

Date & Time: Dec 24, 2017 10 am – 4 pm

#	Name	Organization
32	प्रदीप दास	दलित
33	[illegible]	NFA
34	[illegible]	A.D.O
35	महेश कुमार चौधरी	J.T
36	[illegible]	CFUG Mohith
37	[illegible]	CFUG Pokhariya Dhanusa
38	दुर्गानन्द चौधरी	[illegible] महासंघ सिरहा, लालबन्दी

Pa

LIST OF PARTICIPANTS

Meeting Description: Consultation with key stakeholders of four districts

Location: Hotel Singhsin Lalan Sin

Date & Time: Dec 2017 10 am - 4 pm

#	Name	Organization
39.	DR Jeevan kr. Singh	DLSO Mahottari
40.	Bechan Kr. Mahato	DSCO, Mahottari
41.	Badri Raj Dhungana	DSCO, Udayapur
42.	[illegible] Chaudhary	D.I.S.O Dhanusha
43.	Chandra Dev Mahato	[illegible]
44.	[illegible]	[illegible]
45.	Bipin Kumar Jha	Dist Soil Cons. Office Dhanusha
46.	Arjun Oleu	Project development Team
47.	Ram Subodi	Project development Team
48.	Dgho [illegible]	Project development Team
49.	Dizu Pande	Project development Team
50.	Ashwin Thu	Project [illegible]

9.7 Local Consultations

9.7.1 Consultation with Lepcha/ Rong Indigenous Community in Mechi River Watershed

Location: Shree Antu, Ilam

Date: December 21, 2017

Time: 9 am-11 am

Meeting Attendees: *(see attached list)*

Agenda:

- Presentation of proposed GCF project by the project development team
- Discussion on the proposed GCF project, including the provision of feedback and recommendations by meeting participants

Meeting Summary:

Lepcha are the one of the traditional habitants of the Mechi River watershed. They identify themselves as 'Rong' rather than Lepcha. Their ancestors have lived in the area since before the unification of modern Nepal. The territory from Kanchajanga in North and foothill of hill between the Tista River in the east and the Mai River in west are considered the traditional homeland of Lepcha people. Even today, names of many places are derived from Lepcha language like Antu, (derived from Athu meaning high-hill), Samalbung (samal and bung meaning tuni (*Meliacea*) and plant, tuni-plant). Currently, the government of Nepal has honored Lepcha people by naming to a local political unit as Rong Gaunpalika (Rural Municipality).

The total population of Lepcha in Nepal is about 3,665 in which 3,065 are in Ilam district alone. They are largely involved in agriculture for livelihood and a tiny number in teaching and police/armed force. The people have closed attachment with natural resources, including forests and stone. Their ancestors would believe that selling of trees, stone and soil is a sinful act. Even today, many households refuse to sell natural resources such as trees and stones for income.

Impact of climate change on local livelihoods

Participants have noticed an increase in temperature and increased uncertainty of rainfall, which has brought some opportunities to them like being able to grow *akabare* khorsani (a local variety of chili) and orange in high land which would not in the past. However, they are more vulnerable due to climate change because their livelihood is embedded with agriculture which is in risk. Water resource has been declined. Due to change in climatic calendar, other communities are also affected as Lepcha do. Except other neighboring community, Lepcha are highly depended on farming for livelihood. They noted, therefore, the risk is higher to them. The Lepcha people have shifted their planting period beyond than the idea period i.e., from *Fagun* (mid-February to mid-March) to *Chaita & Baishak* (mid-March to April).

It was noted that Lepcha are highly vulnerable to climate change for various reasons:

- They are highly dependent on natural resources such as forest and agriculture, two sectors that are highly vulnerable to climate change due to erratic rainfall and extreme weather.
- Majority of Lepcha people are small landholder farmers (less than 5 Ropani), where farming is their main occupation. Tea is the major cash crop in their farms.
- Majority of Lepcha people are illiterate
- There is limited understanding of climate change and associated risks in the community
- Decline of tealeaf/ shoots due to prolonged drought and heavy rainfalls that negatively impact their income and livelihoods.
- Community has noticed increased landslide events due to increased heavy rainfall.
- Water scarcity, especially in the winter, was noted as a major challenge for this community. They noted a lack of clean drinking water for household consumption and insufficient water for agricultural production in the dry season. With climate change, water scarcity will become an increasing challenge for the Lepcha peoples, and they will become increasingly vulnerable and impacted by climate change if they do not adopt climate-resilient and proactive land use practices.

Agricultural Coping Strategies

Today most of the community maintains their income through agriculture and forestry activities. Both male and females carry out agricultural tasks in the community. Both men and women are involved in tea farming, managing livestock like collecting fodder and ground grasses and cleaning livestock stalls/ sheds. Women are also responsible for household activities like cooking, cleaning, caring of children and old people, whereas men are more involved in commercialization and marketing of crops. It was noted that most of Lepcha women do not have ownership of land. Likewise, they have limited opportunities to access training and education.

The following are ongoing livelihood trends in the community:

- Currently started to grow cardamom (PakheAlaichi), following decline of traditional varieties of cardamom due to diseases.
- Shifting from traditionally grown cereal crops i.e., maize, paddy, millet to cash crops like tea, cardamom, orange, chili, broom-grass etc.
- Tea is the major crop of the locals. The tea varieties grown are: 78, 83 and Gumti. Because of high price Rs 65/kg leaf against Rs 35/kg for non- organic, organic tea production is becoming increasingly popular. However, it requires technical support and cash subsidies to sustain livelihoods in the long run as organic production results in lower production with higher costs.
- Community members have started raising improved varieties of cattle through stall feeding. Participants noted that this has improved forested areas in the surrounding forested areas.
- The community also expressed interest in ecotourism noting attractions such as the hilltop and lake within the community, but noted that connectivity and service provision within the community would need to be enhanced. They further noted the potential to promote cultural tourism that conserves and shares the culture of the Lepcha people.

Community Forestry and Private Forests

It was highlighted that forests coverage and health have improved over the last few decades. This is largely due to: i) the government transferring rights to the local community for community forestry, and ii) community efforts to stop open grazing of livestock and transitioning to stall feeding. Participants noted that most of the surrounding forests are now under community management as community forests, which are better protected and managed than before. They further added that the Churia landscape in their locality is also better protected due to the community forestry approach, and since most of the Lepcha households in their community are members of the community forests. CFUGs have prepared an operational plan (forest management plan) and conduct various forest protection measures, as well as sustainable harvesting and management activities that have helped to protect the Churia landscape. No significant deforestation, illegal logging, landslides and forest fires have been observed within their forest in recent years.

Additionally, local people have planted broadleaf trees like Utish (*Alnus nepalensis*) and Chilaune (*Schima wallichii*) in their farmland that has also helped to stabilize the landscape. Selling of logs (timber) from private land is one of the major sources of income of local people and there is a possibility of establishing forest based enterprises such as furniture and veneer in the areas but needs a supportive policy regime to facilitate the establishment of a forest based enterprise.

Participants stated that community forestry and private forestry is the effective approach to maintain greenery in the hills and protect the Churia region from landslides, while also supporting the livelihoods of local people.

Recommendations

The community is very interested in sustainable interventions and technical supports to enhance the production and income from farming which would help improve their livelihoods. The community was very interested in the proposed project, and noted that it is well aligned with their local context, priorities and interests. They further stressed the importance to link project activities to livelihood strengthening, and stressed the importance of technical support not only for improving production and land use practices, but also to strengthen the link with sustainable value chains (e.g. providing marketing support).

Meeting with community leader in Mechi Watershed

Meeting with indigenous peoples in Mechi Watershed

Mechi River
Lepcha

LIST OF PARTICIPANTS

Meeting Description: Consultation with Indigious Community Representative. Lepcha Community (FDG)

Location: Shree Antu, Mechi Watershed, Ilam.

Date & Time: Dec 21, 2017, 9 am

#	Name	Organization
1.	Urmeth K. Lepcha	Lepcha Community
2.	Memuka lepcha	"
3.	Suren Lepcha	"
4.	Sundar Lepcha	"
5.	Chandra Maya Lepcha	"
6.	Bir Bahadur Lepcha	"
7.	Nandu Bdr Gurung	Indigious
8.	Bal Kumari Lepcha	"
9.	Pratika Lepchaj	"
10	Jiban Baudel	Project Devel Team
11.	Arjun Dhakal	Project Devel Team

9.7.2 Consultation with FECOFUN and Local Community Forest Users Group in Sree Antu, Ilam

Location: Shree Antu, Ilam

Date: December 21, 2017

Time: 10 am

Meeting Attendees: *(see attached list)*

Agenda:

- Presentation of proposed GCF project by the project development team
- Discussion on the proposed GCF project, including the provision of feedback and recommendations by meeting participants

Meeting Summary:

Respondents highlighted that forest coverage as well health have improved over the last few decades. They pointed to two reasons for this trend: i) the handing over of government forests to local communities for community forestry purposes and ii) the ending of open grazing of livestock and beginning of stall feeding to livestock. Participants noted that most of the forests are now under community forest management, which are better protected and managed. They further added that the Churia landscape in their locality is better protected due to the community forestry approach, and that most of the Lepcha households are members of the community forests. Community forest users groups have prepared operational plans (forest management plans) and conduct various forest protection, harvesting and management activities that have further helped to protect the Churia landscape. No significant deforestation, illegal logging, landslides and forest fires have been observed in this location in recent years.

Additionally, the local people have planted broadleaf trees like Utish (*Alnus nepalensis*) and Chilaune (*Schima wallichii*) in their farmland to help stabilize the landscape. Log (timber) sales from private land is one of the major sources of income for local people, prompting participants to note the possibility of establishing forest based enterprises such as furniture and veneer in the areas.

Participants voiced the opinion that the continued establishment and support of community forestry and private forestry can be an effective approach to maintaining greenery in the hills, protecting the Churia from landslides, and raising the income of local people.

Meeting with FECOFUN representatives and local leaders in Danabari, Ilam

Mechi River

LIST OF PARTICIPANTS

Meeting Description: Focal Group Discussion with FECOFUN (Forest User Group)

Location: Shree Antu, Ilam, Mechi Watershed.

Date & Time: December 21, 2017 10 am

#	Name	Organization
1.	जीत हिमिरे	
2	प्रदियम दकल	
3	राम प्र० हिमिरे	
4	राम प्र० दकाल	
5	कृष्ण हिमिरे	
6	रवेन्द्र हिमिरे	
7	देवी हिमिरे	
8.	Ramu subed	Project Development Team
9.	Ishwor Neupane	Project Development Team
10.	Ashwin Shakya	Project Development Team

9.7.3 Consultation with Community Forestry Group in Bakrarha Watershed, Morang

Location: Kerabari, Morang

Date: December 21, 2017

Time: 16:00

Meeting Attendees: *(see attached list)*

Agenda:

- Presentation of proposed GCF project by the project development team
- Discussion on the proposed GCF project, including the provision of feedback and recommendations by meeting participants.

Meeting Summary:

The project development team shared the proposed project and requested feedback and suggestions from meeting attendees. The participants briefly explained the major activities carried out by the community forest user group and noted that the forest is an essential resource, as some of the local people depend on it for their livelihoods. Participants stressed that the areas of the Churia landscape falling under the management of community forest user groups are well conserved, compared to those areas without community forestry user groups. In these areas where the Churia is not under community forestry protection, the landscape is undergoing continuous degradation due to landslides, encroachment, illegal harvesting of forest products, forest fires and open grazing. In addition, respondents added that drought, erratic rainfall, flooding and riverbank cutting are increasing in recent years in their location.

Recommendations

Respondents suggested that construction of embankments is urgently required to stop riverbank degradation, and to protect settlements and agriculture fields. The participants highlighted that the community forestry approach is effective in managing forest resources in Nepal and thus, should be adopted and integrated into the proposed project. They further suggested that plantations on private land should be promoted to reduce forest product dependency in community forest. In addition, they showed high interest in potential project components that would invest in skills development training and forest based income generation activity trainings within local communities, particularly those targeting the poor.

Photo of discussions while walking in Bakraha Khola watershed

Photo of deposition of large sediments in Bakraha Khola watershed

Consultation with community forestry group in Bakraha Khola watershed

Bakraha River

LIST OF PARTICIPANTS

Meeting Description: Consultation with the Community forest user group

Location: Kirabari NP, Morang, Bakraha Watershed

Date & Time: Dec 21, 2012 4 PM.

#	Name	Organization
1	[illegible]	CF
2	[illegible]	CF
3	[illegible]	"
4	[illegible]	"
5	[illegible]	"
6	[illegible]	"
7	[illegible]	"
8	[illegible]	"
9	[illegible]	"
10	[illegible]	

10. Ishwor Nepal

9.7.4 Consultation with Local Tourism Promoters in the Mechi River Watershed

Location: Shree Antu, Ilam

Date: December 21, 2017

Time: 11.30 am

Meeting Attendees: *(see attached list)*

Project Development Team

1. Ishwor Neupane

Agenda:

- Presentation of proposed GCF project by the project development team
- Discussion on the proposed GCF project, including the provision of feedback and recommendations by meeting participants.

Meeting Summary:

Eco-tourism is considered an opportunity for income generation and livelihood improvement in the community. Sri Antu hill top has long been a destination for local and international tourists, due to a number of attractions including sunrise views from the Sri Antu hill tower, Sri Antu Lake, natural panoramic views, tranquility and recently established home stay facilities.

Recommendations

In order to capitalize on the eco-tourism potential of the area, and thus create incentives and methods for Churia conservation, participants suggested that project components somehow work on the following infrastructure and facilities improvements:

- Road from Mechi Highway to Sri Antu hill (about 10 km) including lighting
- Further home stay facilities in the area

Through the promotion of eco-tourism within the proposed project, respondents also noted that the local culture and traditions of Lepcha communities can be conserved.

LIST OF PARTICIPANTS

Meeting Description: Consultation with Local Tourism promotors.

Location: _____

Date & Time: _____

#	Name	Organization
1.	Krishna Giri	Local Participant
2.	Binod Shah	
3.	Umesh Sharma	
4.	Bhola Chaudhari	
5.	Amit Mishra	
6.	Dipak Acharya	

9.7.5 Consultation with Womens Group in Bhakraha Watershed, Karabari, Morong

Location: Kerabari, TheBakraha River Watershed, Jhapa

Date: December 22, 2017

Time: 14:00-16:00

Meeting Attendees: *(see attached list)*

Agenda:

- Presentation of proposed GCF project by the project development team
- Discussion on the proposed GCF project, including the provision of feedback and recommendations by meeting participants.

Meeting Summary:

Agriculture supports majority of local livelihoods in the community. Paddy, maize, oil seed and *dalhan* (pulse) are the main cereal crops in the area. Both men and women are involved in farming activities. It was stated that women did not plough the land in the past, but increasingly women are involved in land preparation activities. At the household level, men play a major role in decision making, however women´s role in decision making has been increased due to political changes, government initiatives and NGOs.

A few household are involved in off-farm labor. Migration to urban centers and foreign countries for employment is also main source of income for many households in the region.

It was noted that women often receive lower wage rates for the same work as men. For example, a woman gets 400-500 NPR wage per day where as a man gets 800 NPR for the same tasks. Likewise, men's involvement in cash earning activities like business and cash crops is higher than women, and women are more often engaged in unpaid labor.

Women see the potential to improve their livelihoods through poultry farming, weaving trainings, small animal keeping (pig keeping for Janajati and Dalits, goat keeping for all households) in which loans, small grants, and trainings were identified as essential support required by women to adopt alternative livelihood strategies. It was informed that women's have control over activities related to poultry farming, weaving and small animal keeping.

In the area, villagers also keep local varieties of livestock like goats, cows, and buffalos, among others on. They see this as a barrier, as they believe their livelihoods could be strengthened through the adoption of improved or hybrid breeds, or improved livestock management practices. There was substantial interest of respondents to promote investments in resilient livestock practices, given women’s core role in raising small-animals such as pigs and goats.

It was noted that there are two main barriers for women within the community: i) the persisting patriarchal value system, and ii) lack of land ownership by women. The patriarchal value system limits them to go into the public domain, and often women may not be able to develop any business without permission of male household members. The lack of land certificate further limits women to develop businesses or invest in improved land use practices as they cannot

access loans or register their business since they often lack land certificates (often only registered by a man). They cannot get loan and cannot register their business due to lack of land certificate.

Kamal, living with switching cloth at Kerabari, had received cloth switching training in 2007. She developed a business as an alternative source of livelihood to support her household. She went several times to Office of Cottages and Small Industry for the registration of her business. However, she was unable to register her business because she did not have a land certificate in her name. Due to the lack of land certificate, she could/cannot access a loan from the government or a private bank. Therefore, she had forced to visit a savings and credit office to receive loan where the interest was much higher than bank.

Causes of Churia deforestation and its impact on Women's lives

It is noted that unsustainable management and illegal harvesting are the main causes of deforestation of Churia region. Many people are not aware of the impacts of deforestation nor alternatives to reduce deforestation. Deforestation has differently affected to men and women in Kerabari. Women see its impact on water, fodder and firewood because they are largely involved in household activities (e.g. feeding their family). Women are often responsible for the collection of such resources, and thus are observant to changes in the quality and overall availability of such resources. For instance, respondents stated that over the last 10 years, they used to collect a load of dried firewood within 5-10 minutes, but now it takes more than 3 hours given the deteriorated quality of forests surrounding their community. They used to collect 3 to 4 loads of grasses from the forest in the morning which is no longer possible given land degradation.

Respondents further noted that many water springs are in decline or entirely dried up due to landslides as a result of deforestation and extreme weather events. Population growth and increased water consumption were also identified as threats for water security within the area. In the past, there were 255 households in Kerabari Bazaar and its surrounding, but now there are around 500 households.

Livelihood support program for women

There was a general interest in the project, noting that the project addresses important issues in the Churia region such as deforestation and climate-induced natural disasters, and land degradation. There was especially interest from participants on measures related to horticulture (especially mango, banana and turmeric cultivation), livestock raising (pigs, goats and poultry), and training on good practices for agriculture and livestock.

Nonetheless, women noted that a major obstacle is the patriarchal value system rooted within society. One participant noted that without any positive support from one´s husband “how can a woman uplift her livelihood”? It was thus noted that this is a major barrier for women, and that GESI trainings should be conducted also for men to encourage them to be supportive of women.

Meeting with Womens group in Bhakraha watershed

Bakraha River

Women

LIST OF PARTICIPANTS

Meeting Description: ~~Ratuwa~~ Bakraha Khola, Watershed ~~Group~~ consultation with ~~of~~ Group

Location: Kosaban, Mohang, Bakraha, Watershed

Date & Time: DEC 21, 2017 2 pm

#	.....Name	.Organization
1	सुशीला गुरुङ	
2.	रुपकला देवीसवाल	
3.	जनु वि क	
4.	विमला सायमोटा	
5	दिक सुवेदी	
6.	लिलाकुलङ	
6.	बसन्त बस्नेत	
7	कल्पना खड्का	
8.	कुमारी कडवाल	
10	कल्पना थापा	

11. राजा कुमारी थापा

13. Ram subgli

14. Jiban Pandel

9.7.6 Consultation with Churia Community Forest Users Group in Kankai Watershed, Ilam

Minutes of the meeting held with CFUG in Kankai Watershed, Ilam

Location: Mai Municipality-4, Danabari

Date: December 22, 2017

Time: 11am

Meeting Attendees: *(see attached list)*

Agenda:

- Presentation of proposed GCF project by the project development team
- Discussion on the proposed GCF project, including the provision of feedback and recommendations by meeting participants.

Meeting Summary:

Local settlements comprise over 500 households. Many of the households are relatively new, with many households having migrated from the hill districts during the last 4-5 decades. About 90% households have settled on Aaileni (government land), and there is growing encroachment in the forests by these settlements. The settlement is comprised of different socio-cultural groups including Brahmin/Chhetri (50%), indigenous peoples (40%) and Dalits (10%). The majority of households do not hold legal land tenure.

Community Forestry

Participants discussed current issues and problems related to deforestation/degradation within the Churia region in Nepal, as well as challenges and conservation needs in the face of climate change. There are about 60 community forests of different sizes within the region, ranging from about 50 ha to 1200 ha in the northern catchment. Encroachment, farming, open grazing, and smuggling of forest products are issues in this area. Around 70% of livestock in the community are taken to the forests for uncontrolled grazing, and 30% are stall-fed. Illegal extraction of river materials such as boulders, sand and gravel from small and big rivers was noted as a major problem for the degradation the region. Such extraction leads to substantial sedimentation downstream and exacerbated impacts from flooding within local communities.

Land Use Challenges

Respondents identified challenges to addressing unsustainable land use practices in their area, noting poor access to markets and limited livelihood opportunities for local people. It was further mentioned that the lack of land titles in the area is a barrier to forest conservation. While the formation of community-based organizations and public forest user groups have helped local communities to benefit from forests, the lack of formal land tenure in the Churia region continues to be a challenge that leads to encroachment from non-CFUG members. It was further noted that the community does not have sufficient technical and financial support to adopt cli-

mate-resilient land use practices. Many members of the community are not aware of such practices, or may do not have the financial or technical means/ capacities to implement such practices Trainings and additional support are needed.

Recommendations

Participants noted the relevance of the BRCRN project in addressing the challenges faced by the ongoing degradation and climate change in the Churia. Participants were particularly interested in and recommended the following measures to reduce the ongoing degradation of Churia hills and enhance the resilience of the local community:

- Embanking the Kankai River and use reclaimed land for plantation/ pasture and forest development.
- Diversify crops – changing from traditional cropping system to high value agricultural products/ forest products and valuable herbs and NTFPs (Bamboo, Amriso), nuts, banana, among other products in community forests
- Holding awareness programs on forest conservation and sustainable land use
- Controlling open grazing and illegal extraction of forest products and river materials (sand, boulders, gravels)
- Strictly enforcing stall feeding policies in areas that have good potential for livestock raising (cow, buffalo, goats, piggery etc.)

Kankai River

LIST OF PARTICIPANTS

Meeting Description: Consultation with Church Community, Focus Group

Location: Mai Nagar Pokhara-4, Danabari, Ilam, Kankai River watershed, Ilam / Sherpa

Date & Time: Dec 22, 2017 11 am

#	Name	Organization
1.	महेन्द्र कुमार	नुवाकोट सहिद पार्टि किसान पार्टि
2	सुर्य कुमार	मा.न.पा. वडा ४
	लक्ष्मी प्रधानि	स्थानिय नेता
3	प्रेम शर्मा	माई नं.पा. - ४
4	लल प. रेग्मि	माई नं.पा. ४
5	मोतिराम शिवाकोटी	माई नं.पा. - ४
6	भागवत थाक्रा	" " ४
7	Ishwor Neupane	Project Design Team
8	Arjun Dhakal	Project Design Team

9.7.7 Consultation with Indigenous Women (including Limbu and Rai women) in Sukhani, Ilam/ Jhapa

Minutes of Meeting with Indigenous Women in Sukhani, Kankai Watershed, Ilam/ Jhapa

Location: Sukhani, Kankai Watershed , Ilam/Jhapa

Date: December 22, 2017

Time: 1 pm

Meeting Attendees: *(see attached list)*

Agenda:

- Presentation of proposed GCF project by the project development team
- Discussion on the proposed GCF project, including the provision of feedback and recommendations by meeting participants.

Meeting Summary:

Settlements in this area were established in the early 1980s. The community is heterogeneous in terms of caste and ethnic composition, although the majority of the community is comprised of Limbu and Rai ethnic groups. Main sources of livelihood in the community are agriculture, small businesses (selling of local brew), selling of firewood and foreign employment/ remittances. It was observed that a few households have started hotel businesses and are providing services (such as tea, snacks and local wine). Women are the predominant players in this service provision.

Community Vulnerability

Respondents raised the concern that the community consists of highly vulnerable groups of people, who are sustaining their livelihoods with subsistence farming in marginal lands along the riverbanks. These communities are especially highly vulnerable to flooding activities, erosion and land degradation, and must be considered during project planning and implementation.

Recommendations

The community identified that the project is relevant to their local context, and emphasized that livelihood enablement needs to be closely linked to all project activities. The community highlighted their specific interests and recommended the promotion of the following activities to address both livelihood and conservation issues:

- Vegetable farming and livestock raising
- Skill development for handicrafts and/or off-farm employment
- Awareness raising for forest conservation and alternative land use practices
- Plantations for timber and non-timber forest products
- Promotion of grass cultivation, fodder trees and stall feeding for livestock.

Kankai River
IP women

LIST OF PARTICIPANTS

Meeting Description: Consultation with Indigenous community (women)

Location: झापा नगरपालिका - ४, सरुवानी, Kankai watershed. Ilam / Jhapa

Date & Time: Dec 22, 2017 1pm

#	Name	Organization
1.	लालि माया युम्बा	Indigenous community
2.	हुक माया राई	
3.	श्याम कुमारी तामाङ	
4.	कल्पना राई	
5.	बिनिता लिम्बु	
6.	धनमाया गुरुङ	
7.	Ramu Subedi	Project Delight Team
8.	Jiban Paudel	Project Delight Team
9.	Ashwin Dhakal	Project Delight Team

9.7.8 Consultation with men from a primarily Indigenous (Limbu) and Dalit Community in Kankai Watershed, Ilam/ Jhapa

Location: Sukhani, Kankai Watershed, Ilam/ Jhapa

Date: December 22, 2017

Time: 15:00 – 17:00

Meeting Attendees: *(see attached list)*

Agenda:

- Presentation of proposed GCF project by the project development team
- Discussion on the proposed GCF project, including the provision of feedback and recommendations by meeting participants.

Meeting Summary:

Settlements in this area began in the early 1980s. Although the majority of households belong to ethnic groups such as Limbu and Rai, there was an indication that the community is somewhat heterogeneous. The main sources of livelihood are wage labour, agriculture with livestock management, small businesses (selling of local brew), the selling of firewood and foreign employment. Today, remittance has become the main source of living for many people in the area.

Climate change and its Impact

The participants noted that temperatures have begun to increase compared to past trends. Rainfall is erratic and different from historical patterns. Prolonged misty rains have stopped over the last few decades, which is resulting in the drying up of water springs, the main source of water for local households and livestock.

Recommendations

Most of the people in the area are marginalized farmers. Thus, respondents proposed that any project implemented in the area should promote livestock-related activities like goat and pig keeping, bee-keeping, carpentry and bamboo-based construction as suitable options to enhance livelihoods of the indigenous people in the community. For women, participants suggested supporting local cloth weaving and the promotion of small business to improve livelihoods.

Participants recommended the installation of ponds on riverbanks as the best option for promoting both conservation and livelihoods of the local people. On one hand, these ponds would help maintain wetlands and their associated ecosystem services, and on the other hand, they would allow for the formation and operationalization of group fishery activities.

Kankai River

LIST OF PARTICIPANTS

Meeting Description: Consultation with Indigenous community (Men)

Location: Kankai watershed, Ilam / Thapa

Date & Time: Dec 22, 2017 3pm

#	Name	Organization
१.	[illegible]	
२.	[illegible]	
३.	[illegible]	
४.	[illegible]	
5.	Jibon Pandel	Project Development Team
6.	Ramu Subedi	Project Development Team

9.7.9 Consultation with Forestry Personnel and Private Sector Representatives

Minutes of the Meeting held with Forestry Personnel and Private Sector Representatives

Location: ILaka Forest Office at Sukhani, Ilam, Kankai Watershed

Date: December 22, 2017

Time: 3 pm

Meeting Attendees: *(see attached list)*

Agenda:

- Presentation of proposed GCF project by the project development team
- Discussion on the proposed GCF project, including the provision of feedback and recommendations by meeting participants.

Meeting Summary:

Meeting participants noted that forest encroachment is an increasing trend in the area, especially considering that many of the villagers do not have formal land titles. Deforestation is also increasing within the area due to over-harvesting, encroachment, illegal trade of forest products. Underlying causes of deforestation were identified as population growth, poverty and lack of alternative livelihood opportunities.

It was noted that most of formal titled lands are in marginal riverbed areas that are less productive with high risks of flooding. Thus, many local people are required to encroach forested land in order to supplement their livelihoods. Landslides and flooding are common phenomena in the Churia region, and with climate-change local communities will become increasingly exposed to such phenomena using business as usual practices.

Participants noted that several households have adopted various approaches to safeguard forests and the Churia landscapes. Some communities planted bamboo seedlings on river banks, however the seedlings were destroyed by floods in the summer. Broom grass has been planted on barren areas that has led to an increase in income to local communities. The formation of CFUGs along with awareness trainings on forest-fire risk-reduction and management have resulted in reduced forest fires in many communities within the watershed.

Discussion

It was discussed that the project is important to address the ongoing challenges faced by the Churia. Recommendations were provided to strengthen the project:

- Institutional strengthening should be a core project component
- More human resources and capacities are required in the forest sector, especially within the Churia region.
- Business as usual approaches and technologies are insufficient.
- Local people care about the protection of their natural resources, but a major challenge lies in controlling encroachers from distant communities who do not directly benefit from the sustainable management of local forests.

- People in Jhapa and Morang are increasingly dependent on Churia forests to meet their forest product needs, given the lack of alternative sources.
- Awareness raising on Churia conservation and climate-resilient land use is necessary, within the Churia hills but also in distant communities who are also dependent on the Churia for timber and non-timber forest products.
- Climate-resilient practices including pasture development, sustainable livestock management (including stall feeding), and fodder plantations are highly beneficial for local communities
- Livelihoods should play a central role in project activities, considering that agriculture and forests are the cornerstone of many rural livelihoods
- Project should include targeted measures for poor households that can support households to reduce their dependency on forests, or to promote the sustainable management and use of forests to maintain their livelihoods.

Meeting with forestry officers and private sector representatives

Kankai River

LIST OF PARTICIPANTS

Meeting Description: Consultation with forestry and local business group

Location: Kankai Watershed, Jhemul Thapa, Damak

Date & Time: 3 pm, Dec 22, 2017

#	Name	Organization
1.	मदन प्र० पोखरेल	श्री द. वि. व. का. सुन्दरवती [illegible]
2.	उपेन्द्र अधिकारी	— "
3.	हरि [illegible]	" "
4.	रुद्र प्रधान	" —
5	[illegible]	" —
6.	Ajun Dhakal	Project Development Team
7	Arbwin Dhakal	Project Development Team

9.7.10 Consultation with Churia Community in Bardibas, Mohattari

Location: Bardibas, Mohattari

Date: December 27, 2017

Time : 9 am

Meeting Attendees: *(see attached list)*

Project Development Team

Jiban Paudel, Consultant
Ishwor Neupane, VC Consultant

Agenda:

- Presentation of the proposed GCF project by the project development team
- Discussion on the proposed GCF project, including the provision of feedback and recommendations by meeting participants.

Meeting Summary:

The settlement in Bardibas is relatively new. It is composed of migrant people from the hill districts, who arrived in the region in the past four or five decades. One of the major issues faced by the local community is land tenure; around 90% of all households are settled in *Aaileni* (government land), which has encouraged encroachment into forest lands. This, along with open grazing, unsustainable farming, illegal harvesting of forest products and forest fires were considered by the respondents to be common drivers of deforestation and forest degradation. Illegal extraction of river materials such as boulders, sand and gravel from small and big rivers was also noted as a major cause of degradation in the Churia. Participants also expressed that they would appreciate further support from government, NGOs or INGOs to address issues related to poverty and landscape degradation.

Recommendations

Participants noted that the area has high potential for livestock farming and forest based income generating activities. They further suggested different measures and practices that could be woven into the BRCRN project infrastructure to control Chure degradation, and promote sustainable and climate resilient management of the landscape. These included: (i) construction of embankments in Kankai river, (ii) promotion of plantations along the riverbank, (iii) diversification of cropping patterns, (iv) transitioning from traditional agriculture systems to high value agricultural products, (v) promoting high value herbs and NTFPs (e.g. Bamboo, Amriso), nuts bananas etc. in community forests for income generation and (v) controlling open grazing and illegal extraction of forest products and river bed materials.

LIST OF PARTICIPANTS

Meeting Description: Consultation with Churia Community.

Location: Dec 27 2017

Date & Time: Bardibas Municipality 9 am

#	Name	Organization
1	Hari yadav	Churia Community
2	Jiwan Chandra	
3	Ram Kumar	
4	Badri Sahu	
5	Anu Prasai	
6	Tiban Paul	Project data TECH

9.7.11 Consultation with Indigenous Groups (Magar and Newar) in Patnali Watershed, Kharkhola, Sunsari

Location: Kharkhola, Patnali Watershed, Sunsari

Date: December 22, 2017

Time: 4 pm

Meeting Attendees: *(see attached list)*

Agenda:

- Presentation of proposed GCF project by the project development team
- Discussion on the proposed GCF project, including the provision of feedback and recommendations by meeting participants.

Meeting Summary:

The major underlying factors of degradation in Churia listed by the participants were: (i) open grazing in the forest, (ii) illegal harvesting of forest products, (iii) extraction of river bed materials (i.e. sand, boulders, gravels), (iv) unsustainable agriculture practices, (v) encroachment of lands in the upstream areas, (vi) inappropriate/unscientific management of natural resources and (vii) forest fires.

Recommendations

Respondents suggested to the project development team that the project should focus on poverty alleviation, employment and income generation of locals, as well as landscape level planning and implementation of concrete actions in Churia region rather than thinly spread or unsustainable programs/activities. As examples, they recommended:

- Conducting massive awareness raising programs for local people and stakeholders on Churia conservation
- Developing stall feeding practices to control open grazing
- Encouraging improved, more productive livestock breeds of cows and goats
- Conducting embankment of rivers and bioengineering works to check bank cutting
- Establishing tree plantations and producing NTFPs and herbs that contribute to soil conservation and poverty alleviation
- Installing biogas and other sources of energy for cooking purposes
- Immediately controlling river mining by DDCs

Firewood collectors in Patnali

Discussion with community-members in Panali

Patnali River
IP

LIST OF PARTICIPANTS

Meeting Description: Consultation with Indigenous group at ~~Baklaha~~ Patnali Watershed.

Location: Khorkhola, Braha N/P-1, Sunsari, Patnali Watershed

Date & Time: 29/7/22, 4:00 PM.

#	Name	Organization
1	कालु मार्जन	
2	[illegible]	
3	हर्कमाया मगर	
4	बिमला मगर	
5	कुटा मागर	
10	नविन अंकु	
11	गजेन्द्र शेर्प	
12	मोहनकुमार [illegible]	[illegible]
13	Jidan Rand	Project Development Tu[illegible]

9.7.12 Consultation with Mixed-Farmers Group in Ratuwa Watershed, Damak, Jhapa

Location: Damak, Jhapa

Date: December 22, 2017

Time: 5 pm

Meeting Attendees: *(see attached list)*

Agenda

- Presentation of proposed GCF project by the project development team
- Discussion on the proposed GCF project, including the provision of feedback and recommendations by meeting participants.

Summary of the meeting:

Traditionally, the main occupations of residents in this area have been agriculture and animal husbandry. The main crops grown in the area are paddy in irrigated lands, and maize, lentils and oil seed in unirrigated lands. Seasonal and off-seasonal vegetable farming are another important source of household incomes in the area. Recently however, some locals, especially the youth and the educated, have been shifting away from the agricultural sector towards non-agriculture sectors like business, service, foreign wage-labour etc.

Causes for deforestation

The deforestation crisis of Churia began with the establishment of Tarabari Dipo, a forest wood supply depo, in the early 1950s. The malaria eradication effort also promoted the area as a potential settlement for neighboring hill residents in the Terai. As a result, areas available for cultivation gradually became smaller and smaller. Many indigenous people were also largely displaced from their lands, and were forced to encroach onto forest lands. Local farmers see mining as another major driver of Chure forest degradation. One participant noted that mining is essential, but must be done in a systematic fashion. Without mining, respondents noted that the river floods would actually enter the villages located on the bank of rivers.

Climate Change

Respondents recognized that climate change is happening due to rapidly increasing deforestation and industrialization in the world. Farmers, highly depended on rainfall for farming, are increasingly suffering due to changing rainfall patterns. Respondents noted that rainfall has become patchy and that the misty rain is almost gone. Extremely heavy rainfall is simultaneously becoming a common phenomenon in the area. The observed shift in rainfall patterns is detrimental and not synchronized to the needs of traditional farming activities. Respondents also reported that the changing climate has also led to a gradual decline in water levels (tubewell/hand-pumps do not work in areas where they functioned in the past).

Recommendations

Respondents recommended that the BRCRN project promote vegetable farming, access to improved seeds, and improved varieties of livestock, along with conducting trainings on scientific agricultural practices and providing support for off-seasonal farming and cash crops to enhance the livelihoods of local community households. Constructing large ponds on the banks of rivers was also raised as a suitable method to promote local livelihoods. These ponds would help to maintain wetlands and eco-systems, as well as making it possible to run group fisheries.

Ratuwa River
Mixed Group

LIST OF PARTICIPANTS

Meeting Description: Consultation with mix community (farmer Group)

Location: Damak N.P. - 3, Dabgachi, Jhapa, Ratuwa River watershed

Date & Time: 20/12/2017 5 pm

#	Name	Organization
	[illegible]	
	[illegible]	
	[illegible]	
	[illegible]	
	[illegible]	
	[illegible]	
	Jiban Pandeli	Project Delopment Team
	Ramu Sabedi	Project Development Team

9.7.13 Consultation with Indigenous Women Group (Dhimal Group)

Location: Damak, The Ratuwa River Watershed

Date: December 23, 2017

Time: 9am – 11am

Meeting Attendees: *(see attached list)*

Agenda:

- Presentation of proposed GCF project by the project development team
- Discussion on the proposed GCF project, including the provision of feedback and recommendations by meeting participants.

Meeting Summary

In the discussion with Dhimal women in the Ratuwa River watershed, it was noted that women and men have different roles and responsibilities, within the household and in the public domain. It is noted that women are mainly involved in household activities like cooking, cleaning, small vegetable farming and livestock management. Women's main source of living is often linked to the weaving of cloths like dabola, petani, Patalai and topi, making local brew, and selling bhakka (a special food made using rice flour).

Meeting participants noted that water sources, especially ground water, have been declining within their community. This has a greater impact on Dhimal women than Dhimal men, because men are largely absent at home - either working off-farm jobs, or have migrated to foreign countries or urban areas for employment. As a result, women often manage household, vegetable farming, weaving and livestock, among other household chores. Women noted the challenges posed by increasing water scarcity not only for household consumption, but also for vegetable farming and other agricultural activities. Impacts from climate change could further increase water scarcity in the community, with major impacts on local livelihoods and wellbeing.

Participants noted the relevance of the project to address challenges faced by local communities, especially in the agriculture sector. Participants were particularly interested in measures linked to vegetable farming, goat raising and tourism. Beyond this it was noted that women are very interested in skill development related to hotel and services, as well as weaving. It was further noted that measures should also support the conservation of the Dhimal culture and traditions.

Dhimal Woman in Ratuwa Watershed

Ratuwa River IP women

LIST OF PARTICIPANTS

Meeting Description: Consultation Meeting with Indigenous community (Women)

Location: Damak NP-6, Datgachi, Jantachar, Lopa, Ratuwa Watershed

Date & Time: Dec 23, 2017 9 am

#	Name	Organization
1.	आमिका घिमिरे	
2.	लक्ष्मी घिमाल	
3.	तारा घिमाल	
4	सुमाया घिमाल	
5	चमेली घिमाल	
6	सिता घिमाल	
7	लक्ष्मी घिमाल	
8	Jiban Bandh	Project Deliport Tem
9.	Rama Subedi	Project Develop Tem

9.7.14 Consultation with Indigenous Community (Dhimal Group)

Location: Damak, The Ratuwa River Water Shed

Date: December 23, 2017

Time: 15:00

Meeting Attendees: *(see attached list)*

Agenda:

- Presentation of proposed GCF project by the project development team
- Discussion on the proposed GCF project, including the provision of feedback and recommendations by meeting participants.

Meeting Summary:

Dhimals are the one of the autochthonous groups residing in Jhapa and Morang district. Rajarani, the place located in Morang district, is considered the original place of Dhimals. They are nature worshippers, who worship rivers, forests and land as deities. Their ancestors were displaced from Rajarani when the Shah King gave the land to Limbu as Kipat land.

Currently Dhimals are involved into different activities to support their livelihoods, although farming is the still primary occupation of Dhimals.

Causes for deforestation of Churia forests

Deforestation began in the 1950s in the region, with the establishment of a forest wood supply depo and the eradication of malaria, both which brought in new settlers to the region. As a result, the autochthonous people like Dimal, Kumal and Majhi were increasingly displaced from their land. Higher taxes for cultivated land also played vital role in displacing the indigenous people of the area. In the past each Dhimal family owned more 67 ha, but today they have less than 2.1 ha on average, and many of households have become landless or marginal farmers.

Dhimal people noted the challenge posed by the illegal mining of sand and stone from riverbeds in the Churia region, leading to accelerated sedimentation and erosion. They noted that while the mining of sand and stone is essential for the country, it should be done in a systematic and managed approach. Currently unsustainable mining activities are leading to increased impacts from floods and accelerated sedimentation and erosion, with major impacts on downstream areas. Deforestation and forest degradation in the region is also an issue, noting unsustainable harvesting, illegal tree cutting and smuggling and open grazing in forested areas by livestock.

It was further discussed that climate change is occuring due to rapidly increasing deforestation and industrialization in the world. Like many other communities, Dhimals are also suffering from it because of their higher dependency on natural resources and farming for a living. Water levels in their community have been gradually declining (tube-well/hand-pump does not work anymore which used to in the past). Rainfall patterns have been shifting, which have a major impact on farming activities and local livelihoods. While many people have observed such trends, there is limited awareness in the community on forest conservation and climate change risks and risk

reduction measures. Poverty and unemployment however also force many poor families to depend on natural resources, including the collection of forest and river materials to supplement their livelihoods.

Livelihood Option sand Actions to control Churia Degradation

Dhimals are traditionally involved in cultivating cereal crops including paddy, wheat, maize, among others, as well as livestock raising using predominantly local varieties. They realize that along with the development of markets and road networks, new income generating and conservation activities will help improve their livelihoods and resilience.

It was noted that the proposed project is important given the ongoing challenges faced by the region. Project activities with a focus on livelihoods are key to support local communities to adopt sustainable practices, and the following are some examples of activities that were deemed particularly interesting to participants:

- Bee keeping,
- Goat raising ,
- Piggery, poultry and fishery,
- Mushroom farming
- River bank stabilization using e.g. Bamboo, rattan plantations, etc. along the Ratuwa and Mawariver banks
- Bio-engineering works and construction of embankment from Churia in the north to highway in the south (Currently, GON has confined embankment construction activities only south of highway)
- Establishment of conservation ponds to improve groundwater recharge, support wetland restoration, improve water security and support local livelihoods (e.g. fisheries).
- Awareness raising programme about forest conservation/plantation and environment, especially in the upstream catchment.
- Promoting improved upstream-downstream planning and coordination
- Introduction of stall feeding practices and control of open grazing
- Conservation of Dhimal culture and linking it with ecotourism/home stay activities.

It was noted that upstream settlements of Churia are of critical importance for effective conservation of forest resources and ecosystems. Key issues like encroachment, illegal settlements, tree cutting, open grazing and poverty problems need to be addressed in the following upstream settlements: Madhumalla, Baghkhor, Letang, Bhokteni and Dhanketi.

Consultation with Dhimal leaders in Ratuwa Watershed

SERIAL NO: 12

LIST OF PARTICIPANTS

Meeting Description: Consultation with Dhimal community (Badgin group)

Location: Damak Jhapa

Date & Time: Dec 22, 2017 3pm

#	Name	Organization
1	[illegible]	
2	[illegible]	
3	[illegible]	
4	[illegible]	

9.7.15 Consultation with Community Forest Group in Daduka, Kerabari, Bhaluwa Village, Patnali Watershed, Sunsari District

Location: Daduka, Kerabari, Bhaluwa Village, Patnali Watershed, Sunsari District

Date: December 23, 2017

Time 9 am

Meeting Attendees: *(see attached list)*

Agenda:

- Presentation of proposed GCF project by the project development team
- Discussion on the proposed GCF project, including the provision of feedback and recommendations by meeting participants.

Meeting Summary:

The participants which included males and females of diverse social groups expressed concerns about Churia degradation and identified the following challenges:

- Open grazing in the forest
- Extraction/smuggling of forest products (illegal tree felling)
- River mining/extraction of river bed materials viz sand, boulders, gravels
- Haphazard cultivation (ploughing in instable slope and shifting/burning)
- Encroachment and illegal occupation/use of lands in the upstream (about 60% households in the upstream catchment are residing in Aaileni/ encroached land)
- Inappropriate/unsustainable management of natural resources resulting in the overuse, loss and degradation of natural resources
- Forest fires

Mr. AjitRai, Chairman of Patnali Community Forest discussed the challenges the Churia region faces. He specifically noted his concern on increasing soil erosion and degradation of the Churia region. Massive soil erosion occurs during the monsoon season when the local streams /rivers (BaghKhola, BaguwaKhola, PatnaliKhola, SarduKhola) swell causing river bank cutting and massive soil erosion. He recalled past efforts when the communities asked for 200 nets for rock filling along the river bank in high risks settlements (i.e. settlements that are highly susceptible to floods), they were able to get only 5 nets – highlighting the challenge to allocate sufficient resources to safeguard local communities and support climate change adaptation measures at the local level.

Meeting participants noted the relevance of the project to address many of the challenges facing the Churia region. They emphasized that project should ensure targeted activities on poverty alleviation, employment and income generation of locals, considering that local livelihoods are directly dependent on natural resources in the area. They further agreed that coordinated, long-term and landscape level planning and implementation of actions are required in Churia region, rather than thinly spread and unsustainable activities. Lack of awareness on climate change and

unsustainable land use practices was identified as a major challenge, and thus the project should ensure awareness raising and capacity strengthening efforts for diverse stakeholders.

Respondents were particularly interested in the following measures:

- Awareness raising and capacity building
- Coordinated and landscape level land use planning
- Development of stall feeding practices and control over open grazing/ encourage for improved livestock breeds of cows and goats to reduce climate change, improve production and enhance the resilience of local people.
- Climate-resilient agricultural practices, especially with the potential to contribute to off-season vegetable production
- Embankment of rivers and bioengineering works to check bank cutting/ plantation of tree species including NTFPs and herbs that helps to check soil erosion and contribute to poverty alleviation of people
- Installation of biogas and other source of energy for use of cooking and to reduce pressure on forests for fuelwood
- Bio-briquette production to reduce pressure on natural forests and to provide income opportunities for local households
- Technical skill development and training for local people
- Improved control and monitoring of river mining

Meeting with community in Patnali watershed in Sunsari

Patnali River/Khola.

LIST OF PARTICIPANTS

Meeting Description: consultation with CR group (forest group)

Location: Paduka, Dharan, Suncari, Patnali watershed

Date & Time: Dec 23, 2012 9 am.

#	Name	Organization
1	Tara prasad Khaika	Ilaka ban Kargale
2	laxmi Ramkandi	Singhadevi CF
3	Makar Bdr Bista	CF member
4	Pitambar Basnet	patanali CF
5	Bhakt Bdr Adhikari	patanali CF
6	Govind pd Pokhare	Patanali CF
7	Purna Bdr Neraula	Sinhadevi CF
8	Durga Pd Koirala	Sinhadevi CF
9	Chhatra Bdr Bista	Sinhadevi CF
10	AJIT Rai	Patanali CF
11	Basant kumar khatri	sinhadevi CF
12	Ramu Gulati	

9.7.16 Consultation with Women Forest Users Group in Patnali Watershed, Sunsari

Location: Paduka, Patnali Water Shed Sunsari District

Date: December 23, 2017

Time: 2 pm

Meeting Attendees: *(see attached list)*

Project Development Team

1. Jiban Poudel, Gender and social Safeguard Expert
2. Arjun Dhakal, Economist Consultant

Meeting Agenda:

- Presentation of proposed GCF project by the project development team
- Discussion on the proposed GCF project, including the provision of feedback and recommendations by meeting participants.

Meeting Summary:

Participants noted the following major environmental problems faced by the community:

- Open grazing in the forest
- Extraction/smuggling of forest products (illegal tree felling)
- River mining/extraction of river bed materials (e.g. sand, boulders, gravel)
- Haphazard cultivation (ploughing in instable slopes and using slash and burn methods)
- Encroachment and illegal occupation (i.e. use of lands in upstream areas, where about 60% of households are residing in Aaileni/ encroached land. The main settlements in the upstream areas include Bishnupaduka, Bhaldhunga, Machamera and Chiyabari)
- Inappropriate/unscientific management of natural resources
- Forest fires

Climate change awareness

Respondents noted that they have experienced increased temperatures, increased scarcity of water resources and increased events of landslides and forest fires. However, when asked about the connection of these changes with climate change, respondents did not show strong awareness of climate change, or its effects on their environment and landscape.

Impacts of Churia deforestation

Due to deforestation in Churia, the availability of fodder and ground grasses have been dramatically reduced, and are greatly affected by increasing landslide hazards and the open grazing of livestock. The impacts of forest degradation are especially evident in women's lives. The amount of time spent on fodder collection has dramatically increased, as has the time required for water collection. Not only is water availability decreasing due to deforestation but so is water quality, forcing women to travel farther distances to find potable water. Participants revealed that this water has not been tested in a lab, and the water turns red when boiled and emits a foul smell.

Local conservation efforts

Over exploitation of resources is recognized as a cause for forest degradation in this area. Respondents explained that the local people have begun organizing forest protection activities in response. Today, much of the previously deforested forest areas have transformed into green forest areas. However, precipitation patterns have changed drastically and the year 2017 saw heavy rainfalls, resulting in numerous landslides that destroyed a large number of trees in the region.

Recommendations

In order to ensure the effectiveness and sustainability of Churia conservation efforts, participants noted that efforts to uplift women's livelihoods must be included in future project components. Recommendations for women's livelihood improvement activities include providing support for improved livestock raisin (mainly goat, pigs and cows), off season vegetable production, briquette making and encouraging small businesses.

Consultation with women in Patnali Watershed

Patnali River
Gender

LIST OF PARTICIPANTS

Meeting Description: Gender Consultation
Location: Paduka, Dharan, Patnali Khola Walk
Date & Time: 22 Dec 2017, 2 pm

#	Name	Organization
१	सुनिता तामाङ	सि.सा.व.उ.स
२	भावना घिमिरे	"
३	शोभामनी राई	" सचिव
४	शेष बु. घिमिरे	प.सा.व.उ.सचि
५	प्रतिक्षा राई	सि.सा.व.उ.स.
६	तारा खत्री	"
७	पदमकुमारी खत्री	"
८	निरा दाहाल	प.सा.व.उ.स.
९	Jidan Pandey	Project Delyn Tec
१०		

9.7.17 Consultation with traders in Dharan, Sunsari

Location: Dharan Wholesale Market, Sunsari District

Date: December 23, 2017

Time:16-18pm

Meeting Attendees: *(see attached list)*

Agenda:

- Presentation of proposed GCF project by the project development team
- Discussion on the proposed GCF project, including the provision of feedback and recommendations by meeting participants.

Meeting Summary::

Dharan is a regional market center connecting Biratnagar and other markets via Itahari, Damak, Birtamod, among others along the East West Highway. The wholesalers of Dharan market observed that the linkages and coordination between Churia hill producers and other actors of key regional value chains, including collectors, processors and wholesalers are quite weak in the region.

It was discussed that it is important to strengthen market linkages for climate-resilient value chains. Consulted traders stated that the Churia hills of Sunsari and Udaypur districts have potential to strengthen the value chains related to the following commodities:

S.No.	VC Products	Production Pockets	Comments
1	Ginger and turmeric	Bishnupaduka	Also need processing facilities for sustained large scale production of ginger and turmeric
2	Legumes/ Pulses(Black gram and Rajeli)	Thoksila, Rampur, Bishnupaduka	-
3	Offseason vegetables	Panamara, Dharan	-
4	Citrus		Chintang, Chaubase
5	Amriso/bamboand herbs	River banks, community forests	

Dharan is a well-established wholesale market with about 40-50 wholesalers dealing with diverse agricultural products and food items. The traders, however, noted that the market is fully influenced by Indian traders. As the price goes up in local markets, the supplies start soaring from Indian side to gain higher margin. Besides, there are number of problems encountered by the traders in the markets in Nepalese side which are pointed out below.

- Lack of capital for investment/lending to farmers in production pockets and increase the production
- Poor road access /connectivity between markets and production pockets leading to high transportation cost of local products

- Lack of processing and storage facilities (cold storage for storing seasonal products like orange, potato, tomato etc.)
- Lack of capital for establishing processing factories, especially for ginger and turmeric
- Quarantine problems in the border for exporting of domestic products
- Increasing trade/export of many commodities (ginger, orange, apple, herbs etc.) from China to India with Nepalese brand damaging the organic quality image of Nepal's products

Meeting with traders in Dharan, Sunsari

LIST OF PARTICIPANTS

Meeting Description: Market Analysis of Local Products. / Consultation with Traders.

Location: Dharan Wholesale Market, Sunsari Dharan

Date & Time: Dember 23, 2017

#	Name	Organization
1.	Ram Bdr. Rai	
2.	Ram Naresh Yadav	
3.	Pradeep Mainali	
4.	Ishwor Nanpane	
5.	Jiban Poudel	

9.7.18 Consultation with community-based organization in Baghakhor, Saptari

Location: Baghakhor, River Watershed, Saptari

Date: December 23, 2017

Time: 4 pm - 6pm

Meeting Attendees: *(see attached list)*

Agenda:

- Presentation of proposed GCF project by the project development team
- Discussion on the proposed GCF project, including the provision of feedback and recommendations by meeting participants.

Meeting Summary:

Flooding, landslide and water scarcity (drinking and irrigation) are the major problems identified by participants. Community members mentioned that while they are well-connected to local markets that a major challenge for them is ongoing degradation and increasing water scarcity. Villagers are not able to grow off-season vegetables due to insufficient water resources. Uncontrolled livestock grazing contributes to forest degradation, and is exacerbating impacts from flooding and landslides. It was further noted that livestock raising uses traditional practices, and often are characterized by low levels of productivity.

The community expressed interest in the project to address many of the major challenges that they are experiencing. It was emphasized that the project should consider livelihood opportunities, and specific interest was raised on topics related to vegetable farming, improved livestock management, skill development for NTFP, enterprise development and off-farm work, as well as handicrafts.

Bihul Khola

LIST OF PARTICIPANTS

Meeting Description: Consultation with Hills Community, Mahuli, Saptari

Location: महुली, [illegible] गा.वि.स. – ६, सप्तरी Mahuli, Saptari

Date & Time: 23 Dec 2017 – [illegible] PM

#	Name	Organization
१.	महेश्वर प्रसाद कोइराला	
२	देवी ब० खड्का	
३	प्रदिप आचार्य	
४.	मन ब. खत	
५.	सुकीता पन्थी	
६.	सिता तिर्कैला	
७.	अर्जुन आचार्य	
८	कृष्ण प्र. शिवाकोटी	
९.	डिल्लीराज आचार्य	
१०.	दुर्गा गुरुङ	

११. रमा कोइराला

12. Ramu Subedi Priya

9.7.19 Consultation with Indigenous Community (Rai) in Udayapur

Location: Raibasti, The Sunakhamchi River Watershed, Udayapur

Date: December 23, 2017

Time: 17:00-18:00

Meeting Attendees: *(see attached list)*

Agenda:

- Presentation of proposed GCF project by the project development team
- Discussion on the proposed GCF project, including the provision of feedback and recommendations by meeting participants.

Meeting Summary:

The community noted the main drivers of deforestation in the Churia as illegal harvesting of sal trees. It was noted that deforestation is linked to other environmental problems, especially landslides and flooding, which have major impacts on local livelihoods.

Farming, livestock management and foreign labor (i.e. remittances sent from family members abroad) are the primary income sources of households living in the area. Many households grow maize, beans, and fruits, among others. The local people do not have knowledge of climate-resilient farming and livestock management practices.

It was emphasized that the project should support local livelihoods, taking into account local people's dependence on the agriculture and forestry sector´s for their livelihoods. Communities mentioned activities such as bamboo plantations, broom-grass (amriso) cultivation, cardamom cultivation and banana plantations as interesting to the community.

Consultation with Rai community in Udayapur (Rajbasti)

Sungambâ River
Udayapur, IP

LIST OF PARTICIPANTS

Meeting Description: Consultation meeting with local community, Udayapur
Location: उदयपुर जि.प. र उदयपुर (Koshi Basin), Sungambhi / Sunkosi Watershed
Date & Time: 2017/12/23 - 5.00 pm.

#	Name	Organization
1	गणेश कुमार राई	
2	पदम ब. राई	
3	राम कुमार राई	
4	झुन्ना राई	
5	दिनेश राई	
6	पेटमान राई	
7	Arjun Dhami	Project development Team
8	Ram Sunadi	Project Delopment Team

9.7.20 Consultation with Shekhar Yadav, President of Nepal Forester Association

Location: Lahan, Siraha

Date: December 24, 2017

Time: 5 pm

Meeting Attendees: *(see attached list)*

Agenda:

- Presentation of proposed GCF project by the project development team
- Discussion on the proposed GCF project, including the provision of feedback and recommendations by meeting participants.

Meeting Summary:

It was discussed that livelihoods should be at the core of efforts aimed at conserving the Churia region in Nepal. Alternative livelihoods are needed to address the ongoing challenges faced by the Churia region, where many people are dependent on natural resources for their livelihoods. The project should be clear on the modality if livelihood-based conservation should occur or if the focus is on conservation-based livelihoods.

Recommendations

Trainings for community-based organizations and other groups were identified as important to support the scaling up of climate-resilient practices. It was further discussed that it especially relevant that climate-resilient practices related to livestock are included within the framework of the project. Finally, it was seen as beneficial that the project is a separate yet complementary effort to the Churia Master Plan.

LIST OF PARTICIPANTS

Meeting Description: Meeting with President of Nepal Forestor Association

Location: Lahan

Date & Time: 24 Dec., 2017, 5 Pm.

#	Name	Organization
1.	Shekhar Kumar Yadav	NFA
2.	Ramu Subedi	

9.7.21 Consultation with Women´s Group, including high participation from Indigenous Women (Limbu, Rai, Magar and Tamang) and Dalit Women in Mohanpur

Location: Mohanpur, Mahuli , Saptari

Date: December 25, 2018

Time: 4pm

Meeting Attendees: *(see attached list)*

Agenda:

- Presentation of proposed GCF project by the project development team
- Discussion on the proposed GCF project, including the provision of feedback and recommendations by meeting participants.

Meeting Summary:

Mohanpur village is located in the foothills of the Churia forest. The main economic life of the village is rooted in farming, livestock management and off-farming labour. The village is heterogeneous in terms of caste and ethnic composition consisting of hill origin high caste groups and Dalits. Caste based social decimations and inequalities are still common in intra-village communities, but it is gradually weakening in the public domain. For example, although local people do not buy milk from Dalits, there are no restrictions for Dalits to sell their product in the market. Gender based differentiation can be seen in their different roles in the household and public domains. However, women and men are equally involved in household activities, especially collection of fodder. Except plowing, both men and women are involved in farming activities. Community households have planted khanyu, Nibaro, Amliso, Kharghansh, Gyanighansh and Nepiyar in farming lands to feed livestock. However, the community faces an issues of insufficient land to plant fodder trees.

Many community households live on ailani (non-certificate land). These households are unable to receive loans from banks due to lack of land certificate. However, today, some households have been able to receive loans from cooperatives, but interest rates are from 12 to 18%.

Observed Forest Degradation

Participants discussed the changing situation of the forest over the last few decades. It was noted that the forest is not the same as in the past. It has degraded due to over exploitation and human made forest-fire. The two political movements, the Maoist Movement and the Madeshi Movement, were also noted as prime factors for deforestation in the area.

Impacts of Deforestation on Women's life

In the forest, the availability of fodder and ground grasses have dramatically reduced due to increasing instances of landslides and the open grazing of livestock. Grazing lands, such as GauriKhola, Maulikhola and KoilaKhola, are vulnerable due to landslides and the impact if this is clearly seen in women's lives. For example, the duration of fodder collection has increased, and

in order to collect the load of ground grass that used to be able to be collected between 2 and 2.5 hours now takes more than 4 hours.

Likewise, access to clean drinking water in the village is also not good. Participants noted that although they have never tested the water in the lab, the water turns red when boiled and emits a bad smell. As a result, women have to visit a far distance to collect a pot of water suitable for household use.

The community has also experienced increased temperature, increased water scarcity and increased occurrence of landslides and forest fires. Nonetheless, awareness of the role of climate change in these changing conditions remains low.

Recommendations

Participants recommended strictly restricting cattle grazing in the Churia forests to promote forest conservation. In terms of proposals for the BRCRN project, improving local livelihoods was listed as a priority. It was recommended to introduce improved or hybrid varieties of cattle. In the village, each household has at least a cow or a buffalo, but households do not have the necessary funds to invest in improving livestock. Off-season vegetable farming was also recommended as a good source of earning to women, but appropriate strategies would need to be developed to address issues of irrigation. In order to deal with issues of insufficient fodder, participants recommended using the barren lands located on the bank of the rivers for planting communal fodder trees and grasses. This would also lead to increased water recharge capacity, along with increased community access to fodder.

Consultation with women in Mahuli, Saptari

LIST OF PARTICIPANTS

Meeting Description: consultation with women group, Gaptari

Location: Motarpur, Mahuli, Gaptari

Date & Time: Dec 25, 2017 4 pm

#	Name	Organization
1	राधीका के.सी	
2	सिता कमाल	
3	विनीतावस्नेत	
4	सिर्जना लिम्बु	
5	देवी तामाङ	
6	तिर्सना पुन	
7	सी माया मगर	
8	विना मगर	
9	पुनम राई	
10	रञ्जु तामाङ	

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LIST OF PARTICIPANTS

Meeting Description: consultation with ~~Kulle~~ Women Group Community (Saptari).

Location: Mahantbati, Mahuli, Saptari

Date & Time: DEC 25, 2014 pm

#	Name	Organization
	राजेश्वर यादव	
	इन्द्रा पाउल	
	मिना यादव	
	नशिम नेपाली	
	सिता नेपाली	
	सविता थापा	
	सान्ता थापा	
	शिता परियार	
	तिर्था परियार	
	सिर्जना परियार	

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9.7.22 Consultation with Maheshi Community in Balan Khola Watershed, Siraha

Location: Balan Khola Watershed, Siraha

Date: December 25, 2018

Time: 9 am

Meeting Attendees: *(see attached list)*

Agenda:

- Presentation of proposed GCF project by the project development team
- Discussion on the proposed GCF project, including the provision of feedback and recommendations by meeting participants.

Meeting Summary:

Maheshi is a heterogeneous community composed of several Terai castes (Tarai Brahmin, Yadav and Terai Dalits (Mushar)). The villagers practice farming and livestock management for a living. Landless households depend on farming and off-farming labor to survive, and foreign labor migration is has become quite popular. The villagers have noticed many changes in Churia forests, including severe forest degradation, forest encroachment, water scarcity, unpredictable rainfall, and the drying up of small ponds and water sources.

Recommendations

Discussions on the proposed project produced suggestions of conducting various income generating and skills development trainings for local people, and controlling riverbed cutting.

Photo – Discussion with community in Balan Khola Watershed

Battha River, Siraha Tarai community

LIST OF PARTICIPANTS

Meeting Description: Consultation with Madhesi community, Sirahi,

Location: Rampura, ~~Kamal Daha, Siraha~~ Other, Mirchaya NP-9. Balan Khola Watershed

Date & Time: 25th Dec 2017, 9 am.

#	Name	Organization
1.	देवी देव यादव	
2.	कुशेश्वर साफी	
3.	रमिला देवी यादव	
4.	सावी देवी यादव	
5.	सितली देवी यादव	
6.	राम बली यादव	
7.	रामसेवक यादव	
8.	Jiban Lama	Brijet Daily Tea
9.	Arjun Lama	Brij Daily Tea

9.7.23 Consultation with Collaborative Forest Management Groups in Jallad Watershed, Dhanusha

Location: Jallad Watershed, Dhanusha

Date: December 25, 2018

Time: 10 am

Meeting Attendees: *(see attached list)*

Agenda:

- Presentation of proposed GCF project by the project development team
- Discussion on the proposed GCF project, including the provision of feedback and recommendations by meeting participants.

Meeting Summary:

Respondents highlighted encroachment, illegal harvesting of forest products, uncontrolled mining, open grazing, forest fires, poor law enforcement and weak monitoring of government agencies as key drivers of Churia degradation. Flooding and drought are quite frequent in the area in recent years, resulting in reduced agriculture productivity, drying up of water sources and reduced ground water levels. Respondents noted that the forest management group in the area has initiated many conservation activities in the forest, which has contributed to conserving the Churia region. They added that they are planning to initiate scientific forest management into their CFM practices.

Recommendations

Respondents suggested that concerned government agencies must enforce government policy and laws more strictly, and conduct regular monitoring to effectively conserve the Churia region. They urged that more authority and technical support should be given to CFM groups to sustainably manage Churia forests.

Photo – Meeting with representative of Jallad Collaborative Forest

Jalladha watersh

LIST OF PARTICIPANTS

Meeting Description: Consultation with collaborative Forest User group, Dhanusha

Location: Jallad watershed, Dhanusha.

Date & Time: Dec 25, 2017. 10 am.

#	Name	Organization
1	Gobinda Giri	Jallad Collaborative Forest User group
2	Mahendra Shaha	Jallad Collaborative Forest User Group
3	Jag Bahadur Yadav	"
4	Dhanwa Nath Mahato	"
5	Bishnu Dev Yadav	"
6	Tirak Lal Mahato	"
7	Ramsubedi Yadav	Jalap Tang

9.7.24 Consultation with Mixed Hill Community Group in Mahuli, Saptari

Location: Mahuli Cooperative Office, Mahuli Bazar, Saptari

Date: December 25, 2017

Time: 11:00-12:00

Meeting Attendees: *(see attached list)*

Agenda:

- Presentation of proposed GCF project by the project development team
- Discussion on the proposed GCF project, including the provision of feedback and recommendations by meeting participants.

Meeting Summary:

The main occupations of the village are livestock management and agriculture. The villagers have begun to keep improved livestock, especially Jamunapari, and have formed a cooperative with more than 500 members. Recently the community has also developed a cattle and goat resource center. Members have been selling about 700-800 heads of goat and 200 heads cattle every year and earn about 1,000,000.00 annually. Flooding is the main environmental issue of the community, with floods swiping away more than hundred hectares of cultivated land.

Forest Conservation and the Relationship with Indigenous People

It was noted that the forest has been degraded through overexploitation. The local people have started to protect the forest in an organized way, and, as a result, today previously deforested areas are green forest. However, large changes in precipitation pattern is resulting in high landslide occurrence in the Churia region, including the forest area. Landslides also lead to large numbers of trees falling.

It was also noted that there is a sacred place inside the forest. The Tharu people visit the sacred place on the first day of the lunar calendar and offer rice-pudding to the deity for the prosperity of the community as well as livestock.

Recommendations

There is no cookie cutter solution to implement in the community, given the different lifestyles and livelihood preferences of different groups of people. For example, Tharu people do not participate heavily in livestock management, which is the main activity for hill origin high caste and ethnic groups as well as Train caste group. Instead, the Tharu informant reported that they give higher priority to farming, fishery and duck keeping. As another example, most of the Musahar are landless and interventions for the Mushar should support vegetable in lease, which can help promote their livelihood. Other recommendations for livelihood promotion activities include:

- Training villagers to produce processed milk products. In Mahuli, villagers produce more than 10000 liters milk every day, but sell the milk to dairies without processing. Through providing training, knowledge and technology local people, including women, can gain employment and produce more products for market.

- Making handicrafts from bamboo grown in the Churia to generate employment for women
- Introducing book keeping, weaving and switching/tailoring trainings to enhance women livelihood
- Promote production of crops such as turmeric and ginger that will enhance women livelihood

In terms of combating forest degradation, respondents noted open grazing as one of the main causes of forest degradation. Thus, a major recommendation for the project to consider is the restriction of open grazing and moving toward improved varieties of cattle and goat. Forest conservation activities must also be closely tied to income generative activities, as to motivate and incentivize local people. Recommendations on how to do this include:

- Effectively harvesting and distributing wood and firewood
- Protecting agricultural lands from floods through embankments on the banks of the river, which can then also be used by landless and small farmers
- Constructing dam or water reservoir ponds on the bank of the rivers, that serve both fish pond and irrigation purposes
- Supporting the installation of bio-gas plants that promote stall feeding livestock as well as reducing the pressure on the forest for firewood
- Promoting the place in the forest sacred to Tharus as a tourist destination. The forest and Tharu culture and belief can be conserved and managed by promoting the place as destination place
- Promoting Non-timber Forest Products, especially Kurilo, turmeric and so on
- Conducting skill and training to make leaf-plate and wooden pot (Teki)

Meeting with community representatives in Mahlui, Saptari

Walk through the community forest in Mahuli, Saptari

Discussion with members of CFUG in Mahuli, Saptari

LIST OF PARTICIPANTS

Meeting Description: consultation with Tesai Community in Rampati

Location: Balan Tesai ~~com.~~ River system

Date & Time: Dec 25 2017

#	Name	Organization
1	शरद चन्द्र चौधरी	
2	पुना चौधरी	
3	शरद चन्द्र यादव	
4	शरीता अग्रिहर	
5	प्रेमक चौधरी	
6.	अरुणा चौधरी	
6.	यादव चौधरी	
8.	गोविन्द राम राम	
9.	गोपाल चौधरी	
10	प्रेम बाबूदी	

LIST OF PARTICIPANTS

Meeting Description: Consultation with Hills Community (Saptari).

Location: Mohan Basti, Mahuli, Saptari

Date & Time: DEC 25 2021 pm

#	Name	Organization
	रामेश्वर खड्का	
	इन्द्रा पाउल	
	मिना खड्का	
	नरिम नेपाली	
	सिता नेपाली	
	सविता थापा	
	सान्ता थापा	
	सिता परियार	
	तिर्था परियार	
	सिर्जना परियार	

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9.7.25 Consultation with Terai Community (including Madheshis and Tharu peoples) in Balan Khola Watershed

Location: Mahuli, Balan Khola watershed

Date: December 25, 2017

Time: 9AM

Meeting Attendees: *(see attached list)*

Agenda:

- Presentation of proposed GCF project by the project development team
- Discussion on the proposed GCF project, including the provision of feedback and recommendations by meeting participants.

Meeting Summary:

An important point of discussion for participants from this community was the presence of a sacred site within the Churia forest, which is visited by the Tharu people on the first day of the lunar calendar. At this site, rice-pudding is offered to the deity for the prosperity of the community and its livestock. Participants suggested that this site can be promoted as a tourist destination, and that through the proper management and promotion of the site, Tharu culture and beliefs can be protected.

Recommendations

Respondents stressed that there are no cookie cutter solutions applicable to the community due to the diversity in the groups of people living in the area, and that project planning should take this into account. Different groups have differing priorities and preferences in terms of livelihood activities. For example, Tharu people do not often engage in livestock management, which instead is the main livelihood choice for high caste groups of hill origins, other ethnic groups and the Train caste group. Instead, the Tharu give more priority to farming, fishery and duck keeping. On the other hand, many of the Musahar are landless and need support in terms of vegetable farming, to help promote their livelihoods.

LIST OF PARTICIPANTS

Meeting Description: Consultation with Madhesi community, Sirahi,

Location: Rampura, Uttar Kamal Daha, Sirahi, Mirchaya NP-9. Balan Khola Watershed

Date & Time: 25th Dec 2017, 9 am.

#	Name	Organization
1	देवी देवी यादव	
2.	कुशेश्वर (साफु)	
3.	रमिला देवी यादव	
4	सानी देवी यादव	
5.	सितली देवी यादव	
6.	रामवती यादव	
7	Jibon Lamal	Brijw dulur Tea
8.	Anjir Dlaw	Brij Dulu Tea

9.7.26 Consultation with Terai-Origin Mixed Group (including Yadav/ Mahato Terai-Caste Groups, Terai Dalits and Tharu Indigenous Peoples) in Bataha River Watershed, Siraha

Location: Terai origin Mixed Group, at Bataha River Watershed, Siraha

Date: December 25, 2017

Time: 3pm

Meeting Attendees: *(see attached list)*

Agenda:

- Presentation of proposed GCF project by the project development team
- Discussion on the proposed GCF project, including the provision of feedback and recommendations by meeting participants.

Meeting Summary:

The community residing in the Bataha river watershed is heterogeneous in terms of caste/ethnic composition, including Yadav/Mahato (Tarai Caste group), Tarai Dalits and Tharu peoples. The main occupations here are farming, animal husbandry, services and business. However, Dalits do not own land, and a few households have a small plot of land sufficient only for accommodation. The Yadav/Mahato are largely involved in farming, animal husbandry and the service industry, while the Tharu are involved in farming and animal husbandry. Dalits' involvement in animal husbandry is very rare and they face limited occupational opportunities due to economic and social factors. For instance, they are landless and their products are not easily sold in the market. Recently, migrating to foreign countries has been another main source of living for young men. Women's involvement in agriculture, livestock management and firewood collection is higher than that of men in the village, but women often remain without access to land ownership. Recently however, land ownership has increased along with a reduction in taxation, which is transforming land ownership as well as labor migration.

Paddy, maize and vegetables are the main crops grown for household consumption, as well as for market sales. However, nearly 500-700 bigha of land have been swept away over 20 years by the Balan River floods. Floods in the years 2054 and 2068 also swept away about 50 hectares of land from the Shree BalanKholaSanyasi Community Forestry area.

Local Observation of Climate Change

Participants noted that the number of flooding events have increased in their area and that water resources are declining, with water springs also drying up.

Recommendations

The local people see different ways of protecting the Churia. They recommend that the proposed project build embankments on the Balan River to protect agricultural lands from flooding from Mid-May to Mid-September. Plantation of fodder trees on the banks of the Balan River can

also help protect the Churia environment and will allow for easier access to fodder. The construction of dams/ponds on the banks of the river can also help to source water in the area, enrich soil moisture and support farmland irrigation.

It was also suggested that the project promote access to, and use of, bio-gas. Currently, there is no bio-gas in the village and instead, villagers use cow-dung and firewood as the main source of energy for cooking. The collection of cow-dung and firewood is largely done by women and the collection of firewood puts great pressure on the Churia forest. Bio-gas promotion will thus both reduce the pressure on Churia forests, as well as the workload of women. Formation of youth organizations to raise awareness among community members and knowledge sharing among different communities was also recommended for Churia conservation.

In terms of livelihood improvement, the following activities were proposed as potential project components:

- Employment programs
- Agricultural promotion plans – improved and scientific agricultural knowledge, training and technology, also in regard to the use of fertilizers on farmland and in horticulture
- Provision of Irrigation
- Soft loans
- Improved livestock (especially buffalo) with support through subsidies, soft loans, training and knowledge
- Training, knowledge sharing and technological support on making candy, pickles and other mango products to increase women's livelihood opportunities.

LIST OF PARTICIPANTS

Meeting Description: Consultation with Terai-origine mixed Group in Bateha River catchment

Location: Bateha, Siraha.

Date & Time: 23 Dec 2017 - 3 pm.

#	Name	Organization
1.	पवन यादव	
2.	सितला चौ.	
3.	कुमार गौर	
4.	प्रेम पासवान	
5	ओम प्र. गुप्ता	
6.	चेतन राम	
6.	उमेश राम	
8	जितु चौधरी	
8.	अमित गौर	
-		

9.7.27 Consultation with mixed-CFUG Group (Madheshi people (Terai-castes and Dalits), Tharu Indigenous Peoples) in Mahuli Saptari

Location: Mahuli Saptari

Date: December 25, 2017

Time: 15:00

Meeting Attendees: *(see attached list)*

Agenda:

- Presentation of proposed GCF project by the project development team
- Discussion on the proposed GCF project, including the provision of feedback and recommendations by meeting participants.

Meeting Summary:

Forest conditions have improved over the last few decades with the increase in community forestry programs. However, open grazing remains a major problem in forest management. In addition, landslides due to heavy rains is contributing to biodiversity losses. Recently, with the promotion of improved livestock breeds, local people, with the exception of the Madesi, have largely stopped open grazing of livestock and have begun stall feeding.

Relation of Madesi people with the Forest

The Madesi, and particularly the Tharu people, feel a strong connection to the forest due to the presence of a sacred site within. These groups visit the sacred place on the first day of the lunar calendar and offer rice-pudding to the deity for community and livestock prosperity.

Livelihood options to uplift the local community

The community felt that there are no standard or homogenous set of livelihood improvement opportunities applicable to the community, which itself is quite heterogenous. For example, Madeshi caste people are interested in livestock management, while Tharu and Dalit people are engaged in agriculture. The Tharu informant reported that they give more priority to farming, fishery and duck rearing. Most of the Musahar are landless, however, it was reported that support with vegetable farming and leasing land would be beneficial to promote their livelihood.

Recommendations

Respondents noted that open grazing is one of the main causes of forest degradation and thus, must be stopped to halt and reverse forest degradation in the Churia region. To accomplish this, the project should make incentives available to local people, to keep improved or more productive varieties of cattle and goat. In the discussion, participants raised the following recommendations through which the Churia can be effectively conserved and protected:

- Efficient harvesting of forests and effective distribution of wood and firewood

- The construction of dam or water reservoir ponds on the bank of the rivers will have multiple functions such as creating fishing opportunities, promoting irrigation and increasing soil moisture and greenery.
- Installation of bio-gas will promote stall-feeding of livestock, as well as reduce pressure on the forest for firewood.
- Skills and training workshops should be conducted to make leaf-plates and wooden pots (Teki).
- Promoting leasehold forestry for landless people, especially Musar and other Dalits, to combat issues of encroachment.

Photo - Community consultation in Mahuli, Saptari

Bihul Khola.
Saptari

LIST OF PARTICIPANTS

Meeting Description: Consultation with Community Forestry Group (Madhesi group)

Location: Mahuli, Saptari, Koshi Sagar Krishna Sargam VDC-6.

Date & Time: 25 December. 2017, 1:00 pm.

#	Name	Organization
1	अवधीराम	
2	इन्द्रदेवप्रसाद	
3	दुर्गा यादव	
4	जगदेवप्रसाद	
5	धनु राम	
6	दुर्गानन्दचौधरी	
7	बेचनी देवी	
8	विष्णुनारायण चौधरी	
9	Ramu Subedi	Project Development Team
10	Jibon Pandle	Project Development Team
11	Ishwar Alipale	Project Development Team

9.7.28 Consultation with Terai-Community (Terai Brahmin, Yadav, and Dalits) in Rampati, Balan River System

Location: Rampatti, The Balan River Watershed

Date: December 25, 2017

Time: 3 pm

Meeting Attendees: *(see attached list)*

Project Development Team

1. Ramu Subedi
2. JIshwor Neupane

Agenda:

- Presentation of proposed GCF project by the project development team
- Discussion on the proposed GCF project, including the provision of feedback and recommendations by meeting participants.

Meeting Summary

The village is heterogeneous communities with Tarai caste group (Tarai Brahmin, Yadav) and Dalits (Mushar). Economically, the proportion of poor households is high in Mushar. The villagers practice farming and livestock management for a living. It was observed that villagers are cultivating vegetable farming. The landless people depend on farming and off-farming labors to survive. In addition, foreign labor migration has also become the main way of living.

Gender difference can be easy seen in the village. Women's involvement in agriculture, livestock management and firewood collection is higher than male involvement in the village. However, women do not have access to land ownership. However, recently, land ownership has increased due to reduced taxation for transforming landownership as well as labor migration. In the village, women only get landownership after the death of husband if children are small. Villagers reported that few women have land entitlement.

Changes Noticed in the Churia Region and Their Impacts on Local Livelihoods

The villagers have noticed many changes in the Churia forest and stated 'Churia is not what we noticed in childhood.' Forest degradation in the Churia region has increased along with encroachment of hill origin people. The Maoist Movement, as well as forest cutting for firewood, are among other major factors leading to forest degradation.

Along with deforestation of Churia forest, water scarcity has also increased over the last 15/10 years. Villagers are no longer able to predict the rainfall and rainfall patterns have shifted. Several small ponds have dried up and overall rainfall has declined in their area. For example, there used to be a pond in SurdiKhola, but it has now totally dried up, clearly impacting agricultural practices, especially summer paddy plantations and winter wheat plantations. Tube-wells and wells are also being dried up. In the past, villagers could access drinking water by installing 15-20 feet deep-boring from the soil surface, but this no longer provides water. This issue of water scarcity has increased the economic burden on the local people. For example, as hand-pumps and tube-well no longer work, villagers are forced to install electronic machine to access ground

water. These electronic machines are 10 times more costly than hand pumps, leaving the poor unable to access this technology.

Current copping strategies

In the villages, people have begun to cultivate sugarcane where they used to grow paddy, wheat and chickpea. It was reported that villagers can benefit from sugarcane during unpredictable rainfalls. However, the full potential of benefits from sugarcane farming are not reached due to lack of water facilities. This shortcoming can be addressed through strategies such as introducing an improved variety of sugarcane (SIYO-PACHSI) that can give more than two times products for the same land and growing cost (human labor, fertilizer, technology etc.).

Recommendations

Participants provided recommendations on livelihood improvement activities to be considered during project design and implementation. Only through simultaneous livelihood improvement efforts can forest conservation activities be efficiently and effectively carried out. Livelihood recommendations include:

- Installing deep boring on the ground to support irrigation and agriculture. Regarding irrigation needs, a man said, "We cannot produce sufficient food-grains by cultivating 10 bighs of land if there is no water supply. But we can grow sufficient food grains on 1 bighs of land if we have regular water supply."
- Supporting access of local people to improved livestock, especially buffalo through instruments such as subsidies, soft loans, trainings and knowledge sharing
- Providing training on sugarcane farming - after decline of ground water, the villagers have been cultivating sugarcane to cope with water scarcity. However, villagers have not good knowledge about sugarcane farming and do not reap the full benefits of sugarcane farming
- Supporting vegetable farming to increase women livelihood
- Promoting training, technology and knowledge sharing on making candy, pickles and other items from mangoes. Horticulture, especially mango plantation, is the source of cash income in the village.

Photo of community consultation with members of community in the Terai in Balan Khola river system

LIST OF PARTICIPANTS

Meeting Description: Consultation with Tarai Community in Rantati Bolan River Syst

Location: Bolan watershed! Sirohe.

Date & Time: 25 Dec 2017

#	Name	Organization
1	राम विनोद यादव	
2	सेतल साफ	
3	सेवकराम	
4	कृष्णदेव। यादव	
5	अनिल कुमार यादव	
6	सुमी यादव	

9.7.29 Consultation with Indigenous Tharu Community in Balan River System

Location Balan River System, Siraha

Date: December 25, 2017

Time: 16:30 pm-18:30 pm

Meeting Attendees: *(see attached list)*

Agenda:

- Presentation of proposed GCF project by the project development team
- Discussion on the proposed GCF project, including the provision of feedback and recommendations by meeting participants.

Meeting Summary:

Farming and horticulture are the main adaptive strategies of the people in the area. They produce paddy, dalhan, oilseeds, and vegetables. In addition, the area is famous for mango production. Horiculture, especially manago plantation, has been rapidly increasing due to lack of irrigation facility and agriculture labor to do farming. Each household has at least a few number of mango trees. It is reported that mango plantation is the main source of cash generation to the local people. However, awareness of climate change remains low in the community.

Causes of Churia Forest Degradation

Respondents provided the following factors as main drivers of forest degradation:

- Population growth
- Encroachment or settlement in Churia region
- Illegal harvesting of forest products
- Open grazing
- Forest fire by people

Recommendations

As feedback to the BRCRN project that was presented, participants provided both recommendations for forest conservation and recommendations for providing livelihood support to compliment forest conservation activities.

Recommendations for reducing forest degradation include:

- Promotion of stall feedings
- Plantation of fodder trees and grasses
- Provision of leasehold farming to landless, small farmers and middle farmers
- Plantation of fodder trees in Ailani land
- Constructing a dam

Recommendations for enhancing livelihoods and providing economic security include:

- Increasing awareness of the close connection between forest and farming systems
- Giving forest lands to the local community and promoting the production of fodders

- Promoting mango farming, fodder and ground grass plantation and NTFPs plantation on community forest lands
- Promoting horticulture like turmeric and ginger plantation in community forest
- Providing training, knowledge and technology to make jam, pickle and candy from mango to increase local employment of local people including women and marginalized

Consultation with Tharu community members in Balan watershed

Bihul Nadi
Saptari IP

LIST OF PARTICIPANTS

Meeting Description: Consultation meeting with IP (Tharu) community.

Location: बलान बिहुल सुरुङ्गा, सप्तरी, Balanl surunga watershed, Saptari

Date & Time: 25 Dec 2017, - 4.30 pm.

#	Name	Organization
१.	[illegible]	
२.	[illegible]	
३.	मुटाई चौधरी	
४.	पुरन चौधरी	
५.	मनमरन चौधरी	
६.	मुटन चौधरी	
७.	हटिना चौधरी	
८.	सितारम चौधरी	
९.	सितल चौधरी	
१०.	महेन्द्र चौधरी	
११.	दुर्गानन्द चौ०	

Page: 1

Bihul Nadi
Saptari IP

LIST OF PARTICIPANTS

Meeting Description:

Location: बलान बिहुल ग.पा. - बुढ़ा, सप्तरी

Date & Time: 28 Dec 2017, — 5:30 PM.

#	Name	Organization
92.	बुद्धि लाल चौधरी	
93.	आनन्द कुमार	
94.	उमाकान्त चौ.	
95.	मुक्ति चौधरी	
96.	जितेन्द्र पासवान	
97.	संजय पासवान	
98.	ओम प्रकाश राम	
99.	योगेन्द्र चौधरी	
100.	मोहन चौधरी	
101.	शुभ लाल चौधरी	

LIST OF PARTICIPANTS

Meeting Description: Consultation meeting with IPs (Tharu), Saptari

Location: Surunga / Balan Watershed

Date & Time: Dec 29, 2017 4:30 p.m.

#	Name	Organization
21	Arjun Dhan	Project Development Team
22.	Jiban Pandey	Project Development Team
23.	Ishwor Mahato	Project development Team
24.	Ashok Dhan	Project development Team
25.	Ramu Subedi	Project development Team

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9.7.30 Consultation with mixed community group (Yadav/ Mahato Terai-Caste, Terai Dalits and Tharu) in Mahottari

Location: Sector Forest Office, Gausala, Mohattari

Date: December 26, 2017

Time: 13:00

Meeting Attendees: (see attached list):

Agenda:

- Presentation of proposed GCF project by the project development team
- Discussion on the proposed GCF project, including the provision of feedback and recommendations by meeting participants.

Meeting Summary:

The main community groups in this area are Yadav/Mahato (Tarai Caste group), Tarai Dalits and Tharu. Farming, animal husbandry, services and business are the main occupations. However, Dalits do not own land, and a few households have a small plot of land sufficient only for personal accommodation. The Tharu and the Yadav/Mahato groups are largely involved in farming and animal husbandry, with the latter group additionally engaging in the service industry. Recently, labour migration to foreign countries has been the main source of living for young men.

Local observation of climate change

It was noted that flooding events have been increasing in the area. Over the last two decades, about 500 bigha of land was swept away as a result. Respondents noted that water resources have declined, with water springs also drying up.

Recommendations

Participants suggested different activities as potential project components. These include: (i) embankments along the river to protect agricultural land from flooding from Mid-May to Mid-September, and (ii) the plantation of fodder trees on the banks of the river to protect the Churia environment. These plantations will also enable easier access to fodder for local purposes. The construction of dams/ponds on the banks of river was also recommended to help provide a water source in the area, which can simultaneously enrich soil moisture and support farmland irrigation.

It was reported that no bio-gas is available in the village, and rather, villagers use cow-dung and firewood as the main source of energy for cooking in the household. The collection of cow-dung and firewood is largely done by women and places a large amount of pressure on the Churia forest. Respondents noted that the installation of bio-gas will reduce pressure on Churia forests as well as the workloads of women. Respondents also raised the idea of forming and mobilizing a youth organization, which would effectively raise awareness on these issues among the community members. Sharing of knowledge among different communities can be also useful to protect Churia environment.

In terms of livelihood improvement, local people suggested the development of employment programs, agricultural promoting plans, improved and scientific agricultural knowledge, training and technology, provision of irrigation and soft loans, and the promotion of hybrid or improved varieties of livestock.

LIST OF PARTICIPANTS

Meeting Description: Consultation with Madhesi community / down-stream people

Location: Gausala, Mohattari

Date & Time: Dec 26, 2017 1 pm.

#	Name	Organization
1.	Ram Narayan mahato	
2.	Ram Sebak mahato	
3	Asibi Lal Mahato	
4.	Ajay Kumar Mahato	
5	Dhiraj Shing	
6	Pawen Kumar Chaudhari	
7	Vijay Kumar mahato	
8.	Chandeshwar Thakur	
9.	Ram Lagan Chaudhary	
10.	Hira Lal Sharma	AFO
11.	Ramu sutbol	

9.7.31 Consultation with Mixed Community including Tharu Indigenous Peoples, Yadavs and Muslimsin Gausala, Mahottari

Location: Gausala, Mahottari

Date: December 26, 2017

Time: 14:00

Meeting Attendees: (see attached list):

Agenda:

- Presentation of proposed GCF project by the project development team
- Discussion on the proposed GCF project, including the provision of feedback and recommendations by meeting participants.

Meeting Summary:

Farming and horticulture are the main livelihood strategies of the Terai indigenous people in the area. They produce paddy, dalhan, oilseeds, and vegetables. Horticulture, especially mango plantation, has been rapidly increasing due to the lack of irrigation facilities and agriculture labor to do farming. Each Tharu household has at least a few mango trees. It is reported that mango plantations are a major source of cash generation for locals.

Causes for degradation of Churia Forest

Many causes of forest degradation were identified, including population growth, encroachment or settlement in the Churia region, illegal harvesting of forest products, open grazing and forest fires.

Climate change

From the discussion, no significant awareness about climate change was evident within the community.

Recommendations

In order to protect the Churia region, respondents recommended the promotion of stall feeding, plantation of fodder trees on the banks of rivers, and plantation of fodder trees in *Ailani* land, as part of the proposed GCF project. Awareness on the linkage between forests and farming was also agreed to be essential, and it was suggested that more forests be turned over to community forest management.

In terms of livelihood support, respondents noted that in Gausala Village, villagers have traditionally been producing mangoes. Raw mango is sold to local traders, however, receiving support in the form of trainings, knowledge and technology to facilitate the production of jam, pickle, candy and related mango products would create more employment opportunities locally, including for women and poor people. The local people have also been cultivating sugar-cane and the support of sugarcane plantations and installation of deep-boring was suggested as a

helpful way of supporting local livelihoods. Horticulture, such as turmeric and ginger plantations, also have potential in the community forest system.

LIST OF PARTICIPANTS

Meeting Description: Consultation Indigenous community of Tasai

Location: Gaushala HP, Mahottari

Date & Time: Dec 26, 2017, 2 PM

#	Name	Organization	Signature
1.	मो० शरिफ		
2.	कौशल्या चौधरी		
3.	अनिता चौधरी		
4.	विरेन्द्र कुमार मण्डल		
5.	Jiba Paul	Project Development Team	

9.7.32 Consultation with Local Government Representative in Laxmipur, Mahottari

Location: Laxmipur, Bhantabari, Mahottari,

Date: December 26, 2017

Time: 14:00 -

Meeting Attendees: *(see attached list)*

Project Development Team

1. Arjun Dhakal
2. Ramu Subedi
   Ishwor Neupane

Presentation of Proposal and feedback

Meeting Summary:

Current changes in Churia Region

Respondents noted the following changes within the Churia region:

- The land surface level at the bottom of the Churia region seems to be swelling
- Landslides and flood events are increasing
- The water levels in rivers are rising higher than has been normal in the past. Along with it, floods are affecting the villages and peoples' livelihoods.
- Erratic and heavy rainfall events have increased
- Water sources, especially springs, have shifted about 5-6 km from north to south
- Surface water levels have declined
- Hundreds of hectares of agricultural lands have been swept away by summer flooding and huge areas of agricultural lands have been converted into barren lands (locally called BAGAR)

Causes of degradation of Churia's Forests

Respondents found the main cause of Churia deforestation to be unemployment and uncontrolled excavation of sand and soil. The demand of water is also growing rapidly along with population growth and deforestation in the region.

Recommendations

The participants recommended that the project incorporate the following ideas into its planning and components. Alternative roads on riverbanks should be constructed to function as embankments to control summer flooding. The remaining land can be used for farming, tree plantation (especially fodder trees), cultivating NTFPS and resettlement of landless people.

Respondents also suggested two ways to control the deforestation of Churia forests in terms of long term and short term plans. As a long term plan, the government should follow the following activities;

- The removal of unplanned or haphazard settlements in Churia region
- The resettlement of communities residing in Inner-Terai, Terai and the Hill regions.

- Consider upstream and downstream impacts on rivers within the Inner-Terai/ Dunn valleys
- Construction of water reservoir tanks on the bottom of Churia to increase soil moisture, promote the increase of surface water levels and reduce drinking water problems. Collected water can be used for irrigation, and the ponds can be used for fishery and tourism purposes.

In the short term, the following activities should be promoted:

- Control deforestation of Churia region
- Promote the plantation of trees on barren land
- Manage water sources/springs that are used for drinking water and irrigation

Respondents voiced that the local government should be given the authority to control excavation of sand and soil. The local youth club could potentially play a vital role for raising awareness within the community regarding the ecological importance of the Churia region.

LIST OF PARTICIPANTS

Meeting Description: Meeting with Local Government Representative in Laxmipur, Mahottari

Location: Laxmipur, Mahottari

Date & Time: 26 Dec 2017, 2 Pm.

#	Name	Organization
1	Pawan Yadav.	VDC member
2.	Sivam Sreevastav.	Representative
3.	Omji Paswan	member.
4.	Arjun Dhar	Ten member.

9.7.33 Consultation with Gausa Municipality Representatives, Youth Club and Community Forest User Group Representatives

Location: Gausala, Mahottari

Date: December 27, 2017

Time: 11:00

Meeting Attendees: (see attached list):

Agenda:

- Presentation of proposed GCF project by the project development team
- Discussion on the proposed GCF project, including the provision of feedback and recommendations by meeting participants.

Meeting Summary:

Current situation of Churia Region

Events of landslides and flooding have increased in the upstream and downstream areas of Churia region respectively, groundwater is decreasing downstream, forest fires have increased and increased incidences of human-wildife conflicts are occurring due to habitat depletion. Crop destruction due to declining soil fertility has also been noted along with degradation of Churia forests.

Climate change

The participants felt that erratic and heavy rainfall events have increased, water sources (especially springs), have shifted about 5-6 km from north to south, ground water has declined and agricultural lands have been converted into barren lands due to flooding.

Causes to degradation of Churia Forest

Respondents saw the main cause of Churia deforestation to be unemployment and uncontrolled excavation of sand and soil, illegal harvesting of forest products for fulfillment of timber and firewood and population growth.

Recommendations

The participants expressed interest in the construction of embankments along the rivers. Any remaining land was proposed be used for farming, tree plantation (especially fodder trees), cultivating NTFPS and resettlement of landless people. In the discussion, participants recommended potential project strategies such as resettlement and relocation of haphazard settlements in Churia region and Terai, and developing linkages or connectivity of small streams. Construction of water tanks on the banks of river banks, control and management of illegal soil and sand extraction from rivers and awareness raising among the local people, linking forest user groups, encouraging forest user groups and youth to participate in Churia

forest conservation and management, giving authority to local governments to manage forests etc. were some other ideas.

Meeting with mayor of Gausala Municipality, Mahottari

Photo of meeting participants, including members of provincial parliament – 2 Bharat Sha in Gausala Municipality, Mahottari

Consultation with local Government & local leader

LIST OF PARTICIPANTS

Meeting Description: Consultation meeting with local Government + youth club + CA

Location: Gaushala, Nagar Palika, Mahottari.

Date & Time: Dec. 27, 2017 11 am.

#	Name	Organization
1	शिवनाथ मल्लो	नगर पालिका गौशाला नगरप्रमुख
2	दिपकुमार गर्ईला	ना.पा. मेयर सत्तारुढ पार्टि
3	सरोज सिंह	ना.पा. गौशाला वार्ड 10
4	बजरंगी कुमार	नगर युवा क्लब नगर पालिका
5	विश्वनाथ यादव	सन्तराम यादी व्यवसायी संघ
6	श्रावण चौधरी	ई.व.क्ल
7	राजशंकर झा	11
8	भानुधन प्रसाद	युवा क्लब
9	कुन्दन कुमार शाह	
10	कपिलनारायण चौधरी	इ.व.क्ल. वार्ड को अध्यक्ष
11.	Ramsubed Project del	
12.	Anju Dhaw Project De	

9.7.34 Consultation with Member of Provincial Parliament and Members of Local CFUGs

Location: Gausala, Mahottari

Date: December 27, 2017

Time: 13:00

Meeting Attendees: (see attached list):

Agenda:

- Presentation of proposed GCF project by the project development team
- Discussion on the proposed GCF project, including the provision of feedback and recommendations by meeting participants.

Meeting Summary:

The parliamentarian highlighted some serious issues in the Churia region such as forest encroachment and forest degradation, increased landslides in upstream areas and flooding in downstream areas, unpredictable rainfalls and declining ground water. Respondents highlighted that poverty, unemployment and uncontrolled excavation of sand and soil are some of the major causes of degradation in Churia.

Recommendations

The discussion produced various recommendations for the proposed project, including the effective implementation of the Churia Master Plan, control of riverbed cutting, landslide control in upstream areas, promotion of income generating activities for the poor and marginalized groups, and the construction of recharge ponds in upstream areas. Parliamentarians stressed that the provincial government should be given a coordinating role, as well as authority and sufficient resources for the conservation of the Churia landscape in cooperation with local government and other stakeholders.

Photo – Meeting with member of Provincial Parliament

Consultation to Local Government Unit & MP

LIST OF PARTICIPANTS

Meeting Description: Meeting with member of Provincial Parliament

Location: Gaushala, Mohottari

Date & Time: Dec 27, 20

#	Name	Organization
1	मा० मदन प्रसाद [illegible]	प्रदेश सभा सदस्य
2	मेघ मोतानाथी	[illegible]
2	शिवनाथ मंडल	नगर प्रमुख मयोर
3	[illegible]	नगर वार्ड [illegible]
4	[illegible]	[illegible]
5	दिपेन्द्र [illegible]	[illegible]
6.	Arjun Dhar	Project Delep Team
7	Ram Sharma	Project Delep Team
8.	Jiban Pand	Project Delep Team

9.7.35 Consultation with Local Community and Members of Local CFUG in Thakur Khola Watershed, Sindhuli

Minutes of the meeting held with local community, community Forest Users Groups and other

Location: Rajbas Kunai , Sirthauli , Sindhuli

Date: December 28, 2017

Time: 11:00-14:00

Meeting Attendees: *(see attached list)*

Agenda:

- Presentation of proposed GCF project by the project development team
- Discussion on the proposed GCF project, including the provision of feedback and recommendations by meeting participants.

Meeting Summary:

Community Reported Changes in the Environment

Participants noted environmental changes that have resulted in reduced crop productivity and challenges on local livelihoods. These include:

- Increased soil erosion and landslides
- Water scarcity, resulting from uncertain rainfall patters and drought, affecting irrigation and irrigation based commercial farming
- Increased incidence of forest fires from dryness leading to habitat loss, soil erosion and scarcity of fodder and fuel wood

Drivers of Deforestation

Respondents cited the following factors as contributors to the deforestation seen in the Churia region:

- Forest encroachment
- Illegal trade of forest and forest products
- Placement of titled lands in riverbed areas characterized by low productivity and high flood risks, forcing local people to resort to forest encroachment to meet livelihood needs

Local Conservation Efforts

The community has planted bamboo seedlings on the banks of rivers, but this initiative has not been able to succeed due to summer floods

Recommendations

In order to promote the conservation of the Churia region, corresponding employment and income generating activities are needed. Recommendations for the project to consider included:

- Construction of dam on Thakur Khola River bank to protect agricultural land and improve irrigation systems for high value crop and off season vegetables
- Plantation of bamboo and thakal in sloop land
- Construction of small hydropower plant in river for sustainable energy
- Holding of skill trainings such as for handcraft made by bamboo for income generation
- Promotion of scientific forest management in community forests
- Development of local awareness on conservation issues in the Churia hills/foothills
- Promotion of pasture development/fodder tree plantations and stall feeding rather than open grazing
- Development of market connectivity for agriculture products and vegetable farming

Photo – Discussion with local community members and members of local CFUG in Thakur Khola Watershed in Sindhuli

LIST OF PARTICIPANTS

Meeting Description: Local Group – Regarding Thaneuchota, Sindhuli

Venue/ Location: Sinthauli - Kumai Rajabas, Thaneuchota watershed

Date and Time: 12-9-2074 / Dec 28, 2017

#	Name	Organization
1.	Bhumilal Damai	Local p.
2.	Sahadev Dhami	"
3.	Kusha Dhami	"
4.	Gadesh Bdr. Budhathoki	"
5	Jhalak Bdr Budhathoki	"
6.	Thakur prsd. Dhakal	"
7.	Nabaraj Pokharel	"
8.	Chandra Kishor Thapa	"
9	Parmapra. Bhandari	"
10	Ram Bdr D.K.	"
11	Dil Bdr. Tamang	"
12	Sampatiya Chaudhary	"

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LIST OF PARTICIPANTS

Meeting Description: Local Group - Regarding Thatkuri Khola.

Venue/ Location: Sirthuni - Kumari Tole

Date and Time: [illegible] - 2074

#	Name	Organization
13	Sadhab Bd. Kumar	—
14	Rombarn Kumar	—
15	Lubaraj Kumar	—
16	Dinesh adhikari	—
17	Man Kumar. Tamang	—
18	Suresh thapa	—
19	Jagya Bd. Dahal	—
20	Prem bd. Bhatbai	—
21	Narayan Kumar	—
22	Arjun karki	—
23	Shimji Kumar	—
24	Rana Bd karki	—

LIST OF PARTICIPANTS

Meeting Description: Local Group - Regaining Thatching Khola

Venue/ Location: Sri Thanda - Kamai Rajbang

Date and Time: 21-09-2074, DEC 28 2017

#	Name	Organization
25	Aash Narayan Kumar	—
26	Suman Chaudhari	—
28	Dev Bdr. Khadka	—
29	Biraj Sharma	Youth for Change
30	Ramu Subedi	Project Delegate Team
31	Arjun Dhami	Project Delegate Team
32.	Jibon Bandel	Project Delegate Team

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9.8 Consultations on Gender

- Meeting with HIMAWANTI
- Meeting with NIWF
- Meeting with FEDO
- Local-level Meetings
- Gender Workshop

9.8.1 Bi-Lateral Meeting with HIMAWANTI

Location: SEEPORT Office, Lalitpur/ Patan, Nepal

Date: December 01, 2017

Time: 13:45-14:30

Meeting Attendees: *(see attached list)*

HIMAWANTI

1. *Anita Shrestha*
2. *Sita Sunar*

Project Development Team

4. Laura Kiff, Consultant (FAO/ UNIQUE forestry and land Use)

Meeting Schedule:

- Presentation of participants
- Presentation of proposed GCF concept
- Perspectives on the project and recommendations for its feasibility

Meeting Summary:

The representative from the project development team discussed that MoFE together with the Food and Agriculture Organization of the United Nations are currently developing a cross-cutting proposal (i.e. mitigation and adaptation) for the Green Climate Fund (GCF) focusing on ´*Building a Resilient Churia Region in Nepal*´. It was mentioned that a concept note for the project has already been developed and submitted to the GCF, and that currently the team is in the process of conducting a feasibility study, environmental and social assessment and a gender assessment/ action plan. The project is proposed for the Central and Eastern Churia region, and aims to reduce emissions from unsustainable land use change (especially deforestation and forest degradation), and increase the resilience of local men and women as well as ecosystems to climate impacts and risks. The three core project outputs and associated activities were then presented.

Perspectives on the project and recommendations for its feasibility

It was mentioned that women are responsible for many tasks ranging from taking care of the household, children and elderly, while also attending to subsistence crops and livestock, collecting water, fuelwood and NTFPs, among other tasks. As a result, women are ´time-poor´ in that they have limited time to engage in other tasks. Representatives from HIMAWANTI discussed that women in the Churia-Terai region experience many problems beyond time-poverty, ranging from health, education, access to resources and violence, among others.

In terms of health, it was mentioned that many women suffer from waterborne diseases, largely due to the lack of sanitation facilities and the contamination of water resources (i.e. lack of safe drinking water). With climate change the amount of time needed to collect water may increase as streams and aquifers dry up, requiring women and girls to travel longer amounts of time to

maintain their livelihoods (including water for household consumption and use, as well for livestock and crops).

In terms of education, it was noted that many girls may be pulled out of school at a young age to help collect water, NTFPs, fuelwood, etc., and to work in the fields and take care of the household.

Access to resources and participation in decision making were also identified as key challenges for Women in Nepal, including within the Churia-Terai region. Many women don´t have access to formal land tenure or use rights, despite their key role in managing the agricultural land. Women´s participation in decision making is also limited, although depends on the community. There is a need for additional training to support women to take on leadership roles and to raise awareness and capacities on climate change and sustainable natural resource management. It was mentioned that awareness raising should not only be targeted at women but also girls to help them develop capacities at a young age.

In terms of the project, it was discussed that within the Churia and Terai region it is important to strengthen awareness of climate change, and promote activities that not only improve the resilience of communities but also enhance the livelihoods of local people, especially women who are especially vulnerable to climate change. In order to do so it will be necessary to raise awareness and build capacities, not only on climate change and improved practices, but also in terms of leadership and business management. It was mentioned that while trainings targeted for women and women's groups are important, that it is also important to ensure that men also receive gender-sensitive trainings on how to also foster engagement and leadership by women.

Income generating activities to help strengthen women´s livelihoods were further mentioned as a key element to pursue and demonstrate in the proposal. They agree that the value chain component is important as NTFPs, such as aromatic plant cultivation among others, can play an important role in strengthening women's livelihoods, especially when micro-enterprise establishment and trainings are include.

Trainings on sustainable land use practices, including agriculture and forestry, were identified as important to address the problems of unsustainable natural resource management, land degradation and climate change.

In general HIMAWANTI is interested in the project and think it has the potential to support women to increase their resilience to climate change and reduce unsustainable natural resource management. It was agreed that the consultants will visit HIMAWANTI district representatives in the field. HIMAWANTI also agreed to send related studies to the project development team. The development team will discuss the findings of the gender analysis with HIMAWANTI, and further consult them on the proposed gender action plan for the GCF proposal.

Attendance Sheet

Meeting Description: Presentation of concept, plans for developing a Gender Action Plan & Key considerations.

Location: SEEPORT Office, PATAN

Date & Time: DECEMBER 1 2017; 13:45-14:30

No.	Name	Organization
1.	Anita Shrestha	HIMAWANT
2.	Sita Gunas	"
3.	Laura Kiff	UNIQUE

9.8.2 Bi-lateral Meeting with National Indigenous Women Federation (NIWF)

Location: National Indigenous Women Federation Office, Buddhanagar/Kathmandu, Nepal

Date: December13, 2017

Time: 13:45- 14:45

Meeting Attendees: *(see attached list)*

Organization A

1. Shanti Dewan/Junita Rai, General Secretary Feminist Dalit Organization

Project Development Team

1. Laura Kiff, Consultant (FAO/ UNIQUE forestry and land Use)
2. Dr. Jiban Paudel, Consultant (FAO/ SEEPORT)

Meeting Schedule:

1. Presentation of project proposal to be submitted to GCF
2. Presentation of NIWF and perspectives on the project

Meeting Summary:

Presentation of project concept

The three main proposed project activity areas/ outputs and a more detailed description of the proposed activities were presented and discussed by the project development team.

Presentation of NIWF and Perspectives on the Project

The National Indigenous Women Federation (NIWF) in Nepal was founded in 2000. NIWF works to empower the capacity of indigenous women. Out of 77 (former) districts in Nepal, they have 61 district chapters working with 42 indigenous groups[204].

Some of the organizations main working areas include, among others:

The organization has a presence in the Churia and Terai region. Indigenous people are closely embedded with natural resources like forest, water, mountain, land not economically only but also cultural too. They worship nature and natural objects like trees, mountain, water and water sources as deity. Many natural objects are essential for offering their deity. For example, local brew is essential for them to offering their deities, to offering their guest as well use it in their everyday consumption. For making local brew, *marcha* (object that help to fragmentation of grain) is needed, but the plants used for making *marcha* are gradually disappearing due to climate change. In the Churia region, many indigenous people are residing who have been using natural resources and doing farming with horticulture are highly affected by climate change. For example, the upper part of Churia region is good for growing orange which is gradually disappearing.

[204] In 2002, the Government of Nepal has listed 59 indigenous Adhivasi groups living in Nepal.

NIWF representatives stated that government has been restricting indigenous peoples' ability to use forest and forest products, which have traditionally been used for their livelihoods. Moreover, expansion of market economy, especially globalization of crops seeds, gradually is displacing the indigenous or local variety of seeds in which indigenous people and knowledge are closely embedded. Moreover, many indigenous people have no access to modern seeds too.

They further stated that many indigenous people used naturally grown plant to offer their ancestors in ritual. For example, in Chamling community, Ghaiya Dhan (wild paddy) is essential to offering panlama, household deity and Kaguno is also required to arrange ritual to them. These native plants are gradually displacing by globalization or market economy.

Junita Rai also stated that both indigenous women and men are affected by climate change differently. Women who are highly depended on natural resources like forest, fodder, agriculture and water resources for livelihood. Likewise, all indigenous women are not equally affected by the climate change. Bankariya, Raute, Chepang and other who highly depended on forest for livelihood are highly vulnerable than others indigenous people.

Mrs. Rai said that forest of Churia region has been gradually declining. She saw various reasons for deforestation of Churia forest which are as follow;

- Development connected, expansion of road
- Population growth
- Illegal harvesting of forest productions
- Removing of roots of big trees
- Sukumbasi/landless to whom government paid little attention

She noted that many indigenous people, especially women are unaware about climate change, and about ways they can cope with the challenges. Moreover, indigenous women have little knowledge about the mitigation activities as well as government policies. Moreover, training and workshop are largely concentrated to urban area and do not reach to indigenous people, including women who reside in rural.

She also pointed out that some indigenous practices are functional and well adapted to manage local resources, but that some are malfunctional or mal-adaptive too. Therefore, they are needed to identify and share knowledge.

LIST OF PARTICIPANTS

Meeting Description: Presentation of proposed GCF project to the National Indigenous Women's Federation

Location: NIWF Office

Date & Time: 13:45 - 14:40 / December 13, 2017

#	Name	Organization
1	Laura Kiff	Project Development Team/UNIQUE
2	Dr. Jiban Paudel	Project Developme Team/SEEPORT
3	Junita Rai (Shanti)	NIWFedan

9.8.3 Bilateral Meeting with the Feminist Dalit Organization (FEDO)

Minutes of Meeting with Feminist Dalit Organization (FEDO)

Location: Feminist Dalit Organization Office, Lalitpur/ Patan, Nepal

Date: December13, 2017

Time: 11:00-12:00

Meeting Attendees: *(see attached list)*

Meeting Schedule:

1. Presentation of FEDO
2. Presentation of project proposal to be submitted to GCF
3. Perspectives on the project and recommendations for its feasibility
4. Commitments

Meeting Summary:

Presentation of FEDO

The Feminist Dalit Organization (FEDO) in Nepal was founded in 1994. FEDO works to empower, mobilize/ organize and strengthen Dalit women. Out of 75 districts in Nepal, they have 56 district chapters, over 2,000 women's groups and more than 600 front-line leaders/ activists[205] at the district level.

Some of the organizations main working areas include, among others:

- Economic empowerment and access to resources
- Leadership training and institutional strengthening
- Disaster Risk Reduction, Water Sanitation and Health, Climate Change[206] and Food Security
- Education
- Land titles/ land use rights: It was noted that a major challenge for Dalits is that they do not have land tenure. They stated that 1-2 generations of Dalit people have lived on the same land, however without land use rights they are limited by the livelihood options that they can adopt.
- Dalits are living far from the center that leads to weak access to resources which are largely concentrate in the center, especially district headquater

The organization has a presence in the Churia and Terai region. Many Dalit have difficulties to access government services, due to a history of exclusion, as well as the fact that many Dalit peoples may live in more remote areas that are farther away from urban centers. Other challenges include education, lack of land tenure/ land use rights, poverty and limited awareness and capacities of people to access such services/ support.

They noted that Dalit people in the Churia and Terai region are particularly vulnerable to natural hazards (such as flooding, landslides, drought), as well as climate change. Many Dalit people live in ´high risk´ areas, such as in areas prone to landslides or in areas along vulnerable river banks.

[205]Front line leaders work to bridge communities with government, organizations and opportunities.
[206]The organization is working on climate change related topics since 2006

Majority of Dalit people are not aware of climate change risks, nor measures to increase their resilience and preparedness for natural disasters or climate risks. While natural disasters continue to have a major impact on Dalit peoples living in the Terai/Churia region, it was noted that climate change will further impact them and have major impacts on their livelihoods (e.g. increased water scarcity). Water scarcity was noted as a major challenge which currently many dalit communities and especially women face. This includes a lack of clean drinking water and water for agriculture. With climate change if nothing changes, water scarcity could be further exacerbated and Dalit peoples will become increasingly vulnerable and impacted by climate change.

It was noted that Dalit women are more vulnerable than Dalit men for various reasons:

- Many men migrate to work in foreign countries, and women are left behind and must care for the family, their agricultural land, etc.
- Many women do not have opportunities to access training, education
- There is limited awareness of climate change, disaster risk reduction measures, sustainable natural resource management (limited opportunities and exposure).

Dalit women will be particularly vulnerable to climate change through increasing water insecurity. Further, their adaptive capacities are extremely low, and they are not aware of disaster risk reduction practices which could greatly improve their resilience and abilities to adapt to climate change.

While there is some Dalit representation in community forest user groups, their participation is perceived by many Dalit people to be more of a tokenism. It was discussed that many of these groups are captured by elites. When Dalits participate in such groups it is most frequently men participating – Dalit women are rarely engaged in such groups due to lack of awareness, capacities and time-poverty. They mentioned while policies are developed which aim to increase the percent of Dalits participating in such groups, that there is still a long way to go before ensuring developing meaningful representation.

Renu Sijapati gave a good example of how Dalits people are living in vulnerable place. He remembered the event flood of Bardiya district happened two years ago in which 26 households were badly affected in which 24 households belongs to Dalits.

The drivers of vulnerability vary in terms of geographical locations. For instance, landslide is the major problem in hilly region whereas floods in Terai.

Presentation of the proposed concept and discussion

The three main proposed project activity areas/ outputs and a more detailed description of the proposed activities were briefly presented and discussed. It was discussed that many of the activities we are proposing are aligned with strategic areas that FEDO is working with, including climate change, food security, water security and disaster risk reduction. Institutional strengthening and capacity building, as well as knowledge sharing are also core elements with substantial link to FEDOs activities.

It was noted that it would be important to develop specific indicators that help ensure the engagement of Dalit peoples, especially Dalit women. Specific training for Dalit women could be developed, and could include approaches such as training trainers within the communities to help build awareness and capacities within communities. They mentioned that key activities for

Dalit Women will include awareness raising, capacity building increasing engagement and involvement of Dalit peoples, particularly Dalit women, within sustainable land use and disaster risk reduction to help strengthen the livelihoods of Dalit men and women.

The promotion of sustainable natural resource management and climate resilient land use practices, as well as flood risk reduction measures and emergency warning systems were seen as critical to help local communities increase their resilience to climate risks and natural hazards. The example of conservation ponds was discussed as a measure which can have many social, environmental and economic benefits in addition to improving water security. It was noted that many communities in the area have implemented good examples for soil conservation or forest management, however a challenge remains how to disseminate this information to Dalit people and raise awareness and capacities, and to overcome other potential barriers to implement such activities (e.g. poverty, lack of land use rights, etc.).

The provision of Dalits involvement in the organization has played the important role to increase their participation in development and natural resources management. The continuity of the provision of Dalits involvement in particular women will be helpful.

Awareness is not only sufficient, but livelihood support programs are also equally important.

LIST OF PARTICIPANTS

Meeting Description: Presentation of project concept to the Feminist Dalit Organization

Location: FEDO Office, Lalitpur, Nepal

Date & Time: 11:00 - 12:00 / December 13, 2017

#	Name	Organization
1.	Renu Sijapati	FEDO
2.	Durga Sob	"
3.	Kalk Swarnakar	"
4.	Bharat Nepali	
5	Laura Kiff	PROJECT TEAM/ UNIQUE
6	Dr. Jiban Paudel	PROJECT TEAM/ SEEPORT

9.8.4 Summary of local-level gender-focused consultations

The following Table provides a summary of gender-focused consultations conducted within the framework of the BRCRN project:

Date	Group/ Organization	Agenda and Recommendations/ Feedback
December 13, 2017, 11:00-12:00 FEDO, Lalitpur/Patan, Nepal	Feminist Dalit Organization (FEDO)	**Agenda:** Presentation of FEDO, presentation of project proposal to be submitted to GCF, perspectives on the project and recommendations for its feasibility, commitments **Feedback/ Recommendations:** ▪ FEDO works to empower, mobilize/ organize and strengthen Dalit women. Out of 75 districts in Nepal, they have 56 district chapters and over 2,000 women's groups. They also provide leadership training and institutional strengthening, and work in Disaster Risk Reduction, land use rights, etc. ▪ It was noted that Dalit women are more vulnerable than Dalit men for various reasons; many men migrate to work in foreign countries, and women are left behind and must care for their family and land. Many women also do not have opportunities to access training, education, and have a limited awareness of climate change. Women are particularly vulnerable due to increasing water insecurity. ▪ It was discussed that many of the activities proposed by the project are aligned with strategic areas that FEDO is working with. It was also noted that it would be important to develop specific indicators that help ensure the engagement of Dalit peoples, especially Dalit women, for whom specific training programs could be developed. ▪ involvement of Dalit peoples, particularly Dalit women, within sustainable land use and disaster risk reduction was encouraged, to help strengthen the livelihoods of Dalit men and women
December 13, 2017, 13:45-14:45, NIWF Office, Kathmandu, Nepal	National Indigenous Women´s Federation (NWIF)	**Agenda**: Presentation of project proposal to be submitted to GCF, and presentation of NIWF and perspectives on the project. **Feedback/ Recommendations:** ▪ An overview of indigenous peoples, their traditions, local produce and connection to natural resources was presented ▪ The disadvantaged faced by IPs, including government-imposed restrictions on NR use, displacement as an effect of globalization and market economy forces, access to modern seeds and displacement of native plants, was also discussed. ▪ Indigenous men and women are differently affected by climate change; women have a higher dependence on natural resources (some groups more than others). Many IPs, especially women, are also unaware about climate change and ways to cope with its challenges, mitigation activities, government policies and related training efforts. ▪ The causes of deforestation, from the perspective of NIWF, were presented. ▪ Given that IPs, especially women, possess knowledge on functional natural resource management practices, and engage in some malfunctional practices as well, there is a great need for information sharing between groups.
December 22, 2017 14:00-16:00 Kerabari, Bakraha River System, Karabari Morong	Womens' Group in Kerahari	**Agenda**: Discussion on climate change and drivers of land use change in their community, presentation of the GCF project proposal, discussion, feedback and recommendations **Feedback/ Recommendations**: ▪ Both men and women are involved in farming activities, but men have significantly more decision making power, have a wage rate almost double that of women and are involved in many more cash earning and business activities. However, women's involvement is growing through influence of political parties and NGOs.

Date	Group/ Organization	Agenda and Recommendations/ Feedback
		▪ Women see opportunities in poultry farming, weaving, small animals keeping and horticulture with the help of loans, small grants, and training (also regarding livestock disease prevention and improved hybrid varieties). ▪ The main barriers women face include the patriarchal value system (limits women's ability to go to public domain and conduct business) and lack of certificate of land ownership (prevents women from registering businesses or receive loans). ▪ Main causes of Churia deforestation are cited to be lack of awareness and illegal harvesting, with women experiencing the impact when collecting water, fodder and firewood. Deforestation has led to the drying of water springs and the demand for water has grown.
December 22, 2017 13:00 Sukhani, Ilam/Jhapa	Indigenous Womens Group in Sukhani (Kankai Watershed)	**Agenda**: Discussion on climate change and drivers of land use change, presentation of GCF project proposal, followed by discussion, feedback and recommendations on the proposal. **Feedback/ Recommendations:** ▪ This settlement was established in the early 1980s and comprises mainly of Limbu and Rai ethnic groups ▪ The main sources of livelihoods are agriculture, small businesses, setting firewood and foreign employment/ remittances. Women are predominantly involved in service provision. ▪ Highly vulnerable groups dependent on subsistence farming in marginal lands and riverbanks are effected by floods, erosion and land degradation ▪ Recommendations of activities that address both conservation and livelihood needs included vegetable farming and livestock raising, skill development for handicrafts and off-farm employment, awareness raising, timber and non-timber forest product plantations, and promotion of grass cultivation, fodder trees and stall feeding
December 23, 2017 09:00-11:00 Damak, Ratu River System	Dhimal Indigenous Women´s Group in Damak	**Agenda:** Presentation of proposed GCF project by the project development team and discussion on the proposed GCF project, including the provision of feedback and recommendations by meeting participants. **Feedback/ Recommendations:** ▪ The women stressed that men and women operate in different domains and that women are mainly involved in the household domain. Their main sources of income generation include weaving of clothes, making local brew, and selling bakka (food made of rice flour). ▪ They noted that water sources, especially ground water, have been declining in the area and that this impacts women more than men (as men are mostly absent), leaving women to manage the household, vegetable farming, weaving and livestock care. ▪ They say better livelihoods can be obtained through support such as small loans and cash that would allow them to diversify activities to include goat raising, hotel businesses, vegetable farming, conservation of culture and tradition, and weaving of traditional dress
December 23, 2017 14:00 Patnali Watershed, Sunsari	Women Forest Users Group in Patnali	**Agenda:** Presentation of proposed GCF project by the project development team and discussion on the proposed GCF project, including the provision of feedback and recommendations by meeting participants. **Feedback/ Recommendations:**

Date	Group/ Organization	Agenda and Recommendations/ Feedback
		▪ Participants noted the major environmental problems they are facing as open grazing in the forest, extraction/smuggling of forest products, river mining, haphazard cultivation, encroachment, inappropriate/unscientific management of natural resources and forest fires ▪ Despite not showing strong awareness of climate change, participants noted negative climate change impacts they have experienced. ▪ They identified upliftment of women's livelihoods as an important project component, e.g. providing support for improved livestock raisin (mainly goat, pigs and cows), off season vegetable production, briquette making and encouraging small businesses.
December 25, 2017 16:00 Mohanpur, Mahuli, Saptari	Womens Group in Mohanpur, Saptari	**Agenda**: Discussion on climate change and drivers of land use change in their community, presentation of the GCF project proposal, discussion, feedback and recommendations **Feedback/ Recommendations:** • The group listed their main economic activities as farming and livestock management • The village is heterogeneous in terms of case and ethnic groups, leading to caste based social discrimination and inequalities. Although gender differences can be seen in household and public domains, both women and men are involved in household and agriculture activities. • Livelihood improvement options include introducing improved or hybrid varieties of cattle (all households have at least some livestock but do not have funds to invest in improved variety), off season vegetable farming (issues of irrigation), utilizing barren lands for fodder trees, address irrigation issues, and grass plantations. • They attribute forest degradation to over exploitation, human made fires, and political movements such as Maoist and Madeshi movements. Women now experience difficulties collected fodder, ground grasses, and water causing great time-poverty.
February 21, 2018 13:30-16:30 AGENO, Lalitpur, Nepal	Various (Gender Focal Point from MoFSC, and representatives from HIMAWANTI, FEDO, COFSUN, Forest Action Nepal)	**Agenda:** Presentation of the BRCRN project, GCF requirements for gender, and the draft Gender Assessment and Gender Action Plan (GAP), followed by discussion and feedback. **Feedback/ Recommendations:** ▪ Positive feedback on the GAP, where it was mentioned that targeted meetings for women on leadership and skill development are key. Feedback was provided that Activity 3.1 (value chains) could also try to help strengthen opportunities for women to access loans, which is a major challenge for many women living in the project area. It was further mentioned that GESI indicators should be fully integrated into the knowledge and information management system. ▪ More detailed information is available in Section 1.4.5

9.8.5 Gender Workshop

Minutes of Meeting of Gender workshop

Place: Ageno, Dhobighat, Lalitpur
Date: 21, February, 2018
Time: 15:30-16:30
Meeting Attendees: *(see attached list)*
Meeting Schedule:

1. Presentation on Project Development and Context
2. Gender in the Green Climate Fund
3. Presentation of the Gender Assessment
4. Presentation of the Gender Action Plan
5. Discussion on the gender assessment and action plan

Summary of the Gender workshop:

As per the workshop schedule, the project development team jointly presented information on project development and gender-related challenges, and promoted measures to support the empowerment of women within the context of the project. It was presented that gender equality and social inclusion are cross-cutting components of the proposed project, aiming to empower women from diverse ethnic, caste and socio-cultural backgrounds, in climate-resilient and sustainable natural resource management. Gender-related feedback from project consultations from November 2017 to February 2018 were presented.

Participants noted the importance of the project for addressing climate change and unsustainable resource management in an area that is highly vulnerable to climate-induced disasters and climate change. Water scarcity, declining soil fertility and degraded and declining forest resources are complex and multi-faceted problems with a strong impact on women. Women living in the Churia hills and Terai are affected by diverse challenges, and it is important that the project takes into account such variation in contexts, not only to climate change, but also based on their local context.

It was appreciated by participants that gender is a cross-cutting element of the proposal. Women are particularly vulnerable to climate change, yet have differentiated vulnerabilities and face diverse barriers – many of which were described in the presentation of the gender assessment. Land use and climate change dynamics are complex within the project area, and it is important that the differentiated vulnerabilities and contexts of women (including socio-economic status, region, socio-cultural and ethnic background, etc.) be taken into consideration.

It was noted by one participant that the project area is politically and socially complex, and given past government efforts to highly prioritize the Churia region for conservation - some communities feel that they were not adequately consulted. Thus, it is critical that the project is based on an ongoing participatory process, such as the process proposed in Activity 2.2, where communities are fully informed of the project and their participation is sustained throughout the project. Participation needs to ensure the full engagement of women, including women from different ethnic and socio-cultural backgrounds, further ensuring that their participation isn´t just a physical indicator but that there is the space to empower them and improve their engagement within such spaces. The target of 50% women beneficiaries was well-received as an im-

portant step to promote women's engagement, along with targeted measures to build leadership and support skill development. Opportunities for training were further described by the project development team in the context of the Gender Action Plan, which are specifically targeted to support women, including women from marginalized households. Such targeted trainings and support and continued cooperation with women's organizations and CSOs at the national, local and provincial level were appreciated by participants.

Overall, the Gender Action Plan received positive feedback. Participants noted the importance of including targeted measures to address highly vulnerable and marginalized groups of women. Business literacy classes, and additional trainings for women to support the adoption of improved practices were well received. Ensuring women's participation in project management entities, and also as trainers, extension agents and local resource persons was identified as another beneficial element of the project, helping to empower and build skills. Proportional representation of marginalized households was identified as important to ensure that such groups are represented by the project.

Dalits in particular were identified as highly vulnerable to climate change, especially Dalit women living in the Terai. It was discussed that a challenge will be to link Dalit women with climate-friendly technology and land use practices, and will require additional targeted trainings and culturally-appropriate training approaches. Empowerment and capacity building measures were identified as important for Dalit peoples to strengthen their adaptive capacities to climate change. Trainers and local resource persons should also include Dalit men and women. Space for cooperation and empowerment of Dalit organizations within the project was identified as an important element, as climate change is a topic which greatly affects Dalit households.

The project's potential to develop partnerships with women's organizations, and ensure their participation on project management structures (e.g. provincial coordination units) was appreciated. In the context of restructuring Nepal as a federal state, the role of local stakeholders was identified as an important opportunity to build capacities of CSOs, including women's groups, and to ensure their active and real engagement within the project.

The project´s efforts to enhance women's roles in climate-resilient value chains are particularly appreciated in the context of men migrating to other countries for work. Specifically, its efforts to support the development of new market opportunities within the project area and to strengthen cooperation and interest of the private sector were well received. Business literacy trainings for women were identified as important, including women from marginalized groups, to develop leadership and entrepreneurial skills. One participant noted that "the involvement of women as entrepreneurs or in business is essential for the economic empowerment of women. Women's decision making power at home and outside home will be increased after their involvement in entrepreneurship activities".

Women's access to loans was identified as another major challenge, as women often do not hold secure land tenure. While the BRCRN project is focused on grant resources and is not able to provide loans, it promotes improved coordination with the private sector, and support for business plan development that will support women to access financial resources.

Measures to support translation of key materials into other languages within the Gender Action Plan, and to have trainings available for women in other languages were appreciated by partici-

pants. As presented in the GAP, resource persons and trainers, from diverse socio-cultural backgrounds - and if necessary, translators - will be used to ensure that women are able to access information, as women in rural areas may not necessarily speak Nepali.

The engagement of eco-clubs and students in extension trainings and modules was received positively, noting that students can be a vehicle of knowledge development, and that investments in strengthening their adaptive capacities will be further passed on through generations.

Within the Churia Knowledge Centre, a participant noted the importance of the knowledge sharing centre for the Churia region of Nepal, and stressed the importance of integrating gender and social inclusion information into the knowledge centre. Within the project management framework, it is important that the participation and engagement of women, indigenous peoples and minority groups is closely followed to provide important lessons learned after project development, and to ensure that the project is able to actively ensure and monitor the engagement of these groups.

It was re-emphasized that that the project is to be implemented in a participatory way, and that members of community-based organizations are fully informed of project interventions and implications prior to participating. Furthermore, interventions will be jointly designed with local community-based organizations through activity 2.2 to ensure that designed interventions are appropriate, aligned with local priorities and needs, and consider differentiated vulnerabilities and needs within communities. Finally, it was noted that the project will not exclude people from the use of natural resources as per their traditional practices, but instead will provide incentives to adopt and benefit from sustainable resources (i.e. the project will not support law enforcement, but instead, if decided together with the community, certain protective measures would be applied). For example, alternative land use through Output 1 will be supported to ensure that there is a sustainable and accessible alternative for all people.

In sum, the Gender Action Plan was well received, and it was noted that M&E will need to be gender-responsive and that women's organizations should play an important role in following and supporting project implementation.

LIST OF PARTICIPANTS

Meeting Description: Building a Resilient Churia Region in Nepal (BRCRN) : Gender Workshop

Venue/ Location: AGENO, Ward No. 4, Dhobi ghat, Lalitpur Nepal

Date and Time: February 21, 13:30 → 16:30

#	Name	Organization
1	A Prasana = chapagai	custer
2	Samata Manandhar	Forest Action Nepal
3.	Bina Shrestha	COFSUN, Nepal
4.	Bharat Nepali	FEDO
5.	Madhu Ghimire	MOFSC
6	Anita Shrestha	HIMAWANTI
7.	Sukanya Shrestha	HIMAWANTI

Other Bi-lateral Stakeholder Meetings in Kathmandu

- NEFIN

9.8.6 Consultation of the Project Formulation Process for GCF: Minutes of Meeting with Nepal Federation of Indigenous Nationalities (NEFIN), Climate Change Partnership Program

Location: NEFIN Climate Change Partnership Program Office, Maharajgunj, Kathmandu, Nepal

Date: December 04, 2017

Time: 10:30 – 12pm

Meeting Attendees:

NEFIN

1. Tunga Bhadra Rai, National Coordinator NEFIN Climate Change Partnership Program

Project Development Team

2. Laura Kiff, Consultant UNIQUE forestry and land use GmbH

Meeting Schedule:

1. Presentation of project proposal to be submitted to GCF
2. Perspectives on the project and recommendations for its feasibility

Meeting Summary:

The meeting commenced by briefly discussing the advances made since the inception workshop, where Mr. Rai was present. Notably, it was mentioned that consultations for the feasibility study and proposal developed are tentatively scheduled to take place in mid-December. While the vulnerability assessment is being conducted by Mr. Seebauer of the project team, it was noted that tentatively the team is looking at the following provinces in the Churia-Terai region: Ilam, Jhapa, Morang, Sunsari, Udayapur, Saptari, Siraha, Dhanusha, Mahottari, Sindhuli, and Sarlahi.

It was mentioned that NEFIN representatives for districts in the project-area should be consulted, as many of the districts have unique-contexts and perspectives that should be taken into account. Mr. Rai further noted that NEFIN has district level offices in each district, and that he can provide support to contact the relevant representatives.

The three project outputs and eleven supporting activities were then presented. Mr. Rai was present during the inception workshop and is familiar with the general idea of the concept note. He noted that while he finds the proposal to be interesting and in general he sees many opportunities for indigenous peoples within the proposal that he would like to revise the concept note in greater detail. Ms. Kiff provided him with an electronic version of the concept note and Mr. Rai noted he would revise it and provide more detailed comments and feedback.

Mr. Rai emphasized that interventions focused on knowledge and learning, such as the Churia Knowledge Centre, are very important for local communities and indigenous peoples. Specifically, he mentioned that the knowledge center should also incorporate local and traditional knowledge of indigenous communities and local peoples who have detailed insight and knowledge which should be shared and promoted. The integration of this knowledge will need to be taken into account during the design of the proposed measure, and within the institutional arrangements.

He further noted that interventions on sustainable land use management are important to combat the unsustainable use of natural resources and increase resilience to climate change. He mentioned that the component on non-timber forest products (NTFPs) and value chains should also take into account the differences in the region, noting that there are various differences between districts. Illam was mentioned as an interesting district which has been commercializing various value chains including broom grass, tea, cardamom, chili, bamboo, ginger and turmeric, among others.

Furthermore, he stated the importance of promoting sustainable livelihood measures instead of unsustainable practices such as relocating people in the upstream forested areas which often have major environmental, cultural, political and socio-economic impacts. Incentives need to be provided to enable communities to sustainably manage the areas and that many good practices exist, for instance agroforestry. The project provides an important effort to build capacities and scale up sustainable practices. He will look into communities implementing best-practices, and inform the team for the upcoming field visit.

It was noted that NEFIN is often cautious of interventions focusing on strict law enforcement and land tenure, as they may discriminate against indigenous peoples and forest-dependent communities. However, the current program focuses primarily on organized user groups and does not have either topic as a central element of the project.

Mr. Rai also noted that their organization will want to ensure that benefit sharing is equitable and fair for indigenous peoples, and to see that indigenous peoples have been adequately consulted and are able to participate in the program. It is critical that the program causes no harm to indigenous peoples, and that the program is designed in a way to provide additional benefits. Furthermore, the proposal should take into account the international conventions and commitments that Nepal has made, especially in regards to indigenous peoples.

Attendance Sheet

Meeting Description: Presentation of concept note & plan to engage indigenous peoples

Location: Nepal Federation of Indigenous Nationalities Climate Change Partnership Program Office (Maharajgunj, Kathmandu, Ne

Date & Time: 10:30-12:00; December 4, 2017

No.	Name	Organization
1.	Tunga B. Rai	NEFIN
2.	Laura Kiff	UNIQUE

Validation Workshop

Date: March 25, 2018
Time: 09:45-16:15
Location: Hotel Himalaya, Lalitpur, Nepal
Attendees: See Attached Sheet

Agenda for BRCRN Validation Workshop:

Time	Description	Presenter(s)/ Moderators
09:45 – 10:00	Registration	
10:00 – 10:05	Chairperson and FAOR in dais	Joint Secretary, MoFE, Dr Somsak, FAOR
10:05 – 10:10	Welcome remarks from FAO	Dr Somsak, FAOR FAO-Country Office, Nepal
10:10 – 10:30	Update on GCF Priorities and Project Approval Process	Ben Vickers, LTO, FAO-RAP
10:30 – 11:30	Key highlights of BRCRN Funding proposal - Logical framework of BRCRN - Project area; - Description of project activities	Dr Jochen Statz, Team Leader, UNIQUE
11:30 – 12:15	Presentation on draft Funding Proposal (FP) - Alignment with GCF Investment Criteria - Rationale for GCF Involvement	Dr Jochen Statz, Team Leader, and Ms. Laura Kiff, Lead Expert ESIA, UNIQUE, Matthias Seebauer, Feasibility Study Expert, UNIQUE
12.15 – 12:35	Presentation on draft Funding Proposal (FP) - Economic and financial analysis of BRCRN project	Zhe Janet Yuan, Lead Expert Economic Analysis, FAO Mr. Arjun Dhakal (tbc), Economic Expert, SEEPORT
12:35 – 13:00	Q&A session for clarification and feedback	
13:00 – 14:00	**Lunch Break**	
14:00 – 14:30	Presentation on draft Funding Proposal (FP) - Monitoring, reporting and evaluation arrangements	Mr. Matthias Seebauer, Lead Expert Feasibility Study, UNIQUE
14:30 – 15:15	Presentation of 'Gender Action Plan' and 'Safeguards'	Ms. Laura Kiff, Lead Expert ESIA, UNIQUE
15:15 – 15:30	**Tea Break**	
15:30 – 16:00	Q&A session for clarification and feedback	FAO
16:00 – 16:15	Closing remarks by the Chair	Mr. Hem Aryal, Joint Secretary MoFE

Meeting Summary:

Background: As per the consent of 4th Technical Committee Meeting; this national validation workshop was proposed back to back with last country mission. The main purpose was to share the funding proposal (revised from 5th TCM) and to seek technical input from participants.

Main Agenda:

- To discuss on key highlights of Funding Proposal and anticipated mitigation and adaptation benefits from proposed BRCRN project;
- To seek input on proposed institutional arrangement and coordination mechanism;
- To seek endorsement of draft funding proposal to submit to NDA/MoFE and FAO-HQ;

Take home messages:

- The draft Funding Proposal is a live document; it will keep improving till it is approved by GCF board;
- The impact of exposure to climate change- such as heat stress, water scarcity, and erratic rainfall, need extra work to demonstrate how it affects agriculture and/ or forests
- Master plan for Churia is just an indicative plan; BRCRN should be in position to explain detail specific characteristics of all 26 River systems and establish upstream-downstream linkages;
- Majority of input will be focused in the upstream area (Churia Hills, Dun and Bhavar) to halt triggering effect responsible in flooding and sediment deposit in downstream. However, there will be investment in downstream focusing at training and riverbank restoration (Bioengineering activities) to improve preparedness and resilience to water induced disaster;
- To ensure adequate time for technical input; standalone documents like GAP, ESMF can be shared earlier whereas core documents like- funding proposal and feasibility will be made available to MoFE by mid- April;

Follow-up actions:

- The revised full funding proposal will be shared with NDA/MoFE for internal review by the 15th April 2018;
- Ministry will organize separate meeting to provide details on potential complementary activities and co-finance amount;

National Validation Workshop for Funding Proposal of BRCRN
25th March, 2018
Hotel Himalaya, Kupondole

S.N	Name	Organization
1.	Dr. Somsak Pipoppinyo	FAO
2.	Hem Aryal	MoFE
3.	Dr. Akhileshwar L. Karna	DSCWM
4.	Sunil Kumar Karna	MoFE
5.	Prem paudel	DSCWM
6	Sindhu Dhungana	REDD JC
7	R. P. LAMSAL	MoFE
8	Govinda Ghimire	NEHHPA
9	Bhupendra Chaulagain	FIDFIT Nepal

National Validation Workshop for Funding Proposal of BRCRN
25th March, 2018
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S.N	Name	Organization
1	Sagar K. Rimal	FACD - MOFE
2	Vidhu Kayastha	FAO
3.	Dr. Binod Sahu	FAO
4.	Keshar Man Sthapit	Freelance
5.	Shrawan K. Adhikary	FAO
6.	Ishwor Manpae	SEEPORT
7.	Dr Lila N. Sharma	Forest Action
8.	Arjun Dhan	SEEPORT
9.	Binod Singh	FACD/MOFE

National Validation Workshop for Funding Proposal of BRCRN
25th March, 2018
Hotel Himalaya, Kupondole

S.N	Name	Organization
1	BEN VICKERS	FAO
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National Validation Workshop for Funding Proposal of BRCRN
25th March, 2018
Hotel Himalaya, Kupondole

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4.		
5.		
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7.		
8.		
9.		

ANNEX 4: FAO ENVIRONMENTAL AND SOCIAL SCREENING CHECKLIST

Every sub-activity will must undergo an initial screening, utilizing FAO's Safeguards Screening Checklist, found at the end of this annex. Based on the screening, sub-activities will be categorized as low, moderate, or high risk. Based on the screening, sub-activities will either be approved for implementation, or will be amended to meet the requirements detailed within this ESMF (specifically, all sub-activities must have low to-moderate impact; high risk sub-activities will not be allowed under the project, nor will sub-activities which involve elements listed in the Annex 1 Non-Eligibility List of this document).

Guidance and Examples for Sub-Activity Categorization

Categorization: To ensure that the extent of the review is commensurate with the nature of risk, categorization is a useful step in procedures where based on basic information about a project such as sector and scale, the level of E&S risk the project could pose is determined. This also enables the PMU Safeguards and Gender Specialists to determine the extent and sophistication of the E&S review required. Categorization may be low, moderate or high. For the purposes of this project, all sub-activities are expected to be Category B (Medium) or Category C (Low) risk.

High Risk (Category A) Sub-Activity

The location of the farmers/project enterprise or activity may be:

- Near sensitive and valuable ecosystems, protected areas and habitat of endangered species;
- Near sensitive receptor such as hospital, school, temple, etc.;
- Near areas with archaeological and/or historic sites or existing cultural and social institutions;
- Near or in areas occupied by vulnerable ethnic minorities or indigenous peoples, or lands to whichthey are collectively attached, where negative impacts are expected and/or have not involved prior
- consultation;
- In densely populated areas, where resettlement may be required or potential pollution impacts andother disturbances may significantly affect communities;
- In regions where there are conflicts in natural resources allocation;
- Near watercourses, aquifer recharge areas or in reservoirs used for potable water supply; or inclose proximity to lands or waters containing valuable resources.

Examples of sensitivity issues are those where the sub-activity can:

- Cause adverse global or regional environmental impacts;
- Concern the rights of indigenous people or vulnerable ethnic minorities;
- Require large scale land acquisition or subsequent change in land use that produces loss or damageof assets or income for local residents;
- Lead to involuntary settlements or displacement of people from their livelihoods;
- Impact protected or otherwise recognized areas of high biodiversity or cultural value; or
- Lead to toxic waste disposal.

- Acquisition of small parcels of land, even if obtained on a negotiated basis with property owners or thosewith recognized rights to the land, should be considered as sensitive if expropriation or other compulsorymeasures would have resulted upon the failure of negotiation.

Examples where the nature of the sub-activity may:
- Cause irreversible degradation or unsustainable exploitation of natural resources; or
- Pose serious risks of significant harm to human health and safety.

Examples of the magnitude of the sub-activity where:
- A high amount of scarce resources may be put at risk;
- The timing and duration of the negative impacts are long; or
- The cumulative effects of many similar, but individually small transactions together lead to seriousimpacts.

Category A sub-activities are perceived to have significant adverse environmental and/or social impacts, andare not permitted to form part of the target portfolio.

Medium Risk (Category B) Sub-Activity

Transactions with a limited number of potentially adverse environmental or social impacts that are generallysite-specific, largely reversible, and readily addressed through mitigation measures that reduce the risk tomoderate or low levels are normally classified as Category B.

The following characteristics indicate aCategory B sub-activity:
- Environmental and social risks for the most part are mostly limited to and readily mitigated throughapplication of good industry practice as described in relevant Environmental, Health and Safety

Guidelines;
- Labor and working conditions are unlikely to include harmful child labor, involuntary or compulsorylabor, or significant occupational health and safety issues;
- Significant land acquisition or significant land use change is not expected, nor is there expectationof displacement of people or significant loss of livelihoods due to project activities; and
- Socially or economically disadvantaged groups, such as tribal or ethnic groups or similarcommunities, are not known to occur in the project's area of direct impact, nor does the activityinvolve use of lands to which they are collectively attached, or where those communities arepresent but consultation has indicated Free Prior and Informed Consent (FPIC).

Low Risk (Category C) Sub-Activity:

Sub-activity proposals that are perceived to have minimal or noadverse environmental or social impacts are classified as Category C, and no further environmental or socialassessment work needs to be done after initial screening and categorization.

Environmental and Social Risk Identification – Screening Checklist

	Question	YES	NO
1	Would this project: • result in the degradation (biological or physical) of soils or undermine sustainable land management practices; or • include the development of a large irrigation scheme, dam construction, use of waste water or affect the quality of water; or • reduce the adaptive capacity to climate change or increase GHG emissions significantly; or • result in any changes to existing tenure rights[207] (formal and informal[208]) of individuals, communities or others to land, fishery and forest resources?		
2	Would this project be executed in or around protected areas or natural habitats, decrease the biodiversity or alter the eco-systemfunctionality, use alien species, or use genetic resources?		
3	Would this project: • Introduce crops and varieties previously not grown, and/or; • Provide seeds/planting material for cultivation, and/or; • Involve the importing or transfer of seeds and or planting material for cultivation or research and development; • Supply or use modern biotechnologies or their products in crop production, and/or • Establish or manage planted forests?		
4	Would this project introduce non-native or non-locally adapted species, breeds, genotypes or other genetic material to an area or production system, or modify in any way the surrounding habitat or production system used by existing genetic resources?		
5	Would this project:		

[207][207] Tenure rights are rights to own, use or benefit from natural resources such as land, water bodies or forests

[208] Socially or traditionally recognized tenure rights that are not defined in law may still be considered to be 'legitimate tenure rights'.

	• result in the direct or indirect procurement, supply or use of pesticides[209]: ▪ on crops, livestock, aquaculture, forestry, household; or ▪ as seed/crop treatment in field or storage; or ▪ through input supply programmes including voucher schemes; or ▪ for small demonstration and research purposes; or ▪ for strategic stocks (locust) and emergencies; or ▪ causing adverse effects to health and/or environment; or • result in an increased use of pesticides in the project area as a result of production intensification; or • result in the management or disposal of pesticide waste and pesticide contaminated materials; or • result in violations of the Code of Conduct?		
6	Would this project permanently or temporarily remove people from their homes or means of production/livelihood or restrict their access to their means of livelihood?		
7	Would this project affect the current or future employment situation of the rural poor, and in particular the labour productivity, employability, labour conditions and rights at work of self-employed rural producers and other rural workers?		
8	Could this project risk overlooking existing gender inequalities in access to productive resources, goods, services, markets, decent employment and decision-making? For example, by not addressing existing discrimination against women and girls, or by not taking into account the different needs of men and women.		
9	Would this project: • have indigenous peoples* living outside the project area[1] where activities will take place; or • have indigenous peoples living in the project area where activities will take place; or • adversely or seriously affect on indigenous peoples' rights, lands, natural resources, territories, livelihoods, knowledge, social fabric, traditions, governance systems, and culture or heritage (physical[2] and non-physical or intangible[3]) inside and/or outside the project area; or • be located in an area where cultural resources exist?		

[209] Pesticide means any substance, or mixture of substances of chemical or biological ingredients intended for repelling, destroying or controlling any pest, or regulating plant growth.

	* FAO considers the following criteria to identify indigenous peoples: priority in time with respect to occupation and use of a specific territory; the voluntary perpetuation of cultural distinctiveness (e.g. languages, laws and institutions); self-identification; an experience of subjugation, marginalization, dispossession, exclusion or discrimination (whether or not these conditions persist). [1]The phrase "Outside the project area" should be read taking into consideration the likelihood of project activities to influence the livelihoods, land access and/or rights of Indigenous Peoples' irrespective of physical distance. In example: If an indigenous community is living 100 km away from a project area where fishing activities will affect the river yield which is also accessed by this community, then the user should answer "YES" to the question. [2]Physical defined as movable or immovable objects, sites, structures, group of structures, natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic or other cultural significance located in urban or rural settings, ground, underground or underwater. [3]Non-physical or intangible defined as "the practices, representations, expressions, knowledge and skills as well as the instruments, objects, artifacts and cultural spaces associated therewith that communities, groups, and in some cases individuals, recognize as part of their spiritual and/or cultural heritage"		

Second Level Questions

SAFEGUARD 1 NATURAL RESOURCES MANAGEMENT

Question	Management of soil and land resources	No	Yes	Comments
1.1	Would this project result in the degradation (biological or physical) of soils	**LOW RISK**	**MODERATE RISK** Demonstrate how the project applies and adheres to the principles of the World Soil Charter	
1.2	Would this project undermine sustainable land management practices?	**LOW RISK**	**HIGH RISK** A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	

	Management of water resources and small dams	No	Yes	Comments
1.3	Would this project develop an irrigation scheme that is more than **20 hectares**or withdraws more than **1000 m3/day**of water?	**LOW RISK**	**MODERATE RISK** Specify the following information: a) implementation of appropriate efficiency principles and options to enhance productivity, b) technically feasible water conservation measures, c) alternative water supplies, d) resource contamination mitigation or/and avoidance, e) potential impact on water users downstream, f) water use offsets and demand management options to maintain total demand for water resources within the available supply. g) The**ICID-checklist** will be included, as well as appropriate action within the project to mitigate identified potential negative impacts.	

			h) Projects aiming at improving water efficiency **will carry out thorough water accounting** in order to avoid possible negative impacts such as waterlogging, salinity or reduction of water availability downstream.	
1.4	Would this project develop an irrigation scheme that is more than **100 hectares**or withdraws more than **5000 m3/day**of water?	**LOW RISK**	**HIGH RISK** A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	
1.5	Would this project aim at improving an irrigation scheme (without expansion)?	**LOW RISK**	**MODERATE RISK** The**ICID-checklist** will be included, as well as appropriate action within the project to mitigate identified potential negative impacts. Projects aiming at improving water efficiency **will carry out thorough water accounting** in order to avoid possible negative im-	

			pacts such as waterlogging, salinity or reduction of water availability downstream.	
1.6	Would this project affect the quality of water either by the release of pollutants or by its use, thus affecting its characteristics (such as temperature, pH, DO, TSS or any other?	**LOW RISK**	**HIGH RISK** A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	
1.7	Would this project include the usage of wastewater?	**LOW RISK**	**MODERATE RISK** Demonstrate how the project applies and adheres to applicable national guidelines or, if not available, the WHO/FAO/UNEP Guidelines on Safe Usage of Waste Water in Agriculture	
1.8	Would this project involve the construction or financing of a dam that is more than **15 m**. in height?	**LOW RISK**	**CANNOT PROCEED**	
1.9	Would this project involve the construction or financing of a dam that is more than **5 m**. in height?	**LOW RISK**	**HIGH RISK** A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	

	Tenure	**No**	**Yes**	**Comments**

1.10	Would this project permanently or temporarily deny or restrict access to natural resources to which they have rights of access or useCould this project result in any changes to existing *tenure rights*[1] (*formal and informal*[2]) of individuals, communities or others to land, fishery and forest resources? [1]Tenure rights are rights to own, use or benefit from natural resources such as land, water bodies or forests [2]Socially or traditionally recognized tenure rights that are not defined in law may still be considered to be 'legitimate tenure rights'.		**LOW RISK**	**PROCEED TO NEXT Q**	
	1.10.1	Could this project result in a negative change to existing legitimate tenure rights?	**MODERATE RISK** Demonstrate how the project applies and adheres to the principles/framework of the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security (VGGT)	**HIGH RISK** A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	
	Climate		**No**	**Yes**	**Comments**

1.11	Could this project result in a reduction of the adaptive capacity to climate change for any stakeholders in the project area?		**LOW RISK**	**HIGH RISK** A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	
1.12	Could this project result in a reduction of resilience against extreme weather events?		**LOW RISK**	**HIGH RISK** A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	
1.13	Could this project result in a net increase of GHG emissions beyond those expected from increased production?		**LOW RISK**	**PROCEED TO NEXT Q**	
	1.13.1	Is the expected increase below the level specified by FAO guidance or national policy/law (whichever is more stringent)?	**HIGH RISK** A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	**LOW RISK**	

	1.13.2	Is the expected increase above the level specified by FAO guidance or national policy/law (whichever is more stringent)?	**LOW RISK**	**HIGH RISK** A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	

SAFEGUARD 2 BIODIVERSITY, ECOSYSTEMS AND NATURAL HABITATS

	Protected areas, buffer zones or natural habitats	No	Yes
2.1	Would this project be implemented within a legally designated protected area or its buffer zone?	**LOW RISK**	**HIGH RISK** A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.

	Biodiversity Conservation	No	Yes	Comments
2.2	Would this project change a natural ecosystem to an agricultural/aquacultural/forestry production unit with a reduced diversity of flora and fauna?	**LOW RISK**	**HIGH RISK** A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	
2.3	Would this project increase the current impact on the surrounding environment for example by using more water, chemicals or machinery than previously?	**LOW RISK**	**MODERATE RISK** Demonstrate in the project document what measures will be taken to minimize adverse impacts on the environment and ensure that implementation of these measures is reported in the risk log during progress reports.	

	Use of alien species	No	Yes	Comments
2.4	Would this project use an alien species which has exhibited an invasive* behavior in the country or in other parts of the world or a species with unknown behavior? *An invasive alien species is defined by the Convention on Biological Diversity as "an alien species whose introduction and/or spread threaten biological diversity" (see https://www.cbd.int/invasive/terms.shtml).	**LOW RISK**	**HIGH RISK** A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	

	Access and benefit sharing for genetic resources	No	Yes	Comments
2.5	Would this project involve access to genetic resources for their utilization and/or access to traditional knowledge associated with genetic resources that is held by indigenous, local communities and/or farmers?	**LOW RISK**	**MODERATE RISK** Ensure that the following issues are considered and appropriate action is taken. The issues identified and the action taken to address them must be included in the project document and reported on in progress reports. For **plant genetic resources for food and agriculture**	

			(PGRFA) falling under the Multilateral System of Access and Benefit-sharing (MLS) of the International Treaty on Plant Genetic Resources for Food and Agriculture (Treaty), ensure that Standard Material Transfer Agreement (SMTA) has been signed and comply with SMTA provisions. For **genetic resources, other than PGRFA falling under the MLS of the Treaty**: 1. Ensure that, subject to domestic access and benefit-sharing legislation or other regulatory requirements, prior informed consent has been granted by the country providing the genetic resources that is the country of origin of the resources or that has acquired the resources in accordance with the Convention on Biological Diversity, un-	

			less otherwise determined by that country; and 2. Ensure that benefits arising from the utilization of the genetic resources as well as subsequent applications and commercialization are shared in a fair and equitable way with the country providing the genetic resources that is the country of origin of the resources or that has acquired the resources in accordance with the Convention on Biological Diversity; and 3. Ensure that, in accordance with domestic law, prior informed consent or approval and involvements of indigenous and local communities is obtained for access to genetic resources where the indigenous and local	

			communities have the established right to grant such resources; and 4. Ensure that, in accordance with domestic legislation regarding the established rights of these indigenous and local communities over the genetic resources, are shared in a fair and equitable way with the communities concerned, based on mutually agreed terms. For **traditional knowledge associated with genetic resources** that is held by indigenous and local communities: 1. Ensure, in accordance with applicable domestic law, that knowledge is accessed with the prior and informed consent or approval and involvement of these indigenous and local communities, and that	

			mutually agreed terms have been established; and 2. Ensure that, in accordance with domestic law, benefits arising from the utilization of traditional knowledge associated with genetic resources are shared, upon mutually agreed terms, in a fair and equitable way with indigenous and local communities holding such knowledge. Ensure that the project is aligned with the Elements to Facilitate Domestic Implementation of Access and Benefit Sharing for Different Subsectors of Genetic Resources for Food and Agriculture when it is the case	

SAFEGUARD 3 PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE

	Introduce new crops and varieties	No	Yes	Comments
3.1	Would this project Introduce crops and varieties previously not grown?	**LOW RISK**	**MODERATE RISK** • Follow appropriate phytosanitary protocols in accordance with IPPC • Take measures to ensure that displaced varieties and/or crops, if any, are included in the national or international *ex situ* conservation programmes	

	Provision of seeds and planting materials		No	Yes	Comments
3.2	Would this project provide seeds/planting material for cultivation?		**LOW RISK**	**PROCEED TO NEXT Q**	
	3.2.1	Would this project involve the importing or transfer of seeds and/or planting materials for cultivation?	**LOW RISK**	**MODERATE RISK** • Avoid undermining local seed & planting material production and supply systems through the use of seed voucher schemes, for instance • Ensure that the seeds and planting materials are from locally adapted crops and varieties that are accepted by farmers and consumers	

				• Ensure that the seeds and planting materials are free from pests and diseases according to agreed norms, especially the IPPC • Internal clearance from AGPMG is required for all procurement of seeds and planting materials. Clearance from AGPMC is required for chemical treatment of seeds and planting materials • Clarify that the seed or planting material can be legally used in the country to which it is being imported • Clarify whether seed saving is permitted under the country's existing laws and/or regulations and advise the counterparts accordingly. • Ensure, according to applicable national laws and/or regulations, that farmers' rights to PGRFA and over associated traditional knowledge are respected in the access to PGRFA and the sharing of the benefits accruing from their use. Refer to ESS9: Indigenous peoples and cultural heritage.	
	3.2.2	Would this project involve the importing or transfer of seeds	**LOW RISK**	**MODERATE RISK** Ensure compliance with Access and Benefit Sharing norms as stipulated in the International Treaty on Plant Genetic Resources for	

		and/or planting materials for research and development?		Food and Agriculture and the Nagoya Protocol of the Convention on Biodiversity as may be applicable. Refer also to ESS2: Biodiversity, Ecosystems and Natural Habitats.	

	Modern biotechnologies and the deployment of their products in crop production	**No**	**Yes**	**Comments**
3.3	Would this project supply or use modern plant biotechnologies and their products?	**LOW RISK**	**MODERATE RISK** • Adhere to the Cartagena Protocol on Biosafety of the Convention on Biological Diversity to ensure the safe handling, transport and use of Living Modified Organisms (LMOs) resulting from modern biotechnology that may have adverse effects on biological diversity, taking also into account risks to human health. • Adhere to biosafety requirements in the handling of Genetically Modified Organisms (GMOs) or Living Modified Organisms (LMOs) according to national legislation or[210]	

[210]Food and Agriculture Organization of the United Nations. 2011. Biosafety Resource Book. Rome, http://www.fao.org/docrep/014/i1905e/i1905e00.htm

			• Take measures to prevent geneflow from the introduced varieties to existing ones and/or wild relatives	

	Planted forests	No	Yes	Comments
3.4	Would this project establish or manage planted forests?	**LOW RISK**	**MODERATE RISK** • Adhere to existing national forest policies, forest programmes or equivalent strategies. • The observance of principles 9, 10, 11 and 12 of the Voluntary Guidelines on Planted Forests suffice for indigenous forests but must be read in full compliance with ESS 9- Indigenous People and Cultural Heritage. • Planners and managers must incorporate conservation of biological diversity as fundamental in their planning, management, utilization and monitoring of planted forest resources. • In order to reduce the environmental risk, incidence and impact of abiotic and biotic damaging agents and to maintain and improve planted forest health and productivity, FAO will work together with stake-	

			holders to develop and derive appropri-ate and efficient response options in planted forest management.	

SAFEGUARD 4 ANIMAL (LIVESTOCK AND AQUATIC) GENETIC RESOURCES FOR FOOD AND AGRICULTURE

	Introduce new species/breeds and change in the production system of locally adapted breeds		No	Yes	Comments
4.1	Would this project introduce non-native or non-locally adapted species, breeds, genotypes or other genetic material to an area or production system?		**LOW RISK**	**PROCEED TO NEXT Q**	
	4.1.1	Would this project foresee an increase in production by at least 30% (due to the introduction) relative to currently available locally adapted breeds	**CANNOT PROCEED**	**LOW RISK**	

		and can monitor production performance?			
	4.1.2	Would this project introduce genetically altered organisms, e.g. through selective breeding, chromosome set manipulation, hybridization, genome editing or gene transfer and/or introduce or use experimental genetic technologies, e.g. genetic engineering and gene transfer, or the products	**LOW RISK**	**HIGH RISK** A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	

		of those technologies?		
4.2	Would this project introduce a non-native or non-locally adapted species or breed for the first time into a country or production system?	**LOW RISK**	**MODERATE RISK** A genetic impact assessment should be conducted prior to granting permission to import (cover the animal identification, performance recording and capacity development that allow monitoring of the introduced species/ breeds' productivity, health and economic sustainability over several production cycles) • http://www.fao.org/docrep/012/i0970e/i0970e00.htm • ftp://ftp.fao.org/docrep/fao/012/i0970e/i0970e03.pdf	
4.3	Would this project introduce a non-native or non-locally adapted species or breed, independent whether it already exists in the country?	**LOW RISK**	**MODERATE RISK** • If the project imports or promotes species/breeds with higher performance than locally adapted ones, ensure: feed resources, health management, farm management capacity, input supply and farmer organization to allow the new species/breeds to express their genetic potential	

			• Follow the OIE terrestrial or aquatic code to ensure the introduced species/breed does not carry different diseases than the local ones • Include a health risk assessment and farmer/veterinary capacity development in the project to ensure the introduced species/breed do not have different susceptibility to local diseases including ecto-and endo-parasites than the locally adapted/native species/breeds.	
4.4	Would this project ensure there is no spread of the introduced genetic material into other production systems (i.e. indiscriminate crossbreeding with locally adapted species/breeds)?	**MODERATE RISK** Introduce a) animal identification and recording mechanism in the project and b) develop new or	**LOW RISK**	

		amend existing livestock policy and National Strategy and Action Plan for AnGR		

	Collection of wild genetic resources for farming systems	No	Yes	Comments
4.5	Would this project collect living material from the wild, e.g. for breeding, or juveniles and eggs for ongrowing?	**LOW RISK**	**MODERATE RISK** Guidance to be provided	

	Modification of habitats	No	Yes	Comments
4.6	Would this project modify the surrounding habitat or production system used by existing genetic resources?	**LOW RISK**	**MODERATE RISK** Guidance to be provided	
4.7	Would this project be located in or near an internationally recognized conservation area e.g. Ramsar or World Heritage Site, or other nationally important habitat, e.g. national park or	**LOW RISK**	**MODERATE RISK** Guidance to be provided	

		high nature value farmland?			
4.8	**AQGR**	Would this project block or create migration routes for aquatic species?	**LOW RISK**	**MODERATE RISK** Guidance to be provided	
4.9		Would this project change the water quality and quantity in the project area or areas connected to it?	**LOW RISK**	**MODERATE RISK** Guidance to be provided	
4.10		Would this project cause major habitat / production system changes that promote new or unknown chances for geneflow, e.g. connecting geographically distinct ecosystems or water bodies; or would	**LOW RISK**	**HIGH RISK** A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	

	itdisrupt habitats or migration routes and the genetic structure of valuable or locally adapted species/stocks/breeds?			
4.11	Would this project involve the intensification of production systems that leads to land- use changes (e.g. deforestation), higher nutrient inputs leading to soil or water pollution, changes of water regimes (drainage, irrigation)?	**LOW RISK**	**MODERATE RISK** Guidance to be provided	

SAFEGUARD 5 PEST AND PESTICIDES MANAGEMENT

	Supply of pesticides by FAO	**No**	**Yes**	**Comments**
5.1	Would this project procure, supply and/or result in the use of pesticides on	**LOW RISK**	**MODERATE RISK**	

	crops, livestock, aquaculture or forestry?		• Preference must always be given to sustainable pest management approaches such as Integrated Pest Management (IPM), the use of ecological pest management approaches and the use of mechanical/cultural/physical or biological pest control tools in favour of synthetic chemicals; and preventive measures and monitoring, • When no viable alternative to the use of chemical pesticides exists, the selection and procurement of pesticides is subject to an internal clearance procedure http://www.fao.org/fileadmin/templates/agphome/documents/Pests_Pesticides/Code/E_SS5_pesticide_checklist.pdf • The criteria specified in FAO's ESM Guidelines under ESS5 must be adhered to and should be included or referenced in the project document. • If large volumes (above 1,000 litres of kg) of pesticides will be supplied or used throughout the duration of the project, a Pest Management Plan must be prepared to demonstrate	

			how IPM will be promoted to reduce reliance on pesticides, and what measures will be taken to minimize risks of pesticide use. • It must be clarified, which person(s) within (executing) involved institution/s, will be responsible and liable for the proper storage, transport, distribution and use of the products concerned in compliance with the requirements.	
5.2	Would this project provide seeds or other materials treated with pesticides (in the field and/or in storage) ?	**LOW RISK**	**MODERATE RISK** The use of chemical pesticides for seed treatment or storage of harvested produce is subject to an internal clearance procedure [http://www.fao.org/fileadmin/templates/agphome/documents/Pests_Pesticides/Code/E_SS5_pesticide_checklist.pdf]. The criteria specified in FAO's ESM Guidelines under ESS5 for both pesticide supply and seed treatment must be adhered to and should be included or referenced in the project document.	

5.3	Would this project provide inputs to farmers directly or through voucher schemes?	**LOW RISK**	**MODERATE RISK** • FAO projects must not be responsible for exposing people or the environment to risks from pesticides. The types and quantities of pesticides and the associated application and protective equipment that users of a voucher scheme are provided with must always comply with the conditions laid out in ESS5 and be subject to the internal clearance procedure [link]. These must be included or referenced in the project document. • Preference must always be given to sustainable pest management approaches such as Integrated Pest Management (IPM), the use of ecological pest management approaches and the use of mechanical or biological pest control tools in favour of synthetic chemicals	
5.4	Would this project lead to increased use of pesticides through intensification or expansion of production?	**LOW RISK**	**MODERATE RISK** Encourage stakeholders to develop a Pest Management Plan to demonstrate how IPM will be promoted to reduce reliance on pesticides, and what measures will be taken to minimize risks of pesticide use.	

			This should be part of the sustainability plan for the project to prevent or mitigate other adverse environmental and social impacts resulting from production intensification.	
5.5	Would this project manage or dispose of waste pesticides, obsolete pesticides or pesticide contaminated waste materials?	**LOW RISK**	**HIGH RISK** A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	

SAFEGUARD 6 INVOLUNTARY RESETTLEMENT AND DISPLACEMENT

		No	Yes	Comments
6.1	Would this removal* be voluntary? *temporary or permanent removal of people from their homes or means of production/livelihood or restrict their access to their means of livelihoods	**CANNOT PROCEED**	**HIGH RISK** A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	

SAFEGUARD 7 DECENT WORK

		No	Yes	Comments
7.1	Would this project displace jobs? (e.g. because of sectoral restructuring or occupational shifts)	**LOW RISK**	**HIGH RISK** A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	
7.2	Would this project operate in sectors or value chains that are dominated by subsistence producers and other vulnerable informal agricultural workers, and more generally characterized by high levels "working poverty"?	**LOW RISK**	**MODERATE RISK** Take action to anticipate the likely risk of perpetuating poverty and inequality in socially unsustainable agriculture and food systems. Decent work and productive employment should appear among the priorities of the project or, alternatively, the project should establish synergies with specific employment and social protection programmes e.g. favouring access to some social protection scheme or form of social insurance. Specific measures and mechanisms should be introduced to empower in particular the most vulnerable /disadvantaged categories of rural workers such as small-scale producers, contributing family workers, subsistence farmers, agricultural informal wage workers, with a special attention to women and youth who are predominantly found in these employment statuses.An age-	

			and gender-sensitive social value chain analysis or livelihoods/employment assessment is needed for large-scale projects.	
7.3	Would this project operate in situations where youth work mostly as unpaid contributing family workers, lack access to decent jobs and are increasingly abandoning agriculture and rural areas?	**LOW RISK**	**MODERATE RISK** Take action to anticipate likely risk of unsustainably ageing agriculture and food systems by integrating specific measures to support youth empowerment and employment in agriculture. A youth livelihoods/employment assessment is needed. Complementary measures should be included aiming at training youth, engaging them and their associations in the value chain, facilitating their access to productive resources, credit and markets, and stimulating youth-friendly business development services.	
7.4	Would this project operate in situations where major gender inequality in the labour market prevails? (e.g. where women tend to work predominantly as unpaid contributing family members or subsistence farmers, have lower skills and qualifications, lower productivity and	**LOW RISK**	**MODERATE RISK** Take action to anticipate likely risk of socially unsustainable agriculture and food systems by integrating specific measures to reduce gender inequalities and promote rural women's social and economic empowerment. A specific social value chain analysis or livelihoods/employment assessment is needed for large-scale projects. Facilitation should be provided for women of all ages to access productive resources (including land), credit, markets and marketing	

	wages, less representation and voice in producers' and workers' organizations, more precarious contracts and higher informality rates, etc.)		channels, education and TVET, technology, collective action or mentorship.Provisions for maternity protection, including child care facilities, should be foreseen to favour women participation and anticipate potential negative effects on child labour, increased workloads for women, and health related risks for pregnant and breastfeeding women.	
7.5	Would this project operate in areas or value chains with presence of labour migrants or that could potentially attract labour migrants?	**LOW RISK**	**MODERATE RISK** Take action to anticipate potential discrimination against migrant workers, and to ensure their rights are adequately protected, with specific attention to different groups like youth, women and men.	

		No	Yes	Comments
7.6	Would this project directly employ workers?	**LOW RISK**	**MODERATE RISK** FAO projects will supposedly guarantee employees' rights as per UN/FAO standards as regards information on workers' rights, regularity of payments, etc. Decisions relating to the recruitment of project workers are supposed to follow standard UN practices and therefore not be made on the basis of personal characteristics unrelated to inherent job requirements. The employment of project workers	

			will be based on the principle of equal opportunity and fair treatment, and there will be no discrimination with respect to any aspects of the employment relationship, such as recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, job assignment, promotion, termination of employment or retirement, etc.	
7.7	Would this project involve sub-contracting?	**LOW RISK**	**MODERATE RISK** Take action to anticipate likely risk of perpetuating inequality and labour rights violations by introducing complementary measures. FAO projects involving sub-contracting should promote, to the extent possible, subcontracting to local entrepreneurs – particularly to rural women and youth – to maximize employment creation under decent working conditions. Also, FAO should monitor and eventually support contractors to fulfil the standards of performance and quality, taking into account national and international social and labour standards.	

		No	Yes	Comments
7.8	Would this project operate in a sector, area or value chain where producers and other agricultural workers are typically exposed to significant occupational and safety risks[211]?	**LOW RISK**	**MODERATE RISK** Take action to anticipate likely OSH risks by introducing complementary provisions on OSH within the project. Project should ensure all workers' safety and health by adopting minimum OSH measures and contributing to improve capacities and mechanisms in place for OSH in informal agriculture and related occupations. For example, by undertaking a simple health and safety risk assessment, and supporting implementation of the identified risk control measures. Awareness raising and capacity development activities on the needed gender-responsive OSH measures should be included in project design to ensure workers' safety and health, including for informal workers. Complementary measures can include measures to reduce risks and protect workers, as well as children working or playing on the farm, such as alternatives to pesticides, improved handling and storage of pesticides, etc.	

[211]Major OSH risks in agriculture include: dangerous machinery and tools; hazardous chemicals; toxic or allergenic agents; carcinogenic substances or agents; parasitic diseases; transmissible animal diseases; confined spaces; ergonomic hazards; extreme temperatures; and contact with dangerous and poisonous animals, reptiles and insects.

			Specific provisions for OSH for pregnant and breastfeeding women should be introduced. FAO will undertake periodic inspections and a multistakeholder mechanism for monitoring should be put in place.	
7.9	Would this project provide or promote technologies or practices that pose occupational safety and health (OSH) risks for farmers, other rural workers or rural populations in general?	**LOW RISK**	**HIGH RISK** A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	

		No	Yes	Comments
7.10	Would this project foresee that children below the nationally-defined minimum employment age (usually 14 or 15 years old) will be involved in project-supported activities?	**LOW RISK**	**CANNOT PROCEED**	
7.11	Would this project foresee that children above the nationally-defined minimum employment age (usually	**LOW RISK**	**MODERATE RISK** Take action to anticipate likely risk of engaging young people aged 14-17 in	

	14 or 15 years old), but under the age of 18 will be involved in project-supported activities?		child labour[212] by changing design or introducing complementary measures. For children of 14 to 17 years, the possibility to complement education with skills-training and work is certainly important for facilitating their integration in the rural labour market. Yet, children under the age of 18 should not be engaged in work-related activities in connection with the project in a manner that is likely to be hazardous or interfere with their compulsory child's education or be harmful to the child's health, safety or morals. Where children under the age of 18 may be engaged in work-related activities in connection with the project, an appropriate risk assessment will be conducted, together with regular monitoring of health, working conditions and hours of work, in addition to the other requirement of this ESS. Spe-	

[212]Child labour is defined as work that is inappropriate for a child's age, affects children's education, or is likely to harm their health, safety or morals. Child labour refers to working children below the nationally-defined minimum employment age, or children of any age engaging in hazardous work. Hazardous work is work that is likely to harm the health, safety or morals of a child. This work is dangerous or occurs under unhealthy conditions that could result in a child being killed, or injured and/or made ill as a consequence of poor health and safety standards and working arrangements. Some injuries or ill health may result in permanent disability. Countries that have ratified ILO Convention No.182 are obligated to develop National lists of hazardous child labour under Article 4.

			cific protection measures should be undertaken to prevent any form of sexual harassment or exploitation at work place (including on the way to and from), particularly those more vulnerable, i.e. girls.	
7.12	Would this project operate in a value chain where there have been reports of child labour?	**LOW RISK**	**HIGH RISK** A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	

		No	Yes	Comments
7.13	Would this project operate in a value chain or sector where there have been reports of forced labour[213]?	**LOW RISK**	**HIGH RISK** A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	

[213]Forced labour is employed, consists of any work or service not voluntarily performed that is exacted from an individual under threat of force or penalty. It includes men, women and children in situations of debt bondage, suffering slavery-like conditions or who have been trafficked. "In many countries, agricultural work is largely informal, and legal protection of workers is weak. In South Asia, there is still evidence of bonded labour in agriculture, resulting in labour arrangements where landless workers are trapped into exploitative and coercive working conditions in exchange for a loan. The low wages associated with high interest rates make it quite difficult for whole families to escape this vicious circle. In Africa, the traditional forms of "vestiges of slavery" are still prevalent in some countries, leading to situations where whole families (adults and children, men and women) are forced to work the fields of landowners in exchange for food and housing. In Latin America, the case of workers recruited in poor areas and sent to work on plantations or in logging camps has been widely documented by national inspection services and other actors." (ILO, Profits and poverty: the economics of forced labour / International Labour Office. - Geneva: ILO, 2014)

SAFEGUARD 8 GENDER EQUALITY

		No	Yes	Comments
8.1	Could this project risk reinforcing existing gender-based discrimination, by not taking into account the specific needs and priorities of women and girls?	**LOW RISK**	**MODERATE RISK** Take action to anticipate likely risk of perpetuating or reinforcing inequality by conducting a gender analysis to identify specific measures to avoid doing harm, provide equal opportunities to men and women, and promote the empowerment of women and girls.	
8.2	Could this project not target the different needs and priorities of women and men in terms of access to services, assets, resources, markets, and decent employment and decision-making?	**LOW RISK**	**MODERATE RISK** Take action to anticipate likely risk of socially unsustainable agriculture practices and food systems by conducting a gender analysis to identify the specific needs and priorities of men and women, and the constraints they may face to fully participate in or benefit from project activities, and design specific measures to ensure women and men have equitable access to productive resources and inputs.	

SAFEGUARD 9 INDIGENOUS PEOPLES AND CULTURAL HERITAGE

			No	Yes	Comments
9.1	Are there *indigenous peoples** living *outside the project area*** where activities will take place?[214]?		**LOW RISK**	**GO TO NEXT QUESTION**	
	9.1.1	Do the project activities influence the Indigenous Peoples living outside the project area?	**LOW RISK**	**MODERATE RISK** A Free, Prior and Informed Consent Process is required Project activities should outline actions to address and mitigate any potential impact Please contact the ESM/OPCA unit for further guidance.	
9.2	Are there indigenous peoples living in the project area where activities will take place?		**LOW RISK**	**MODERATE RISK** A Free Prior and Informed Consent process is required.	

* FAO considers the following criteria to identify indigenous peoples: priority in time with respect to occupation and use of a specific territory; the voluntary perpetuation of cultural distinctiveness (e.g. languages, laws and institutions); self-identification; an experience of subjugation, marginalization, dispossession, exclusion or discrimination (whether or not these conditions persist).

** The phrase "Outside the project area" should be read taking into consideration the likelihood of project activities to influence the livelihoods, land access and/or rights of Indigenous Peoples' irrespective of *physical distance*. In example: If an indigenous community is living 100 km away from a project area where fishing activities will affect the river yield which is also accessed by this community, then the user should answer "YES" to the question

			If the project is for indigenous peoples, an Indigenous Peoples' Plan is required in addition to the Free Prior and Informed Consent process. Please contact the ESM/OPCA unit for further guidance. **In cases where the project is for both, indigenous and non-indigenous peoples,** an Indigenous Peoples' Plan will be required only if a substantial number of beneficiaries are Indigenous Peoples. project activities should outline actions to address and mitigate any potential impact. Please contact ESM/OPCA unit for further guidance. A Free, Prior and Informed Consent Process is required	
9.3	Would this project adversely or seriously affect on indigenous peoples' rights, lands, natural resources, territories, livelihoods, knowledge, social fabric, traditions, governance sys-	**LOW RISK**	**HIGH RISK** A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	

	tems, and culture or heritage (*physical** and *non-physical or intangible***) inside and/or outside the project area? **Physical defined as movable or immovable objects, sites, structures, group of structures, natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic or other cultural significance located in urban or rural settings, ground, underground or underwater.* ***Non-physical or intangible defined as "the practices, representations, expressions, knowledge and skills as well as the instruments, objects, artifacts and cultural spaces associated therewith that communities, groups, and in some*			

	cases individuals, recognize as part of their spiritual and/or cultural heritage"			
9.4	Would this project be located in an area where cultural resources exist?	**LOW RISK**	**MODERATE RISK** To preserve cultural resources (when existing in the project area) and to avoid their destruction or damage, due diligence must be undertaken to: a) verify that provisions of the normative framework, which is usually under the oversight of a national institution responsible for protection of historical and archaeological sites/intangible cultural heritage; and b) through collaboration and communication with indigenous peoples' own governance institutions/leadership, verifying the probability of the existence of sites/ intangible cultural heritage that are significant to indigenous peoples. In cases where there is a high chance of encountering physical cultural resources, the bidding documents and contract for any civil works must refer to the need to include recovery of	

			“chance findings” in line with national procedures and rules.	

ANNEX 5: RIVER SYSTEM RISK ASSESSMENT

River system risk assessment to identify BRCRN intervention areas

Based on available spatial and statistical datasets, a multi-criteria analysis was performed to define and rank BRCRN intervention areas within the Churia region. The unit of assessment used is the river system. For the development of the Churia Master Plan the Government of Nepal conducted a consolidated and up-to-date spatial as well as statistical feasibility study on the Churia region. For their assessment, they identified river systems as the main unit of analysis and planning of interventions. Altogether, 164 river systems have been inventoried in such mapped out river systems. The step-wise procedure of this analysis to derive river systems with high priority for interventions within the BRCRN includes:

1. Compilation of available spatial datasets to perform river system based analysis for the Churia region. The following spatial as well as statistical dataset were used:
   - National land use dataset 2000, 2010 (both from ICIMOD), 2015 (from Churia Master Plan)
   - Spatial layers degraded areas, area prone for flooding, area susceptible to erosion, elevation, physiographic zones within the Churia (Dun, Hills, Bhavar, Terai), distance to roads, distance to settlements, distance to grids (from Churia Masterplan)
   - River system statistics such as population density/ population increase (extrapolated from ward level statistics); population prone to flooding in 2001 and 2011; total No of Settlements; No Settlements in Churia hills; area under slope instability/ susceptibility categorized as high; medium or low; No of susceptible households with regards to slope instability; No of wetland of ponds (all from Churia Masterplan)
2. Elaboration of a river system database (in Excel) with information on land cover, land cover changes and specific data on all above mentioned variables
3. Filtering the river systems according to the location within the whole Churia range; based on overall vulnerability assessment and consultations during the feasibility study the BRCRN is implemented within river systems located in the central to eastern parts of the Churia. Therefore, all further analysis is limited to only these river systems.
4. Performing a statistical analysis (Pearson correlation) to understand the correlation of the different variables, in particular in view of deforestation (independent variable) in this selected Churia region.
5. Selection and weighting of criteria which are used to assess the risk of the river systems in terms of future deforestation. Based on the statistical analysis the criteria taken into consideration include:

   a. **Annual deforestation rate** in % 2000- 2015 of each river system
   b. **Existing forest area share** (in % of the total land area of a river system)
   c. Area share in % of the total land area of a river system under **slope instability/ susceptibility for erosion**
   d. **% of settlements located in the Churia hill zone** compared to the total No of settlements in the river system (basically downstream in the Terai plains of the river system)

   Two additional criteria were considered that did not correlate in the statistical analysis, yet were identified as important indicators for other reasons:

   e. **Area share in % of the total land area of a river system,** which is identified as degraded land according to the Churia Masterplan. This criterion is important to identify

potential restoration areas (tree restoration plantation, protective plantations, etc.), therefore river systems with proportionally higher shares of degraded land should be prioritized.

f. **Origin of rivers:** Based on the consultations during the feasibility study and the review of existing documentation, the BRCRN interventions should prioritize river systems which originate mainly from the Churia region. The main reason for this is that the nature of the BRCRN project is aiming for a holistic river system approach with specific project interventions designed to address degradation and erosion within the source zones of rivers as well as interventions along the rivers in terms of river bank protection, riverbed restoration, etc.

6. Ranking of river systems for each criterion: By using a percentile method each river system was ranked as ´high´, ´medium´ or ´low´ for each of the criteria. This means that, for instance for the criterion of annual deforestation the different % deforestation rates of the river systems were categorized into three 'bins' representing one 'bin' of high deforestation rate (classified as 'high'), one 'bin' representing the average deforestation rates (classified as medium') and one 'bin' representing low deforestation rates (classified as 'low').
7. Combined ranking of the river system: A combined ranking into ´high´, ´medium´ or ´low´ was assigned to each river system by a simple 'sum-product' calculation in Excel considering the specific ranks and weightings of each of the criteria. This resulted in a list of river systems ranked from high to low and the selection of those river systems prioritized as project areas for the BRCRN project.

The BRCRN project area consists of 26 river systems that were identified as having ´high´ (14 river systems, 54% of project river systems) or ´moderate´ (12 river systems, 46% of project river systems). These river systems cover 720,620 ha in total. Excluding settlements and bodies of water, the total area is 702,011 ha.

Process for selection of community-based organizations and local level interventions:

Within the 26 river systems and across the physiographic zones, specific areas for interventions will be identified using a multi- criteria analysis which takes into account a combination of technical analysis using available GIS and statistical data as well as community and stakeholder consultations to rank and prioritize the specific selection criteria. The result of this 'intervention mapping' process which is done as part of Activity 2.2, is a spatially explicit menu of interventions tailored for each river system addressing the drivers and triggering factors of environmental degradation, thereby reducing the vulnerability and enhancing resilience of the river systems. The multi-criteria analysis is similar to the analysis performed to identify the 26 prioritized river systems as project area, however, now focusing on a more local implementation level, i.e. village (VDC) and/ or community areas. The section below lists the process and selection criteria for key intervention areas, which will be refined more during activity 2.2.

GIS & statistical analysis to identify prepare village/ community based land use risk maps: Similar to the risk mapping done to identify the 26 priority river systems for the project area, this risk mapping will be done on a local within each of the river systems using the smallest available spatial planning units, i.e. VDC and or community areas. As shown in the overview problem statement figure above (Figure 4), the complex interlinkages of up-and downstream drivers of land use, climate induced and climate change reinforced hazards translates into forest

deforestation and degradation, soil erosion and sedimentation (loss of productive land). Therefore the following criteria are used to identify hotspots of this environmental degradation on a local (village boundary level):

- Areas of deforested between 2000- 2015, ranked into 'low', 'medium' and 'high' based on the extend of the deforested areas
- Areas of existing forests in % of the total land area of a village/ community level boundary. This indicator is relevant to identify forest areas which need to be managed as part of project interventions to prevent future deforestation/ degradation. Ranked into 'low', 'medium' and 'high' based on the extend of the forest areas
- Area share in % of the total land area of a village/ community level boundary under slope instability/ susceptibility for erosion (landslide risk). Ranked into 'low', 'medium' and 'high' based on the area shares.
- Area share in % of the total land area of a village/ community level boundary prone to flooding. Ranked into 'low', 'medium' and 'high' based on the area shares.
- Area share in % of the total land area of a village/ community level boundary which is identified as degraded land according to the Churia Masterplan. Ranked into 'low', 'medium' and 'high' based on the area shares
- Area share in % of the total land area of a village/ community level boundary which is identified as river bank according to the latest available land use classification 2015. Ranked into 'low', 'medium' and 'high' based on the area shares

The ranking for each criterion is done by using a percentile method. This means that, for instance for the criterion of areas of deforestation the different area parcels of forest loss are categorized into three 'bins' representing one 'bin' of large deforested areas (classified as 'high'), one 'bin' representing the average areas of forest loss (classified as medium') and one 'bin' representing smaller areas (classified as 'low').

Combined risk maps: A combined ranking into ´high´, ´medium´ or ´low´ is assigned to village boundary by using the 'weighted sum' considering the specific ranks and equal weightings of each of the criteria.

Future deforestation hotspots: In addition to the analysis of existing hotspots of land degradation, a separate analysis will be done to identify hotspots within the local village/ community boundaries where future deforestation most likely will occur. Based on the historical patterns of deforestation (see feasibility study) the location of future deforestation can be predicted with the following variable and variable categories:

Forest Loss			
Variable name	**Categories**	**Value ranks**	**Ranking (high, moderate, low)**
Degradation	0	1	High
	1	3	Low
Slope	0-20 deg	1	Low
	20-30 deg	2	Moderate
	> 30 deg	3	High
Elevation	0-500 m, > 3000 m	3	Low
	500-1000 m	2	Moderate

Forest Loss			
Variable name	**Categories**	**Value ranks**	**Ranking (high, moderate, low)**
	1000 -3000m	1	High
Roads	0-1 km	1	High
	1-2 km	2	Moderate
	2-5 km	3	Low

The ranking assigned to the different variables reflects the risk of future deforestation based on the historical analysis. By using the "weighted sum" of the four variables risk maps of future deforestation are developed and risk areas will be calculated at village boundary level to see quantum of risk in each of these units.

Land use& hydrological analysis: A separate GIS analysis is needed which complements the risk mapping above. In this analysis the broad land use categories (cultivated land, forest, shrub land, grassland, settlements, river banks, barren land, wetlands, etc. are assessed on a village boundary level against the available spatial information on water courses (permanent rivers and tributaries, seasonal rivers and tributaries, rivers of different origin, wetland locations and areas, etc. This analysis will then be overlaid with the risk mapping und step 1 resulting in an overall risk and planning map which then can be used during the field consultation

Local Institutional mapping: As a preparation for the field consultation and planning of interventions, all existing community structures should also be mapped as much as possible. This includes the location of existing community forest user groups, and other forms of forest management institutions, existing cooperatives and other forms of common natural resource management systems.

Field consultations, participatory natural resource mapping and planning of project interventions: Based on the local risk maps overlaid with the land use and hydrological information as well as the institutional landscape, a field consultation, sensitization and project intervention planning phase is performed. SOPs will be developed to ensure a consistent participatory process of these field consultation. The main steps include (participatory village land analysis and field assessments are included within Activity 2.2):

Village/ community sensitization process: In participatory community meetings, the purpose of this project, its major objectives and possible impacts are introduced including the identified land use and risk mapping done this particular community.

Participatory village land analysis: An intensive consultation is then carried out following standard participatory rural approach (PRA) methodology. Facilitated by the project, each village/ community is sketched showing details concerning different land use, land use changes over the last 10 years and the identification of the intervention areas. The village/ community sketch will be jointly elaborated using visualization techniques. Using a set of questions related to the general information on the whole village, the project will collect detailed land use activity information. The potential project interventions tailored to a particular risk profile of a community will be discussed and a prioritized ranking of interventions developed

Field Assessment: After the group-based analysis, the project together with the community members will assess the identified and potential project intervention areas on a sample basis.