

Funding Proposal

FP118: Building a Resilient Churia Region in Nepal (BRCRN)

Nepal | Food and Agriculture Organization of the United Nations (FAO) | Decision
B.24/09

4 December 2019





GREEN
CLIMATE
FUND



Funding Proposal

Version 1.1

The Green Climate Fund (GCF) is seeking high-quality funding proposals.

Accredited entities are expected to develop their funding proposals, in close consultation with the relevant national designated authority, with due consideration of the GCF's Investment Framework and Results Management Framework. The funding proposals should demonstrate how the proposed projects or programmes will perform against the investment criteria and achieve part or all of the strategic impact results.

Project/Programme Title: Building a Resilient Churia Region in Nepal (BRCRN)

Country/Region: Nepal

Accredited Entity: Food and Agriculture Organization of the United Nations

Date of Submission: 13 February 2019



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A.1. Brief Project/Programme Information		
A.1.1. Project / programme title	Building a Resilient Churia Region in Nepal (BRCRN)	
A.1.2. Project or programme	Project	
A.1.3. Country (ies) / region	Nepal	
A.1.4. National designated authority (ies)	Ministry of Finance	
A.1.5. Accredited entity	Food and Agriculture Organization of the United Nations	
A.1.5.a. Access modality	<input type="checkbox"/> Direct <input checked="" type="checkbox"/> International	
A.1.6. Executing entity / beneficiary	Executing Entities: Ministry of Forests and Environment (MoFE) Food and Agriculture Organization of the United Nations (FAO)	
	Beneficiaries: <ul style="list-style-type: none"> <input type="radio"/> <i>Direct beneficiaries</i> – At least 200,681 households with approx. 963,268 people will directly benefit from the project. At least 50% of beneficiaries will consist of women with proportional representation of indigenous peoples (31%), Dalits (13%) and other marginalized groups. <input type="radio"/> <i>Indirect beneficiaries</i> – In total 3,216,248 people will indirectly and directly benefit from the project. 	
A.1.7. Project size category (Total investment, million USD)	<input type="checkbox"/> Micro (≤ 10) <input type="checkbox"/> Medium ($50 < x \leq 250$)	<input checked="" type="checkbox"/> Small ($10 < x \leq 50$) <input type="checkbox"/> Large (> 250)
A.1.8. Mitigation / adaptation focus	<input type="checkbox"/> Mitigation <input type="checkbox"/> Adaptation <input checked="" type="checkbox"/> Cross-cutting	
A.1.9. Date of submission	13 February 2019	
A.1.10. Project contact details	Contact person, position	Daniel Gustafson, <i>Deputy Director-General</i>
	Organization	Food and Agriculture Organization of the United Nations
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	Mailing address	Viale delle Terme di Caracalla 00153 Rome, Italy

A.1.11. Results areas (mark all that apply)
Reduced emissions from:
<input type="checkbox"/> Energy access and power generation (E.g. on-grid, micro-grid or off-grid solar, wind, geothermal, etc.)
<input type="checkbox"/> Low emission transport (E.g. high-speed rail, rapid bus system, etc.)
<input type="checkbox"/> Buildings, cities and industries and appliances (E.g. new and retrofitted energy-efficient buildings, energy-efficient equipment for companies and supply chain management, etc.)
<input checked="" type="checkbox"/> Forestry and land use



(E.g. forest conservation and management, agroforestry, agricultural irrigation, water treatment and management, etc.)

Increased resilience of:

- Most vulnerable people and communities
 - (E.g. mitigation of operational risk associated with climate change – diversification of supply sources and supply chain management, relocation of manufacturing facilities and warehouses, etc.)
- Health and well-being, and food and water security
 - (E.g. climate-resilient crops, efficient irrigation systems, etc.)
- Infrastructure and built environment
 - (E.g. sea walls, resilient road networks, etc.)
- Ecosystem and ecosystem services
 - (E.g. ecosystem conservation and management, ecotourism, etc.)

A.2. Project / Programme Executive Summary (max 300 words)

1. The Churia hills are the southernmost range of the Himalayan foothills, running east-west through Nepal and into India. They provide vital ecosystem functions to the heavily-populated Terai plains downstream, including groundwater regulation, prevention of siltation, flood control, and livelihood services, including fuelwood, fodder and construction materials, among others. In addition, the Terai-Madhesh area of Nepal is responsible for the majority of the country's agricultural production.¹ Together, the Terai and Churia are home to about 50% of Nepal's population.²
2. Climate change is already having a significant impact on the Churia's ecosystems and inhabitants. These impacts are projected to intensify in the coming decades. Increasing temperatures and changing precipitation patterns are expected to undermine the viability of baseline (mostly agricultural) livelihoods, and significantly increase the frequency and intensity of hazards such as floods. Communities in the Churia region are extremely exposed to such climate-induced hazards due to the region's geological features, while their livelihoods are very sensitive to changes in climatic conditions. This vulnerability has been exacerbated by decades of unsustainable natural resource management, including deforestation and forest degradation. Failure to address these challenges could have severe consequences for the Churia region, downstream communities (including in northern India), and broader food security in Nepal.
3. The Building a Resilient Churia Region in Nepal (BRCRN) project aims to confront these challenges by enhancing the resilience of ecosystems and vulnerable communities in Nepal's Churia region. It will promote widespread adoption of climate-resilient land use practices, confront the challenges of deforestation and forest degradation, better maintain the forest ecosystem in the Churia hills, and build resilience to climate-induced hazards. It will also build the capacities of governments, communities and other stakeholders to better understand and respond to climate risks and scale up much needed support after project closure. The project is conceived as a direct contribution to Nepal's nationally determined contribution (NDC). It will intervene at three levels to catalyze change in the way land, forests and other natural resources are managed and set in motion a sectoral transformation from a climate-vulnerable to a climate-resilient, lower-emissions and sustainable development pathway for the Churia region:
 - a) support integrated river system-level planning among sub-national government, community-based organizations (CBOs) and other partners, and strengthen their capacities to monitor natural resources and climate change impacts to inform future planning and investment decisions;
 - b) support CBOs to directly adopt and invest in climate-resilient sustainable natural resource management approaches by providing the training, expert guidance and inputs, materials, tools and equipment needed to overcome barriers to adoption; and
 - c) strengthen extension services and awareness to support sustained and widespread adoption of project-promoted practices.

¹ PCTMCDB 2016

²<http://www.rccp.gov.np/>



4. Post-project sustainability considerations have been embedded at all three levels to ensure beneficiaries continue managing natural resources in a climate resilient and sustainable manner, to enable key actors to scale up support (and thus benefit) additional beneficiaries, and continue driving the process of transformation.

A.3. Project/Programme Milestone

Expected approval from accredited entity's Board (if applicable)	N/A
Expected financial close (if applicable)	N/A
Estimated implementation start and end date	Start: <u>01/01/2020</u> End: <u>31/12/2026</u>
Project/programme lifespan	7-year project implementation period 20-year lifespan of project outcomes/benefit streams



B.1. Description of Financial Elements of the Project / Programme

5. The BRCRN project requests USD 39.3 million in grant financing from the GCF. This is matched by USD 8.04 in co-financing from the Ministry of Forests and Environment (MoFE). This is a clear sign of the government's commitment to the project. Additional funds from national entities could not be mobilized due to the constrained fiscal situation in Nepal. An overview of project costs is included in Table 1 below. A more detailed overview of project costs is included in Annex 3 – *Integrated Financial Model*.
6. The BRCRN project is also expected to unlock considerable additional investment in climate-resilient and low-emissions land use in the medium/long term. Investment by government and local communities beyond project closure will continue to drive the transition toward a climate-resilient and low-emissions development pathway for the Churia region.

Table 1. Overview of financial information for the BRCRN project *

Component	Sub-Component	Total cost (USD)	Total cost (NPR)	GCF total (USD)	Co-financing total (USD)
Component 1: Scaling up climate-resilient SNRM	1.1: Climate-resilient land use practices are adopted	10,518,897	1,239,803,512	9,659,402	859,495
	1.2: Natural forest ecosystems are better maintained and protected	4,287,608	505,356,309	4,287,608	-
	1.3: Forests and tree cover are restored and maintained in the river system landscapes	19,177,200	2,260,309,202	19,081,863	95,337
Component 2: Strengthening institutions and planning for climate-resilient SNRM	2.1: Planning for climate-resilient SNRM is enhanced	2,087,222	246,009,122	2,087,222	-
	2.2: CBOs are equipped to scale up climate-resilient SNRM	1,226,525	144,563,627	954,825	271,700
Component 3: Improving knowledge, awareness and local capacity for climate-resilient SNRM	3.1: Local knowledge on climate-resilient SNRM is enhanced	702,364	82,783,717	702,364	-
	3.2: The extension system is equipped to promote climate-resilient SNRM	7,304,378	860,926,130	948,578	6,355,800
Project management costs (PMC)		2,037,960	240,202,903	1,578,044	459,916
TOTAL		47,342,154	5,579,954,523	39,299,905	8,042,248

* Project cost estimates in Nepalese Rupee (NPR) use the UN Operational Rate of Exchange as at 1 November 2018, which was USD 1 = NPR 117.8644.

B.2. Project Financing Information

	Financial Instrument	Amount	Currency	Tenor	Pricing
(a) Total project financing	(a) = (b) + (c)	47.34	million USD (\$)		
(b) GCF financing to recipient	(i) Senior Loans (ii) Subordinated Loans (iii) Equity (iv) Guarantees (v) Reimbursable grants * (vi) Grants * 39.3 39.3	Options Options Options Options Options million USD (\$)	() years () years	() % () % () % IRR





C.1. Strategic Context

SOCIAL, POLITICAL AND ECONOMIC CONTEXT

7. Nepal is one of the world's Least Developed Countries (LDCs). Despite recent economic progress, the country has a per capita income of only USD 766.³ In addition, Nepal has experienced several shocks in the last three years that have had a substantial impact on its economy, including: the devastating 2015 earthquake; trade disputes that led to a fuel crisis shortly after the earthquake; and devastating floods in 2017 that affected over 1.1 million people.⁴
8. Agriculture (including livestock) and forestry are key economic sectors and are responsible one third of the country's GDP. These sectors employ over 70% of the population.⁵ The prevalence of the primary sector in the economy makes the country extremely dependent on natural resources, as well as stable and predictable climatic conditions.

CLIMATE CHANGE CONTEXT

Climate change: Risks and vulnerability

9. Nepal is ranked as the world's 4th most vulnerable country to anthropogenic climate change.⁶ The most profound impacts will be on the agriculture sector, water resources, public health and energy.⁷
10. **Historical analysis** of climate data indicates that a large part of the Eastern Himalayan region is undergoing warming. Overall, the analysis indicates that the Eastern Himalayas are experiencing widespread warming of generally 0.01 to 0.04°C per year. The highest rates of warming are generally in the winter.⁸ Long-term trends for annual precipitation in Nepal (1970 – 2012) indicate a significant increase of precipitation over the middle mountains and hills within the western region of Nepal, and over the high mountains within the central region. Monsoonal and annual precipitation feature significantly decreasing trends over the whole central and eastern regions, except for the eastern middle-mountain and hills. On the other hand, winter precipitation demonstrates a decreasing trend over most of Nepal.
11. **Future projections** for Nepal suggest a continued increase in mean annual temperature, shifting precipitation patterns – with many models suggesting that the monsoon season will become wetter and the dry season will become drier – as well as an increased likelihood of heavy precipitation events. While there is considerable uncertainty in climate models with respect to precipitation,⁹ it is likely that annual average precipitation in Nepal will increase in the future, albeit with differences in the regional and temporal distribution of this precipitation.¹⁰
12. Among other impacts, the above-mentioned changes in climatic variables are expected to increase the frequency and intensity of climate-related hazards in many regions of Nepal. This is particularly true of the Churia Terai-Madhesh region.

Climate change context of the Churia Terai-Madhesh region

13. The Churia hills are located between the mid hill areas to the north and the plains in the south of Nepal (Terai), where the Churia hills perform critical ecological and socio-cultural functions both upstream and downstream ([Error! Reference source not found.](#)^{Figure 4}). With more than 50% of its territory under forests and riverine areas, the Churia hills render hydrological services such as regulating surface water flows and recharging groundwater. All major river systems in Nepal pass through the Churia hills before reaching the densely populated alluvial plains in the Terai and northern India. In addition, the Terai-Madhesh area of Nepal is known as the country's 'rice basket' – responsible for the majority of the country's agricultural production.¹¹ Together, the Terai and Churia comprise about 25% of Nepal's land area, but harbour close to 50% of its population.¹²

³ MoF 2016

⁴ United Nations office of the Resident Coordinator, 2017.

⁵ MoF 2012

⁶ Maplecroft 2011

⁷ World Bank 2011; NAPA 2010

⁸ ICIMOD 2009 Climate Change Impacts and Vulnerability in the Eastern Himalayas

⁹ Described in further detail within the Feasibility Study in Annex B.

¹⁰ NCVST 2009 NCVST. 2009. Vulnerability Through the Eyes of Vulnerable: Climate Change Induced Uncertainties and Nepal's Development Predicaments. Boulder, CO and Kathmandu, Nepal: Nepal Climate Vulnerability Study Team (NCVST), Institute for Social and Environmental Transition (ISET), Institute for Social and Environmental Transition-Nepal (ISET-N). Available at: <http://lib.icimod.org/record/14405/files/7156.pdf>

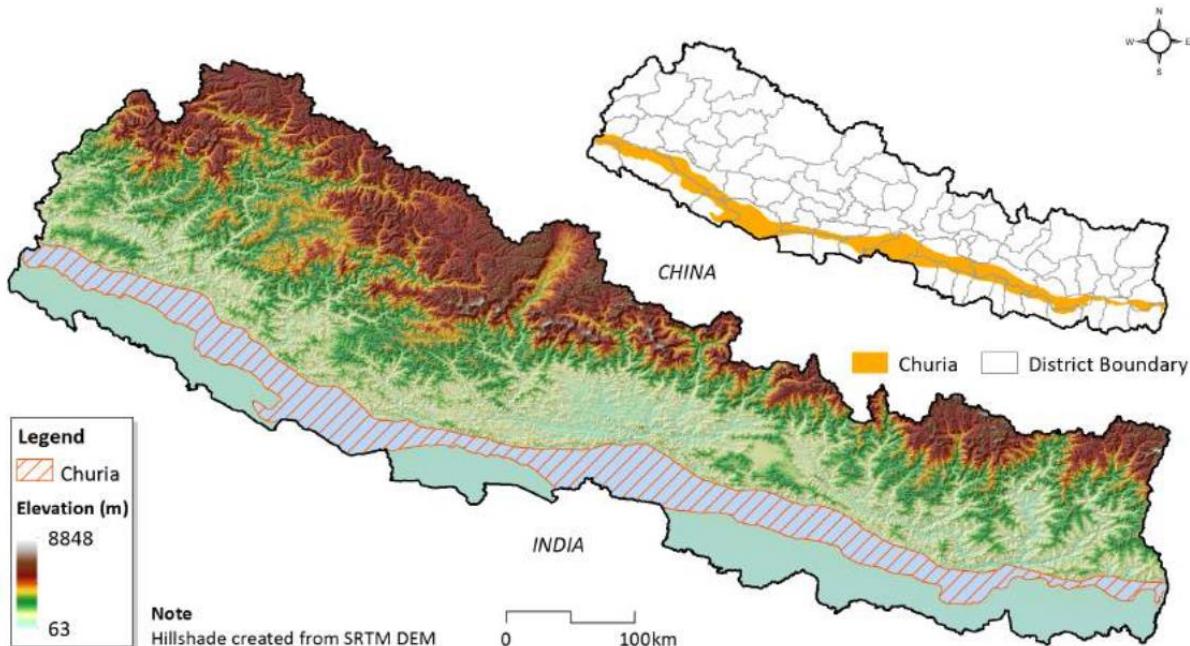
¹¹ PCTMCDB 2016

¹² <http://www.rccp.gov.np/>



14. Agriculture is the main form of employment in the region, with 62% of the economically active population involved in the sector.¹³ In addition, forests are an essential resource and safety net for communities, providing key ecosystem and cultural services, as well as diverse products including timber for construction, fuelwood, and other non-timber forest product (NTFPs). Thus, households in the Churia region are directly dependent on the health of Churia ecosystems to ensure their food, water and energy security.

Figure 1: Location of the Churia hills along the Himalayas and within Nepal



Source: Bharti et al. 2017; GoN 2014

15. **The Churia-Terai Madhesh region is already experiencing the impacts of climate change. These impacts are expected to increase in the coming decades.** Although available data and models indicate that there is uncertainty regarding the severity of negative climate change impacts, the overall risks and associated trends are clear and warrant a concerted response. These are outlined in Section 2 of the Feasibility Study, and briefly summarized here below.

- Average annual temperatures have increased – driven in part by particularly notable increases in temperatures during winter months – over the past 40-60 years, with many models indicating annual increases of 0.02-0.05 °C over the past few decades (see for example ICIMOD 2009). Temperatures are expected to continue increasing in both summer and winter months in the coming decades, with some models predicting that average annual temperatures in Nepal could increase by 1.3-3.8°C by 2060, and 1.8-5.8°C by 2090 compared to a reference period of 1986-2005.¹⁴ In addition, the number of hot days and extremely hot days is expected to increase in the pre-monsoon, monsoon, post-monsoon and winter seasons, with some models predicting about a 16% increase in the frequency of hot days by the 2060s (relative to the mean from 1970-1999).
- Average precipitation during the post-monsoon and winter seasons decreased between 1970 and 2012, further exacerbating the challenges that local farmers and communities must confront during the dry season.¹⁵ Recent analysis of data from weather stations across Nepal observed decreasing post-monsoon precipitation at 92% of stations from 1981-2010, and decreasing winter precipitation at 68% of stations in this same period. These trends are expected to continue in the coming decades. Some models predict that (under both RCP 4.5 and 8.5) overall

¹³ILO 2017

¹⁴World Bank Climate Change Knowledge Portal, 2018.

¹⁵Karki et al. 2017.



average winter precipitation could decline by around 10% for the period 2021-2050 relative to the period 1961-1990.¹⁶

- c) The average number of consecutive dry days has increased across Nepal and in the Churia region over the past 40 years, with a recent analysis finding that 80% of analyzed stations in Nepal (including in the region targeted by this project) exhibit a significant increase in consecutive dry days over the period 1970-2012.¹⁷ The average number of dry days *and* consecutive dry days is projected to continue increasing in the coming decades.¹⁸
 - d) Although the overall volume of precipitation during monsoon season has varied considerably over the preceding decades (both across regions and from year to year), models indicate that summer precipitation – particularly during the monsoon season, which runs from June until September – is expected to increase considerably in the future. Some models predict that monsoon precipitation could increase by around 14-15% (under RCPs 4.5 and 8.5 respectively) for the period 2021-2050 relative to the period 1961-1990.¹⁹ Over the course of the entire summer season, precipitation could increase to an even greater degree – between 10-25% – over this same time period.
 - e) Extreme precipitation events have become more common over the past 40 years, with some recent observations in the nearby Koshi river basin (from 1970-2010) suggesting increases in the number of heavy precipitation days at 62% of weather stations, and increases in extremely heavy precipitation days at 64% of weather stations.²⁰ These trends are projected to continue in the coming decades, particularly during monsoon season. The number of very wet days is expected to steadily increase, while the number of moderate rainfall days and consecutive wet days is expected to decrease. In other words, increases in overall monsoon precipitation (as outlined in (d) above) will likely fall in less frequent but more intense precipitation events.
16. These past and future changes in climatic conditions pose serious challenges for households and communities in the Churia-Terai Madhesh region, the broader Churia ecosystem, and (by extension) the food security, livelihoods and well-being of downstream communities and other inhabitants of Nepal. These climate change impacts are briefly summarized here below and in Figure 2, and are explained in detail in Section 2 of the Feasibility Study.
- a) The dry winter season has become drier, exacerbating challenges associated with seasonal water stress. As temperatures continue increasing, and post-monsoon and winter precipitation continue to decline in the coming decades, communities in the Churia region may increasingly struggle to cope.
 - b) Extended dry periods throughout the year will pose increasingly significant challenges for the Churia region. As the number of consecutive dry days continues to increase, rainfall becomes more sporadic, and the water that *does* fall (during intense precipitation events) increasingly exceeds the infiltration capacity of the landscape, poor agricultural communities will have to find new ways to cope with water deficit. Unsustainable natural resource management practices (further described below) are reinforcing this dynamic.
 - c) The incidence of flooding events has increased considerably since the 1970s, albeit with significant inter-annual variation. Due in part to changing precipitation patterns, the frequency of floods is projected to further increase in the Churia region in the future, as are the severity, damages and costs per household of these flooding events. Unsustainable management of land and forest resources also contribute to this by: (i) further reducing infiltration capacity of the landscapes; and (ii) exacerbating erosion and sedimentation (described below), which contribute to riverbed rise, river channel change, and thus flash floods further downstream.
 - d) Rates of soil erosion and sedimentation have steadily increased, driven in part by the combined effects of drying soils and increasingly extreme precipitation events – trends that are projected to intensify in the future. Churia landscapes are particularly vulnerable to this due to continued deforestation and forest degradation, as well as the widespread use of unsustainable land and forest management practices. The impacts on Churia livelihoods, communities and ecosystems are considerable, including: (i) the loss of top soil in upstream areas, which is reducing cultivable land; and (ii) sedimentation in downstream areas, which is contributing to river channel change, river bank cutting, flash floods and loss of fertile farm land.

¹⁶ ICIMOD 2015.

¹⁷ Karki et al. 2017.

¹⁸ Rajbhandari et al. 2017.

¹⁹ ICIMOD 2015.

²⁰ Shrestha et al. 2017.



17. The Churia region and its inhabitants are particularly vulnerable to the above-mentioned climate change impacts. Key vulnerability factors are briefly summarized below, and elaborated in more detail in Section C.2 of the Funding Proposal, and in Feasibility Study Sections 3 & 4, and Appendices B and E.
- a) The geological features of the Churia region leave communities particularly exposed to climate-related hazards. The riversstreams that originate from the Churia are ephemeral with surplus water flow during monsoon season, and little or no water flow during the rest of the year. In addition, the Churia consists of highly fractured sedimentary rocks with low groundwater retention potential. During the wet season, rainfall can quickly exceed the infiltration rate. Due to its sloping lands, the Churia is therefore more prone to flash floods, and retains little water to discharge during dry season. The Churia's fragile slopes are also susceptible to erosion and landslides, particularly as extreme precipitation events become more common.
 - b) Unsustainable natural resource management (NRM) has reduced adaptive capacity and reinforced vulnerability to climate change. Deforestation and forest degradation in upstream areas, as well as the use of inappropriate agricultural practices, have resulted in soil degradation, reduced vegetative cover, and further reduced water infiltration capacity of landscapes. This has contributed to accelerated erosion and sedimentation, resulting in riverbed rise downstream that increases the risk of flash flooding. It has also further exposed the Churia's already steep and fragile slopes, increasing risk of erosion and landslides upstream.²¹
 - c) Predominant livelihood strategies in the Churia region depend on stable climatic conditions and a healthy natural resource base, and thus are particularly sensitive to the above-mentioned climate change impacts. Many communities depend on (semi-)subsistence rain-fed agriculture, and often use agricultural practices that are not optimal for the local terrain – particularly under the anticipated changing climatic conditions – including cultivation on steep slopes.
18. These climate change impacts pose significant challenges for Churia communities and ecosystems, but also have a significant impact on the management of forest resources in the project area. Deforestation and forest degradation in the Churia region are driven in part by poverty and other economic factors (see Section C.2, and Feasibility Study Appendix E). As communities and the predominant (agricultural) livelihoods on which they depend are undermined by climate change, expansionary pressures driving deforestation and forest degradation will increase – a feedback loop that will accelerate both vulnerability and GHG emissions. While Nepal accounts for only 0.027% of global greenhouse gas (GHG) emissions,²² more than two thirds of the country's emissions come from agriculture, forestry and other land use (AFOLU), with 52% from agriculture and 15% from land use change, especially deforestation and degradation. The country is committed to reducing these emissions and pursuing a more low-emissions development pathway – something that can only be done by addressing the aforementioned challenge.

Figure 12. Overview of climate change projections and resulting primary and secondary impacts

²¹ Ibid.

²²NDC Nepal



Main Changes in Climatic Variables

Increasing temperatures

- Temperature could increase by 4°C by the end of the century

Shifting Precipitation patterns

Higher level of uncertainty/ inconsistency than temperature predictions, but available evidence indicates:

- Reduced post-monsoon and winter precipitation.
- Number of consecutive dry days increasing throughout the country.
- Increased number of extreme precipitation events in monsoon season.
- Monsoonal precipitation expected to increase.

Primary Impacts

Seasonal Water Stress

- Undermines the viability of baseline livelihood strategies

Extended dry periods

- Undermines the viability of baseline livelihood strategies

Increasing frequency and/or intensity of floods

- Damages household and public assets, ecosystems and imposes economic losses

Secondary Impacts

Increased Soil Erosion

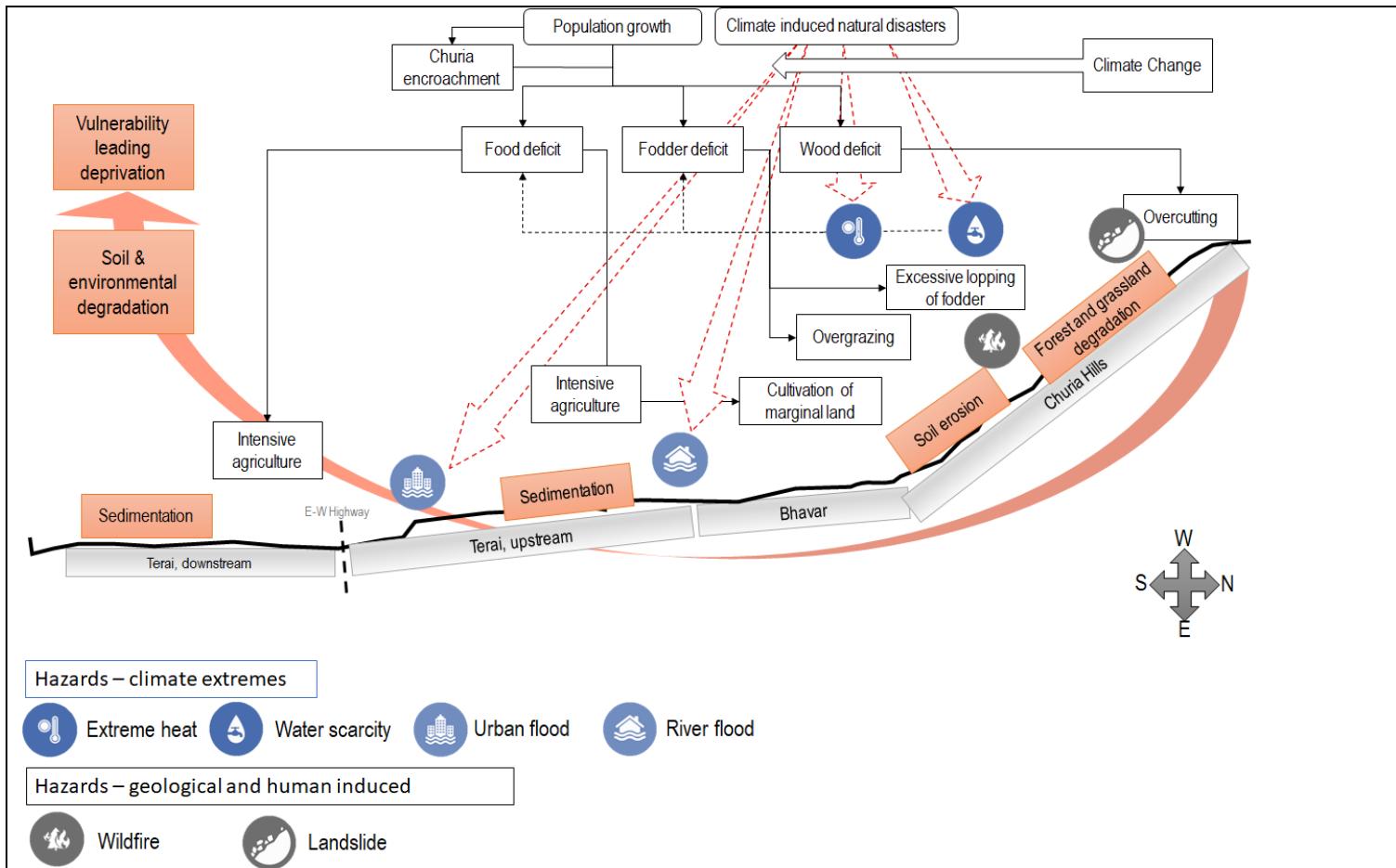
- Driven by combined effects of climate change (prolonged dry periods and intense precipitation events) coupled with human drivers (esp. deforestation and degradation) and unsustainable agricultural practices.
- Soil erosion undermines the viability of baseline livelihood strategies:
 - o *Upstream*: Top soil and nutrient loss.
 - o *Downstream*: sedimentation, riverbank cutting (land loss), riverbed rise (increased vulnerability to floods).



By undermining the viability of baseline livelihood strategies and farming models in the Churia, primary and secondary impacts will reinforce the expansionary pressures driving deforestation and forest degradation (creating a feedback loop that accelerates both vulnerability to climate change and emissions from deforestation and forest degradation).

19. Figure 3 illustrates the complex and interlinked interactions between climate change and unsustainable NRM in the Churia Terai-Madhes region. A landscape of four distinct physiographic zones is increasingly exposed to climate-related hazards, causing cascading and interlinked impacts from the hills to the downstream areas. The combination of recent and projected changes in climatic variables, coupled with unsustainable farming, land management and NRM that are exacerbating vulnerability, will significantly undermine the viability of predominant livelihood strategies in the region and result in widespread damages and losses, while also exacerbating existing vulnerabilities in the future and increasing emissions from the AFOLU sector. **In other words, in an already-vulnerable region, climate risk and vulnerability are both increasing. This is expected to steadily undermine local livelihoods, which (in turn) is expected to further reinforce vulnerability in tandem with steadily increasing climate change impacts – a vicious cycle that must be broken.** Failure to do so could have severe medium/long term consequences for the Churia region and its inhabitants, as well as for downstream communities and broader food security in Nepal.

Figure 3. Climate change impacts and a vicious cycle of vulnerability in the Churia Terai-Madhes region of Nepal



POLICY AND INSTITUTIONAL CONTEXT

International and national commitments, policies and strategies

20. The Government of Nepal is committed to responding to climate change. Nepal ratified the Kyoto Protocol (2002) and Paris Agreement (2016), and has submitted its 1st and 2nd National Communication Reports (2004 and 2014) and Nationally Determined Contribution (NDC) to the UNFCCC. Nepal's NDC notes that given its status as a low-income economy and ongoing recovery from the devastating 2015 Earthquake, the country requires additional bilateral and multilateral grant support to meet its commitments for both climate change mitigation and adaptation.
21. 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 climate change in sector strategies and development plans. Nepal's Climate Change Policy (2011) aims to improve livelihoods by reducing climate change impacts, adopt a low-carbon economic development strategy and reduce greenhouse gas emissions through clean energy and sustainable natural resource management. These priorities are also highlighted in the Fourteenth Periodic Plan (2017), which recognizes the role of forests and agriculture in contributing to both climate change adaptation and mitigation efforts, and calls for the conservation, sustainable management and use of forests and watersheds. This is further supported by the development of the Country's REDD+ Strategy, which aims to reduce emissions from deforestation and forest degradation within the country. Meanwhile, the National Adaptation Programme of Action (NAPA) identifies a number of priority actions, including: i) sustainable land and forest management; ii) improved agricultural value chains; iii) restoration of degraded areas; iv) climate-related research, information and awareness generation; and v) disaster preparedness. Additional information on relevant policy commitments is included in Feasibility Study Section 3.2.



Strategies focusing on the Churia Terai Madhesh region of Nepal

22. Recognizing the scale and extent of environmental degradation in the Churia Terai-Madhesh region in Nepal and its vulnerability to climate-related hazards, the Government of Nepal has enacted various policies, programs and strategies focusing on the Churia region. This includes the 'President's Chure-Tarai Madhesh Conservation Development Board' (PCTMCDB), which was enacted on July 17, 2014 to support integrated and coordinated efforts for conservation in the Churia region. The board supported the elaboration of the 'President's Chure-Tarai Madhesh Conservation and Management Master Plan' (henceforth referred to as the 'Churia Master Plan'), which aims to provide strategic direction for conservation in the Churia. More specifically, it aims to support the integrated management of upstream and downstream land use activities, promoting an integrated landscape approach. The Churia Master Plan aims to support poverty reduction through conservation and sustainable management of the Churia region's resources and improvement of ecosystem services. It also aims to mitigate climate change-related impacts and damages by ensuring the sustainable management of natural resources favourable to their bio-geophysical status and distinct ecosystems.
23. The PCTMCDB prepared the Churia Master Plan with an investment budget of NRs 13 billion (c. USD \$122 million) per annum. From domestic resources, Nepal has secured approx. USD \$16.5 million for the current financial year for the implementation of the Plan, which prioritized 64 (out of 164) river systems but can only work in 29 of them due to a budget crunch. The Churia Master Plan is led by MoFE, which is also the co-Executing Entity for the proposed GCF project. MoFE will benefit significantly from and contribute to securing national ownership of the project implementation.
24. The proposed project takes an approach focused on the restoration of critical ecosystems, and further includes a climate change –informed digital extension platform that will benefit PCTMCD to mainstream climate change considerations in their targeted river systems at national scale. As a result, the project is expected to mainstream climate change considerations and climate-resilient Sustainable Natural Resources Management (SNRM) into the implementation of the Churia Master Plan, which would leverage additional resources to sustain and scale up the process of transforming natural resource management in the Churia region beyond project closure. The successful implementation of the project would also provide a framework for the Government of Nepal to secure additional external funds needed to bridge the financial gap towards the full implementation of the Churia Master Plan.

Political transition and institutional restructuring

25. While Nepal has been successful in mainstreaming climate change into national development strategies and sectoral plans, there is a need to strengthen institutional capacities and support climate change mainstreaming at the provincial and local level. Nepal is transitioning from a constitutional monarchy to a federal state, as mandated in the 2015 Constitution. This process has shifted responsibility for natural resource management from the federal level to the local and provincial levels. As a result, provinces and local governments (municipalities) will become the relevant authorities to oversee forest and agricultural management,²³ although their capacities to support climate-resilient land use planning and management are limited. This institutional transition offers a significant opportunity to equip these new custodians of the Churia region's natural resources with the capacities, policies and plans needed to support the scaling up of climate resilient land use practices.
26. Provincial governments have their own Ministries and technical departments and will be directly responsible for the majority of public investment and service provision in all land use sectors. While they are staffed by experienced technicians, mostly seconded from the federal Ministries, they are yet to develop coherent planning cycles and development strategies. This project will avail the opportunity to incorporate climate resilient SNRM into these cycles and strategies from the outset, serving as an example which can be replicated in other provinces and river systems throughout the country.
27. The proposed project therefore benefits from a strong political commitment and the opportunity to shape the development trajectory of the new decentralized institutions. However, since Nepal is a Least Developed Country (LDC) with high rural poverty and relatively low potential to attract private investment for climate resilience, the proposed project focuses on locally-appropriate, low-cost and low-maintenance technical approaches that can be adopted/applied by local communities largely through existing resources, sustained by robust institutions and support services.
28. Furthermore, Nepal is internationally recognized as a leader in Community-Based Natural Resource Management, with CBOs having long-term usufruct rights and decision-making over forests and other resources. The project will build on the

²³ LGOA 2017



experience of CBOs, the system of government extension services developed to support them, and the widespread political and social acceptance of decentralized management.

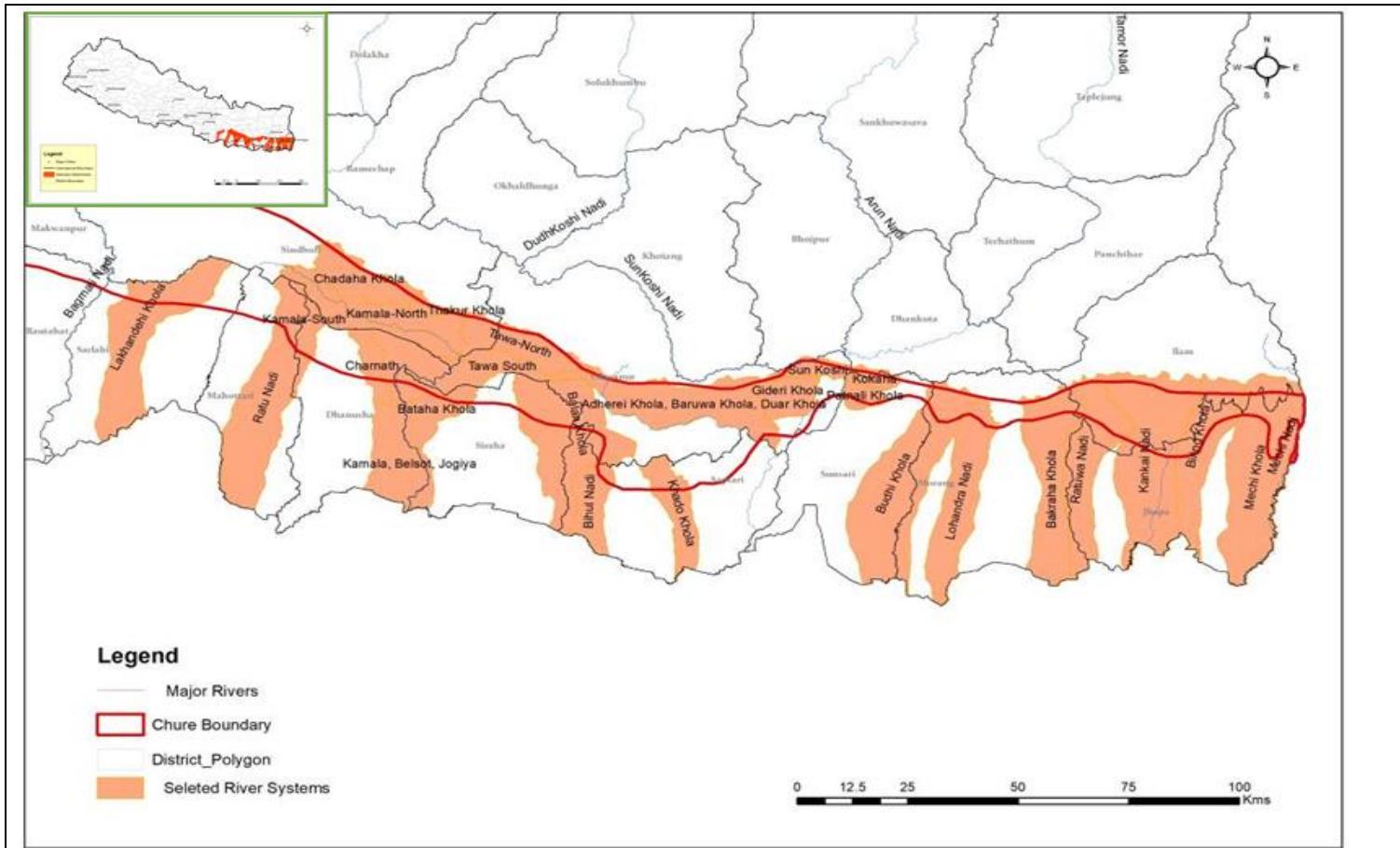
C.2. Project / Programme Objective against Baseline

29. The overarching objective of the proposed GCF project is to enhance the climate resilience of ecosystems and vulnerable communities in Nepal's Churia region through integrated sustainable natural resource management (SNRM) approaches.
30. Project activities will focus in the Central and Eastern Churia-Terai Region, where 26 vulnerable river systems (see Figure 4) were identified through a multi-criteria risk analysis together with the vulnerability assessment conducted for the project (described in Feasibility Study Appendix D).²⁴ These river systems are located in Provinces 1, 2 and 3, and are comprised of 121 rural municipalities.
31. Within these 26 vulnerable river systems there are over 3.2 million people, of which 51% are women and 77% are considered to have experienced inter-generational socio-economic exclusion.²⁵ Around 31% of inhabitants are of indigenous nationalities, and 13% Dalits. The project intends to work with 750 community-based organizations (CBOs), comprised of approximately 200,681 member households or 963,268 people. Women will make up at least 50% of beneficiaries. At least 31% of beneficiaries will be indigenous peoples and 13% Dalits. Beneficiary CBOs will be identified during the initial stages of implementing Sub-Component 2.1, further described in Section C.3 below.

Figure 4: BRCRN project location in 26 vulnerable river systems in Central and Eastern Churia-Terai region

²⁴ A list of each river system and key characteristics can be found in the Feasibility Study in Annex B

²⁵ 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" (GESI Working Group 2017). This includes groups including women, poor people, Dalits, Adivasi/ Janajati, Madhesi, Muslims, people with disabilities, third-gender and people living in remote areas.²⁵ Socially-excluded groups comprise over 77% of the project population (including Indigenous Peoples 31%, Terai-Madhesi 28%, Dalits 13% and Muslims 5%, among others; CBS 2014). Additional information on vulnerable groups and excluded groups can be found in the ESMF (Annex E).



BASELINE SCENARIO IN THE INTERVENTION AREA

32. The 26 BRCRN river systems cover a combined area of 702,011 ha.²⁶ Within each of the river systems there are four distinct biophysical zones, with shared land use characteristics, land use changes and socio-economic activities:
 - a) **Churia Hills** (33% of project area): Hilly terrain with steep slopes, typically located at higher altitudes where 13% of the land is cultivated, and 76% of the area is covered by forests.
 - b) **Bhavar** (18% of project area): Transition zone between the Churia Hills and Terai consisting of 35% cultivated land and 49% forested land. It is a key zone for groundwater recharge, given its unique geological characteristics and soils.
 - c) **Dun Valleys** (3% of project area): Valleys (also known as the inner-Terai) surrounded by the Churia Hills, often containing human settlements where 40% of the land is cultivated and 37% covered by forests.
 - d) **Terai** (46% of project area): Fertile plains in the South of the country. Often called the 'rice basket' of Nepal, where 83% of the area is cultivated and only 3% is forest cover. Given low forest cover and quality in the Terai, many households in the Terai are dependent on Churia forests as distant users.
33. Table 2 provides an overview of the land use characteristics and trends in each zone, as well as a description of how current land use practices influence vulnerability to the climate change impacts summarized in Figure 2. The ways in which climate change challenges (as described in Section C.1) are expected to affect each of these biophysical zones is summarized in Schematic 1 (further below). Additional information about baseline agricultural production systems, extension services, and land and forest management patterns is available in Feasibility Study Sections 3 & 4 and Appendices B & E.

²⁶ Excluding water bodies and settlements



Table 2. Existing land use practices and their impact on climate change vulnerability

	Description of Land Use Trends	Land Use Driving Vulnerability to Climate Change
Churia Hills	<ul style="list-style-type: none"> ▪ Households use fuelwood for household energy needs. Forests also provide fodder, forage, timber and NTFPs. ▪ Majority of terrain unsuitable for agriculture, however many households have subsistence farms within the hills. Agricultural production is characterized by rain-fed, low-yield fallow agriculture with different crops. Erosion and soil degradation pose major barriers. ▪ Subsistence from agriculture provides livelihoods only for 6-8 months a year. ▪ Many households have small-livestock²⁷ and/or buffalo raised in primarily low-yield free-grazing systems. ▪ Churia Hills play a vital function as a watershed for the downstream Terai plain - where inhabitants rely on delivered water resources for domestic and agricultural purposes (regulating water). 	<ul style="list-style-type: none"> ▪ 75% of deforestation in BRCRN area occurs in the Churia Hills. Deforestation and degradation increase vulnerability to erosion and sedimentation that reduce agricultural productivity, and increase exposure to flooding and landslides. ▪ Unsuitable agricultural practices increase vulnerability to erosion through vegetation removal and soil degradation (e.g. agricultural practices on sloped hills, lack of soil and water conservation practices).
Bhavar	<ul style="list-style-type: none"> ▪ Terrain is primarily unsuitable for rain-fed agriculture due to the irregular supply of water. Many households have small-livestock and/or buffalos using primarily free-grazing production systems. ▪ Majority of households use fuelwood for household energy needs. Forests also provide fodder, forage, timber and non-timber forest products. 	<ul style="list-style-type: none"> ▪ Deforestation and degradation contribute to increased sedimentation and erosion that reduce agricultural productivity. Such land use trends further increase the vulnerability of downstream communities to flooding through accelerated sedimentation and erosion. ▪ Reduced vegetation cover (from deforestation and inappropriate agricultural practices) limit ground water recharge, increasing the vulnerability of downstream communities to extreme heat and challenges related to water deficit. ▪ Gully erosion leads to significant loss of land.
Dun Valley	<ul style="list-style-type: none"> ▪ Most households use fuelwood for household energy needs. Forests also provide fodder, forage, timber and non-timber forest products. ▪ Among the most fertile and productive lands in Nepal with steady groundwater supply. Major production area for staple foods including paddy, cereals, pulses and oilseeds. Many households have small-livestock and/or buffalo raised in primarily low-yield free-grazing production systems. 	<ul style="list-style-type: none"> ▪ Deforestation within the Dun Valley, as well as in the Churia Hills, increases the vulnerability of local communities and ecosystems to extreme flooding events. ▪ Inappropriate agricultural practices do not apply soil or water conservation practices that leave areas vulnerable to flooding, extreme heat, water deficit, and soil erosion. ▪ Upstream deforestation and forest degradation, as well as the continued use of practices that fail to address issues related to soil degradation and water deficit exacerbate challenges associated with dry-season crop production.
Terai	<ul style="list-style-type: none"> ▪ Farmers in the Terai produce most of the country's grains (wheat, maize, rice, among others) and other crops. The Terai is the sole region in agricultural surplus, and thus is the principal area of production relied upon to supply the less productive hill and mountain areas. ▪ More heavily populated than the other three zones. Population growth in the Terai puts increased pressure on natural resources. Many communities in the Terai are '<i>distant forest users</i>', dependent on forest resources in Churia and Bhavar forests. While most households use cow dung for energy needs, forests are still an important source of fodder, forage, timber and NTFPs. 	<ul style="list-style-type: none"> ▪ 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 flooding, extreme heat, water deficit, and soil erosion. ▪ Combined factors from upstream deforestation and forest degradation, as well as use of practices that fail to address issues related to soil degradation and water deficit exacerbate challenges associated with dry-season crop production in the Terai. ▪ Upstream land management practices (described above) increase exposure to sedimentation in the Terai.

²⁷goats, rams, pigs



Schematic 1. Climate change impacts and their effects on land use in the four biophysical zones throughout the calendar year

		Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.								
Key changes in climatic variables and other CC impacts	Precipitation	Decrease in average precipitation in the winter season observed (1970-2012) and projected to continue.				The overall average volume of precipitation is expected to increase in the summer and monsoon season in the coming years.				Decrease in average precipitation in the post-monsoon and winter season observed (1970-2012) and projected to continue.											
	Wet days	The number of moderate rainfall days and consecutive wet days is expected to decrease over the coming years, while the number of very wet days is expected to steadily increase.																			
	Temperature	Particularly large increases in winter temperatures.		Overall, increasing temperatures are expected throughout the year, as are the number of hot days and extremely hot days.							Particularly large increases in winter temperatures.										
	Dry days	The average number of consecutive dry days has increased over the past 40 years, while the average number of dry days and consecutive dry days is expected to further increase in the coming years.																			
Key impacts in the four biophysical zones in each of the 26 river systems	Up-stream	Churia hills					(a) Increased soil erosion and top soil loss in the hills, with significant downstream impacts (as outlined below). (b) Increased risk of landslides in the hills.														
	Down-stream	Bhavar					(a) Increased soil erosion and top soil loss, with significant downstream impacts (as outlined below). (b) Increased gully erosion (land loss) and vulnerability to flooding.														
	Up-stream	Dun Valley	Increased risk of water deficit due to intensifying seasonal (winter) water stress and extended dry periods.				Increased sedimentation and riverbank cutting (land loss), as well as increased risks of (and vulnerability to) flooding.			Increased risk of water deficit due to intensifying seasonal (winter) water stress and extended dry periods.											
	Down-stream	Terai	Increased risk of water deficit due to intensifying seasonal (winter) water stress and extended dry periods.				Increased sedimentation, and riverbank cutting (land loss), as well as increased risks of (and vulnerability to) flooding.			Increased risk of water deficit due to intensifying seasonal (winter) water stress and extended dry periods.											

Forested Land

34. Deforestation is a major cause of land use change that further accelerates vulnerability to climate change in upstream and downstream areas of the Churia Terai-Madhesh region. Deforestation and forest degradation not only lead to increasing GHG emissions, but also erosion and sedimentation that increase river bank rise downstream, increasing the risk of flooding for many communities. Sedimentation in the Bhavar region further limits groundwater recharge and impacts water security in the Terai. In addition, the removal of vegetation on sloped areas in the Churia and Bhavar regions can also increase the risk of landslides and severe erosion events.
35. Deforestation in the project area has dramatically increased in recent years, increasing by 0.2% annually from 2000-2010, and 1.9% annually from 2010-2015. Nearly 75% of deforestation in the project area occurred in the Churia hills. The direct drivers of deforestation and forest degradation can be split into four categories:²⁸
 - e) **Unsustainable extraction of forest products:** This can include unsustainable (over-harvesting) or illegal logging, over-harvesting NTFPs, fuelwood collection and uncontrolled grazing.²⁹ Cattle and goat grazing is common in the Churia hills, and uncontrolled grazing is problematic as it leads to the loss of shrubs and felling of small to medium sized trees for fodder, leading to increased soil erosion and reduced water filtration.
 - f) **Agricultural expansion and degradation:** While the area of agricultural land has remained relatively stable over a 15-year period, it is still considered a driver of deforestation and forest degradation. This is due to the use of fallow-agriculture in the hills, combined with the use of inappropriate agricultural practices that contribute to soil loss and erosion, reducing soil fertility and requiring additional clearing. Livestock also contribute to degradation given the impact of free-grazing livestock, and the over-harvesting of fodder for livestock feed.
 - g) **Development or expansion of infrastructure:** Several national roads and transmission line corridors are in various stages of development in the Churia region, sometimes without adequate planning.³⁰ Beyond this, roads can further act as an indirect driver of deforestation by improving accessibility to other previously inaccessible areas.

²⁸ UN-REDD 2014

²⁹ MoFSC 2014; UN-REDD 2014

³⁰ Bhattarai et al. 2009; Government of Nepal/ FCPF 2017



- h) **Natural land use change and bio-physical conditions:** The fourth identified direct driver of land use change is not anthropogenic but natural. However, it should be noted that unsustainable human activity can further exacerbate natural causes of forest degradation. Forest fires are a common occurrence in Churia due to dry weather and friction, however, human activity or carelessness can increase the likelihood of these events. As noted above, the Churia Terai-Madhesh region of Nepal is increasingly experiencing extreme precipitation events,³¹ which exacerbate soil erosion and sedimentation in a region that is already highly fragile given its geological conditions.

36. Key underlying drivers of deforestation are briefly described in the following Table:

Table 3. Underlying drivers of deforestation and forest degradation

Factors	Description
Economic/ financial	- Poverty limits local peoples investments into improved land use practices - High demand for forest products (timber, fodder, fuelwood, NTFPs) - Lack of opportunities/ availability of substitute products or sustainable production systems
Policy	- Insufficient enforcement mechanisms - Weak land tenure - Lack of sufficient incentives and support for the adoption of sustainable practices
Socio-political	- Low level of education in rural areas - Limited awareness of impacts and alternative measures - Inequality
Demographic	- Population growth
Technological	- Poor awareness of improved practices and technologies - Low productivity of existing production systems

ENVISAGED CLIMATE-RESILIENT DEVELOPMENT PATHWAY

37. The baseline situation demonstrates the vulnerability of the Churia Terai-Madhesh region, and the need to support widespread adoption of climate-resilient land use practices. Given the complex interactions among the main biophysical zones within the project area, an ecosystem-based approach should be applied that promotes integrated management, considering upstream and downstream dynamics.
38. Table 4 provides an overview of key practices that are needed within the project area to respond to the climate change impacts and challenges outlined in Section C.1. Specific project-promoted practices and structures – and their role in responding to the specific climate change challenges outlined in Section C.1 – are explained in greater detail in Feasibility Study Appendix A. Figure 5 (further below) illustrates how widespread adoption of these practices would shift the Churia region toward a more climate-resilient and sustainable development pathway. In addition, Attachment 2 of the Funding Proposal summarizes an overview of climate change impacts, baseline conditions and project-promoted measures disaggregated by biophysical zone.

Table 4. Key climate-resilient practices and pathway in each biophysical zone

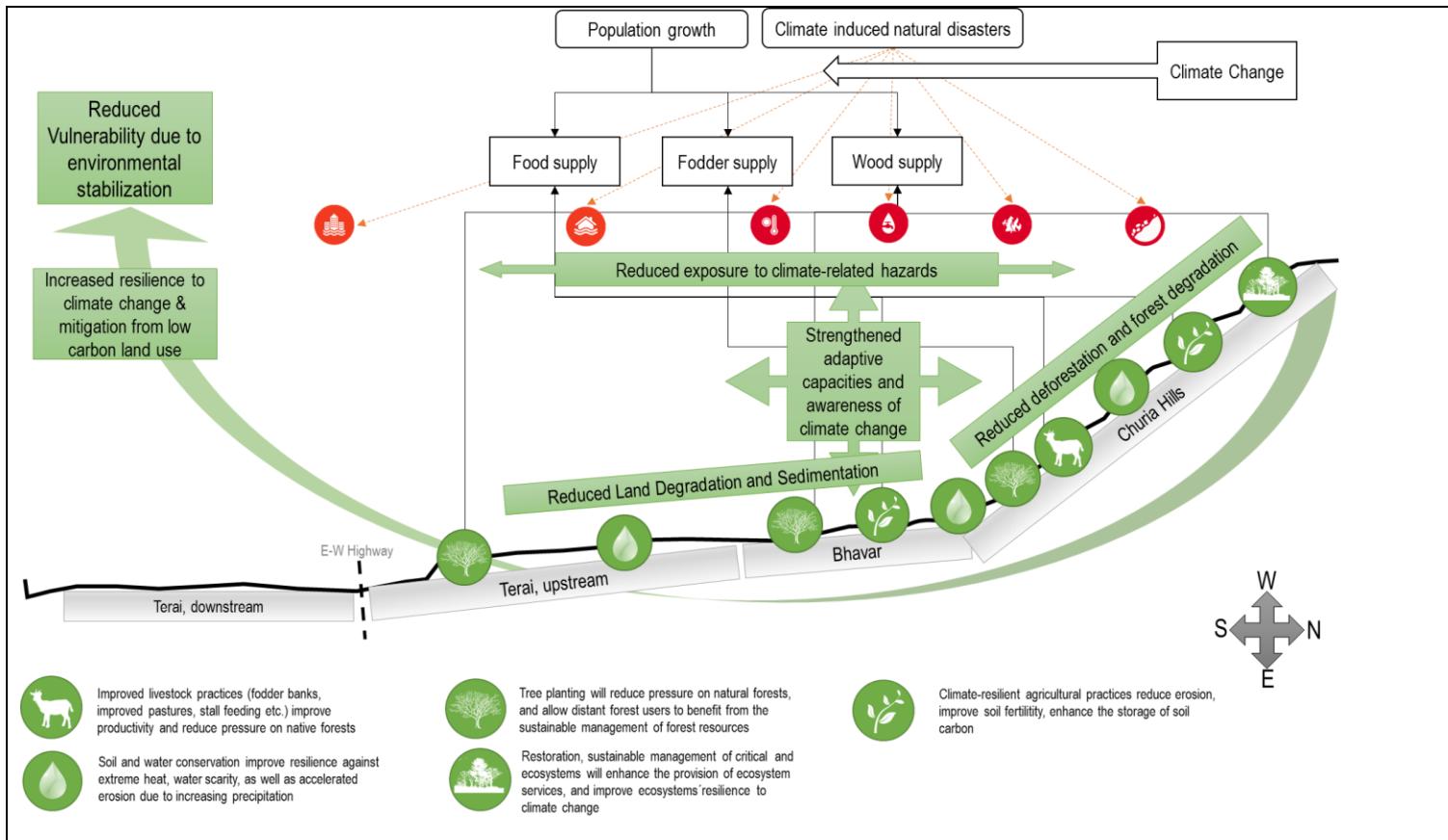
	Relevant Climate-Resilient Land Use Practices	Role in responding to CC
Churia Hills	Climate-resilient agricultural practices: implementing practices that stabilize slopes (agroforestry, terracing, grass strips, alley crops etc.), improved livestock practices (stall-feeding, fodder banks) Intensification of agricultural land through integrated agroforestry-crop-livestock systems in order to improve soil fertility and productivity while reducing pressure on forests Ecosystem restoration: gully stabilization in landslide susceptible areas, forest restoration and sustainable management, bio-engineering/ soil and water conservation infrastructure to stabilize river banks and reduce flows	Reduced risk of erosion, reduced exposure to landslides. Reduced exposure to flooding, particularly in downstream areas. Reduced emissions from deforestation and forest degradation. Improved storage of soil carbon. Improved forest quality and quantity.

³¹MoSTE 2015



Bhawar Region	<p>Climate-resilient agriculture practices to reduce erosion and improve soil moisture and overall soil fertility (tillage management, nutrient management, residue management, inter-cropping, alley crops), improved livestock practices to reduce degradation (stall-feeding, fodder banks)</p> <p>Ecosystem restoration: gully stabilization in landslide susceptible areas, green belt establishment along vulnerable river banks, forest restoration, sustainable forest management, bio-engineering/ soil and water conservation (conservation ponds, check-dams, contour bunds)</p> <p>Resilient forestry: commercial plantations, wood lots and horticulture plantations to sustainably produce fuelwood and other forest products,</p>	<p>Improved resilience to extreme heat and water deficit challenges.</p> <p>River bank stabilization limits the impact of flooding.</p> <p>Reduced emissions from deforestation and forest degradation.</p> <p>Improved forest quality and quantity.</p> <p>Improved groundwater recharge due to reduced sedimentation/ erosion, improving resilience to water scarcity downstream.</p>
Dun Valley	<p>Climate-resilient agriculture practices to reduce erosion and improve soil moisture and overall soil fertility</p> <p>Ecosystem restoration: gully stabilization in landslide susceptible areas, green belt establishment along vulnerable river banks, forest restoration, sustainable forest management, bio-engineering/ soil and water conservation to reduce erosion, improve ecosystem stability and resilience</p> <p>Resilient forestry: commercial plantations, wood lots and horticulture plantations to sustainably produce fuelwood and other forest products,</p>	<p>Improved resilience to extreme heat and water deficit challenges.</p> <p>River bank stabilization limits the impact of flooding.</p> <p>Reduced emissions from deforestation and forest degradation.</p> <p>Improved forest quality and quantity.</p> <p>Improved groundwater recharge due to reduced sedimentation/ erosion, improving resilience to water scarcity downstream.</p>
Terai	<p>Climate-resilient agriculture practices to reduce erosion and improve soil moisture and overall soil fertility (tillage management, nutrient management, residue management, inter-cropping, alley crops)</p> <p>Ecosystem restoration: gully stabilization in landslide susceptible areas, green belt establishment along vulnerable river banks, forest restoration, sustainable forest management, bio-engineering/ soil and water conservation (conservation ponds, check-dams, contour bunds, stone walls)</p> <p>Resilient forestry: commercial plantations, wood lots and horticulture plantations to sustainably produce fuelwood and other forest products,</p>	<p>Improved resilience to extreme heat and water deficit challenges.</p> <p>River bank stabilization limits the impact of flooding.</p> <p>Planted forests are able to reduce the reliance on upstream forests.</p> <p>Improved groundwater recharge due to reduced sedimentation/ erosion, improving resilience to water scarcity downstream.</p>

Figure 5. Overview of envisaged climate-resilient land use in BRCRN biophysical zones



BARRIERS AND CHALLENGES

39. Despite efforts by the Government of Nepal and the development community, a number of challenges and barriers continue to inhibit the transition toward a climate-resilient, sustainable and low-emissions development pathway in the Churia region. The following Table summarizes these barriers, as well as how the project will address them.

Table 5. Overview of barriers and the project's approach to address them

Barriers/Challenges	Approach to Address Barrier
Poverty, inappropriate land management practices, the lack of alternative livelihood activities to implement SNRM	
<ul style="list-style-type: none"> Up-front costs of investing in climate-resilient land use practices are too high for many CBOs and their members. In Nepal, 26.9% of the country's population is affected by multidimensional poverty, equivalent to around 7.5 million people.³² Focusing on income-related poverty, approximately 15% of the population is considered to be living below the poverty line of \$1.99 per day. Insufficient government resources for large-scale investments in climate-resilient SNRM, large-scale restoration of ecosystems and DRR. Weak government and private sector support on marketing and value adding opportunities for CBOs and producers.³³ 	<ul style="list-style-type: none"> Provision of technical support and resources to cover up-front costs of adopting climate-resilient land use practices. Alignment with critical ecosystem restoration plans (CERP) will ensure farmer field schools are strategically established in the most vulnerable areas. Project support will enable climate-formed extension and advisory services that access men and women in vulnerable river systems. Promoted activities are designed to further address sector specific barriers which can further limit incomes or limit the ability of CBOs and households to invest in such practices (e.g. poor quality planting material for forestry). Build off of best-practices and lessons learned. CBO members participating in FFS will continuously improve and consolidate their knowledge and skills. Promoted measures are economically viable (see Economic and Financial Analysis), and will encourage reinvestment in resilient land use practices from increased revenue streams.

³² UNDP 2016

³³Dhital 2017



	<ul style="list-style-type: none"> ▪ Close link between support with up-front measures and support with strengthening related sustainable value chains (including private sector engagement) to support alternative income opportunities. ▪ Where possible the project builds on existing structures, and a clear exit strategy has been developed (c.f. Section D.2).
Limited awareness of climate change and climate-resilient land use practices	
<ul style="list-style-type: none"> ▪ While poverty is a barrier, many CBOs also have limited awareness of future climate change threats and climate-resilient land use approaches. ▪ Weak extension services limit awareness (due to limited budgets that limit the reach of services and input support, lack of youth engagement, inadequate use of ICT, outdated curricula [including limited information on climate-change and value chains/ marketing], low-education level of participants, limited capacities of trainers, poor cooperation with private sector, among others).³⁴ Climate-change has not been sufficiently mainstreamed into extension services/ trainings. ▪ Women and marginalized groups experience additional barriers to access trainings due to various factors (economic, socio-cultural, geographic, among others). ▪ Limited awareness leads to the lack of consideration of climate change in land use planning at CBO, rural municipality and provincial-government level. 	<ul style="list-style-type: none"> ▪ Project activities will strengthen climate-informed extension and advisory services (improved reach of services, improved materials and approaches, training trainers, improved knowledge management and use of climate information in planning and land use management). ▪ Emphasis on trainings to build capacities of CBOs and local and provincial government officials. ▪ Activities include measures to promote knowledge to support innovation, including compiling guidance on effective local indigenous practices for climate change adaptation and best practices and lessons learned to support scaling-up. ▪ Measures include sub-activities to engage youth on climate change and climate-resilient land use, increasing their awareness of climate risks and interlinked dynamics, risk-reduction strategies, and key knowledge and information hubs. ▪ Support the development of strategies and critical ecosystem restoration plans that are climate-informed and promote suitable climate-resilient land use to raise awareness and promote scaling up. The creation of a framework to identify ecosystems and communities that are vulnerable to climate change, especially climate-related hazards, combined with strengthening government capacities to operationalize this framework and conduct a vulnerability assessment will enable them to consider climate-related information in planning and decision-making. This is particularly relevant given the political context in Nepal and the devolution of decision making power to the local and provincial levels. ▪ Emphasis on improving knowledge, educational materials and knowledge dissemination pathways to engage diverse stakeholders. ▪ GESI approaches mainstreamed. ▪ Participatory land use planning at the local level to raise awareness of climate change within local CBOs, and implement suitable land use practices to enhance ecosystem and community resilience.
Weak inter-sectoral horizontal and vertical coordination	
<ul style="list-style-type: none"> ▪ Weak inter-sectoral coordination inhibits the use of integrated ecosystem-based approaches.³⁵ ▪ Horizontal coordination: Often programs do not fully build upon synergies and have a sectoral focus. ▪ Uncoordinated investments in river system management lead to inefficient and ineffective support for ecosystem resilience. ▪ Improved coordination is needed at the local and provincial level given the political transition. 	<ul style="list-style-type: none"> ▪ Project management structures are designed to promote regular communication and improved coordination among key stakeholders. Multi-stakeholder engagement promoted throughout the project. ▪ Elaboration of Provincial and river-system level strategies and action plans to promote integrated and climate-informed planning and decision making, considering upstream and downstream interactions, to improve coordination of investments that will benefit multiple sectors and promote low-carbon and climate resilient development. Based on the demonstration of this process, it can be replicated in other regions of the country (due to strengthened capacities, supporting materials, improved knowledge management and institutional trainings), with notable benefits to invest in maintaining such processes (e.g. reduced disasters, strengthened livelihoods and ecosystem services).DRR strategies at the provincial level will provide a framework to orient local governments, and improve coordination and planning.
Weak institutions and limited capacities to plan, implement and monitor measures for climate-resilient land use and SNRM	

³⁴Dhital 2017

³⁵MoFSC 2015



<ul style="list-style-type: none">▪ Limited capacities on climate change and climate-resilient land use limits coordination and action on climate change, especially at the local and provincial level.▪ Weak integration of climate change considerations into local CBO-level land use planning and management plans. This is due to limited awareness (described above) as well as weak institutional capacities.	<ul style="list-style-type: none">▪ Nepal's ongoing political transition is an opportunity to strengthen local and provincial capacities from an early stage. The project places an emphasis of engaging local and provincial actors throughout project implementation, building capacities and guiding planning to promote climate-informed planning and decision making, and support the implementation of climate-resilient land use and SNRM based on best practices, and aligned with critical ecosystem restoration plans.▪ Strengthen land use planning by balancing integrated spatial planning with participatory land use planning, accompanied by capacity building for local and provincial governments and CBOs.
Limited capacity to monitor assess and address climate-induced disasters	
<ul style="list-style-type: none">▪ Limited technical capacity within provincial and local institutions to monitor and assess the impacts of climate change and climate-induced disasters. This is exacerbated by the absence of systematic approaches to assemble and manage climate data. This results in limited generation of early warnings for climate-induced disasters and implementation of few proactive measures for DRR.▪ The lack of a comprehensive and effective mechanism for sharing knowledge and information, including information on monitoring of climate risks, limits the use of climate information in decision making and planning.	<ul style="list-style-type: none">▪ Land use planning processes will be strengthened and applied by balancing integrated spatial planning with participatory land use planning, accompanied by capacity building for local and provincial governments and CBOs. This will enable provincial governments to understand climate risks, and implement a holistic approach for disaster risk-reduction, as well as low-carbon and climate-resilient land use. Such an approach will demonstrate a new framework for low GHG and climate-resilient planning in Nepal, which will be replicable in other river systems in the country.▪ Establishment of Churia Knowledge Centre (CKC) to facilitate improved knowledge management, dissemination and monitoring. Investments in improved technology and tools for monitoring and knowledge sharing will be promoted, along with trainings for CSOs and local and provincial government staff. CKC will be embedded in existing institutions (within MoTTFE Offices) to ensure its long-term sustainability, and continued knowledge management, retention and learning after project close.▪ Manuals, protocols and guidelines will be developed to guide provincial staff on CKC knowledge generation, gathering and management, including after project completion.▪ Project activities on knowledge sharing, generation of information and capacity building will help increase the generation and use of climate-related data and information in decision making and land use planning, and will strengthen the capacities of government officials at the local and provincial level, as well as CBOs, CSOs and other key stakeholders to understand and plan for climate change risks.

C.3. Project / Programme Description

40. Through the 'Building a Resilient Churia Region in Nepal' (BRCRN) project ("Project"), GCF grant financing and co-financing provided by MoFE will strengthen the resilience of local communities and ecosystems to adapt to climate change, and reduce emissions from deforestation and forest degradation. The Project will address the specific barriers inhibiting Churia communities, government entities and other stakeholders from transitioning to a more climate-resilient, sustainable and low-emissions development pathway, and will equip them to continue pursuing this pathway after project closure. This is summarized in the Theory of Change included in Attachment 1 of this Funding Proposal.
41. The Project will focus on the Churia Terai-Madhesh region of Nepal, in particular 26 of the most vulnerable river systems within Provinces 1, 2 and 3, where over 3.2 million people live. The main beneficiaries will include representatives of provincial and local (i.e. rural municipalities) governments, as well as at least 750 CBO Beneficiaries (comprised of approximately 200,681 households, 963,268 people).
42. Activity interventions will be targeted for different biophysical zones and contexts, with a focus on the Churia, Bhavar and upstream³⁶ Terai areas.
43. Beneficiary targeting and selection is briefly summarized in Table 1 below.

³⁶ Considered as areas north of the East-West highway.



Table 6. Selection of geographic locations, sites and beneficiaries

Level	Type	Criteria / process	Stage / timing
Geographic locations	Provinces	Among the 7 Provinces in Nepal, Provinces 1, 2 and 3 were selected during the project design stage as the overall geographic focus for this project. The selection of these three Provinces was based on the assessment of Collective Vulnerability in the Eastern Himalayas (ICIMOD, 2009), i.e., vulnerability integrated across different components of mountain ecosystems and dimensions and relative vulnerability of biodiversity, water, ecosystems, and human wellbeing to climate change impacts.	Completed during project design.
	River systems	Due to the inter-connected (upstream and downstream) nature of climate change challenges and unsustainable natural resource management challenges in the Churia region, and the associated focus on integrated climate-resilient SNRM within this project, river systems within Provinces 1, 2 and 3 were selected as the most appropriate geographic unit to guide project planning and interventions. In total, 26 river systems within Provinces 1, 2, and 3 (the “Project Area”) were selected and prioritized for interventions and support under this Project. These river systems were selected based on the results of a multi-criteria analysis, which included an analysis of the river systems’ exposure to climate change impacts and their particular vulnerabilities, as well as the extent of natural resource (including forest) degradation. The methodology used to select these river systems is described in more detail in Annex 2: <i>Feasibility Study –Appendix D</i> .	Completed during project design. The selected river systems are: Kokaha; Gideri Khola; Patnali Khola; Thakur Khola; Sun Koshi; Chadaha Khola; Kamala-North; Tawa-North; Tawa-South; Kankai Nadi; Ratuwa Nadi; Adherei Khola, Baruwa Khola, Duar Khola; Lakhandehi Khola; Kamala-South; Biring Khola; Balan Khola; Charnath; Bataha Khola; Budhi Khola; Lohandra Nadi; Kamala, Belsot, Jogiya; Ratu Nadi; Mechii Khola; Bakraha Khola; Bihul Nadi; and Khado Khola.
Sites	Sites for Farmer Field Schools (“FFS”)	<p>Specific sites for FFS within each of the 26 river systems (which collectively comprise the Project Area) will be determined in part through the Critical Ecosystem Restoration Plans (CERPs) developed under Activity 2.1.2. These CERPs will identify (<i>inter alia</i>) ecosystem restoration priorities, as well as specific priority farming systems and practices to be promoted in each of the 26 river systems through FFS. The CERPs will also specify the number of FFS (of the 120 total) that the Project will establish in each river system, with a minimum of 3FFS established in each river system.</p> <p>Once the scope, focus and number of FFS to be established in each river system are defined in the CERPs, FAO, as the Executing Entity, will recruit a service provider, in accordance with its procurement policy and procedure, to identify specific sites and establish FFS within each river system. After consultation with MoFE, MoTF, MoACLM and respective municipalities, FAO will approve the final selection of sites for FFS based on the following criteria:</p> <ul style="list-style-type: none"> • Suitability of each site's agro-ecological conditions to train Farmer Beneficiaries, Local Resources Persons and Professional Beneficiaries on the farming systems and practices prioritized in the relevant CERPs (note: this qualitative assessment will be made by FAO technical experts); 	<p>CERPs will be developed in each of the 26 river systems in Project Year (“PY”)2.</p> <p>Selection of sites and establishment of FFS will be completed by the end of PY3.</p>



DETAILED PROJECT / PROGRAMME DESCRIPTION

		<ul style="list-style-type: none">• Proximity of each site to the relevant Community-Based Organizations (CBOs) and CBO-member households to be trained at the FFS sites (note: this qualitative assessment will be made by FAO experts); and• The farmer/landowner must consent to the use of their land as an FFS site for at least PY3-7.	
Sites for check dams, gully stabilisation measures and other local infrastructure		<p>Specific sites for check dams, stabilisation measures and other local infrastructure within each of the 26 river systems (which collectively comprise the Project Area) will be determined in part through the CERPs developed under Activity 2.1.2. These plans will identify priority locations (based on extent of resource degradation and climate change-related risk) and types of structures to be built in each river system, with a minimum of 3 upstream (total 86) and 4 downstream (total 129) structures built in each river system.</p> <p>Once the priority locations and types of structures to be built in each river system are identified in the CERPs, MoFE will recruit civil engineers to work with MolTFE, Koshi River basin conservation office, respective municipalities, relevant CBOs and other actors in each river system to identify specific sites for each structure. After consultation with FAO and the project-recruited civil engineers, MoFE will approve the final selection of sites based on the following criteria:</p> <ul style="list-style-type: none">• Suitability of each structure and its selected site to maximize resilience benefits in response to the climate change impacts/challenges identified in the CERP (note: this qualitative assessment will be made by MoFE experts and FAO experts); and• The owner(s) of the selected sites (whether privately owned, community owned or government owned) consent to the use of the land for the proposed structure(s).	CERPs will be developed in each of the 26 river systems in PY2. Selection of sites will be made each year between PY3-6 as new structures are built every year.
Sites for tree nurseries		<p>The Project will support the establishment of a network of decentralized small-scale tree nurseries which offer ready access to new tree seedlings at a low cost for all beneficiaries. A total of 52 nurseries will be established in the project area (2 in each of the 26 targeted river systems), each with capacity to produce 50,000 tree seedlings per annum.</p> <p>Sites for nurseries will be recommended by MolTFE to MoFE. The Host Country, acting through MoFE, will approve the final sites for nurseries based on the following criteria:</p> <ul style="list-style-type: none">• Nurseries must: have access to reliable water supply; availability of good soils; protection from strong wind, livestock and shade from direct sunlight; be established on a gentle slope for water drainage; and have adjacent areas available for expansion if necessary (note: these qualitative assessments will be made by MoFE and FAO experts); and• Proximity to CBO Beneficiaries and plantation areas identified in CERPs, and to roads or other transport networks (note: these qualitative assessments will be made by MoFE experts and FAO experts). <p>Nurseries will preferably be hosted by CFUGs or other CBOs, where there is presence of individuals trained and/or experienced in nursery management, availability of, and willingness to allocate, necessary space and labour. The CBOs must be assessed as possessing the potential capacity to sustain the nursery as a viable enterprise beyond the duration of the project. The establishment of the nurseries will be subject to a consultation process according to the principles of FPIC, and in river basins where no suitable CBOs can host, the premises of the Divisional Forest Office (DFO) under MolTFE will be proposed.</p>	CERPs will be developed in each of the 26 river systems in PY2. Specific sites for nurseries will be determined each year as new nurseries are established in PY3-5.



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		<p>Specific sites for tree planting within each of the 26 river systems (which collectively comprise the Project Area) will be determined in part through the CERPs developed under Activity 2.1.2. These plans will identify priority locations (based on extent of resource degradation), the number of locations and the types of tree species to be planted at each location in each river system, with a minimum of 100 ha planted in each river system.</p> <p>Plantation activities will consist of the following approaches, with different site selection processes:</p> <ul style="list-style-type: none">• <i>Demonstration plantations:</i> The Project will provide the materials necessary to establish 1,300 ha of demonstration plantations of native species suitable for timber production, including teak, at strategic locations within the Bhavar and Terai zones of the 26 target river systems. Selected sites will be on government-managed land with no tenure conflict that is suitable for plantation, while also being identified (in the CERPs) as having high potential to address ecosystem vulnerability through afforestation. Additional criteria to be taken into consideration include: proximity to beneficiary CBOs and to roads or other transport networks; availability of land of at least 10 ha, and maximum 100 ha, within each target river system. Site suitability will be assessed by MoITFE and FAO experts. Sites will be proposed by MoITFE, and validated by MoFE and FAO experts, and according to the principles of FPIC.• <i>Public land forests on river banks:</i> The Project will support the establishment of 1,000 ha of riparian plantations in the project area, each of which will be formally registered under the public land forest users' agreement process. Site selection will be based in part on the analysis and consultations during the CERP process. At least 25 ha of riparian plantations will be established in each river system, taking into account proximity to agricultural land vulnerable to flooding and/or siltation, proximity to landholdings of beneficiary CBOs, and clarity of tenure. Site suitability (in accordance with the above criteria) will be assessed by local Municipalities, MoITFE and FAO experts. Sites will be proposed by MoITFE and validated by MoFE and FAO experts, according to the principles of FPIC.• <i>Public land forests on community land:</i> The Project will support the establishment of 5,000 ha of forest plantations in the project area through participation of highly vulnerable and marginalized households to plant multipurpose trees in open community land, identified in CERPs developed under Activity 2.1.2. At least 50 ha will be established in each river system. Site selection will be based on the availability of land in Churia and Bhavar areas, with no tenure-related conflict, with priority assigned to locations with higher proportions of marginalised and poor households. Site suitability (in accordance with the above criteria) will be assessed by local Municipalities, MoITFE and FAO experts. Sites will be proposed by MoITFE and validated by MoFE and FAO experts, according to the principles of FPIC.• <i>Establish woodlots in downstream areas:</i> The Project will support establishment of 16,500 ha of tree plantation on privately-owned land in the project area. Sites will be focused on downstream areas of the 26 river systems, distant from CF, LF and CFM areas. Potential areas for such woodlots will be identified in CERPs. Within these areas, the identification of specific sites will:(i) focus on households with clarity of tenure and no prevailing ownership disputes; (ii) prioritize lower-income households (specific thresholds due to be determined during inception, based on baseline survey) to maximize sustainable development benefits and ensure project does not crowd out private investment; (iii) provide maximum 1 ha plantation support per household; and (iv) ensure at least 100 households are supported in each river system. Sites will be proposed by MoITFE after consultation	<p>CERPs will be developed in each of the 26 river systems in PY2.</p> <p>Specific sites for forest/tree planting will be determined as the relevant Activities are implemented in PY3-7.</p>
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		<ul style="list-style-type: none">with local municipalities and Private Forest Owners Associations, validated by MoFE and FAO experts, and finalised through dialogue with private land owners, according to the principles of FPIC.• <i>Assisted Natural Regeneration (ANR)</i>: The project will support tools/equipment and logistical costs for extension support in implementing ANR measures on 15,990 ha of community-managed forest land. Preliminary areas for ANR sites will be identified through the CERP process. Within these areas, the identification of specific sites will focus on forest areas of any management category (CF, LF, CFM), with priority assigned to areas that: were degraded or deforested within the past 20 years; were not converted to agricultural use; and are in close proximity to upstream sites of high vulnerability to flooding and landslides. Sites will be proposed by MoITFE, validated by MoFE and FAO experts, and confirmed through a dialogue with CBOs in accordance with the principles of FPIC.	
Beneficiaries	Community-Based Organizations (“CBO Beneficiaries”)	<p>Approximately 750 CBO Beneficiaries will be identified and selected by MoFE (after consulting with MoITFE) under Sub-Component 2.2. This includes all 557 Community Forest User Groups (CFUGs) and 3 Collaborative Forest Management (CoFM) that fall within the Churia and Bhabar zones (upstream areas) of the 26 river systems (the Project Area), out of total 1531 CFUGs and 11 CoFMs that are in Project Area. It also includes all 40 Leasehold Forest Groups (LFGs) in the Project Area. It also includes at least 1 Indigenous Peoples’ Organisation (IPO) in each of the three provinces; a comprehensive list of IPOs will be developed in consultation with the Nepal Federation of Indigenous Nationalities (NEFIN). The remaining CBO Beneficiaries out of the 750 will be Farmers Groups (FGs), Soil Conservation Users Groups (SCUGs) and Public Land Forest Users Groups (PLFUGs). The total number of FGs and SCUGs is not certain, because they are not formally registered, but estimated to be at least 50 in the total Project Area. The total number will be determined during the development of the CERPs, and will focus on those which are located in the upstream areas of the 26 river basins. PLFUGs are not yet formalised, and Activity 2.2.1 will facilitate the formation and registration of at least 100 PLFUGs, based on the identification of sites for public land plantations (according to CERPs and site selection process described above) which will thus become part of the 750 CBO Beneficiaries of the Project.</p> <p>All 750 CBO Beneficiaries will benefit from activities under Component 1 of the Project. The degree to which each CBO benefits will be based on the initiatives and priorities determined through the CERPs. CBO Beneficiaries based in or near more vulnerable and degraded landscapes may be involved in multiple activities. When identifying sites for field-level interventions under Component 1, the CERPs will also identify the relevant CBO Beneficiaries to be involved in such activities based on their proximity to the selected areas and relevance of their livelihood strategies to the planned activities in the relevant area.</p> <p>All CFUGs, CoFMs and LFGs will benefit from technical support to improve existing forest management operational plans and improve sustainable forest management (SFM) practices under Sub-Component1.2.</p> <p>Approximately 250 CBO Beneficiaries (out of the total 750) will receive in-depth support to revise and adjust CBO management plans under Activity 2.2.2. The CBO Beneficiaries to be selected for this support will be those that are identified as being <i>most</i> vulnerable based on the analysis done for CERP planning (under Activity 2.1.2), and will also include the three (3) CoFM groups. A list of prioritized CBOs will be prepared by FAO experts. Final selection will be made by the Host Country, acting through MoFE, after consultation with MoITFE. Local Resource Persons (LRPs) will be identified from among the members of these CBOs.</p>	<p>CERPs will be developed in each of the 26 river systems in PY2.</p> <p>Formalisation of PLFUGs will take place in PY1.</p> <p>Support for forest management plans and improvement of SFM practice will take place from PY3.</p> <p>Support for mainstreaming climate resilience into SNRM plans will take place in PY3-7.</p>



	Professional Beneficiaries	<p>Professional staff (from MoFE, MoITFE, MoACLM and other ministries) who will benefit from training and capacity building support under this Project (i.e. under Activities 1.1.1, 1.3.3, 2.1.1, 2.1.3, 3.2.1, 3.2.2 and 3.2.3) will be selected jointly by the Host Country, acting through MoFE, and FAO according to the following criteria ("Professional Beneficiaries"):</p> <ul style="list-style-type: none">• Organizations have been and/or will be identified based on alignment between the proposed activities and the organizations' mandates, expertise and/or services delivered (note that these determinations have been/will be made by MoFE, in consultation with MoITFE and MoACLM);• Identified organizations will be invited to nominate staff to participate in the activities based on the alignment between the contents of the proposed activity (e.g. technical focus of the training) and the respective individuals' responsibilities and expertise within their organization; and• MoFE and FAO will review the lists of nominated participants, and either confirm or reject their nomination, in consultation with MoITFE, based on an assessment of the alignment between the activity and the participants' responsibilities and expertise.	This will be conducted during the early stages of executing each of the relevant Activities.
	Farmer Beneficiaries (Activity 1.1.2)	<p>CERPs will identify critically vulnerable locations within the 26 river systems, and the communities most directly at risk from reduced agricultural productivity or loss of productive land. The technical advisory team of MoFE and FAO experts will identify the appropriate climate-resilient farming practices (CRFPs) for these vulnerable areas.</p> <p>The introduction of CRFPs to these areas will be achieved through a total of 260 training events in the Project Area (approx. 10 per river system), provided through the FFSs established under Activity 1.1.1. Each CBO active in these areas will be asked to propose training participants ("Farmer Beneficiaries") based on the following criteria. Final selection will be made by the Host Country, acting through MoFE, and FAO ::</p> <ul style="list-style-type: none">• Relevance of the individuals' current livelihood strategies and farming practices to the project-promoted practices;• The individuals' access to land on which to apply the CRFPs; and• The individuals' ability to train additional households within their community on the project-promoted CRFPs. <p>For each training event, the pool of nominated participants will include at least 30% women, and at least one nominee per training will be a committee member from a relevant CBO.</p> <p>MoITFE and MoACLM extension agents (in PY3-4) and LRP (in PY5-7) will review nominees for each training to confirm their nominations are consistent with the aforementioned selection criteria. MoFE and FAO will approve final selection of Farmer Beneficiaries based on MoITFE and MoACLM reviews.</p>	This selection process will be applied as the trainings are gradually delivered from PY3-7.
	Agro-forestry and Livestock Beneficiaries (Activity 1.1.3)	<p>CERPs will identify: (i) locations within 26 river systems where slope stabilisation and degradation of agricultural and forest land are critical; (ii) the communities and associated CBOs most directly affected by these issues; and (iii) the agroforestry and livestock management practices appropriate for addressing them.</p> <p>Each CBO active in these areas will be asked to propose training participants ("Agro-Forestry and Livestock Beneficiaries") based on the following criteria. Final selection will be made by the Executing Entities:</p> <ul style="list-style-type: none">• Relevance of the individuals' current livelihood strategies and practices to the project-promoted practices;• The individuals' access to land on which to apply the CRFPs; and• The individuals' ability to train additional households within their community on the project-promoted CRFPs.	Agroforestry and Livestock activities will be implemented from PY 3-7



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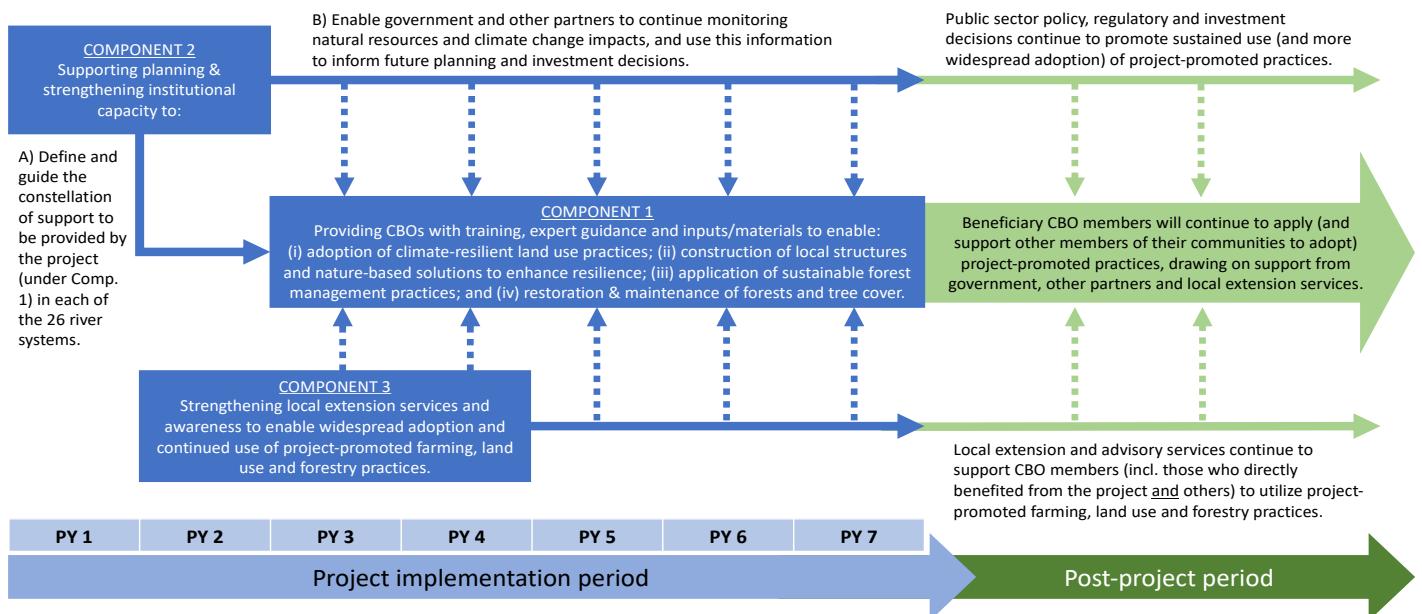
		<p>For the establishment of household-level fodder tree and grass nurseries, for on-farm agroforestry plantation, and for training and establishment of stall-feeding practices, female participants will be prioritised to reflect the disproportionate amount of time that women spend on fodder collection compared to men. MoITFE and MoACLM extension agents (in PY3-4) and LRP^s (in PY5-7) will review nominees for each training to confirm their nominations are consistent with the aforementioned selection criteria. MoFE and FAO will approve final selection of Agro-forestry and Livestock Beneficiaries based on MoITFE and MoACLM reviews.</p> <p>For the establishment of biogas plants, relevant CBO Beneficiaries will nominate households within their communities (among the Agro-forestry and Livestock Beneficiaries) to receive biogas-related assistance ("Agro-forestry and Livestock + Biogas Beneficiaries"). The Agro-forestry and Livestock + Biogas Beneficiary households will be selected by the Executing Entities, based on the following criteria:</p> <ul style="list-style-type: none">• They own at least two livestock units (i.e. oxen, cattle, buffalo) that can be used to produce manure to feed the biogas digesters;• They have sufficient income to cover the operations and maintenance costs of the biogas digesters during and after the project period (note: this assessment will be made by FAO and MoFE experts);• Higher dependence on fuelwood from forest areas; and• Current lack of access to alternative forms of energy or electricity. <p>Nominated beneficiary households will be proposed by targeted CBO Beneficiaries, in consultation with MoITFE and MoACLM, and confirmed by MoFE and FAO experts in accordance with the above criteria and the principles of FPIC.</p>	
	Forest Training Beneficiaries	<p>The Project will deliver 180 trainings on Forest Landscape Restoration ("FLR") for members from forestry-related CBO Beneficiaries and other forest sector stakeholders in the 26 targeted river systems ("Forest Training Beneficiaries"). Trainings will include representatives from all forestry-related CBO Beneficiaries, with trainees nominated by the participating CBOs. CBO Beneficiaries will be instructed to nominate equal numbers of male and female participants, and ensure that at least one trainee from each CBO is a member of the CBO committee. MoFE and FAO will review nominees from each CBO Beneficiary and approve the final selection of Forest Training Beneficiaries.</p> <p>The Project will also deliver 122 trainings on sustainable management of forest ecosystems. As above, trainings will include representatives from all forestry-related CBO Beneficiaries, with trainees nominated by the participating CBOs. CBO Beneficiaries will be instructed to nominate equal numbers of male and female participants, and ensure that at least one trainee from each CBO is a member of the CBO committee. MoFE and FAO will review nominees from each CBO Beneficiary and approve the final selection of Forest Training Beneficiaries.</p>	FLR and other forests trainings will be conducted in PY3-7. The aforementioned beneficiary selection criteria and process will be applied before the start of each relevant training.
	Local Labourers	<p>Forest restoration and plantation Activities, as well as other tree planting Activities, often involve the recruitment and payment of local labourers to support tree planting. To recruit labourers for such Activities (under Sub-Component 1.3), participating CBO Beneficiaries will be asked to nominate members as labourers to be involved in (and benefit from) these Activities. CBO Beneficiaries will be asked to nominate members based on the following criteria. Final selection will be made by the Executing Entities <u>focus on developing the necessary systemic and institutional capacities to ensure effective coordination of relevant sectoral policies and actions</u></p>	



		<p><u>to support integrated forest landscape management across multiple land use types outside of protected areas:</u></p> <ul style="list-style-type: none"> • Labourers must be from poor households (based on thresholds to be defined by FAO and MoFE during project inception); and • Labourers must be at least 17 years of age. <p>FAO and MoFE experts will review nominated participants from each CBO Beneficiary and validate the final selection of Local Labourers. When selecting, FAO and MoFE will strive to ensure equal representation of women, indigenous peoples and Dalits.</p>	
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44. The project objective will be achieved through the following Components. Figure 6 presents the sequencing of the Components and Activities, how the Components are complementary and collectively contribute to achieving tangible impacts on the ground, and how the Activities are expected to continue enabling CBO members to apply (and support more widespread adoption) of project-promoted farming, land use and forestry practices after project closure.
- a) Component 1: Scaling up climate-resilient Sustainable Natural Resource Management (SNRM).
 - b) Component 2: Strengthening institutions and planning for climate-resilient SNRM.
 - c) Component 3: Improving knowledge, awareness and local capacity for climate-resilient SNRM.

Figure 6: Project components, impact streams and post-project sustainability



45. 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.

46. 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.
47. 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, and improve climate-informed decision making and planning.
48. 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.

COMPONENT1. SCALING UP CLIMATE-RESILIENT SUSTAINABLE NATURAL RESOURCE MANAGEMENT (SNRM)

49. 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. CBO Beneficiaries 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.
50. 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 through river 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).
51. 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 labour in exchange for participating in farmer field schools and/or trainings and receiving ongoing extension / technical support.
52. **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 FAO will design the overall approach to this Activity, 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, extension workers, 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. FAO will sign and manage these agreements. 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 CBO Beneficiaries 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 CBO Beneficiaries 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 construct local structures (described in more detail 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 relevant CBO Beneficiaries 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.

53. **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 – Guide and assist all forestry-related CBOs to develop/strengthen and deliver forest management operational plans.** This Activity will focus on the improvement of sustainable forest management (SFM) in all forest land managed by forestry-related CBO Beneficiaries 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, the Project will recruit qualified service providers in each province to work with relevant CBO Beneficiaries 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 CBO Beneficiaries (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 CBO Beneficiaries 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 CBO Beneficiaries and land owners to enable more sustainable management of forest ecosystems.** This Activity will build the capacity of government staff and all forestry-related CBO Beneficiaries 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 Moltfe field staff at local level ("Professional Beneficiaries") during PY3-5. These field staff will in turn deliver 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 CBO Beneficiaries to be trained under Activity 1.2.2 will be nominated by the executive committee of their respective CBOs.



54. **Sub-Component 1.3 – Forests and tree cover are restored and maintained in the river system landscape.** This Sub-Component will work with CBO Beneficiaries 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 (above). 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 seed stock 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 CBO Beneficiaries 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 CBO Beneficiaries 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 CBO Beneficiaries 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 CBO Beneficiaries 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 CBO Beneficiaries 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 CBO Beneficiaries 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 CBO Beneficiaries 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 members from relevant CBO Beneficiaries (“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 CBO Beneficiaries (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 CBO Beneficiaries, which may include (depending on the needs of specific sites):
 1. **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.
 2. **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.³⁷
 3. **Measures to support natural regeneration** will involve promoting tree seedlings and favorable species within a forest landscape, supporting multiple-use forest management

³⁷ 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.



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.

COMPONENT2. STRENGTHENING INSTITUTIONS AND PLANNING FOR CLIMATE-RESILIENT SNRM

55. 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 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.
56. 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.
57. **Sub-Component 2.1 – Planning for climate-resilient SNRM is enhanced.** This Sub-Component will support government stakeholders and CBO Beneficiaries 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 (line ministries such as MoFE, MoITF, MoACLM and other provincial and municipal authorities, as well as other relevant stakeholders) 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, MoTTF 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. The CERP planning process will also draw on insights and information from relevant national entities, including the Department of Hydrology and Meteorology (DHM). 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 in Provinces 1, 2 and 3to 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. These trainings are also expected to draw on insights from DHM staff (among others), both to inform the planning processes and strengthen the linkages between entities such as DHM and the provincial-level authorities responsible for planning and delivering support in this area. 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.

58. **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 CBO Beneficiaries 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 CBO Beneficiaries 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 CBO Beneficiaries 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 the 750 CBO Beneficiaries (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 CBO Beneficiaries (in line with the selection criteria and process outlined in Table 6), and recruit a qualified service provider, trained on gender quality and social inclusion, 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 CBO Beneficiaries to scale up climate-resilient SNRM within their communities in a coordinated manner.

During the planning and mainstreaming of climate-resilient SLM into CBO management plans, planned interventions will be screened for risks following FAO's environmental and social screening checklist and process (described in Chapter 6.1 in greater detail). Sub-components where possible environmental and social risks have been identified will be considered in 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. See the project's ESMF (Annex 4.1) for more detailed information.

COMPONENT3. IMPROVING KNOWLEDGE, AWARENESS AND LOCAL CAPACITY FOR CLIMATE-RESILIENT SNRM

59. 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.
60. The project places a strong emphasis on strengthening local extension services to support widespread adoption of project-promoted practices during and beyond the project implementation period. Among other support, the project will equip government extension staff with the skills and materials needed to promote climate-resilient SNRM. The Provincial Ministries that (as a result of the ongoing decentralization process) are taking over responsibility for such services have indicated their intention to continue financing rural extension capacity and the provision of climate-informed extension services, both during the project (as evidenced by the government's co-financing commitment outlined in Annex 3.2) and after project closure. As part of the proposed project, FAO also commits to work with these government actors to mobilize the funds needed to sustain such services (including through the Churia Master Plan) – a key element of the process of transforming land use and natural resource management in the Churia region.
61. 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 MoTFE's Science Environment and Climate Change Division in each province, serving as a provincial knowledge hub, 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. The MoTFEs in each province have expressed strong support for the establishment of the CKC, and a willingness to operate and maintain them during and after the project.
62. **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 LRP s 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 LRP s and other local



stakeholders to train and support CBO members to adopt such practices during and beyond the project. To do so, project staff will start by recruiting qualified service providers to organize 105 local/community consultations³⁸ (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 LRP^s 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 government authorities ("Professional Beneficiaries") to demonstrate good practices related to technical implementation of climate-resilient SNRM and extension processes through which to promote such practices.

63. **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,

³⁸ 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).



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 behavioural 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 LRPCs (“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 LRPCs (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.

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. This is also expected to include relevant hydro-meteorological data and information from DHM, with which the project will actively consult during the delivery of this Activity (and others). 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.



C.4. Background Information on Project / Programme Sponsor(Executing Entity)

64. The **Ministry of Forests and Environment (MoFE)**³⁹ will be an Executing Entity for the BRCRN project (legally one of two “co-EEs” for this project along with the FAO TA Team). 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. As co-Executing Entity, MoFE will manage a large proportion of the GCF grant resources, as well as the co-financing that it is mobilizing for the BRCRN project. MoFE has considerable experience managing projects of this size and nature, including: the Multi-Partner Forestry Project (MFSP); Hariyo Ban project; Building Climate Resilience of Watersheds in Mountain Eco-Regions; Adaptation for Smallholder in Hilly Areas (ASHA); Sustainable Land Management in Churia region; and the Terai Arc Landscape Program. In addition, MoFE is the lead EE for the implementation of the USD 24 million World Bank Forest Investment Programme (FIP) in Nepal. In line with its internal procedures, FAO commissioned a capacity assessment of MoFE during the preparation of the BRCRN project. This assessment found MoFE to be a low-risk partner, and thus very well placed to serve as the Executing Entity for the project. Through the Project Steering Committee (PSC), the ministry will coordinate with other relevant sector Ministries to ensure synergies for transformational change. MoFE’s Gender Focal Point will also play an important role in coordinating with the project management unit, and participating in PSC ensuring that gender concerns are adequately addressed, and closely monitored. Additional information on MoFE’s role and capacity to deliver is provided in Sections C.7 and E.4.2, and in Feasibility Study Section 8.
65. A **FAO Technical Capacity Development Team** will also support execution of the project as a co-Executing Entity. The Technical Capacity Development Team will deliver targeted technical assistance to support delivery of project activities by MoFE (as co-EE), and maintain responsibility and/or controls over international tenders and procurement requiring expert/requiring technical oversight. Under this arrangement, project execution will benefit from FAO’s considerable technical expertise while ensuring that most project management responsibility remains with MoFE, thus ensuring efficient project delivery. In addition, this arrangement will reinforce efforts to build the technical capacity of MoFE and other entities involved in project delivery, improving their ability to sustain benefit streams and scale up support after project closure. The team will further include gender and safeguard specialists, who will oversee that gender, indigenous peoples and Dalits concerns are adequately addressed, and closely monitored. The work of the FAO Technical Capacity Development Team will be kept separate from FAO’s Accredited Entity functions. This is further described in Section C.7 below. These co-Executing Entity functions will be anchored in the FAO office in Nepal. FAO has been working in Nepal since 1951 and has extensive expertise in delivering projects of large scale on agricultural development, climate change and disaster risk management. The FAO country office in Nepal addresses four priority areas of food and nutrition security and safety, institutional and policy support, market orientation and competitiveness, and natural resources conservation and utilization. Since its inception in Nepal, FAO has completed over 400 projects in Nepal and has made major achievements related to policy dialogue and formulation support, technical assistance and capacity building, national data and information management, and innovative technology transfer.

C.5. Market Overview (if applicable)

Not applicable.

C.6. Regulation, Taxation and Insurance (if applicable)

³⁹ Formerly the Ministry of Forests and Soil Conservation

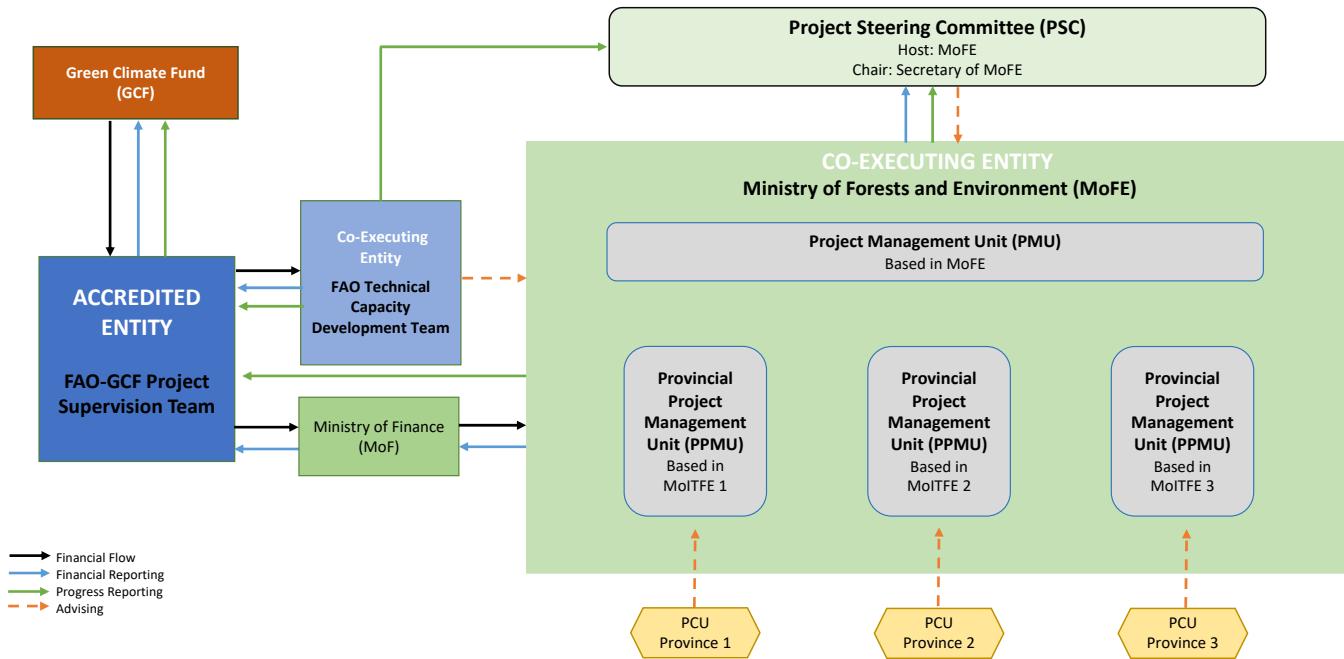


66. For activities relating to procurement of goods and services through FAO, according to the Standard Basic Assistance Agreement signed with the Government of Nepal, Section 7 of the Convention on the Privileges and Immunities of the United Nations provide that the United Nations and its subsidiary organs are exempt from all direct taxes, except for utilities services, and is exempt from customs duties and charged of a similar nature in respect of items imported or exported for its official use. If the services are procured directly by the Government of Nepal, then national procedures apply.

C.7. Institutional / Implementation Arrangements

67. 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).
68. 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. However, to ensure that the BRCRN project is implemented in accordance with established operational and financial modalities, and in the context of building institutional capacity of the new provincial government Ministries (particularly MoITFEs), the MoFE will function as the Executing Entity for the project, and the sole government entity responsible for management of all activities implemented through government institutions. MoFE will not sub-delegate or transfer GCF grant resources to any other government entity.

Figure 7: BRCRN project governance and reporting arrangements



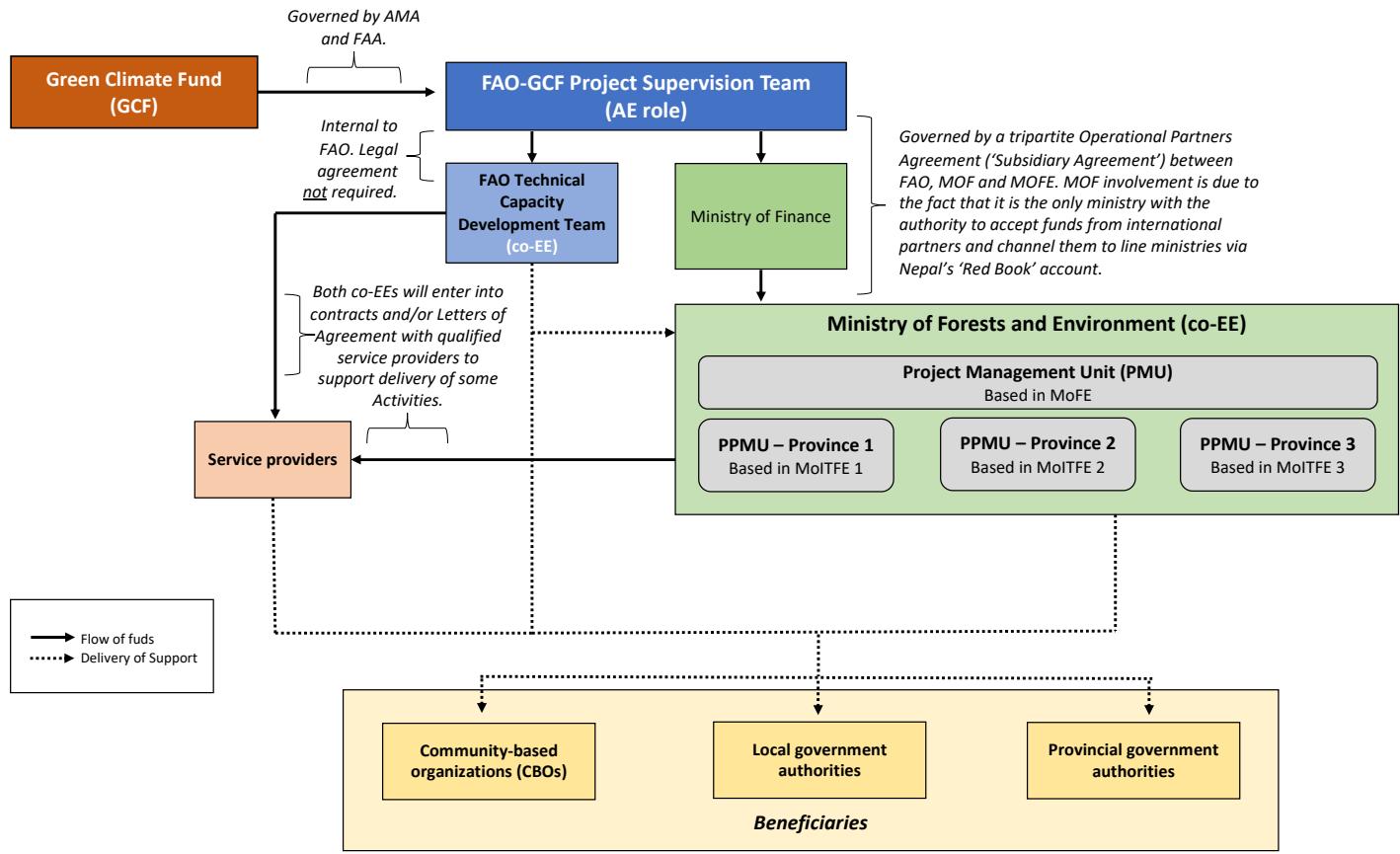
69. FAO will serve as the Accredited Entity for the BRCRN project. As such, FAO will be responsible for the overall management of this project, including: (i) all aspects of project appraisal; (ii) administrative, financial and technical oversight and supervision throughout project implementation; (iii) ensuring funds are effectively managed to deliver results and achieve objectives; (iv) ensuring the quality of project monitoring, as well as the timeliness and quality of reporting to the GCF; and (v) project closure and evaluation. FAO will assume these responsibilities in accordance with the detailed provisions



outlined in the Accreditation Master Agreement (AMA) between FAO and GCF. Accountability on the use of financial resources will be facilitated through the review of annual and bi-annual project reports, as well as through audit and monitoring reports.

70. To perform these Accredited Entity functions, FAO will set up a dedicated FAO-GCF project supervision team comprising relevant staff from the FAO Country Office in Nepal, the FAO Regional Office for Asia and the Pacific, and FAO Headquarters. Members of this project supervision team will perform the necessary supervision and oversight functions, including supervision and backstopping missions during the entire implementation period, as required. The project supervision team will remain independent of the Executing Entity functions also performed by FAO (see below). In line with the GCF policy on fees adopted through GCF Board Decision B.19/09, the above-mentioned segregation of responsibilities within FAO will ensure that the Organization can independently and effectively perform the types of Accredited Entity functions listed in the GCF *General principles and indicative list of eligible costs covered under GCF fees and project management costs*.
71. FAO as AE will transfer GCF funds to MOFE through the Ministry of Finance (MOF) that, as per Government of Nepal's procedures, is the only ministry with the authority to accept funds from international partners and channel them to line ministries. A tripartite Operational Partner Agreement (OPA) between FAO, MOF and MOFE will be signed to govern this arrangement.
72. Both MOFE and the FAO Technical Capacity Development Team (as co-EEs) can enter into contracts and/or Letters of Agreement (LoAs) with qualified service providers to support delivery of some activities. The Government of Nepal procurement rules as per the Public Procurement Act 2007 and Public Procurement Regulation 2007 will govern MOFE's contractual arrangements with the Service Providers. FAO procurement procedures will govern the FAO Technical Capacity Development Team's contractual arrangements with the Service Providers.

Figure 8: Project management, financial flow and contractual arrangements





Project Coordination and Management

73. 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. PSC will also invite representatives from relevant CSOs, 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. The committee 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.
74. MoFE will serve as an Executing Entity for the BRCRN project (legally one of the two co-EEs for this project along with the FAO TA Team, as described below). In this capacity, 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. Once approved by the PSC, these works plans and budgets will be submitted to the FAO project supervision team (FAO's Accredited Entity role) for final review and endorsement before proceeding with execution of activities for that particular year. 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 Planning Framework and ESMF. These reports will also be submitted to the FAO project supervision team for review and endorsement. 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 before they are submitted to the FAO project supervision team for final review/endorsement. These will govern the roles of all responsible institutions and project stakeholders, including in terms of procurement, monitoring, reporting and auditing.
75. The PPMUs will be hosted in the provincial Ministries of Industry, Tourism, Forests and Environment (MoITFE), but will remain directly 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. These teams will be responsible for coordinating the development of provincial work plans, in consultation with the Provincial Coordination Units (PCUs, 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.
76. 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 that will:(i) deliver targeted technical assistance to complement and support Activities executed primarily by MoFE (i.e. by executing specific technically specialized actions/budget lines under Activities that are otherwise executed by MoFE); (ii) lead the execution of highly technically specialized activities (e.g. Activities 3.2.1 and 3.2.3); and (iii) maintain responsibility and/or controls over international tenders and procurement requiring expert/requiring technical oversight. In addition, the FAO Technical Capacity Development team will recruit a qualified procurement advisory/support service to assist MoFE with their procurement actions to ensure adherence with international standards. This team will operate under the supervision of the FAO-GCF project supervision team (described above) to ensure FAO's Accredited Entity and co-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

77. **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, 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. Each PCU will convene on a quarterly basis to review project progress against provincial targets, ensure coordination of project activities



with those of provincial institutions and provincial policy and legislative priorities, and 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 with provincial stakeholders towards handover of project technical and operational support structures to the PCUs.

Other key actors and entities involved in the project

78. The **Ministry of Finance (MoF)** is the National Designated Authority (NDA) for the GCF in Nepal. In line with government regulations and procedures, MoF will channel project finance from FAO (as Accredited Entity) to MoFE (as the Executing Entity) for project execution, and will contribute to reviewing financial reporting. As part of the PSC, MoF will also contribute to oversight of project management in its capacity as the NDA. The Ministry has long-standing experience managing project finance from international development projects.
79. The **Ministry of Agriculture, Land Management and Cooperatives (MoALMC)** will play an important role supporting and guiding interventions targeting the agricultural sector. MoALMC currently 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 under Component1.
80. The **Ministry of Energy, Water Resources and Irrigation (MoEWRI)⁴⁰** will support interventions related to sustainable water resource management and alternative renewable energy (biogas) through the provision of technical support.
81. 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.
82. The **Ministry of Home Affairs (MoHA)** will support interventions related to disaster risk reduction planning under Component3 through the provision of technical support by the Disaster Management Section of the Ministry.
83. **Provincial Ministries of Industry, Tourism, Forests and Environment (MoITFE)** in Provinces 1, 2 and 3 will act as hosts of the PPMUs and chairs of the PCUs (as described above), and will be the recipients of institutional capacity building efforts at the provincial level along with other provincial stakeholders, contributing to the sustainability of project outcomes and impact. MoFE will also use a portion of its co-financing to enlist the services of MoITFE extension workers to support a selection of trainings under the project.
84. **Local governments** (i.e. rural municipalities) will benefit from BRCRN capacity building interventions, including to develop their competence in planning and implementation of climate-resilient SNRM and DRR. Local governments will also support PPMUs to coordinate project activities at the local level, and facilitate alignment of project activities with local development plans and budgets.
85. **Community-based organizations (CBOs)** 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 and Farmer Groups play important roles in managing natural resources in the Churia region. CBOs and their members are the main beneficiaries of the project. A detailed overview of these groups is included in Feasibility Study Section 4.
86. **Private forest owners:** Private forest owners will be engaged in Component 1, with a focus on trainings and capacity building on climate-resilient forestry practices.
87. **Civil Society Organizations (CSOs)** will support activities that strengthen and empower communities and CBOs 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. Some CSOs may also be engaged as service providers through Letters of Agreement (LoAs), as appropriate.

⁴⁰ Formerly the Ministry of Energy and the Ministry of Water Supply & Sanitation



88. **Private Sector Actors:** BRCRN project aims to further strengthen cooperation with the private sector in the promotion of sustainable value chains and capacity building, among other activities.
89. **Research and Academic Entities:** To be engaged in various project activities as appropriate, through LoAs, to help generate and disseminate relevant knowledge and research outcomes on climate change, climate-resilient land use and DRR in the Churia Region.

Fund mobilization procedure

90. 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.
91. According to FAO internal procedures and the Operational Partners Agreement (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.
92. 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 out-posted units of MoFE, and will not be transferred for any purposes to other government or non-government entities at provincial or local levels.

C.8. TIMETABLE OF PROJECT/PROGRAMME IMPLEMENTATION

93. Project components and activities rely on sequential implementation of activities and measures, where activities under Components 2 and 3 will form the basis for the implementation of investments in climate-resilient land use under Component 1. Such measures are important to address the barriers described above, and to establish capacities, tools and materials to facilitate the effective and efficient implementation and scaling up of climate-resilient SNRM practices. The detailed timetable for project implementation is presented in Annex6.



D.1. Value Added for GCF Involvement

94. GCF support will be instrumental for enhancing the climate resilience of ecosystems and vulnerable communities in Nepal's Churia region through integrated climate-resilient SNRM approaches. Nepal's NDC discusses the country's strategy and commitments to climate change, yet notes the need for additional technical and financial support to fully implement its NDC. This project is fully aligned with the NDC.
95. **Nepal's adaptation needs cannot be addressed through government expenditure alone.** The country is still recovering from a devastating earthquake in 2015 that led to substantial loss of life and damage to productive assets. Budget constraints due to post-earthquake recovery continue to limit the ability of the government to finance interventions to address climate change in the Churia region.⁴¹ The country's economy is also still recovering from a fuel crisis and extreme flooding in 2017. Thus, Nepal will need considerable grant financing to fund development priorities in the medium term.
96. **Nepal's social and economic development challenges further exacerbate the vulnerability of its population.** The Gross National Income per capita (purchasing power parity) is \$2,500, and 25% of the country's population lives below the poverty line⁴². Over 70% of its population lives in rural areas and approximately 46% are unemployed⁴³. While about 1/6 of its population are food insecure, the situation is particularly acute in hilly regions, including the Churia. Vulnerability situation is further compounded by the dependence of rural communities on a fragile/deteriorating natural resource base which will worsen with climate change.
97. **GCF financial support would allow Nepal to invest in climate action at an opportune time**, and avoid predicted higher costs associated with delayed responses to climate change. As much of the population is dependent on natural resources, the proposed project will support local people and governments to adopt climate-resilient land use practices, strengthening their resilience to climate change through improved adaptive capacities.
98. **GCF support will be instrumental for establishing climate-resilient land use planning and management as the central paradigm for promoting climate resilience in broader national, provincial and local policymaking and planning.** By providing an opportunity to incentivize and scale up Nepal's flagship, broad-based, transformational community-based natural resource management models across the Churia, the project will add further momentum to Nepal's current efforts to transition towards resilient, inclusive, low-carbon development. Given Nepal's political transition, the project further represents an opportune moment to establish capacities on climate-resilient land use planning and management and DRR, as well as mainstream climate change mitigation and adaptation into provincial and local strategies and plans.
99. **The GCF support is also noteworthy in terms of the catalytic impact it will have in bringing together cross-sectoral landscape-level climate-resilient planning across a region comprising more than 720,620 ha and a population of over 3.2 million people** (of which 51% of inhabitants are women, 31% indigenous peoples and 13% Dalits).⁴⁴ Successful demonstration of this **landscape-scale, ecosystem-based approach** in the Churia region will provide a model for **integrated, cross-sectoral** climate change adaptation for adoption in the other regions as well. Improved planning at the provincial and local level will promote **improved coordination between upstream and downstream communities**, ensuring that a holistic management approach is promoted that takes into consideration the inter-connectedness of ecosystems and land use systems.
100. **BRCRN project activities will crowd-in public financing and mobilize community-level investments for climate-resilient land use.** Government co-financing demonstrates the government's commitment to invest in climate-resilient land use. Improved extension modules and support, knowledge dissemination and demonstrable activities will encourage CBOs and farmers to invest in improved practices. Public-private-CSO platform will support opportunities for the private sector to become engaged in climate-resilient value chains, and strengthen coordination with the public sector, CSOs and CBOs. It is highly complementary to the Forest Investment Program (FIP), as well as the proposed REDD+ Emissions Reduction Program, among others.
101. The BRCRN project will have a **trans-boundary impact**, providing positive environmental, social and economic benefits to downstream communities, including in Northern India where many of the Churia's rivers flow. Particularly in the monsoon season, the degree of runoff and sedimentation from the Churia hills and swells in river flows can be controlled by SNRM – ultimately reducing the impact of floods.



D.2. Exit Strategy

102. The proposed project has been developed through **ongoing consultations with government representatives** from relevant ministries and departments to ensure ownership over the project and ensure that it is closely aligned with government policies and plans, and that project activities support medium- and long-term planning to ensure the project's sustainability and continued progress towards mainstreaming climate-resilience in Nepal.
103. By **aligning the project with key national climate policies, priorities, and commitments**, including Nepal's NDC and the 20-year Churia Master Plan, the chances of its continuity after GCF investment are very high. Improving natural resource management, adapting to and mitigation climate change, and enhancing livelihoods of local communities are explicit goals of Nepal's political leadership. As such, the Government of Nepal is a strong proponent of the project's interventions and continuity. The proposed project is expected to contribute to mainstreaming climate change considerations and support for climate-resilient SNRM into the implementation of the Churia Master Plan, which would leverage additional resources to sustain and scale up the process of transforming natural resource management in the Churia region beyond project closure. The successful implementation of the proposed project would also provide a framework for the Government of Nepal to secure the additional external funds needed to bridge the financial gap towards the full implementation of the Churia Master Plan.
104. The long-term sustainability of project interventions is further enhanced by the project's focus on **individual and institutional capacity building** with key stakeholders at all levels. Measures focused on **institutional strengthening at the provincial and local level** are essential given the political transition, and the increasing role and influence of such organizations over land use planning and management. It represents an opportune time to establish required capacities and expertise early on to enable broad awareness on climate change and climate risks, facilitate the use of climate-information in planning and decision making, and mainstream climate-resilience into local policies and plans as they are being established. The project's emphasis on capacity development will further enhance the sense of ownership of provincial and local governments during the project life-cycle as well as the ongoing implementation of such activities after project closure.
105. Economic sustainability is achieved through the project's **support for viable, cost-effective and climate-resilient measures that provide tangible benefits**. It is particularly important that the project cover such up-front adoption costs to provide an initial impetus for CBOs and member households in vulnerable river systems – who are often averse to risk and change – to adopt project promoted practices during the project implementation period. As shown in the financial analysis, all of the proposed investments related to the land-based interventions and bio-engineering structures are financially attractive from a land user perspective. The recurrent costs associated with continued use of project-promoted farming and forestry models are modest and can be covered by beneficiary households through increased cashflows due to the project interventions. The demonstration plantation and protection forest will be maintained by the CBOs and will require limited labor inputs until the revenues occur and recover the investment costs. FAO and MoFE expect that additional CBOs and member households interested in adopting such practices beyond the scope of the project could cover such costs through a combination of own resources and those made available through government initiatives such as the Churia Master Plan. The institutionalization of trainings, and improved knowledge management will also support sustained adoption of climate-resilient SNRM.
106. The water and soil conservation infrastructure investments will be **operated and maintained by CBOs** when they are built on community-managed land. The project-supported bio-engineering measures and structures are mostly made from locally available materials, and thus operations and maintenance (O&M) costs are expected to be modest. In addition, the structures are all considered to be durable, thus further contributing to ensuring that O&M costs to be borne by CBOs remain sufficiently modest that they can cover such costs beyond project closure – particularly given the anticipated increases in revenue among CBO members due to project-supported practices, as well as the anticipated reductions in climate change-related losses and damages due to the below bio-

⁴¹ IMF 2017

⁴² ADB 2017

⁴³ [World Factbook - https://www.cia.gov/library/publications/the-world-factbook/geos/np.html](https://www.cia.gov/library/publications/the-world-factbook/geos/np.html)

⁴⁴ Note: Excluding water bodies and settlements, the project area covers 702,011 ha.



engineering structures, as well as other resilience-building practices, measures and structures promoted through the BRCRN project. Selected measures are often combined with **revenue generating activities** to contribute to the financial sustainability of such investments (e.g. river bank stabilization with grasses and bamboo/ tree planting), as evidenced in the financial and economic analysis.

107. Investments on public land will be maintained by the government institutions responsible for the infrastructure. Investments such as farmer field schools and nurseries will be operated under the responsibility of the CBOs after the project ends and will be supported by the government extension system.
108. **Improvements in extension services** (e.g. through strengthening extension materials/ modules, training trainers and improving access to extension and demonstration activities) will improve access to knowledge on climate change and climate resilient land use, both among extension services providers and land users. The project anticipates that in so doing, it will increase the demand and supply for such services and information in the broader project area, thus increasingly the likelihood that such knowledge exchange, advisory support and other benefit streams are sustained (and even scaled up) beyond project closure. By building the capacity of local extension workers and drawing on their existing insights and networks, the project expects to also generate high adoption rates among CBOs. This will be further aided by ensuring the alignment of FFS with CERPs, ensuring that FFS are strategically established in the most vulnerable areas, and provide climate-informed advisory and extension services based on priority interventions and local conditions.
109. In addition, the Government of Nepal is providing considerable **co-financing to improve the extension system** throughout project implementation – demonstrating their recognition of this pressing need and commitment to address it – and will be encouraged and actively supported to mobilize the funds needed to continue this enhanced support beyond project closure. **Provincial Ministries will mobilize their extension staff to support FFS** from year 3 to the end of the project period. Knowledge management systems (CKC), institutionalization of trainings, development of high-quality training modules on low-GHG and climate-resilient SNRM, and capacity development of government staff will facilitate Provincial and Central Government to mobilize the funds needed and continue investment beyond project closure. 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.
110. Ultimately, investments in FFS will address the main barriers faced by the current system (highlighted in the FS in Table 9 and Box 1) by improving the **reach of services in highly vulnerable areas, and increasing the quality of trainings** (trained Local Resource Persons, promoted good climate-resilient land use practices), and providing targeted **support for women and excluded/ marginalized groups** (see GAP and IPPF/SIPP for specific measures). **Farmers participating in FFS will continuously improve and consolidate their knowledge and skills**, including through testing and validating on their own farmland. The FFS and the practices promoted by the project are **economically sustainable**. Participation in FFS is voluntary and will employ locally available resources (materials and labour), so economic means will not limit farmers to undertake the improved practices. Moreover, the practices promoted improve farmers' income through increased productivity, cost savings, or other means. FAO experience in the region including in Nepal shows a **positive rate of farmers adopting new technologies/practices through FFS**, including among non-participant who observe the benefits of such practices.



E.1. Impact Potential

Potential of the project/programme to contribute to the achievement of the Fund's objectives and result areas

E.1.1. Mitigation / adaptation impact potential

111. The project has been designed to generate positive adaptation and mitigation impacts, in line with Nepal's National Climate Policy and NDC.

- a) **Adaptation:** The BRCRN project will significantly improve the resilience of ecosystems and communities in the Churia region. Through support for the adoption of climate-resilient land use practices, at least 200,681 households (963,268 people, equivalent to about 30% of the inhabitants in the project area) in the 26 targeted river systems will become more resilient to short- and medium-term climate change risks. The project will support enhanced resilience of ecosystems on 270,502 ha of land, which will also indirectly reduce vulnerability to climate change-related risks for countless other inhabitants of the Churia region. In addition, the project will: mainstream gender-sensitive and climate-resilient land-use planning and management practices into key plans at the sub-national level; strengthen the capacities of government and other actors to provide extension and other advisory services that are more responsive to climate change risks; and significantly improve knowledge and awareness of climate change risks and appropriate response measures. In so doing, the BRCRN project will indirectly benefit all inhabitants of the project area, which is equivalent to about 3.2 million people.
- b) **Mitigation:** The BRCRN project will have an impact on GHG emissions from the AFOLU sector in Nepal. Importantly, the project is expected to significantly reduce deforestation and forest degradation and improve forest management in the project area. The project will also: support the restoration and sustainable management of degraded forests, wetlands and grassland ecosystems; support tree planting on degraded or non-forested land; and scale up the adoption of climate-resilient agriculture and land management practices that (*inter alia*) enhance carbon sequestration in soils. Assuming an 80 percent adoption rate, the project will therefore deliver average annual emissions reductions of 574,180tCO₂eq, which is equivalent to about 11.48 million tCO₂eq over the 20-year lifetime of the project.

112. The project Components and Activities are complementary and collectively will achieve impacts on the ground and beyond project timeframe. In the first two years of the project, activities within Component 2 will focus on strengthening local and provincial institutions and 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. Complementing the government decentralization process, this Component will balance top-down integrated spatial planning with participatory land use planning for climate-resilience at the CBO level, culminating in 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 vulnerable river system, thereby ensuring full community buy-in for interventions to be delivered under Component 1.

113. The delivery of support under Component 1 generally involves a combination of: (i) training for member households from partner CBOs; (ii) the procurement and provision of inputs, tools and materials that the trained CBO member households need to adopt the specific project-promoted practices (note: the specific inputs, tools and equipment vary by activity, as outlined in Annex 3.2); and (iii) the provision of expert guidance and assistance (i.e. extension) throughout the project implementation period to support beneficiaries to sustain the project-promoted practices. As a result of the combination of these types of support, FAO assumes a relatively high adoption rate under Component 1 activities. Households and CBOs are generally expected to incur minimal additional costs when adopting and applying project-promoted practices, and where costs are involved (e.g. basic equipment and tools for farming activities; seedlings, tools/equipment and local labour for reforestation/planting activities), the project will cover these costs.

114. As a result, the project allocates approximately 55% of GCF grant finance to cover the costs of inputs (e.g. seedlings), materials (e.g. for community structures), tools and equipment that would otherwise serve as barriers to adoption. In the case of community structures (e.g. check dams), plantation establishment and forest restoration



activities, establishment costs are the key barriers to adoption and the project's demonstration of cost-effective, needs-based and locally-supported investment in such activities, guided by the CERPs, will serve as the template for allocation of domestic finance under the Churia Master Plan beyond the project timeframe. Furthermore, the project will invest in the establishment of, and local management capacity for, tree nurseries managed by beneficiary CBOs. This will ensure a sustainable source of local material beyond the project timeframe, reducing the costs to the beneficiaries of continued application of climate-resilient practices.

115. It is particularly important that the project cover such up-front adoption costs to provide an initial impetus for CBOs and member households in vulnerable river systems – who are often averse to risk and change – to adopt project promoted practices during the project implementation period. FAO and MoFE expect that additional CBOs and member households interested in adopting such practices beyond the scope of the project could cover such costs through a combination of own resources and those made available through government initiatives such as the Churia Master Plan. The economic rationale for this is provided in Annex 3.1 – Financial and Economic Analysis, which presents comparisons of agriculture and forestry practices to be promoted through this project with current baseline practices.
116. Component 1, implemented in a manner that draws on and benefits from Components 2 and 3, expects to achieve important tangible impacts in the Churia region, as summarized in Section H.1 of the Funding Proposal. Key project impacts and associated cost at sub-component level are summarized below. Attachment 3 of this Funding proposal provides more details on impacts of project activities and their sustainability.

Sub-component	Budget breakdown (see Annex 3.2 for more detail)		Impact rationale	Physical impact to be achieved	Direct beneficiaries
1.1: Climate-resilient land use practices are adopted	Inputs, equipment, materials and associated contracts	Approx. USD 7.6 million	The project will train CBO members and provide them with the necessary equipment & inputs needed to adopt the relevant practices, as well as directly engage service providers to build/establish community-level structures to enhance resilience – thereby increasing FAO's and MoFE's confidence that a high adoption rate will be achieved. In particular, the project will:	Assuming an 80% adoption rate, the project expects to stimulate adoption/application of climate-resilient land use measures on at least 48,772 ha of land.	Over the course of implementing the activities that will deliver the impacts outlined in the preceding columns, the project expects to cumulatively benefit at least 200,681 households, which are expected to include about 963,268 members.
	Training, capacity development and associated travel	USD 1.04 million	a) train at least 7,800 farmers, and provide them with minor tools/equipment to enable adoption of project-promoted practices;		
	Personnel costs	Approx. USD 2 million	b) cover the costs of stabilizing at least 86 gullies and establishing and maintaining check dams and/or community-managed ponds in at least 129 sites;		
	Other costs		c) train at least 120 farmers on agro-forestry, and provide them with equipment needed to establish small on-farm tree nurseries; and d) assist approx. 500 households to access the government biogas subsidy.		
1.2 Natural forest ecosystems	Inputs, equipment, materials and	Approx. USD 3.75 million	The project will work with the approx. 600 forestry-related CBOs in the project area to develop/strengthen their forest management operational plans to ensure silvicultural	Assuming an 80% adoption rate, the project expects that the support	



are better maintained and protected	associated contracts		<p>practices are promoted and ecosystem service provision and resilience are maximized; <u>and subsequently</u> directly support the implementation of these plans for the remainder of the project period by procuring and providing these CBOs with: (a) the necessary tools and equipment; and (b) expert advisory services.</p>	<p>provided under Sub-Component 1.2 will result in at least 148,998 ha of forest ecosystems being managed sustainably.</p>	
	Training, capacity development and associated travel	Approx. USD 0.25 million			
	Personnel costs	Approx. USD 0.27 million			
	Other costs				
1.3 Forests and tree cover are restored and maintained in the river system landscapes	Inputs, equipment, materials and associated contracts	Approx. USD 7 million	<p>The project will provide trainings and inputs (materials, tools and labour), to enable relevant CBOs to engage in planting activities, while also directly guiding and overseeing these planting activities – thereby increasing FAO's and MoFE's confidence that a high adoption rate will be achieved. In particular, the project will:</p> <ul style="list-style-type: none"> a) provide relevant CBOs with the equipment, inputs and materials needed to establish tree nurseries in currently underserved locations – nurseries that will provide seedlings (inputs) for other planting activities under the project, as well as provide seedlings for post-project planting activities; b) procure materials, seed stock/seedlings, tools/equipment and local labour needed to plant: (i) demonstration plantations on 1300 ha; (ii) riparian plantations on 1000 ha; and (iii) plantations on 5000 ha of community land – <u>and</u> directly oversee/guide the process of establishing these plantations. c) train relevant CBOs on Forest Landscape Restoration, and procure and provide them with the tools, equipment, inputs and local labour needed to implement Assisted Natural Regeneration on at least 15990 ha of community-managed forest land – and directly oversee/guide this planting process. 	<p>Assuming an 80% adoption rate, the project expects that the support provided under Sub-Component 1.3 will result in at least 5,840 ha of new planted forests being established, and 12,792 ha of community-managed natural forests being restored by assisted regeneration.</p>	
	Training, capacity development and associated travel	Approx. USD 0.19 million			
	Personnel costs	Approx. USD 0.53 million			
	Other costs	Approx. USD 11.4 million			

E.1.2. Key impact potential indicator

GCF core indicators	Expected tonnes of carbon dioxide equivalent (t CO ₂ eq) to be reduced or avoided (Mitigation only)	Annual	574,180tCO ₂ eq
		Lifetime	11,48million tCO ₂ eq over 20 years



	<ul style="list-style-type: none"> <i>Expected total number of direct and indirect beneficiaries, disaggregated by gender (reduced vulnerability or increased resilience);</i> <i>Number of beneficiaries relative to total population, disaggregated by gender (adaptation only)</i> 	Total	<p><u>Direct:</u> Improved resilience of at least 200,681 households, comprised of ~963,268 people, where 50% of the beneficiaries are women with proportional representation of indigenous peoples and marginalized groups.</p> <p><u>Indirect and Direct:</u> Improved resilience of over 3.2 million people living within 26 vulnerable river systems.</p>
		Percentage (%)	Direct beneficiaries are equivalent to about 3% of the population of Nepal, and about 30% of the population of the project area.

Methodology for Calculating the Mitigation Impact:

117. The methodology for calculating the mitigation impact indicators follows IPCC GPG (2006) principles for land based accounting. The main logic is that for each BRCRN activity which impacts the mitigation indicator a specific impact factor is derived which will be applied to calculate the overall impacts. This impact factor, measured in tCO₂/ha/year consists of several Baseline-to-Project change factors if a specific intervention is involved more than one land use practice. The figure below illustrates this approach. More detailed information on the applied approach is described in Feasibility Study Section 5.5.

Methodology for Calculating Beneficiaries:

118. The number of **direct beneficiaries** were calculated as follows:

- Within the project districts, the average household contains 4.8 people (slightly higher than the national average of 4.5).⁴⁵ The project aims to reach 750 CBOs. On average this will imply ~28-29 user groups per river system, while in practice some river systems may have more groups than others based on their size. The following assumptions were made in terms of the composition of groups and number of beneficiaries:

Table 7. Overview of beneficiary calculations.

Type of Community-based Organization (CBO)	Average membership (# of households per CBO)	Number of CBOs to Target	No. of Households engaged in BRCRN project
CFUG	180	557	100260
CoFM	32,227	3	96681
Farmer Groups and Soil Conservation User Groups	40	50	2000
Public Land Forest User Groups	15	100	1500
Pro-Poor Leasehold Forest Groups	6	40	240
Total	N/A	750	200,681

- In total, the 750 CBOs are expected to include at least 200,681 households within the project. Based on average household size in the project area, the total number of beneficiaries would be around 963,268 people.
- At least 1 Indigenous Peoples Organisation (IPO) in each province will also be among the beneficiary CBOs. It is expected that this will not add to the total number of beneficiary households; the members of these IPOs will also be members of other CBOs (CFUGs etc). The IPOs will be targeted as beneficiary CBOs for particular project activities, in consultation with IP representative bodies e.g. NEFIN.

⁴⁵CBS 2014, District Level Data



- The number of women within communities is based on ward level population information from CBS (2011) that identified 51% of project-area inhabitants as female. Meanwhile, population statistics on indigenous peoples, Dalits and other ethnicities and/or castes are based on averaged district-level data from CBS (2014).

119. **Indirect beneficiaries** include all individuals residing in the 26 prioritized river systems that comprise the BRCRN project area. Information from the Central Bureau of Statistics was used from 2011 at the ward level,⁴⁶ which identified 3.2 million people residing within the project area, of which 51% are women, 31% indigenous peoples and 13% Dalits.

E.2. Paradigm Shift Potential

Degree to which the proposed activity can catalyze impact beyond a one-off project/programme investment

E.2.1. Potential for scaling up and replication

120. The project will be the first ecosystem-wide initiative in the Churia region to move beyond pilots and institutionalize climate change mitigation and adaptation objectives into multi-sectoral local development planning processes. It will ensure large-scale sustainable impacts by focusing on the implementation of nationally-endorsed and locally-validated policies and measures, without the need for substantial investment in intensive small-scale piloting activities. The proposed GCF project is thus an innovative programme that will integrate a range of aspects of climate vulnerability and adaptive capacity, rural livelihoods and national/sub-national governance for enhancing climate resilience at the watershed (i.e. landscape) level.
121. The project will support investment in climate-resilient SNRM at scale to address critical climate change challenges and demonstrate (for communities, governments and other stakeholders) the substantial benefits to be accrued from adopting such practices, while also laying a foundation for key actors to scale up such practices beyond project closure and drive a transformation process.
122. **At the policy and institutional level**, the project will ensure that climate-resilient SNRM becomes a central feature of future planning and investment for natural resources management and rural development. This will benefit from a strong political commitment and the opportunity to shape the development trajectory of the new decentralized institutions and to implement the Churia Master Plan. However, since Nepal is a Least Developed Country (LDC) with high rural poverty and relatively low potential to attract private investment for climate resilience, the proposed project focuses on locally-appropriate, low-cost and low-maintenance technical approaches that can be adopted/applied by local communities largely through existing resources, sustained by robust institutions and support services. The development of CERPs and numerous trainings for Professional Beneficiaries on the use of tools to measure and monitor climate change impacts and natural resources, and apply this knowledge to refine planning over time, will enable government at all levels to scale up their support for climate-resilient SNRM within and beyond the 26 river systems targeted by this project, and beyond project closure.
123. **At field level**, the project will work directly with 750 CBOs to support their member households to adopt and invest in climate-resilient SNRM approaches that are suited to their local conditions and needs. The project will do so by strengthening CBO management plans, trainings for CBOs on climate-resilient SNRM and strengthening forest management operational plans (among other measures). The project will also deliver targeted technical trainings (e.g. on climate-resilient farming practices, forest management and other approaches) for nominated CBO members and provide crucial tools and equipment that complement trainings, which will not only enable adoption of such practices by direct beneficiaries but also equip these individuals to train other households within their CBOs to adopt and apply project-promoted practices. Recognizing the financial and capacity constraints of households in the project area, the participatory planning process (in Component 2) will enable partner CBOs to work with project staff to identify and prioritize practices that are best suited to their local conditions and needs, and which can be adopted and maintained at minimal cost to local beneficiaries. Where up-front adoption costs are involved and would otherwise impede adoption – as is the case with community structures and reforestation activities – the project will cover such costs to enable high adoption rates among beneficiaries. In addition, it is important to note that the preliminary practices that have been identified for promotion through the project (which are described in Appendix A of the Feasibility Study) provide noteworthy financial benefits to households (relative to baseline models) among other sustainable development benefits (e.g. improved soil nutrition, enhanced biodiversity,

⁴⁶Ward level statistics were only available for 2011.



reduced time for women and girls to collect fuelwood and water, etc.), which is expected to incentivize beneficiary households to continue using project-promoted practices, as well as incentivize other households to replicate and scale up such approaches. These assumptions are substantiated by the financial analysis of project-promoted practices included in Annex 3.1.

124. The project will actively promote further training and capacity building within CBOs in part through its approach to beneficiary selection (see Section C.3). It also commits to monitor the extent to which this spread of knowledge and capacity is happening through the project monitoring system (see project performance indicators in Section H). Project support for the establishment of nurseries and strengthening of extension and advisory services, as well as information dissemination and awareness-raising efforts, will also contribute to strengthening the enabling environment that is needed to support further scaling up by CBOs during and beyond the project implementation period.
125. As a result of field-level support, the project expects to achieve a critical mass of tangible and visible benefits within the project area – impacts that are described in Section E.1 above and more details in Section H1. This in turn is expected to further incentivize CBOs and additional member households to adopt, apply and sustain climate-resilient SNRM practices. It will also have the added benefit of reinforcing demand for extension and advisory services that support such practices. To further facilitate widespread adoption of project-promoted practices *within* partner CBOs during and after the project, FAO, MoFE and Provincial Ministries will support Local Resource Persons, within the CBOs, in the development of management plans, and to facilitate internal knowledge sharing and exchange among their members with a view to ensuring skills accrued by households involved in project trainings are transferred to other member households (Activity 2.2.2).
126. With regards to the broader enabling environment, the project also places a strong emphasis on strengthening local extension services to ensure land users have continued access to the latest knowledge, information and guidance needed to continue applying climate-resilient SNRM approaches – even as climate change impacts and the state of natural resources within the project area continue to evolve over time. Improved extension modules, methods and farmer field schools, combined with improved knowledge and capacity of local extension workers on climate change and climate resilient SNRM, will improve awareness and capacities on such measures among CBO members throughout the project area, including those not directly reached by the BRCRN project during its 7-year implementation period. There is a large potential to replicate and scale up the projects activities in CBOs around Nepal. For example, the project will work with 557 CFUGs, whereas in all of Nepal there are over 18,000 CFUGs comprised of over 2.2 million households managing over 1.7 million ha of forest. In addition to field level support, the integration of training materials into the CKC, and the institutionalization of training (training trainer materials and handbooks, training materials) will enable such an approach to be replicated in other areas of the river system, and within the country.
127. The Provincial Ministries that (as a result of the ongoing decentralization process) are taking over responsibility for such advisory services have indicated their intention to continue financing rural extension capacity and the provision of climate-informed extension services, both during the project (as evidenced by the government's co-financing commitment outlined in Annex 3.2) and after project closure. Increased cooperation with the private sector will be promoted, potentially leveraging private resources for extension. As part of the proposed project, FAO also commits to work with these government actors to mobilize the funds needed to sustain such services (including through the Churia Master Plan) – a key element of the process of transforming land use and natural resource management in the Churia region.
128. To further reinforce the capacity of the extension system, the project plans to establish a Churia Knowledge Centre (CKC), with a knowledge hub in each of the three Provinces, that will serve as a repository for extension materials and information, while also facilitating exchange of crucial information and data on natural resources and climate change among relevant stakeholders – exchange that is expected to contribute to post-project planning and investment decisions as outlined above. While the CKC will reinforce the government's capacity to make climate-informed decisions and provide climate-informed extension services after project closure, it will be hosted and managed by the Provincial Ministries of Industry, Tourism, Forests and Environment (MoITFEs). These ministries have expressed strong support for the establishment of the CKC, and a willingness to operate and maintain them during and after the project.



129. The project will also organize awareness raising campaigns to stimulate broader interest in climate-resilient SNRM practices. Coupled with the demonstrable benefits accrued by communities and households who adopt such practices during the project (as outlined above), this is expected to reinforce demand for climate-informed extension and advisory services and other support, including that which would be provided through the Churia Master Plan. This in turn will strengthen the incentives for MoFE and Provincial MoITFEs to provide such services beyond project closure.
130. Close coordination and collaboration with national and sub-national (e.g. local and provincial) entities further ensures local ownership and sustainability, and thus the potential for scaling up and replication after project closure. The project is well aligned with existing planning and administrative processes, and builds capacities of partners to deliver these processes. For example, the project has significant elements that respond to the latest developments in national forest policy; national climate policy; national REDD+ strategy draft and recent amendments to the Forest Act of 1993.
131. The planning approaches mainstreamed in the Churia (e.g. CERPs, provincial and CBO planning) can be replicated and scaled up to other regions of Nepal in a cost-effective and efficient manner, and, indeed may result in net savings through targeted, efficient, results-oriented investment of national resources. This will be aided by the establishment of a national database on water, soil, forest, and grassland resources that will guide planning and implementation of measures for increasing climate resilience. Scaling-up efforts will be facilitated by the establishment of knowledge-sharing mechanisms (e.g. CKC) and platforms for dialogue to inform national and sub-national institutions on best practices for climate-resilient SNRM. The project will thus promote the active exchange of information, lessons learned and best practices to guide implementation of climate-resilient SNRM and DRR measures across Nepal.
132. As the Churia region extends to India to Pakistan, the experiences, knowledge generated and lessons learnt from this GCF project will be useful for these countries as well. There is substantial potential to scale up and replicate measures within these countries. The project will have substantial impacts downstream, not only in the downstream-Terai in Nepal, but also in India, a country that also experiences high exposure to flooding and that is greatly impacted by upstream land use in the Churia hills of Nepal.

E.2.2. Potential for knowledge and learning

133. The project will encourage innovative knowledge management to improve awareness, build capacities, and support the integration of climate and land use information into decision making processes at the national, provincial and local level. Within Components 2 and 3, activities focus on institutional capacity building and learning. Provincial and local government authorities will be trained on climate-resilient land use planning and practices, including on the job support to identify critical hotspots and conduct a mapping activity within each river system. Such knowledge and learning is critical given the political transition and the important new roles that provincial and local governments will have with regards to natural resource management. The development of CERPs will contribute to the provision of climate-informed extension and advisory services, and will ensure climate change and disaster risk reduction are integrated into planning and decision making processes. This will ultimately guide the adoption of prioritized low-carbon and climate-resilient SNRM.
134. At least 750 local CBOs will participate in workshops to raise awareness of climate change risks and climate-resilient land use practices that are adapted and appropriate to their local contexts and priorities. A participatory approach will be utilized that allows such communities to access information and technical support, promoting participatory land use planning and allowing communities to develop ownership and apply their knowledge based on their own priorities. By participating in project workshops, communities will become increasingly aware of climate change risks in their locality/ region, risk-reduction measures, as well as how/ where they can access relevant information and support (e.g. CKC, local extension agents, radio programs, among other sources).
135. Activity 3.1.1 will support the consolidation of local and indigenous knowledge on adaptation related to water, agriculture and forests, where innovative and locally adapted approaches will be identified, disseminated and integrated into supporting materials (e.g. extension modules). Many local communities, including indigenous communities, have noted the importance of existing traditional and indigenous knowledge for climate change adaptation. Thus, the project aims to consolidate such information and integrate it into extension support materials



and farmer field schools. This represents a major innovation for supporting the mainstreaming of this knowledge into extension modules, combined with other good practices that build on key lessons and experiences.

136. Activity3.2.2 focuses specifically on strengthening extension services in the project area, with a focus on knowledge and information. The project will finance the elaboration of 10 extension modules for climate-resilient land use that will be used within farmer field schools. Training modules draw on best practices identified in 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). Modules will be adapted to the context of the project area and the different bio-geographical zones and aim to support the transfer of knowledge on climate change risks and improved climate-resilient practices to diverse groups of people including people from diverse socio-cultural backgrounds, poor households, women, and people who are illiterate, among others. Diverse communication methods will be used including manuals, videos and radio programs/ audio materials. Trainers (including women, indigenous peoples, Dalits, and Madhesi people, among others) will be trained on the modules and equipped to apply this knowledge in the field. Where necessary, translations will also be provided (either through official translators or through local resource persons) to support extension services and knowledge dissemination. Training module development and the implementation of trainings will enable improved institutional and individual learning, improved knowledge management (through the CKC), and will support the replication of training and adoption of climate-resilient land use in other parts of the country.
137. As discussed in E.2.1, the knowledge generated by this project is relevant for the entire Churia region, as well as the Churia landscape that extends from India to Bangladesh and Bhutan, passing through Nepal. Thus, the dissemination of the project's approach and lessons learned, including through the innovative online CKC knowledge hub, would support learning processes and the potential scaling up and replication of project activities.

E.2.3. Contribution to the creation of an enabling environment

138. The BRCRN project contributes to the creation of an enabling environment through a step-wise approach. Through Component2, it establishes an institutional and planning framework conducive to implement the project activities. Ultimately, the capacity of government stakeholders and local CBOs will be built by the project to understand and assess climate risks, utilize climate information and vulnerability assessments to plan, and monitor climate resilient land use, and further monitor local risks and resources in the future. This will equip them 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.
139. Given the government's ongoing political transition, and the associated devolution of power to the local and provincial levels, it is an opportune moment to mainstream and build capacities on climate-resilient planning, DRR and SNRM at the local and provincial level. Building institutional capacities at an early phase will facilitate institutional learning, mainstream climate change, and ensure that climate-resilient planning becomes a cross-cutting consideration for government institutions after project closure.
140. Provincial strategies and CERPs will further create an enabling environment for climate-resilient land use, ensuring a strong provincial and local framework is in place to demonstrate commitment and actively promote climate-resilient land use planning, ensuring an integrated approach considering upstream and downstream management. Such strategies and CERPs will highlight key targets and goals for climate-resilient land use, and support the longevity and scaling up of such practices. Specifically, they will enable provincial governments to understand climate risks, and implement a holistic approach for disaster risk-reduction, as well as low-carbon and climate-resilient land use. Such an approach will demonstrate a new framework for low GHG and climate-resilient planning in Nepal, which will be replicable in other river systems in the country. This is necessary to support the country's needs, given the high vulnerability of the region and the political context of the country, where there is a need to quickly invest in the capacities of provincial and local policy makers to enable the adoption of necessary adaptation measures.
141. Capacities of CSOs, CBOs and other stakeholders will be strengthened as well, ensuring that there is a clear foundation to support the adoption and scaling up of climate-resilient practices at household level. Participatory planning approaches through workshops will help communities become aware of climate risks and improved practices to reduce risks and vulnerability, yet provide them with the flexibility to decide what measures they want to implement based on their local context and priorities. Such an approach will increase awareness of climate



change, climate-risks and risk-reduction strategies, and create ownership that will generate local interest and support for climate-resilient land use after project closure. In addition, the adoption of climate-resilient technologies and land use practices in the 26 vulnerable river systems will demonstrate the effectiveness of such measures at scale, which is likely to shape future investment decisions by CBOs – groups that are otherwise risk-averse and thus averse to change given their limited financial resources.

142. Targeted support will further be provided to public land forest users, containing primarily members from poor households and marginalized groups, to help them strengthen their capacities and plan for climate-resilient land use practices. Such user groups often contain marginalized households, and the project can support them to strengthen their institutional capacity to support inclusive development.
143. Knowledge generation activities (e.g. Activity 3.1.1) and improved extension support (e.g. Activities 3.2.2 and 3.2.3) will ensure that innovative and locally adapted practices are promoted. Such materials and services will create a strong foundation to raise awareness on climate change risks, promote climate-resilient land use, and have a lasting impact on the decisions of land users. The use of these materials and implementation of these climate-sensitive farmer field schools will continue after project completion, ensuring the strengthened enabling environment continues to shape land-use decisions – by the project's beneficiaries and others – well into the future.

E.2.4. Contribution to regulatory framework and policies

144. Promoted measures will contribute to the implementation of Nepal's NDC as well as various national policies and plans, including the Churia Master Plan, Forest Sector Strategy and the Agriculture Sector Strategy (described in Section E.5 below). Promoted measures will further contribute to various SDGs (described in Section E.3.1), as well as various Aichi Targets for the Convention on Biological Diversity, especially Targets 5, 7, 14 and 15.
145. Climate-resilient SNRM will be integrated into provincial strategies and CERPs through the BRCRN project. This will support governments to orient investments and priorities towards climate-resilient land use practices, and encourage local governments to implement climate-resilient land use planning at the local level, aligned with provincial and river system level planning to promote integrated management and improve the efficiency and effectiveness of investments. Given the political transition, capacity building on climate change risks, SNRM and DRR will support mainstreaming of such practices at the provincial and local level, encouraging newly formed governments to integrate such principles into policies and planning processes.
146. Capacity building for CBOs will contribute to local level management plans, and guide the implementation of informed management plans that take into account climate risks and suitable climate-resilient practices. Capacity building, combined with improved knowledge materials and dissemination processes and support to implement investments, will help to leverage future investments in climate-resilient land use practices by CBOs.
147. Public land forest user groups will also be formalized and engaged throughout the implementation of this project, which will have an important impact to allow (often) marginalized public land forest users to legally benefit from the sustainable management of natural resources. The current political transition represents an opportune moment to formalize such user groups at the local level.

E.3. Sustainable Development Potential

Wider benefits and priorities

E.3.1. Environmental, social and economic co-benefits, including gender-sensitive development impact

Environmental Co-benefits

148. The project will support the following Sustainable Development Goals (SDGs) related to the environment:

Table 8. Link between project activities and environment-related SDGs

SDG	Link with Project Activities
SDG 2: End hunger, achieve food security and improved nutrition	Improved food security will be achieved through the adoption of climate-resilient and sustainable agricultural practices, as well as through the adoption of water conservation



and promote sustainable agriculture	measures (including retention ponds) that can help improve water retention in soils and water-access, especially in the dry season.
SDG 6: Ensure availability and sustainable management of water and sanitation for all	Project activities will support target 6.6 that aims to protect and restore water-related ecosystems, including forests, wetlands, rivers, aquifers and lakes. 202,747ha of forests, wetlands and grasslands will be restored and sustainably managed by the project, and measures will help stabilize ecosystems, and reduce degradation and sedimentation.
SDG 7: Ensure access to affordable, reliable, sustainable and modern energy for all	Project activities will support 500 households to access government subsidies and adopt biogas technologies, increasing the adoption of renewable energy in the project area. Project activities will also help reduce pressure on natural forests for fuelwood.
SDG 12 : Ensure sustainable consumption and production patterns	The project's objective is closely aligned with the target 12.2 to <i>achieve the sustainable management and efficient use of natural resources</i> . Project activities focused on awareness raising and capacity building will strengthen awareness for SNRM.
SDG 13: Take urgent action to combat climate change and its impacts	The project will strengthen resilience to climate-related hazards and natural disasters within Nepal and northern India through investments in climate-resilient land use, supported by strengthened capacities and approaches. Capacity-building and awareness raising are measures that are cross-cutting through all project components and activities that contribute to Target 13.3 (i.e. improved awareness and capacities)
SDG 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halve biodiversity loss	The adoption of climate-resilient land use practices will reduce environmental degradation in comparison to business-as-usual practices, slowing down soil degradation, erosion and sedimentation processes, and deforestation and forest degradation. These measures will further support biodiversity conservation through improving habitat and ecosystem quality.

Social Co-benefits

149. The project will deliver numerous health-related co-benefits. For example, appropriately managed water conservation ponds can reduce water-borne illnesses in communities. In addition, project-related improvements in resource quality and production can reduce collection distances for fuelwood, water and fodder (where women previously had to walk several hours carrying heavy loads – activities that were increasing due to climate change and unsustainable resource use). Reduced collection times may have the added benefit of indirectly enabling girls (who play an important role in collecting water) to allocate more time to their education.⁴⁷
150. The project aims for proportional representation of indigenous peoples, where at least 31% of direct beneficiaries should be indigenous peoples. An indigenous peoples planning framework has been developed, based on diverse consultations with indigenous peoples, to ensure that indigenous people's rights are safeguarded, promote targeted measures to empower indigenous peoples and ensure that a responsive M&E framework can be applied to the project to continuously monitor the project's impact on indigenous peoples.
151. The project will support SDG 10 to reduce inequality within and among countries, as social-inclusion is mainstreamed as a cross-cutting consideration within the project with the aim to enhance social inclusion and empower marginalized households. Many marginalized groups tend to live in highly vulnerable areas, along river banks or in areas that are susceptible to landslides, and the project will further help reduce their vulnerability to climate change and strengthen their adaptive capacities by targeting the most vulnerable communities.

Economic Co-benefits

152. The BRCRN project will deliver crucial economic co-benefits through its support for agricultural development. Investments in climate-resilient agriculture will improve soil quality, water availability and reduce land degradation, which can help to strengthen agricultural production and productivity that can allow households to generate more

⁴⁷ Some consulted communities that girls miss more school in the dry season, where due to seasonal water scarcity girls had to walk up to 2.5 hours one-way in the dry season to access water resources. Some communities who adopted conservation ponds with government support noted that there was a positive impact on girls' education within their community.



income from agricultural activities. In other words, project-supported practices will strengthen the natural resource base on which productive agriculture depends. This is essential given that agricultural development is the backbone of economic activity in the Churia region, particularly among the poor and vulnerable households and communities targeted by the BRCRN project. The project will also open up new economic opportunities for some of these households and communities, including fish and duck farming on conservation ponds, ecotourism in restored ecosystems, and the diversification of household income streams through agroforestry.

153. Measures to strengthen sustainable forestry activities will also help farmers overcome barriers to access markets (e.g. quality, poor private sector linkages), and improve coordination and dialogue with the private sector. This will benefit not only local producers and CBOs, but also the private sector.
154. The BRCRN project will also help avoid losses and damages that can have severe impacts on economic development in the Churia region. The adoption of climate-resilient land use practices, as well as measures for ecosystem restoration, water conservation, gully stabilization and riverbank stabilization, among others, will reduce the risk and impact of climate-induced hazards, thereby avoiding lost economic activity (including the loss of arable farmland) and the costs of recovering from damages to productive assets and infrastructure. This constitutes important economic savings for governments, communities and households that can instead be invested in local economic development.

Gender-Sensitive Development Impact

155. Gender-equality is a cross-cutting theme within the project, which aims to ensure women's full and effective participation. At least 50% of direct beneficiaries will be women, of which proportional representation of indigenous women, Dalit women and other marginalized groups will be ensured. All members of project management committees, trainers and local resource persons will be trained on GESI measures, increasing awareness and capacities of government officials and other key stakeholders.
156. The project aims to empower women and promote their equality through targeted measures (e.g. trainings on business literacy for women's groups, ensuring representation of women trainers, among other measures). It will further have substantial positive socio-economic impacts for women, who are often particularly affected by climate change due to the trend towards the feminization of agricultural work in the project area, as well as women's traditional role in collecting fodder, water and fuelwood (see Gender Assessment in Annex 5).
157. A gender-sensitive M&E framework has been designed to ensure the project actively monitors the impact of the project on women as well as progress in achieving project targets and the goals set out in the GAP. The project will thus support SDG 5 and its goal to achieve gender equality and empower all girls.

E.4. Needs of the Recipient

Vulnerability and financing needs of the beneficiary country and population

E.4.1. Vulnerability of country and beneficiary groups (Adaptation only)

158. As described in the previous Sections, Nepal is highly vulnerable to climate change. The vulnerability of already fragile ecosystems in the Churia-Terai Madhesh region is further aggravated by numerous anthropogenic interventions such as settlement through the clearing of forests for cultivation, over exploitation of timber and other forest products through illegal logging and unsustainable harvesting of timber and NTFPs, uncontrolled grazing of livestock - thereby rapidly altering ecosystem function and the overall resilience of the region. Local people's resilience is negatively impacted through the loss of key ecosystem services and resilience that increase their exposure to climate change.
159. Based on historical trends and future climate change predictions, Nepal will likely become increasingly exposed to climate related hazards including flooding and droughts, among others. Current costs associated with the impacts of climate variability and extreme events are estimated at US\$ 270-360 million/year, representing 1.5 to



2% of the country's GDP.⁴⁸ If no action is taken the economic cost of climate change in the primary sector alone could exceed to 2-3% of the current GDP per year by mid-century.

160. Poor and vulnerable households and communities suffer most from climate change, because of their higher exposure and sensitivity (of assets and livelihoods) to hazards, and their low capacity to manage risks and avoid/mitigate negative impacts.⁴⁹ To cope with these pressures, and for their survival and subsistence, poor people rely on their surrounding natural resources, resulting in their further degradation and, ultimately pushing them into a perpetual cycle of poverty and environmental degradation. Thus the impending impacts of climate change will have significant negative impacts on their basic survival and subsistence needs, for example quality and availability of water resources, agricultural productivity, animal husbandry and ecosystem integrity.⁵⁰ This will in turn have an adverse impact on the overall social development of Nepal.

E.4.2. Financial, economic, social and institutional needs

Financial and Economic Needs

161. Nepal's daunting social, financial and economic development challenges exacerbate the vulnerability risks of its population, as described in Section D.1 above. Given these challenges, Nepal requires considerable grant financing to fund development priorities, including those described in its NDC, in the medium term. If such support does not materialize and adaptation measures are not implemented in a timely manner, the financial cost of adaptation will increase, as will the costs for local households and communities as climate change impacts increase in intensity and frequency.

Social and Institutional Needs

162. The government is undergoing a transition toward a federal state. Nepal's political transition is a landmark event accompanied by the devolution of power over forest and agricultural resources to the provincial and local level. Capacities on climate change and climate-resilient development remain limited at the provincial and local levels, and additional technical and financial support is required to support these institutions to build individual and institutional capacities. At the same time, this transition represents an opportune moment to strengthen capacities and mainstream climate-resilient land use into provincial and local plans and strategies as these institutions are initiated. Trainings are needed on various topics, especially climate change risks and climate-resilient land use practices, mainstreaming climate-resilient land use planning into local and provincial plans and processes, and tools and approaches for disaster risk reduction planning.

163. Many CSOs are also undergoing restructuring due to the changing political structure. Before the transition, CSOs often had national representation with district-level chapters. Many CSOs will now have to adapt to provincial level chapters, as well as increasing local level representation to match the new roles that local and provincial level governments have adopted. The project can support local and provincial CSOs to build capacities and improve coordination with local and provincial government authorities and other stakeholders.

164. While many CBOs have demonstrated their ability to responsibly manage natural resources, many are not aware of climate change threats and local-level vulnerability (critical ecosystems, differentiated vulnerabilities, risks). Capacity building and technical support is needed for CBOs to understand climate risks at the local level, as well as low carbon and climate-resilient land use management practices and DRR measures.

165. As mentioned in Section C.2, a range of barriers have limited the effectiveness of extension services in Nepal, and ultimately knowledge dissemination. The project will help overcome such barriers, and support enhanced capacity building to strengthen adaptive capacities and overall resilience.

⁴⁸IDS-Nepal, PAC and GCAP. 2014. Economic Impact Assessment of Climate Change in Key Sectors in Nepal. Kathmandu, Nepal: Integrated Development Society (IDS).

⁴⁹ Mearns and Norton 2010

⁵⁰ WB FIP Inception Workshop 2016



166. As identified in the Gender Assessment and GAP (Annex 5), targeted measures are needed to encourage the full engagement of women in knowledge platforms, especially at the local and provincial levels, and strengthen the capacities of women on SNRM, climate change and disaster risk reduction.

E.5. Country Ownership

Beneficiary country (ies) ownership of, and capacity to implement, a funded project or programme

E.5.1. Existence of a national climate strategy and coherence with existing plans and policies, including NAMAs, NAPAs and NAPs

167. The project is closely aligned with Nepal's NDC, and is congruent with existing plans and policies.

- a. The **Fourteenth Development Plan (2017)** of Nepal recognizes the role of forests in contributing to both climate change adaptation and mitigation efforts, and calls for the conservation, sustainable management and use of forests. It further notes the challenges faced by the Churia region and the risks posed to downstream communities due to unsustainable land use and the fragility of the ecosystem. It promotes the implementation of integrated conservation activities within river systems, with an emphasis on planning considering the interconnectedness of upstream and downstream natural resource management.
- b. **President Chure-Tarai Madhesh Conservation and Management Master Plan (2017)** provides strategic direction for conservation of the Churia area. It promotes the integrated management of upstream and downstream land use activities using an integrated landscape approach. It supports poverty reduction through the conservation and sustainable management of natural resources and ecosystem services.
- c. **The Climate Change Policy (2011)⁵¹** aims to improve livelihoods by mitigating climate change impacts, adopting a low-carbon development path and endeavours to reduce greenhouse gas emissions through clean energy and sustainable natural resource management.
- d. **Nepal's NDC(2016)**describes the impacts of climate change on a number of sectors to which the proposed GCF project is aligned, including: i) water resource management, particularly concerning reduced water availability as well as increased frequency of droughts and floods; ii) agriculture, both crops and livestock; iii) food security; and iv) renewable energy. The NDC also describes adaptation priorities with which the proposed project is closely aligned, including: i) climate-resilient sustainable land and forest management; ii) ecosystem rehabilitation and restoration; iii) strengthened community-based natural resources management; and iv) improved agricultural techniques.
- e. **The National Adaptation Programme of Action and draft National Adaptation Plan (2015)** identifies a number of priority actions for adaptation, including: i) sustainable land and forest management; ii) improved agricultural value chains; iii) restoration of degraded areas; iv)climate-related research, information and awareness generation; and v) disaster preparedness at provincial and local levels. Nepal will receive support from UN Environment to further advance the NAP process. This project will seek alignment with this process to the extent possible.
- f. **Forest Sector policy (2015)** replaces the former forest policy (2000) and envisions contributing to local and national development through sustainable management of forests, biodiversity and watersheds. It aims to improve the livelihoods of poor communities by increasing employment and income opportunities through conservation, management and utilization of forests and forestry resources.
- g. **Nepal's Forestry Sector Strategy (2016-2025)** aims to: support adaptive capacity of communities and forest ecosystems; develop and strengthen PES mechanisms; and promote biomass-based renewable energy. BRCRN contributes to the Strategy's goal of enhancing Nepal's forest carbon stock by at least 5% compared to 2015 level, and decrease mean annual deforestation rate from 0.18% to 0.05% in the Churia hills.
- h. **Nepal's Agriculture Development Strategy (2015-2035)**sets forth priorities to move towards a self-reliant, sustainable, competitive and inclusive agriculture sector that drives economic growth and contributes to improving livelihoods, food and nutrition security.

⁵¹ MoE 2011b



- i. **The Nepal Biodiversity Strategy and Action Plan (NBSAP) 2014-2020** aims to provide a strategic framework for the conservation of Nepal's biodiversity, contributing to sound and resilient ecosystems and national prosperity. Component1 directly contributes to NBSAP goals by supporting sustainable management and restoration of forest landscapes in the Churia region.
- j. **National REDD+ Strategy** (draft currently under the process of adoption) calls for the formulation of Policies and Measures (PAMs) that would achieve emission reductions in various sectors such as the energy, infrastructure and agriculture sectors. It supports the elaboration of action plans for REDD+ at the local level, and supports institutional strengthening to mainstream REDD+ into planning processes. The country has set a target to reduce GHG emissions from deforestation and forest degradation (including a sub-national project on REDD+ to reduce about 14 million tCO₂-eq by 2020)⁵².

168. Additional information on the congruence the BRCRN project and existing policies, strategies and plans in Nepal is provided in Annex 2 – Feasibility Study, Section 4.2 and Appendix C.

E.5.2. Capacity of accredited entities and executing entities to deliver

169. **FAO will serve as the project's Accredited Entity.** FAO is a specialized technical agency of the United Nations whose main goals are the eradication of hunger, food insecurity and malnutrition; the elimination of poverty and the driving forward of economic and social progress for all; and the sustainable management and utilization of natural resources, including forest, land, water, air, climate and genetic resources for the benefit of present and future generations. FAO has supported projects for climate adaptation and mitigation worldwide. A list of notable projects can be found in Annex 2 – Feasibility Study, Section 4.

170. FAO has a strong track record of providing technical assistance to the agriculture and forestry sector since its inception in Nepal in 1951. FAO is in the process of negotiating the country programming framework (CPF) with the Government of Nepal for the next five-year planning period. From 2013-2017 one of the four main priority areas of the country's CPF was natural resource conservation and utilization. FAO programs during this period have included diverse measures to enhance sustainable production and land use practices, including climate-resilient agriculture, sustainable forest and watershed management, improve institutional and technical capacities for climate change adaptation in the land use sector, and strengthen climate-resilient value chains, among others.

171. More information about how FAO will discharge its Accredited Entity functions is outlined in Section C.7.

172. **The Ministry of Forests and Environment (MoFE) will be the Executing Entity** for the project, and has substantial experience with the management of bilateral and multi-lateral funds for projects within the land use sector. MoFE is responsible for the conservation, development, use, and sustainable management of forests. The Ministry has supported the implementation of many large projects focusing on sustainable natural resource management in the Churia and Terai regions of Nepal. This is further described in Sections C.4 and C.7.

173. MoFE is well placed to play a central role in the delivery of BRCRN. To assess the capacity of MoFE to implement the BRCRN project, FAO contracted an independent assessment of the Ministry to gauge the level and types of risk inherent in such a role. This assessment, conducted from May-June 2018, found that this risk was low, based largely on MoFE's experience of managing and implementing the projects mentioned above. Arrangements between MoFE (as Executing Entity) and FAO (as Accredited Entity and co-Executing Entity) are further described in Section C.7.

174. FAO's comparative advantage as an international agency with a mandate for provision of technical advisory services in SNRM is acknowledged by both parties as an important element of the BRCRN project. The project's strong focus on technical advisory (TA) services and institutional capacity building, particularly during early stages, is therefore anticipated to involve FAO's assistance. To this end, in support of MoFE (as Executing Entity), dedicated resources will be incorporated into the project budget for provision of technical capacity development services, to be implemented by FAO. These resources and associated support will be delivered by an **FAO Technical Capacity Development team**, which will serve as a **co-Executing Entity** providing services to PMU

⁵²FCPF/MoFSC 2017



and PPMU in MoFE. More information about this team, and its role in the broader institutional and implementation arrangements for the BRCRN project, is available in Sections C.4 and C.7.

E.5.3. Engagement with NDAs, civil society organizations and other relevant stakeholders

Engagement with NDA

175. Ongoing communication with the NDA has been conducted since project conceptualization. Since May 2017, five bi-lateral meetings were organized with the NDA to discuss project development. In addition, concept note and proposal development were regularly informed by Technical Committee Meetings (TCM), consisting primarily of government representatives from across sectors, including the NDA/ MoF, to present updates on proposal development. TCMs served as an important platform to receive cross-sectoral feedback on the project concept and proposal. Non-governmental experts were also invited to participate in TCMs to provide feedback in line with their areas of expertise. These meetings reiterated the Government's commitment to scaling up climate-resilient land use in the Churia region of Nepal, and ensured a collaborative effort across line agencies to develop a cross-cutting multi-sectoral project. In total, 5 TCMs were held from June 2017 to May 2018. It further identified co-financing opportunities from government ministries, and discussed the project's exit strategy (further described in Section D.2). A more detailed description of the aforementioned meetings is included in Annex 4).
176. Thus, the proposal has been elaborated with ongoing coordination and support from the NDA, who has regularly provided insight into the process. With the submission of the Concept Note to the GCF in 2017, the NDA issued a letter of support. Upon the finalization of the draft funding proposal, the proposal underwent a 30-day internal review by MoFE and the NDA. A Letter of No-Objection by the NDA is provided in Annex 1.

Multi-stakeholder Engagement Plan and Consultations

177. In addition to regular communication with government authorities and the NDA, project development was informed by diverse stakeholder consultations. Throughout the process these stakeholders expressed their views, expectations, concerns and recommendations for the BRCRN project. Over 420 people have been consulted through various workshops at the national and district level, bi-lateral meetings with non-governmental organizations (at the national and local level), as well as local CBOs and communities in the project area.⁵³ The stakeholder consultation process ensured the participation of diverse stakeholders, including women, indigenous nationalities, Dalit people and other marginalized minority groups.
178. The BRCRN project aims to maintain regular stakeholder engagement throughout project implementation, ensuring the engagement of government authorities from national, provincial and local governments across sectors, CSOs (including women's organizations, indigenous people's federations and organizations, Dalit organizations, among others), CBOs, private sector actors, among others. A plan for continued stakeholder consultations during project implementation is provided in the ESMF (Annex 4), along with a detailed description of the stakeholder consultation process, meeting summaries and attendance sheets.
179. It should also be noted that many of the project activities have been piloted and included within the framework of other projects and initiatives, many of which have undergone extensive stakeholder consultation processes themselves. In particular, the proposal has received considerable support from the President's Churia Conservation Programme and Nepal's REDD+ Implementation Centre –two key institutions with mandates for multi-stakeholder engagement for a number of projects related to sustainable land and forest management, agricultural development and ecosystem management/restoration. These platforms already engage with government institutions, other donor agencies and development partners, NGOs/CSOs, among others. While new partnerships will be established as needed to broaden the scope of involvement of potential partners, the proposed project will continue to engage and build on the existing processes and platforms during implementation to ensure that these structures are strongly involved in guiding the planning and implementation of project objectives.

⁵³Meeting summaries can be found in Annex 3 of the ESMF.



E.6. Efficiency and Effectiveness

Economic and, if appropriate, financial soundness of the project/programme

E.6.1. Cost-effectiveness and efficiency

180. The total project costs are estimated at USD 47.34 million, comprised of a USD 39.3 million grant from the GCF and USD 8.04 million in national co-financing from MoFE. The project requests grant finance given that: Nepal is a low-income country and Least Developed Country; the project targets vulnerable regions, poor communities and predominantly (semi)-subsistence households; and uses grant financing primarily for barrier-addressing and non-revenue generating activities. Overall, the BRCRN project will directly benefit at least 200,681 households, which is equivalent to at least 963,268 people. This corresponds to a cost of about USD 49 per direct beneficiary. This is considered to be a competitive cost-per-beneficiary ratio, particularly when considering that many project activities are cross-cutting in nature, and thus total project costs – which were used to calculate this ratio – deliver both the aforementioned adaptation benefits as well as considerable mitigation benefits (which are described in more detailed in Section E.6.5).
181. The project also takes into account the differentiated needs, financial circumstances, and barriers to investment of the direct beneficiaries. For instance, measures supporting bio-gas will provide technical support for middle income households to access government subsidies, ensuring that private finance is not crowded out. Investments for commercial forestry will focus on creating an enabling environment to crowd-in private finance, whereas actual investments in woodlots for distant users will focus on public land forest users containing marginalized and poor households who are unable to cover the up-front costs of investing in such measures (a major barrier for these individuals). Such targeted approaches will ensure the project delivers support in a cost-effective and efficient manner. Such approaches are explained in further detail in Section C.3 and in the Feasibility Study.

E.6.2. Co-financing, leveraging and mobilized long-term investments (mitigation only)

182. MoFE will provide USD 8.04 million in co-financing for the implementation of the BRCRN project, which is equivalent to about 17% of the total project cost.
183. Project financing will leverage additional private investment during and after the project, mainly in form of the in-kind contributions of farmers and project participants to manage agricultural and forestry interventions. GCF financing will cover only the initial investment costs of transitioning to climate resilient agricultural and forestry models, while maintenance and management of the proposed models will be financed by the project participants.

E.6.3. Financial viability

184. The financial viability of the proposed project is presented in detail in Annex 2 – Feasibility Study and Annex 3 – Integrated Financial Model, as well as in Section F.1 of the Funding Proposal.
185. A **financial analysis** was carried out for the project-supported agriculture and forestry models. These were compared to a without project scenario to demonstrate the financial viability of the interventions. A summary is provided in Section F.1, which presents the net present values (NPV) for these models, discounted at a rate of 10% for the ‘with’ and ‘without’ project scenario. This analysis demonstrates that all proposed climate resilient models are financially more profitable compared to the without project scenario, thus justifying the investment from the land user’s perspective.
186. After 7 years, the **economic rate of return** for the project is negative in absolute terms (NPV at 10% discount rate: USD -11.73 million), while the incremental ERR (absolute project cash flows minus baseline project cash flows) is positive with an ERR of 97% (NPV at 10% discount -18.05 million). In the long-run, incremental benefits of the project far outweigh the costs, resulting in an incremental ERR of 114% (NPV: USD 78.53 million) after 10 years and ERR of 115% (NPV: USD 201.76 million) after 20 years.
187. In short, GCF grant financing will cover up-front costs of adopting climate-resilient models and practices promoted by the project – in part to incentivize this transition –and will build much-needed capacities to support adoption of these models and practices during (and after) the project, all of which will significantly increase benefits to the society after 10 years.



E.6.4. Application of best practices

188. All of the technologies and practices promoted within the framework of the BRCRN project are demonstrated approaches that have a clear proof of concept based on good practices. Component2 is largely built off of the process to develop district-level REDD+ Action Plans in Nepal, and processes for local engagement within the framework of REDD+. It further builds off of decades of lessons learned in supporting decentralized community-based natural resource management, including community-forests and collaborative forestry, among other initiatives.
189. For Activity 2.1.3, various pilot programs have been implemented that have supported communities to strengthen their resilience and adopt risk reduction measures. FAO has supported the Ministry of Agriculture, Land Management and Cooperatives in piloting disaster risk management plans at the district level including in Siraha and Udayapur Districts, where climate change adaptation and risk reduction are major components in the plans.
190. The promotion of biogas (within Activity 1.1.3) builds off of years of experience of the Alternative Energy Promotion Centre (AEPC) and MOEWRI in supporting the adoption and scaling up of biogas in rural communities.⁵⁴ The activity is designed based on AEPC guidelines and common practices applied.
191. The measures promoted in Component 1 have all been piloted in various regions of the Churia within the context of diverse development projects (Terai Arc Landscape Programme, Hariyo Ban Program), as well as through district-level governments, especially related to water management, forestry, agriculture and soil conservation. While a barrier in the past has been coordination between these institutions, there is a clear proof of concept for the investment and many communities have expressed interest in the proposed measures.
192. Related to gender, the project further promotes best practices and builds on the recommendations of various studies (e.g. promoting leadership skills and trainings, increasing the number of women extension staff, providing targeted trainings for women).⁵⁵ The gender assessment and GAP were presented and discussed in a workshop with practitioners from different organizations, including organizations representing indigenous and Dalit women, reflecting their own lessons learned and experiences, as well as best practices based on the project's context. For social inclusion and the full and effective engagement of indigenous peoples, Dalits, and other excluded groups, the project further builds on best practices piloted in various projects from the Government in the land use Sector (e.g. Hariyo Ban, FAO, GTZ Churia Project), and have been further discussed in stakeholder consultations, including with diverse organizations (e.g. NEFIN, DANAR, FEDO) who provided insight on lessons learned and best practices from their organizations. Specific examples are provided in the IPPF and Gender Action Plan.
193. Thus, it is evident that project will support the application of best practices. However despite so many successful experiences, a major barrier to scaling up these practices has been the lack of finance given the country's financial situation and endemic poverty, as well as the poor documentation and dissemination of best practices. The project will help to create an enabling environment to support the uptake of proven climate-resilient land use practices, and will further help fill information gaps and improve the consolidation of relevant information on climate-resilient land use planning and management, while also improving extension services and training and information dissemination. Annex 2 provides a detailed list per activity of key best practices and experiences for each activity.

⁵⁴ Bajgain and Shakya 2005

⁵⁵ E.g. Recommendations from: WWF's Hariyo Ban Project, World Bank and FAO Recommendations (WB and FAO 2018); CARE Nepal (including the SAKCHAM Project); Government of Nepal; World Bank's State and Peacebuilding Fund (SPF); HIMAWANTI consultations; FEDO consultations; RECOFTC 2015; REDD+ Consultations and Pilot Projects in Nepal, among others. Examples of practices include: disaggregated data and gender-responsive monitoring, GESI mainstreamed into policy, action plans and management plans as a crosscutting element, leadership training for men and women, targeted trainings for women, training of all project staff, extension staff and project partners on GESI to enable gender equality and social inclusion within the project, cooperation with women's organizations and NGOs, capacity enhancement on gender-based violence, promotion of female extension agents (including indigenous women, and Dalit women, among others), awareness raising for women's opportunities and rights within CBOs, and extension services tailored to female farmers, among others. See the GAP and IPPF for more detailed information.



E.6.5. Key efficiency and effectiveness indicators

GCF core indicators	Estimated cost per t CO ₂ eq, defined as total investment cost / expected lifetime emission reductions (mitigation only)
	(a) Total project financing US\$ 47.34 million
	(b) Requested GCF amount US\$39.3 million
	(c) Expected lifetime emission reductions overtime 11.48 million tCO ₂ eq
	(d) Estimated cost per tCO₂eq (d = a / c) US\$ 4.13/ tCO ₂ eq
	(e) Estimated GCF cost per tCO₂eq removed (e = b / c) US\$ 3.43/ tCO ₂ eq
Methodology used for calculating indicators:	
Cost (a) and (b): While both adaptation and mitigation measures are supported by the project many of the activities are cross-cutting in nature and thus it is challenging to break the budget down into mitigation and adaptation-exclusive activities. Thus, the total budget was used for the calculation, which will result in a conservative estimation of the costs per emission reductions overtime. In reality, the costs will likely be lower as not all funds will be used for mitigation activities.	
Expected lifetime emission reductions overtime (c) is the same figure presented in Section E.1.2. The methodology for its calculation is summarized in Section E.1.2, and explained in more detail in the Feasibility Study.	
Comparison with appropriate benchmarks:	
The cost per tCO ₂ eq for the overall project and for the GCF are very competitive. Many carbon projects/ programs, such as the Forest Carbon Partnership Facility's Carbon Fund, have set a price of US\$ 5 per tCO ₂ eq. Considering that the costs are a conservative calculation, including funding for both adaptation and mitigation activities, this represents a cost-effective approach to reducing GHG emissions.	
Expected volume of finance to be leveraged by the proposed project/programme and as a result of the Fund's financing, disaggregated by public and private sources (mitigation only)	
GCF grant will directly leverage USD 8.04 million in national co-financing from MoFE. Overall, the project will also leverage additional private investment during and after the project, mainly in form of the in-kind contributions of farmers and project participants to manage agricultural and forestry interventions. GCF financing will cover only the initial investment costs of transitioning to climate resilient agricultural and forestry models, while maintenance and management of the proposed models will be financed by the project participants.	
Other relevant indicators (e.g. estimated cost per co-benefit generated as a result of the project/programme)	

F.1. Economic and Financial Analysis

Economic Analysis

194. For the economic analysis, the Net Present Value (NPV) and Economic Rate of Return (ERR) are used as performance indicators. A discount rate of 10% was used, which reflects the opportunity cost of capital. This is the rate that is currently used by multilateral development agencies in Nepal for natural resource management projects.
195. A period of 7 years, 10 years and 20 years is used for the analysis. The 7-year period reflects the GCF project length. Considering that many investments will continue to generate benefits into the future, the 10-year and 20-year periods were also analysed to better capture the full benefits of the project.
196. The project is assessed from two perspectives: One that integrates the social value of carbon (global perspective) and one that excludes it (domestic perspective). A social carbon price of USD 40 / tCO₂ was used. This is based on the World Bank guidance note on the shadow price of carbon in economic analysis.⁵⁶
197. Incremental costs and benefits are quantified as a result of comparing the 'with' and 'without' project scenarios. The project economic costs and benefits include all investment and production costs as estimated in the financial analysis (see below). The costs were converted to economic cost using the standard conversion factor of 1 for production models. In addition, non-land-based investment cost requested from GCF and government co-financing is integrated in the economic analysis.
198. The project will directly support interventions on 60,965 ha of agricultural land, 202,237 of forest land, and create about 7,300 ha of new (agro)-forests. The water and soil conservation infrastructure investment will target about 130 villages / settlements, which is equivalent to at least 21,300 ha of agricultural land. Biogas is expected to be adopted by at least 500 households as a result of support from the project. The economic analysis uses an average adoption rate of 80%. At this adoption rate, the project is estimated to deliver mitigation benefits of 574,180 tCO₂eq/year, which is equivalent to about 11.48 million tCO₂eq over the 20-year lifetime of the project.
199. In the 'with' and 'without' project scenarios, climate risks due to extreme events and slow onset impacts are taken into account. The project is expected to reduce climate change related economic losses in the target area by at least 50% compared to the without project scenario.
200. **Benefits that are excluded:** Additional economic benefits are likely to be generated as a result of the project, including due to interventions that strengthen the capacities of government and other stakeholders to respond to climate change risks and manage natural resources in (and beyond) the project area. Further benefits may occur due to the 'demonstration effect', through which the project's support for land-use practices may prompt additional communities/households to adopt similar practices beyond the scope of the project. None of these potential benefits were factored into the economic analysis. In addition, the project will generate considerable non-marketable ecosystem services such as biodiversity protection that are excluded from the analysis due to the lack of robust monetary values for these non-market services. The results of the economic analysis (below) are therefore considered to be conservative.

Results of economic analysis

201. From the perspective of the Government of Nepal (i.e. without social value of carbon), the economic analysis demonstrates that the project is profitable over its 20-year lifetime, with an NPV of USD 40.9 million and an ERR of 20%. The project is considerably more profitable from a global perspective, resulting in a positive NPV of USD 18.1 million after just 7 years (ERR: 97%) and USD 201.8 million after 20 years (ERR: 115%). This clearly justifies the GCF investment into the project from an economic point of view.

⁵⁶ It suggests to use price ranges between USD 40 – 80 /tCO₂ for the year 2020. To be conservative the lower carbon price was used in the economic analysis for the BRCRN project.

Table 9. Results of the economic analysis with and without GHG emission reduction

	Governmental perspective without social value of carbon		Global perspective with a social value of carbon (USD 40/tCO2eq)	
	NPV (USD)	ERR	NPV (USD)	ERR
7 years	-39,649,794	Not quantifiable	18,052,633	97%
10 years	-16,211,670	-2%	78,531,090	114%
20 years	40,905,003	20%	201,763,711	115%

202. A sensitivity analysis was also developed to assess how robust the economic benefits of the project would be to key changes. The results of the sensitivity analysis are summarized in Table 10 (below), and clearly demonstrate that the project would deliver strong economic benefits even if: costs were to increase; revenues were to decrease; the social value of carbon were calculated differently; and the adoption rate were to decline.

Table 10. Results of the sensitivity analysis

Sensitivity analysis	Change factor	NPV (USD) 10 years	NPV (USD) 20 years	ERR 10 years	ERR 20 years
Base case		78,531,090	201,763,711	114%	115%
Cost increases	10%	58,755,773	168,890,798	77%	81%
	20%	38,980,455	136,017,886	48%	57%
	30%	19,205,138	103,144,974	27%	40%
Revenues reduction in project scenario	-10%	51,380,097	150,628,103	72%	77%
	-20%	24,229,104	99,492,496	36%	48%
	-30%	-2,921,889	48,356,888	7%	27%
Social value of carbon (USD/tCO2)	60	125,902,470	282,193,064	220%	220%
	50	102,216,780	241,978,388	167%	168%
	30	54,845,400	161,549,034	69%	74%
Adoption rate compared to base case (80%)	110%	88,403,878	222,831,487	130%	131%
	90%	68,658,302	180,695,934	98%	100%
	80%	58,785,515	159,628,157	83%	86%

Financial Analysis

203. Financial analysis was used to: evaluate the financial viability of the climate resilient investment and interventions promoted by the project from a land user perspective; assess the incremental costs and revenues resulting from project interventions; and provide a basis for the economic analysis of the project. This involved performing a Cost-benefit analysis (CBA) for the 'with' and 'without' project scenarios. For each land use category, costs, yields, revenues and cash flows were compiled on a per hectare basis. The models used for the analysis are briefly summarized in Table 14 below.

Table 11. Intervention models considered in financial analysis

Churia		Terai	
Baseline	Project scenario	Baseline	Project scenario
Agricultural land			
1.Mixed agricultural farming (maize and vegetables)	1.Transition to climate resilient mixed farming system (maize and vegetables)	1.Mixed agricultural farming (maize and vegetables)	1.Transition to climate resilient mixed farming system (maize and vegetables)
	2.Transition to horticulture systems (e.g. mango production)		2.Soil conservation measures, ponds and irrigation infrastructure rehabilitation
	3.Soil conservation measures, ponds and irrigation infrastructure rehabilitation		
2.Agricultural land loss due to erosion and reduction of agricultural land	4.Gully stabilization	2.Agricultural land loss due to erosion and reduction of agricultural land	3.Gully stabilization
Forest land			
1.Unsustainable management of natural forests under degradation	1. Natural Forest Management and enrichment planting with native tree species	1. Non-forest land along river banks subject to erosion and land loss	1.Protection forest establishment (e.g. bamboo)
			2. Commercial forest plantations (Teak)
Non-land interventions			
Unsustainable extraction of fuelwood	Adoption of small-scale biogas plans at household level	-	-

204. The analysis considers only the land-based cost and revenues from a land user perspective. The broader investment package for each land use will include e.g. improved extension and training and benefit from improved institutions. These are assessed as part of the economic analysis and not integrated in the financial analysis.
205. The financial analysis of the project is based on prices, costs and yields collected during project preparation, and a review of published literature on Nepalese forestry and agriculture. The prices of farm products used in the analysis are farm gate prices. The results of the financial analysis are summarized in the table below.

Table 12. Net Present Values of production models with and without the BRCRN Project

	Churia		Terai	
	Without project	With project	Without project	With project
	NPV (USD/ha)		NPV (USD/ha)	
Agriculture (10 years)				
Climate resilient farming practices	-576	735	301	2,002
Horticulture management practices	-576	687		
Forestry (20 years)				
Sustainable Natural Forest Management with enrichment planting with native tree species	233	257		
Sustainable natural forest management model - commercial utilization (per ha)	233	412		
Conservation of natural forests (only NTFP use) (per ha)	233	159		
Protection forest establishment - Bamboo on riverbanks			0	883
Commercial forest plantation (Teak)			0	1,674
Infrastructure - Soil and water conservation (10 years)				
Rehabilitation of ponds and small-scale irrigation infrastructure	-576	906	301	2,065
Gully stabilization	-576	173	301	1,440
Non-land based investment				
Biogas promotion and investment (per household)	-843	217		

206. The analysis demonstrates that all project scenario models are profitable from a farmer /land user perspective ranging between USD 159 /ha and USD 2,506 /ha. However, in order to achieve this profitability, GCF investments are required, as the increased revenue streams will occur a few years after the initial investment – up-front costs that the poor and vulnerable smallholders targeted by the BRCRN project cannot incur on their own.
207. A more detailed overview of the economic and financial analysis done for this project is included in Annex 2 – *Feasibility Study* Section 6.2, and in Annex 3 – *Integrated Financial Model* (specifically document 3.1 – *Financial and Economic Analysis*).

F.2. Technical Evaluation

208. The project has been designed building on the longstanding experience of FAO Nepal, MoFE, MoALMC, MOEWRI and MoHA, among other key actors, on topics related to climate change adaptation and mitigation. A summary of the technical evaluation considerations is included here below. Detailed technical specifications for project-supported practices, approaches and structures are included in Annex 2 – Feasibility Study, Appendix A, specifically:
- a) Climate-resilient agriculture (nutrient management, soil and water conservation, agronomic practices, tillage and residue management, agroforestry) in Appendix A.1.
 - b) Ecosystem restoration (soil and water conservation/bio-engineering, restoration and rehabilitation of degraded forest ecosystems, sustainable management of forest resources) in Appendix A.2.
 - c) Tree planting on private and public lands (fruit orchards/horticulture, smallholder woodlots, contour free/boundary planting, fodder banks, commercial tree plantations, protective plantations, nursery and seed management) in Appendix A.3.
209. Various proven technologies and best practices will be promoted within the context of the BRCRN project. Interventions will be based on climate-resilient land use planning focusing on integrated holistic management identifying key intervention areas and mapping best practices at the local level, as well as local-level workshops and participatory land use planning with CBOs to support them to integrate climate-resilient land use into their management strategies and ensure that proposed measures are suitable based on the environmental, cultural and socio-economic context at the local level.
210. The approach applied within Component 2 builds off of government experiences, especially from REDD+ ER-PD and DRAP development, in combining top-down and bottom-up planning, while also addressing existing capacity gaps identified as barriers for the adoption and scaling up of climate-resilient practices. Component 2 Activities will strengthen government capacities while supporting operational planning for project implementation, while also building on the results from this planning to strengthen capacities and promote participatory land use planning based on local contexts and priorities aligned with CERPs. This approach will ensure that integrated planning at the river system level is adopted, while providing flexibility and engaging local CBOs to build their adaptive capacities and support them to plan and implement climate-resilient land use tailored to their priorities and differentiated vulnerabilities.
211. Given the new roles of newly formed institutions, CERPs and other local-level plans are important to raise awareness of climate change risks and resilient land use practices and to build capacities on such planning processes. CERPs will further engage local governments and promote integrated land use planning, and will be developed with support from experts on topics ranging from integrated watershed management, biodiversity, agriculture, forestry and GESI.
212. Technologies promoted under Component 1 (described in Section C.3 and E.6.4) have been selected due to their relevance and effectiveness for climate change adaptation and mitigation based on the context of the project area. Technologies and best practices promoted through these measures are all demonstrated measures with a clear proof of concept, where the project will build on experiences and lessons learned from piloted projects in Nepal as

well as international best practices. A detailed assessment of these measures is available within the feasibility study.

- 213. Measures related to extension services have been designed in close consideration of key barriers facing extension services (e.g. youth engagement, lack of information on climate change, weak capacities, among others further described in Annex 2).
- 214. Insufficient investments in ITC have been identified as a barrier for monitoring the impacts of climate change, but also for disseminating knowledge and improving information materials.⁵⁷ Within extension services, such investments have the potential to provide up-to-date information to local resource persons, farmers and government officials and improve communication and coordination. To support the longevity of this measure, it will be delivered through MoITFE – who will receive regular trainings on the system and its management.
- 215. Before the government transition, some pilot districts elaborated DRR plans at the district level. Such processes and the resulting plans, including efforts from FAO to implement planning processes in Udayapur among others, were successful in providing increased attention to DRR and providing orientation to support disaster preparedness and risk reduction processes. Districts no longer exist under the current government structure, and thus the project aims to build on these experiences and develop risk management plans at the Provincial level for provinces 1-3.

F.3. Environmental, Social Assessment, including Gender Considerations

- 216. The FAO Project Environmental and Social Screening Checklist was prepared (ESMF - Annex 4), and the project was identified as a Category B (*moderate risk*).

Environmental Impacts and Risks

- 217. While the project is expected to generate primarily positive environmental impacts, there are some potential short-term and site-specific environmental impacts that could arise from project implementation. Small-scale environmental degradation could occur due to the construction of small-scale infrastructure including check dams, stone walls, contour bunds, and conservation ponds (e.g. removing the dirt from conservation ponds could result in increased erosion or runoff into local waterways). Impacts will be mitigated through the preparation of a management plan for the proposed activities that will be prepared together with local government technicians from the Department of Soil Conservation. Before construction can occur, plans will need to be reviewed and approved. These plans will take into account seasonal-restrictions and conditions, as well as measures to limit the environmental impact. Construction activities will be undertaken during the dry season in order to reduce erosion and sedimentation into rivers and bodies of water.
- 218. One protected area's buffer zone slightly overlaps with one of the 26 BRCRN prioritized river systems (Adherei Khola, Baruwa Khola and Duar Khola River System): the Koshi Tappu Wildlife Reserve. 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.⁵⁸ While no direct project interventions are planned for the core-intervention area, a Biodiversity Management Framework has been developed to ensure the project causes no harm and promotes positive environmental impacts within and around the reserve (Annex 4).
- 219. The project will also support the establishment of forest plantations and agroforestry systems on degraded lands (that are not used for agricultural purposes and that do not require deforestation). The project will ensure that relevant national regulations, such as the country's Forest Policy (2015), as well as operational guidelines for community-forest users groups. Both native and non-native species will be promoted for woodlots and commercial plantations, however non-native species will only be promoted when they are locally adapted species with a long-

⁵⁷ Dhital 2017

⁵⁸<https://www.nepjol.info/index.php/INIT/article/view/2513>

history of implementation in the region, taking into account the principle of site-species matching.⁵⁹ Only native species will be used for ecosystem restoration and rehabilitation in critical ecosystems. Additional information on risk avoidance and mitigation measures can be found within the BRCRN project's ESMF (Annex 4).

Social Impacts and Risks

220. As with environmental impacts, majority of the project's impacts are expected to be largely positive and enhance the resilience of local communities. Nonetheless, it is possible that site-specific short-term negative impacts could occur. The project could lead to conflicts between community members who disagree on land use planning processes. 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 free graze in forests). Participation in the BRCRN project is voluntary, and communities' participation will be based on the principle of FPIC. The project provides a flexible approach for communities to integrate climate-resilient land use practices into their local management plans, where communities can decide, based on their specific operational protocols and decision making processes, what practices are appropriate based on their context. Part of the process in Component 1 will also ensure that in instances where certain land uses are restricted that there is clear consultation with disadvantaged households and a plan to address potential limitations for these households.
221. Indigenous peoples and marginalized minority groups, including Dalits among others, often experience discrimination and may face additional barriers to their participation and engagement that could limit their engagement within the project. The project has been designed with extensive consultations from diverse stakeholders, and targeted measures to strengthen social inclusion have been mainstreamed as cross-cutting elements throughout the project proposal. Representatives from indigenous federations, Dalit organizations and other organizations representing marginalized groups will be invited to participate in multi-stakeholder bodies within the project management structure, to enhance coordination, collaboration and ongoing communication during project implementation.
222. Within the BRCRN project area, 31% of inhabitants are indigenous peoples. An Indigenous Peoples 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. 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 FPIC. The project will generate numerous additional benefits to indigenous peoples, and has been designed to take into account the different contexts and vulnerabilities of indigenous peoples living in the project area.

Gender Equality

223. At least 50% of project beneficiaries will be women, with proportional representation of indigenous peoples, Dalits and other marginalized groups. All members of project management structures will undergo trainings on GESI in the context of the BRCRN project, ensuring that all staff are aware of potential barriers, differentiated vulnerabilities and opportunities within the project to empower and engage these groups of beneficiaries. Trainers and local resource persons supporting the project will include diverse people, including women, indigenous peoples and other marginalized groups, including Dalits.
224. The project will build off of best-practice approaches piloted in the Churia and Terai Regions to strengthen gender equality. Diverse consultations have been conducted with women's organizations, including organizations representing indigenous women and Dalit women, among others, as well as local community members and local-level gender focus groups. Based on these consultations as well as best-practice approaches, strategies for supporting gender equality and empowerment within the framework of the BRCRN project were devised and integrated into the GAP (including project-wide measures and activity-specific considerations).

⁵⁹ Species-site matching: selecting tree species so as to align their particular growth requirements (e.g. nutrients; water; climate / altitude) with the given parameters at any one site. The selection of site-compatible species – irrespective of their provenance – is the prime option of choice.

Grievance Redress Mechanism

225. A grievance redress mechanism for the BRCRN project has been developed to ensure that complaints are adequately addressed in an effective and timely manner. Anyone who has a complaint or who is negatively impacted by the project is able to communicate their complaints or problems thorough the official mechanism (described in greater detail within the ESMF - Annex 4).

F.4. Financial Management and Procurement

226. As the Accredited Entity for the BRCRN project, FAO will ensure that financial management and procurement of goods and services using GCF resources will adhere to international standards and good practices. This includes financial management and procurement performed by MoFE (as Executing Entity). An FAO-commissioned micro-assessment of MoFE in June 2018 (which included an assessment of MoFE's financial management and procurement policies and practices) identified the ministry as a "low-risk" partner in this respect. This includes a low-risk rating specifically for procurement actions to be undertaken by MoFE, which are done in line with the prevailing Public Procurement Law of the Government of Nepal. To enable effective performance of financial management and procurement functions by the Executing Entity, the project will also hire: (i) a finance officer, procurement officer and administrative officer to work in the PMU throughout the duration of the project; and (ii) provincial administrative/finance officers in each of the PPMUs.
227. The FAO Technical Capacity Development Team (as co- Executing Entity) will perform a range of supervisory and support functions in relation to financial management and procurement performed by MoFE. These are geared toward (inter alia) ensuring all procurement is done in line with agreed standards and practices, and to minimize procurement-related risk. In addition, the FAO Technical Capacity Development Team will directly manage a small proportion of the project budget to deliver Technical Assistance and other such services to the project. Financial management and procurement performed by this team will be guided by relevant FAO rules and regulations, as well as relevant provisions in the Accreditation Master Agreement (AMA) signed by FAO and the GCF. These rules and regulations were reviewed and deemed satisfactory by the GCF Secretariat and Accreditation Panel as part of FAO's accreditation to the GCF.
228. FAO has deployed an Oracle based Enterprise Resource Planning (ERP) system entitled the 'Global Resources Management System' (GRMS). This system provides all FAO employees around the world with travel, human resources, procurement and finance functionalities. Using GRMS improves the flow of financial information, supports financial monitoring and reporting, increases transparency and visibility, and strengthens internal control. FAO maintains a Chart of Accounts which is used by the whole Organization and that allows for a separation of income and expenditure by donor and project and it provides a standardised coding structure that enables data to be recorded, classified and summarised to facilitate internal management and external reporting requirements.
229. Direct procurement by FAO is done in accordance with its Manual Section on "Procurement of Goods, Works and Services". To sub-contract the delivery of specific activities using Letters of Agreement, FAO operates in accordance with a specific Manual Section on "Letters of Agreement". Such services are managed under the FAO Procurement Service, which provides policy and operational support to FAO offices and staff undertaking these activities to ensure the Organization procures goods, works and services based on "Best Value for Money" principles. To sub-contract delivery for agreed results, FAO operates in accordance with its policy that governs the indirect implementation of FAO-led projects and programmes.
230. Financial management and procurement by MoFE (as Executing Entity) will also be overseen and supervised by the FAO-GCF project supervision team. As per the provisions of the FAO Operational Partners Implementation Modality (OPIM), the FAO-GCF project supervision team will undertake regular supervision missions, and will recruit a qualified, internationally recognized auditing firm to perform regular spot checks and audits, to ensure financial management and procurement by the PMU and PPMUs are being performed in line with agreed standards and practices. This will be governed by the agreement to be signed between FAO and the Government of Nepal before the project becomes operational.

G.1. Risk Assessment Summary

231. Risk factors associated with the implementation of the BRCRN project include technical, institutional and operational risks. Prominent risks that may compromise the success of the BRCRN project include:

- a) The risk that government and non-government entities involved in the project may be unable/unwilling to coordinate and collaborate, which is essential to the success of the project and its efforts to promote a landscape and ecosystem-based approach.
- b) Weak enforcement capacity among key entities, and path dependency among communities, that may make it difficult to sustainably achieve changes in land-use patterns and decision-making.
- c) Institutional risks associated with the ongoing political transition in Nepal, which may complicate project implementation if the government decides to further adjust the specific distribution of mandates, roles and/or responsibilities.

232. These risks, as well as the project's risk mitigation strategies, are briefly presented below.

G.2. Risk Factors and Mitigation Measures

Selected Risk Factor 1

Description	Risk category	Level of impact	Probability of risk occurring
Insufficient coordination and collaboration among government institutions and community-based natural resource management committees.	Technical and operational	Low (<5% of project value)	Medium

Mitigation Measure(s)

Risk mitigation will focus on: (i) sensitization and awareness raising of the importance of strong collaboration; (ii) alignment with government policies; (iii) drawing on existing examples of inter-sectoral collaboration in the delivery of similar projects (e.g. REDD+); iv) involving key stakeholders from the beginning through diverse consultations⁶⁰ with clear roles and responsibilities for all, including representation on project management structures such as the PSC and PCU; (iv) ensuring transparency in decision making, (v) organizing trainings to build capacities and develop joint sense of purpose; and (vi) maintaining effective communication channels. A results-based project framework based on shared resources will further catalyze effective coordination as these institutions will be fully aware of the importance of the project in contributing towards their own respective development agendas and providing co-benefits.

Selected Risk Factor 2

Description	Risk category	Level of impact	Probability of risk occurring
Weak enforcement capacity that may make it challenging to change the status quo of illegal or unsustainable natural resource use.	Technical and operational	Low (<5% of project value)	Medium

Mitigation Measure(s)

Incentives for local communities to engage in better resource management will act as a motivator for the adoption of sustainable legal practices and improved enforcement. CBOs, as well as local and provincial government staff will be trained to understand threats from climate change and suitable climate-resilient land use practices to improve resilience. Targeted approaches will be applied that take into account the differentiated contexts, needs and vulnerabilities of local people. Furthermore, the project is closely aligned with key policies of Nepal, and have strong synergies with the FIP and proposed ER-PD program that aim to reduce deforestation and unsustainable land use.

Selected Risk Factor 3

⁶⁰Additional information available in ESMF (Annex E)

Description	Risk category	Level of impact	Probability of risk occurring
Turnover of key project personnel, implementing agencies, provincial and local governments.	Technical and operational	Low (<5% of project value)	Medium
Mitigation Measure(s)			
While some personnel turnover is expected to occur, the negative impacts on project implementation will be mitigated through various measures. Project operational handbooks will be developed to provide project staff a standard training on project activities. Project standard processes for project implementation, management and reporting will ensure clear processes and mechanisms are in place for knowledge transfer. PPMUs will further ensure close coordination with provincial and local governments. The development of provincial strategies and CERPs will further help to ensure the medium- to long-term orientation to support the implementation of the BRCRN project. The presence of FAO's office in Nepal will further help to ensure continuous coordination.			
Selected Risk Factor 3			
Description	Risk category	Level of impact	Probability of risk occurring
Potential climate change impacts may prevent the expected positive environmental outcomes, even if the project is successful in encouraging local communities to mainstream and implement climate-resilient SNRM and DRR.	Technical and operational	Low (<5% of project value)	Low
Mitigation Measure(s)			
Implemented activities will take into account the risk of extreme weather events and climate risks into their design. Environmental and social management plans will be developed for Component 1 Activities during the second year of project implementation that will identify protocols for risk management, monitoring and maintenance. Seasonal risks will also be taken into account in local-level activity planning and implementation. Detailed information on activity-specific risks and mitigation measures is provided within the ESMF (Annex 4). The introduction of resilient practices over a large contiguous area, alongside complementary efforts funded by other donors, will help mitigate risks that climate change is likely to cause.			
Selected Risk Factor 4			
Description	Risk category	Level of impact	Probability of risk occurring
Women, indigenous peoples, Dalits and other marginalized groups do not participate in project activities.	Social and environmental	Low (<5% of project value)	Medium
Mitigation Measure(s)			
Diverse stakeholders have been consulted for the elaboration of the project funding proposal, including women, indigenous peoples, Dalits and other marginalized groups. Based on these consultations, recommendations to strengthen the engagement of these groups have been mainstreamed across activities and components. A GESI-responsive M&E framework will ensure regular monitoring is conducted, and adjustments are made as necessary to strengthen GESI within the project context. The project will draw on existing protocols to ensure that regulations and best practices are followed on all times to ensure full participation of such marginalized groups in planning, decision-making and implementation of project activities. All members of the project management bodies will undergo GESI trainings. The GAP and IPPF will further contribute to the effective and sustained engagement of these key stakeholders in project implementation. Trainers hired will include women, indigenous peoples and Dalits, among others. Representatives from women's groups, indigenous federations and Dalit organizations, among other organizations representing marginalized groups, will be invited to participate on the PCU in each Province. Close cooperation will be sought with such organizations.			

Selected Risk Factor 5			
Description	Risk category	Level of impact	Probability of risk occurring
Site-specific environmental impacts due to the construction of small-scale rural infrastructure (retention ponds, check dams, etc.)	Social and environmental	Low (<5% of project value)	Medium
Mitigation Measure(s)			
Small-scale site-specific impacts could arise due to the project's activities. Environmental and Social Management Plans will be developed for Component 1 Activities to address and manage potential site-specific impacts. Annual reporting on the maintenance and monitoring of these measures will be done local authorities, and reported to the PMU safeguards officer. Activity-specific mitigation measures to are described in further detail within the ESMF.			
Selected Risk Factor 6			
Description	Risk category	Level of impact	Probability of risk occurring
Conflicts within CBOs about land use decisions, including decisions that could have disproportionate impacts on some community members, especially poor households and marginalized groups	Technical and operational	Low (<5% of project value)	Low
Mitigation Measure(s)			
<p>Local level land use planning based on participatory local-level planning processes based on consultations with members of local CBOs/users groups, promoting proportional representation 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. Decision-making processes will be based off of the organization/ user group's operational guidelines and protocols. GESI considerations and pro-poor measures have been integrated operational guidelines and laws, which will help ensure the integration and participation of diverse men and women, including indigenous peoples, Dalits and other marginalized persons.</p> <p>Trainers and project management will be trained in GESI. Awareness raising and capacity building on climate-resilient land use planning and SNRM, based on piloted good practices, will ensure local CBOs are aware of climate risks and risk-reduction measures, such as climate resilient SNRM. Investments in climate-resilient land use will target highly vulnerable ecosystems and households, taking into account differentiated needs and vulnerabilities. In the case where any household/ person feels discriminated against or has concerns related to the project, they are able to access the project's grievance redress mechanism (described greater detail within Annex 4).</p>			
Selected Risk Factor 7			
Description	Risk category	Level of impact	Probability of risk occurring
Long-term sustainability of investments	Technical and operational	Low (<5% of project value)	Low
Mitigation Measure(s)			
<p>Investments in long-term land use practices (e.g. forestry) or soil and water conservation measures may require future investments to maintain investments. For all investments that will require ongoing maintenance costs, such costs will be clearly communicated prior to activity implementation. Operational management plans will be developed for all CBOs 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. An emphasis on capacity building and trainings will further build capacities for appropriate management and maintenance.</p>			
Selected Risk Factor 8			
Description	Risk category	Level of impact	Probability of risk occurring

Government transition could lead to delays or adjustments in anticipated government structures.	Technical and operational	Low (<5% of project value)	Medium
Mitigation Measure(s)			
The Government of Nepal is currently undergoing a transition from a constitutional monarchy to a federal democratic republic. While the Constitution and Local Government Operation Act (2017) both provide detailed information on the roles, responsibilities and coordination mechanisms, in practice capacities and institutions are still being built and established. This is seen as a low-risk since the project was closely developed with a cross-sectoral committee from various ministries and departments, whom are highly aware and engaged in the transition process. Nonetheless, there may need to be additional fine-tuning upon project approval to ensure that institutional structures proposed for the project are still appropriate during the project inception phase. The PSC will further support close communication with government officials to address potential delays or adjustments.			
Selected Risk Factor 8			
Description	Risk category	Level of impact	Probability of risk occurring
Large volume of procurement to be managed by MoFE could result in compliance risks associated with financial management (e.g. AML/CFT).	Financial	Medium (5.1-20% of project value)	Medium
Mitigation Measure(s)			
The Ministry of Forests and Environment (MoFE) will manage a large volume of contracts and procurement under the proposed GCF project. MoFE policies, practices and track record on financial management and procurement were reviewed by a qualified audit and accounting firm during project design and deemed (by the firm and FAO_) to be satisfactory to ensure compliance with international standards. The FAO Technical Capacity Development Team will further mitigate the above-mentioned risks by working closely with MoFE to deliver activities under the proposed project, and by recruiting a procurement advisor/support expert to directly support MoFE with its procurement actions to ensure international standards are adhered to. In addition, the FAO-GCF project supervision team will recruit a qualified audit/accounting firm to perform regular audits and spot checks to further reinforce compliance with international standards.			
Other Potential Risks in the Horizon			

H.1. Logic Framework.

H.1.1. Paradigm Shift Objectives and Impacts at the Fund level						
Paradigm shift objectives						
Expected Result	Indicator	Means of Verification (MoV)	Baseline	Target		Assumptions
				Mid-term (end of PY4)	Final (end of PY7)	
Fund-level impacts						
GCF core indicator (Mitigation)	Tonnes of carbon dioxide equivalent (tCO ₂ eq) reduced or avoided as a result of Fund-funded projects/programmes.	Forest Reference Emission Levels Project reports	0	743,764 tCO ₂ eq	2,366,485 tCO ₂ eq (after 7 years)	The mid-term target is an estimate only, and is based on the expected reach and benefits of the relevant project activities by the end of PY4. CBOs adopt climate-resilient land use practices (assuming the adoption rate that is specified in Section F.1). Other assumptions are described in detail in Section E.1 as well as in Annex 2 – Feasibility Study. Avoided deforested and degraded land within 20 years 27,357 ha Baseline emissions of 7,149,259 tCO ₂ over 20 years from projected deforestation.
	Cost per tCO ₂ eq decreased for Fund-funded mitigation projects/programmes.	Forest Reference Emission Levels Project reports Maps/remote sensing	0	USD 18.06 per tCO ₂ eq	USD 17.33 per tCO ₂ eq	Costs used for calculations are GCF grant financing only. The mid-term target is an estimate only, and is based on the expected reach and benefits of the relevant project activities by the end of PY4, as well as the total GCF grant financing expected to be committed by the end of PY4.

GCF core indicator (Adaptation)	Total number of direct and indirect beneficiaries (gender disaggregated)	Baseline and completion surveys Project Reports Training logs/attendance sheets National Population and Housing Census (est. 2021)	<u>Direct:</u> 0 men 0 women 0 total beneficiaries	<u>Direct:</u> 115,584 men 115,584 women 231,168 total beneficiaries [equivalent to 48,160 households]	<u>Direct:</u> 481,634 men 481,634 women 963,268 total beneficiaries [equivalent to 200,681 households]	Surveys to be implemented at start-up and completion. Surveys will collect data to (inter alia) assess household resilience at baseline and completion. The surveys will be administered by an independent firm to be contracted by FAO (as co-EE). CBOs adopt climate-resilient land use practices. Consultations, according to FPIC principles, conducted with all beneficiaries prior to implementation of investments. The mid-term target for direct beneficiaries is an estimate based on the number of CBOs and households that are expected to be reached through field-level support by the end of PY4, multiplied by the average number of people (4.8) living in each household in the 26 river systems that comprise the project area.
	Number of beneficiaries relative to total population		<u>Direct:</u> 0% of the population of the project area	<u>Direct:</u> 7% of the population of the project area	<u>Direct:</u> 30% of the population of the project area	These figures are presented as percentages of the total population of the project area, which comprises 26 vulnerable river systems. These river systems had a combined population of about 3.2 million people in 2011 – the most recent year for which census data is available.
A4.0 Improved resilience of ecosystems and ecosystem services	A4.1 Coverage/scale of ecosystems protected and strengthened in response to climate variability and change.	Project reports Training logs Land use and land cover assessment using FAO Open Foris	0	About 12,189 ha of climate-resilient agricultural practices implemented About 45,848 ha of forest ecosystems	About 48,772 ha of climate-resilient agricultural practices implemented 148,998 ha of forest ecosystems	The mid-term target is an estimate only, and is based on the expected reach and benefits of the relevant project activities by the end of PY4. Baseline forest cover across the 26 targeted river systems is about 226,850 ha (2015).

⁶¹The project expects to have supported some direct and indirect beneficiaries to adopt climate-resilient SNRM practices by mid-term, but this will not be measured. This is because the number of people benefiting from the adoption of such practices is considered to be meaningfully measured through a household survey, which in the interest of efficient use of resources will not be commissioned at mid-term because project activities that will directly produce the beneficiary benefits begin in PY3 and reach scale in PY5, and thus a mid-term household survey would not provide an accurate indication of project progress.

⁶²Ibid.

		Collect Earth toolkit Ground-truthing exercises by project staff.		sustainably managed About 4,000 ha community-managed natural forests restored through assisted regeneration 0 ha of new planted forests established	sustainably managed About 12,792 ha community managed natural forests restored by assisted regeneration About 5,840 ha new planted forests established	CBOs adopt climate-resilient land use practices (assuming the adoption rate that is specified in Section F.1) Consultations, according to FPIC principles, conducted with all beneficiaries prior to implementation of investments Some measures may overlap in terms of area, as some hectares of land may benefit from two of the three forms of support listed in the previous column. For this reason, the targets are listed in terms of the total geographic reach of each type of support (figures within which there is no potential for overlap) rather than an overall aggregated figure. Investments for public land forest user groups depend on formalization of public land forest user groups at the local level.
<i>M4.0 Reduced emissions from land use, reforestation, reduced deforestation, and through sustainable forest management and conservation and enhancement of forest carbon stocks</i>	<i>M4.1 Tonnes of carbon dioxide equivalent (tCO₂eq) reduced or avoided (including increased removals) as a result of Fund-funded projects/programmes.</i>	Forest Reference Emission Levels Project reports Maps/remote sensing	0	743,764 tCO ₂ eq 2,366,485 tCO ₂ eq (after 7 years)	The mid-term target is an estimate only, and is based on the expected reach and benefits of the relevant project activities by the end of PY4. CBOs adopt climate-resilient land use practices (assuming the adoption rate that is specified in Section F.1), and also reduce the extent to which they degrade and encroach on forests and other ecosystems within the project area. Other assumptions are described in detail in Section E.1 as well as in Annex 2 – Feasibility Study. Avoided deforested and degraded land within 20 years 27,357 ha Baseline emissions of 9,976,598 tCO ₂ over 20 years from projected deforestation.	

H.1.2. Outcomes, Outputs, Activities and Inputs at Project/Programme level						
Expected Result	Indicator	Means of Verification (MoV)	Baseline	Target		Assumptions
				Mid-term	Final	
Project outcomes	Outcomes that contribute to Fund-level impacts					
M9.0 Improved management of land or forest areas contributing to emissions reductions	M9.1 Hectares of land or forests under improved and effective management that contributes to CO ₂ emission reductions	Maps/remote sensing Project reports	0	About 12,189 ha of climate resilient agricultural practices implemented About 45,848 ha of forest ecosystems sustainably managed About 4,000 ha community-managed natural forests restored through assisted regeneration 0 ha of new planted forests established	About 48,772 ha of climate-resilient agricultural practices implemented About 148,998 ha of forest ecosystems sustainably managed About 12,792 ha community-managed natural forests restored by assisted regeneration About 5,840 ha new planted forests established	Beneficiaries adopt climate-resilient land use practices (assuming the adoption rate that is specified in Section F.1). Communities not only engage with the project to adopt project-promoted climate-resilient SNRM, but also reduce the extent to which they degrade and encroach on forests and other ecosystems within the project area. Consultations, according to FPIC principles, are concluded.
A5.0 Strengthened institutional and regulatory systems for climate-responsive planning and development	A5.2 Number and level ⁶³ of effective coordination mechanisms	Project reports Reports and minutes from CFUG network meetings. Reporting by CBOs via the Churia Knowledge Centre	26 river-system level CFUG coordination networks at Level 1	26 river-system level CFUG coordination networks at Level 2	26 river-system level CFUG coordination networks at Level 4	CFUGs in each of the 26 targeted river systems engage with the project. CFUGs in each of the 26 targeted are able to coordinate well amongst themselves.

⁶³ Level for each coordination mechanism is expressed on a scale of 1-4. Each 'level' refers to a different degree of effectiveness (1 = no coordination mechanism; 2 = coordination mechanism in place; 3 = coordination mechanism in place, meeting regularly with appropriate representation (gender and decision-making authorities); 4 = coordination mechanism in place, meeting regularly, with appropriate representation, with appropriate information flows and monitoring of action items/issued raised).

A8.0 Strengthened awareness of climate change threats and risk reduction processes	A8.1 Number of males and females made aware of climate threats and related appropriate responses	Baseline and completion surveys				Beneficiaries are interested in adopting climate resilient land use practices.
		Workshop/training attendance sheets and materials	0 men	115,584 men	481,634 men	Consultations, according to FPIC principles, conducted with all beneficiaries prior to implementation of investments.
		Project reports	0 women	115,584 women	481,634 women	Indigenous peoples, marginalized groups, and women are effectively targeted and enabled to participate in the project.
		Reporting by CBOs via the Churia Knowledge Centre	0 total	231,168 total	963,268 total	The mid-term target for direct beneficiaries is an estimate based on the number of CBOs and households that are expected to be reached through field-level support by the end of PY4, multiplied by the average number of people (4.8) living in each household in the 26 river systems that comprise the project area.

Project/Programme Performance Indicators

Expected Result	Indicator	Means of Verification (MoV)	Baseline	Target		Assumptions
				Mid-term	Final	
Component 1: Scaling up climate-resilient SNRM						
Farmers are skilled in using climate-resilient land use practices.	Proportion of farmers trained by the project who begin to apply climate-resilient land use practices on their fields in the relevant season following their respective trainings.	Assessments (administered by trainers) of farmers' actions during the relevant seasons following trainings. Reporting by CBOs via the Churia Knowledge Centre. Randomized site visits to farmers' fields by project monitoring specialists.	0	At least 80% of the farmers involved in project trainings by the end of PY4 report that they have begun to apply project-promoted climate-resilient land use practices in the season following their training.	At least 80% of the farmers involved in project trainings by the end of PY7 report that they have begun to apply project-promoted climate-resilient land use practices in the season following their training.	The final selection of practices to be promoted at each specific training site are highly relevant to targeted farmers' cropping systems and conditions, as well as the climate change challenges with which they must contend. Trainings are delivered in a form and manner that is accessible to, and relevant for, targeted farmers.
Local structures are enhancing resilience against climate change-induced erosion, sedimentation and flooding risks.	Volume of sedimentation	In-person assessments performed by project staff at lower gabions.	Baseline sedimentation level in each of the targeted river systems in which the project constructs / establishes gully and riverbank stabilization measures to be established in PY1.	Sedimentation level in each of the targeted river systems in which the project constructs / establishes gully and riverbank stabilization measures is reduced by 5% (relative to the baseline level) by the end of PY4.	Sedimentation level in each of the targeted river systems in which the project constructs / establishes gully and riverbank stabilization measures is reduced by 25% (relative to the baseline level) by the end of PY7.	Extreme events (e.g. seismic activity) do not damage the project-supported structures to the extent that they are unable to perform their anticipated functions. An unexpectedly large number of extreme precipitation events do not occur in short periods of time, which would otherwise increase runoff and sedimentation independently of the project-supported structures. Other climate-resilient SNRM practices (including Activities on climate-resilient land use, sustainable management of forests and reforestation) are successfully implemented, further reducing potential for erosion and sedimentation.

<p>Natural forest ecosystems are better maintained and protected within the project area.</p>	<p>Density of forest area in each of the 26 targeted river systems.</p>	<p>Biomass measurements in permanent sample plots of National Forest Inventory (NFI) in the project area</p>	<p>Baseline forest density in each of the 26 targeted river systems to be established PY1.</p>	<p>Forest density in each of the 26 targeted river systems is increased by 1% (relative to the baseline level) by the end of PY4.</p>	<p>Forest density in each of the 26 targeted river systems is increased by 2% (relative to the baseline level) by the end of PY7.</p>	<p>NFI permanent sample plots which are measured in the second NFI cycle (2018-20) are identified and re-measured before project end. Communities not only engage with the project to adopt project-promoted climate-resilient SNRM, but also reduce the extent to which they degrade and encroach on forests and other ecosystems in the project area. The mid-term target is an estimate only, and is based on the expected reach and benefits of the relevant project activities by the end of PY4.</p>
<p>Forests and tree cover are restored and maintained in the river system landscapes.</p>	<p>Additional area of non-forest land converted and total forest cover in each of the 26 targeted river systems.</p>	<p>Forest cover assessment using FAO Open Foris Collect Earth toolkit Ground-truthing exercises by project staff.</p>	<p>About 227,276 ha of forest cover across the 26 targeted river systems.</p>	<p>Area of non-forest land converted to forest land across the 26 targeted river systems totals 3,636 ha by the end of PY4. This is expected to result in forest cover of about 230,912 ha across the 26 river systems at the end of PY4.</p>	<p>Area of non-forest land converted to forest land across the 26 targeted river systems totals 19,040 ha by the end of PY7. This is expected to result in forest cover of about 246,316 ha across the 26 river systems at the end of PY7.</p>	<p>The mid-term target is an estimate only, and is based on the expected reach and benefits of the relevant project activities by the end of PY4. Estimates of total forest cover in PY4 and PY7 assume historical annual deforestation rates in PY1-2 (-1.2%), and a reduced annual deforestation rate in PY3-7 (-0.5%), in line with the assumptions used in the mitigation impact calculations. This will be reassessed/updated during project inception to account for the latest trends in deforestation rates. Communities not only engage with the project to adopt project-promoted climate-resilient SNRM, but also reduce the extent to which they degrade and encroach on forests and other ecosystems in the project area. Baseline data on forest cover is from 2015. The baseline for the area of forest cover across the 26 targeted river systems will therefore be reassessed/updated during project inception.</p>

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

<p>Provincial and local governments in Provinces 1, 2 and 3 are equipped to continue monitoring natural resources and mapping critical ecosystems to inform future planning and investment decisions.</p>	<p>Change in provincial and local government staff's understanding of: (i) current and projected climate change impacts in the project area; (ii) the current state of natural resources and critical ecosystems in the project area; and (iii) the use of key GIS tools that facilitate monitoring and mapping of natural resources and ecosystems.</p>	<p>Assessments (administered by project staff) of local and provincial government staff's understanding of climate change impacts, natural resources and key GIS tools, measured on a scale of 1-5 (1=limited understanding; 2=basic understanding; 3=moderate understanding; 4=strong understanding; 5=advanced understanding).</p>	0	<p>75% of surveyed staff in the provincial and local governments improve their assessment scores by at least 1 level when surveyed at mid-term relative to their baseline assessments.</p>	<p>100% of surveyed staff in the provincial and local governments improve their assessment scores by at least 2 levels when surveyed at end-term relative to their baseline assessments.</p>	<p>Provincial and local governments mobilize staff with appropriate technical backgrounds for project trainings.</p> <p>Note: Baseline levels of understanding of provincial government staff will be assessed during project year 1.</p>
<p>Community-based organizations (CBOs) are actively promoting climate-resilient SNRM within their communities.</p>	<p>Proportion of beneficiary CBOs in which individuals trained by the project have organized their own trainings (or other forms of learning/knowledge exchange) on climate-resilient SNRM for other households/members of their CBO.</p>	<p>Baseline and completion surveys. Reporting by CBOs via the Churia Knowledge Centre. Randomized site visits to communities by project monitoring specialists.</p>	0	<p>At least 40% of the 750 beneficiary CBOs have organized their own training (or other forms of learning/knowledge exchange) on climate-resilient SNRM for member households, including those who did not directly benefit from project trainings.</p>	<p>At least 80% of the 750 beneficiary CBOs have organized their own training (or other forms of learning / knowledge exchange) on climate-resilient SNRM for member households, including those who did not directly benefit from project trainings.</p>	<p>Beneficiary CBOs nominate qualified individuals to participate in project trainings (i.e. those with the capacity to not only learn, but also teach other households/individuals within their CBOs). Climate-resilient SNRM practices promoted to specific CBOs are highly relevant to their conditions and needs. Trainings to CBOs are delivered in a form and substance that is accessible to CBO members.</p>

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

<p>Extension workers and Local Resource Persons (LRPs) are skilled in promoting climate-resilient SNRM.</p>	<p>Change in understanding of government extension workers on climate-resilient SNRM practices.</p>	<p>Pre-training (PY3), post-training (PY4) and follow-up (PY7) assessments completed by extension workers benefiting from training, measured on a scale of 1-5 (1=limited</p>	0	<p>At least 80% of trained extension workers improve their assessment score by at least 1 level in their post-training assessment (PY4) relative to their pre-training</p>	<p>100% of trained extension workers improve their assessment score by at least 2 levels in their follow-up assessments (PY7) relative to their pre-training assessments (PY3).</p>	<p>Although extension workers will only be trained once in PY4, the project assumes they will continue to enhance their understanding of climate-resilient SNRM through engagement with other extension workers over the subsequent years. This is expected to result in all 180 trained extension workers having a strong understanding</p>
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		understanding; 2=basic understanding; 3=moderate understanding; 4=strong understanding; 5=advanced understanding).		assessments (PY3).		of climate-resilient SNRM by PY7. Note: Baseline levels of understanding of LRP will be assessed during project year 3.
	Change in understanding of CBO members trained by extension workers (under Component 1) on climate- resilient SNRM practices.	Pre- and post- training assessments completed by CBO members (administered by extension workers / trainers) participating in project trainings, measured on a scale of 1-5 (1=limited understanding; 2=basic understanding; 3=moderate understanding; 4=strong understanding; 5=advanced understanding).	0	80% of CBO members trained by extension workers (under Component 1) by the end of PY4 score at least 1 level better on their post-training assessments than on their pre- training assessments.	90% of CBO members trained by extension workers (under Component 1) by the end of PY7 score at least 2 levels better on their post-training assessments than on their pre-training assessments.	Government fulfils its commitment to make qualified extension workers/field staff available to be trained by (and deliver support under) the project. Trained extension workers/field staff are retained by the government and do not transfer to other jobs. The extension system can only sustainably (i.e. after project closure) promote climate- resilient SNRM if extension agents not only have a strong understanding of such practices, but are also able to effectively support farmers and other land users to learn about such practices – a key step in the process of changing behaviour and practices at field level.

Activity	Description	Sub-activities	Deliverables
<i>Sub-Component 1.1</i>			
1.1.1: Establish Farmer Field Schools to promote climate-resilient land use.	Establish a network of training sites on which farmers can be trained on climate-resilient SNRM during and after the project.	<ul style="list-style-type: none"> - Identify sites for Farmer Field Schools (FFS). - Establish FFS, including procurement of farming equipment. - Training of trainers (ToT) for field staff to build capacity of FFS. 	- 120 FFS established and operational.
1.1.2: Train farmers to adopt and apply climate-resilient land use practices.	Strengthen farmers' capacities to adopt/apply climate-resilient farming practices in their own fields, as well as support other members of their CBOs to adopt/apply such practices.	<ul style="list-style-type: none"> - Procure basic farming tools/equipment to support adoption of tailored climate-resilient farming practices (based on results of CERPs). - Deliver trainings and associated farming tools/equipment. 	- 260 training events organized (reaching about 7,800 Farmer Beneficiaries).
1.1.3: Train farmers to adopt agroforestry and livestock management practices.	Strengthen farmers' capacities to adopt/apply suitable agroforestry and livestock management	<ul style="list-style-type: none"> - Organize initial training for CBO households on agroforestry and livestock management practices. 	- 120 initial Agro-forestry and Livestock Beneficiaries supported to adopt project-promoted

	<p>practices on their own land, as well as support other members of their CBOs to adopt/apply such practices, thereby building household-level resilience and easing the expansionary pressures driving deforestation and forest degradation.</p>	<ul style="list-style-type: none"> - Procure materials to establish small on-farm tree nurseries for initial training beneficiaries. - Regular site visits by field staff in PY3-7 to support broader adoption of agroforestry and livestock management practices, as well as identify and support livestock-owning households to access the government biogas subsidy. 	<p>practices and establish small on-farm tree nurseries.</p> <ul style="list-style-type: none"> - Approximately 500 households supported to access the government biogas subsidy and purchase/install biogas digesters.
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.	<p>Construct local structures in each of the 26 targeted river systems that will reduce community vulnerability to climate change impacts (accounting for both upstream and downstream dynamics), including: (i) erosion risk and sedimentation in upstream areas; and (ii) flooding risk and water stress in downstream areas.</p>	<ul style="list-style-type: none"> - Identify specific sites for community structures. - Develop technical specifications and construction guidelines for individual structures once sites are identified. - Recruit service providers to build structures in upstream and downstream locations, and supervise them while they do so. 	<ul style="list-style-type: none"> - Establish relevant structures and practices to stabilize 86 gullies, mostly in the Churia hills. - Establish and maintain check dams and/or community-managed water harvesting ponds in 129 sites, mostly in the Bhavar zone.
Sub-Component 1.2			
1.2.1: Support CBOs to develop/strengthen and deliver forest management operational plans.	<p>Improving the application of sustainable forest management practices in all forest land managed by forestry-related CBOs within the Project Area, ensuring silvicultural practices are implemented and maximizing ecosystem service provision and resilience, as well as generating significant climate change mitigation benefits.</p>	<ul style="list-style-type: none"> - Recruit service providers to work with all forestry-related CBOs to develop and/or strengthen forest management operational plans. - Procure relevant equipment for each relevant CBO to support implementation of forest management operational plans. - Regular site visits by field staff (in PY3-7) to provide ongoing advice and guidance to enable implementation of forest management operational plans. 	<ul style="list-style-type: none"> - Approximately 600 forest management operational plans developed and/or strengthened.
1.2.2: Train CBOs and land owners to enable more sustainable management of forest ecosystems.	<p>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.</p>	<ul style="list-style-type: none"> - Deliver Training of Trainer (ToT) events for MoITFE field staff. - Deliver trainings for forestry-related CBOs and other land owners ("Forest Training Beneficiaries"). 	<ul style="list-style-type: none"> - Approximately 26 ToT events organized. - Approximately 122 local training events for forestry-related CBOs organized.
Sub-Component 1.3			
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.	<p>Establish tree nurseries in the Project Area to support tree planting and forest restoration under this project, as well as planting and restoration by communities throughout the Project Area during the project and after project closure.</p>	<ul style="list-style-type: none"> - Procure equipment and materials needed to establish two nurseries in each of the 26 river systems. - Identify suitable sites and establish nurseries on these sites. - Procure material inputs and labour needed for production of seedlings in PY3-7, ensuring each nursery has the capacity to produce at least 50,000 seedlings per year. 	<p>52 tree nurseries established and under operation.</p>
1.3.2: Establish and maintain 7,300 ha of forest plantations to enhance resilience.	<p>Establish and support maintenance of different types of forest plantations (demonstration plantations; public land forests on</p>	<ul style="list-style-type: none"> - Train MoITFE staff in each province on sustainable plantation management. 	<ul style="list-style-type: none"> - Three training events organized (1 per province) for MoITFE staff. - 1,300 ha of demonstration plantations established.

	<p>river bank sites; public land forests on community land) to build resilience and deliver important mitigation benefits, while also building capacity to support sustainable forestry activities beyond project closure.</p>	<ul style="list-style-type: none"> - Procure materials, seed stock and local labour needed to plant 1,300 ha of demonstration plantations in the Bhawar and Terai zones, and directly support and oversee this planting. - Procure materials, seedlings and local labour needed to establish 1,000 ha of riparian plantations (on river bank sites), and directly support and oversee this planting. - Assist relevant CBOs to sign formal agreements with local Municipality offices for management of riparian plantations, as well as develop management plans. - Procure materials, seedlings and local labour needed to establish 5,000 ha of plantations on community land, and directly support and oversee this planting. - Assist relevant CBOs to sign formal agreements with local Municipality offices for management of plantations on community land, as well as develop management plans. 	<ul style="list-style-type: none"> - 1,000 ha of riparian plantations established (on river bank sites). - 5,000 ha of plantations established on community land.
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.	<p>Assist (and build the capacity of) CBOs to expand forest cover and restore forest landscapes in critical locations in each of the 26 targeted river systems, thereby restoring crucial ecosystem functions and ecosystems resilience while also generating significant mitigation benefits.</p>	<ul style="list-style-type: none"> - Prepare training materials on Forest Landscape Restoration (FLR). - Train provincial forestry field staff on FLR. - Train CBOs on FLR. - Identify specific sites and communities for Assisted Natural Regeneration (ANR) support, and develop ANR methodologies and implementation plans. - Procure tools, equipment, inputs and local labour needed to implement ANR on 15,990 ha of community-managed forest land, and directly support and oversee this planting. 	<ul style="list-style-type: none"> - 12 training events on FLR organized for provincial forestry field staff. - 180 training events on FLR organized for relevant CBOs. - ANR methodologies and implementation plans (adapted to local contexts) developed. - ANR implemented on 15,990 ha of community-managed forest land.
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.	<p>Establish woodlots on small-scale landowners' land, thereby enhancing resilience of soils and broader ecosystems, while also easing expansionary pressures (particularly from downstream communities and 'distant forest users') that are driving deforestation and forest degradation.</p>	<ul style="list-style-type: none"> - Identify landowners with whom to collaborate to establish woodlots. - Organize exchange visits between prioritized small-scale landowners and other successful forest owners in neighbouring districts. - Procure seedlings needed to establish woodlots on 16,500 ha of land, and directly oversee and support this planting (coupled with labour provided by beneficiary households and advisory services provided by government). 	Woodlots established on 16,500 ha of land owned by small-scale landowners.

2.1.1: Strengthen institutions on climate change impacts and ecosystem mapping.	Build the capacity of key entities that intend to collaborate with and/or benefit from the project – including those that will play an important role in sustaining and scaling up support for climate-resilient SNRM after project closure – on climate change and climate-resilient land use planning & management practices.	<ul style="list-style-type: none"> - Train relevant national, provincial and local stakeholders on climate change and climate-resilient land use planning & management, as well as GESI principles and measures. - Train relevant national and provincial stakeholders on relevant GIS tools for critical ecosystem mapping. 	<ul style="list-style-type: none"> - 4 national-level trainings on climate change and climate-resilient land use planning & management organized. - 3 provincial-level trainings on climate change and climate-resilient land use & planning organized. - 64 local-level trainings on climate change and climate-resilient land use & planning organized. - 1 national-level training on GIS tools for critical ecosystem mapping organized. - 6 provincial-level trainings on GIS tools for critical ecosystem mapping organized.
2.1.2: Develop and validate Critical Ecosystem Restoration Plans (CERPs) for 26 river systems.	Assist provincial and local stakeholders to develop a Critical Ecosystem Restoration Plan (CERP) for each of the 26 targeted river systems, thereby providing governments and CBOs with common plans and priorities to guide coordinated investments in climate-resilient SNRM.	<ul style="list-style-type: none"> - Recruit a service provider to perform a multi-criteria spatial analysis for each of the 26 targeted river systems, and use this analysis as a basis to identify needs and propose investment/intervention priorities in each river system. - Organize a consultation in each river system to discuss identified priorities and develop them into a CERP for each river system. - Organize field consultations to raise awareness about (and secure buy-in for) CERP priorities among relevant CBOs. - Organize national and provincial-level workshops to secure high-level government validation of CERPs. 	<ul style="list-style-type: none"> - 26 CERPs developed and validated. - 26 river system-level consultations organized. - 52 field consultations organized. - 2 national and 6 provincial validation workshops organized.
2.1.3: Support provincial governments to plan and increase resilience to projected climate change-related extreme events.	Raise awareness of the evolving risks related to climate change-induced extreme events within the Project Area, and assist provincial governments to develop risk management plans for such extreme events.	<ul style="list-style-type: none"> - Organize awareness-raising workshops for provincial and local government staff. - Develop provincial risk management plans for climate change-induced extreme events, building on detailed hazard mapping, vulnerability assessments and risk mapping from CERPs. - Organize multi-stakeholder validation workshops for risk management plans. 	<ul style="list-style-type: none"> - 26 awareness-raising workshops organized. - 3 provincial risk management plans for climate change-induced extreme events developed. - 26 multi-stakeholder validation workshops organized.
<i>Sub-Component 2.2</i>			
2.2.1: Establish, formalize and register CBOs to enable climate-resilient SNRM.	Assist community-based organizations to overcome institutional hurdles that are otherwise impeding them from providing effective support for their member households to adopt and scale up climate-resilient SNRM.	<ul style="list-style-type: none"> - Ensure all 750 beneficiary CBOs are registered with the relevant authorities in line with Provincial and Federal Law (i.e. supporting any non-registered CBOs to become registered). - With a view to establishing Community Forest User Groups (CFUGs) and private forest owner networks, organize initial 	<ul style="list-style-type: none"> - All 750 beneficiary CBOs registered with the relevant authorities. - Organize 39 initial (one-day) workshops for CFUG and private forest owner networks. - Logistical support provided to 260 CFUG and private forest owner network meetings.

		workshops for each of these networks and provide financial and logistical support for annual meetings of such groups from PY3-7.	
2.2.2: Train CBOs on climate-resilient land use planning, and assist them to mainstream SNRM into their CBO management plans.	Build technical capacities of CBOs to 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.	<ul style="list-style-type: none"> - Recruit a service provider to organize Training of Trainers (ToT) for Local Resource Persons (LRPs) on climate-resilient land use. - Organize community workshops at which LRPs will train members from all 750 beneficiary CBOs. - Provide advice and guidance to mainstream climate-resilient SNRM into CBO management plans for the most vulnerable CBOs in the Project Area. 	<ul style="list-style-type: none"> - 26 ToT training events for LRPs organized. - 250 community-level workshops for CBOs organized (with about 3-5 CBOs per workshop). - 250 CBO management plans developed and/or strengthened to mainstream support for climate-resilient SNRM.
<i>Sub-Component 3.1</i>			
3.1.1: Equip Local Resource Persons (LRPs) with best practices on climate-resilient SNRM from local experience, including indigenous knowledge.	Gather local and indigenous knowledge on climate-resilient SNRM and distil this information into user-friendly guidelines for LRPs to train and support CBO members to adopt such practices during and beyond the project.	<ul style="list-style-type: none"> - Recruit a service provider to organize local consultations to gather local and indigenous knowledge. - Develop a compendium of local and indigenous knowledge, building on insights gained from consultations. - Organize workshops to review/validate the compendium. - Recruit a service provider to develop best practice guidelines for LRPs, drawing in part on the compendium. 	<ul style="list-style-type: none"> - 105 community consultations organized (about 4 in each of the 26 targeted river systems). - 1 compendium of local and indigenous knowledge developed. - 5 provincial-level validation workshops organized. - 1 set of best practice guidelines for LRPs developed.
3.1.2: Raise awareness on climate-resilient SNRM through local schools, media and intra-regional exchange.	Organize awareness-raising campaigns and other forms of information exchange to promote climate-resilient SNRM, and increase interest in such practices and communities living throughout the Project Area.	<ul style="list-style-type: none"> - Recruit a service provider to develop a knowledge dissemination and communication plan. - Recruit a service provider to develop curricula on climate-resilient SNRM for local high schools. - Establish student-run eco-clubs in all 26 targeted river systems. - Organize local-level radio programmes. - Organize exchange visits for local government authorities. 	<ul style="list-style-type: none"> - 1 knowledge dissemination and communication plan developed. - 1 set of high school curricula developed. - Student-run eco-clubs established, and 260 sessions held at schools in the Project Area. - 119 local-level radio programmes broadcast. - 28 local exchange visits for local government officials organized.
<i>Sub-Component 3.2</i>			
3.2.1: Develop 10 modules on climate-resilient SNRM to be used by extension workers, including in the farmer field schools.	Develop locally-relevant training modules that cover the range of climate-resilient SNRM practices to be supported by the project, which extension workers and other trainers can use to promote more widespread adoption/application of climate-resilient SNRM throughout the Project Area during and after the project.	<ul style="list-style-type: none"> - Develop training modules. - Recruit a service provider to translate training modules. 	<ul style="list-style-type: none"> - 10 training modules developed and translated.

3.2.2: Enhance and deliver quality extension services on climate-resilient SNRM to households.	Build the capacity of extension workers and LRPCs to understand and apply the 10 training modules developed under Activity 3.2.1, as well as engage the services of provincial extension workers to promote and support adoption of climate-resilient SNRM in the Project Area by: (i) supporting delivery of project-organized trainings; and (ii) continuing to support CBOs to adopt and continue using climate-resilient SNRM, including among households who were not selected by their CBOs to participate directly in project-organized trainings.	<ul style="list-style-type: none"> - Train extension workers and LRPCs on climate-resilient SNRM, including how to use/apply the 10 training modules developed under Activity 3.2.1. - Engage provincial extension workers (using MoFE co-financing) to deliver climate-informed extension support in the Project Area, including under Components 1 and 2. 	<ul style="list-style-type: none"> - 78 training events organized. - Extension workers providing 11,880 months of project-related support for climate-resilient SNRM, with the specific distribution of these working months (i.e. days per worker) to be determined.
3.2.3: Establish and operate a 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.	Establish (and build capacity to use) the CKC as a platform to underpin the continued provision of climate change-informed extension and advisory services, as well as support continued monitoring of natural resources and evidence-based planning in the Project Area, beyond project closure.	<ul style="list-style-type: none"> - Recruit a service provider to establish the CKC, including provincial hubs within the MoITFE offices in Provinces 1, 2 and 3. - Train government staff and other relevant specialists to understand the CKC, and the information they can access from it. - Develop CKC manuals, protocols and guidelines (including Standard Operating Procedures, SOPs). - Train relevant MoITFE staff on CKC protocols and SOPs to support continued maintenance/operation of the CKC. 	<ul style="list-style-type: none"> - CKC platform established. - 3 provincial CKC hubs established in MoITFE offices in Provinces 1, 2 and 3. - 4 training events on CKC use/access organized. - 1 set of CKC manuals, protocols, guidelines and SOPs developed. - 3 training events on CKC maintenance/operations organized.

H.2. Arrangements for Monitoring, Reporting and Evaluation

233. In its role as Accredited Entity, FAO (specifically the FAO-GCF project supervision team) will oversee and supervise the implementation of this project in accordance with the Accreditation Master Agreement (AMA) signed between FAO and the GCF. As per the GCF Monitoring and Accountability Framework, and in accordance with the AMA, FAO will provide the GCF with an Inception Report, Annual Performance Reports, an independent Mid-term Evaluation report, a Project Closure Report and an independent Final Evaluation report. FAO will also provide semi-annual and annual Financial Reports throughout project implementation.

Evaluation

234. In accordance with the AMA between FAO and GCF, the FAO Office of Evaluation⁶⁴ will be responsible for the independent interim and final evaluations for BRCRN. The evaluations will use a question-driven approach, and may include assessments against the criteria of relevance, effectiveness and sustainability, among others. The interim evaluation will be instrumental in contributing – through operational and strategic recommendations – to improve implementation, setting out any necessary corrective measures for the remaining period of the project. The final evaluation will assess the relevance of the intervention, its overall performance, as well as sustainability and scalability of results, differential impacts and lessons learned. The evaluation should also assess the extent to which

⁶⁴ Please refer to FAO OED webpage for further details: <http://www.fao.org/about/who-we-are/departments/office-of-evaluation/en/>

the intervention has contributed to the Fund's higher-level goal of achieving a paradigm shift to low-emissions sustainable development pathways and climate-resilient sustainable development in Nepal. To measure attributable changes, the evaluation will draw on mixed-methods, using qualitative methods (e.g. participatory rural appraisal) in combination with counterfactual analysis (e.g. quasi-experimental methods, depending on the existence of reliable control group data from the project's baseline and completion surveys, which will be confirmed during project inception). In addition to primary data collected by the evaluators and secondary national data, both interim and final evaluations will draw on the baseline and completion surveys financed by the project, as well as monitoring reports and other data and activities prepared by project staff, including remote sensing data on changes in forest and land-use patterns. Careful attention will be paid to the disaggregation of data, results and outcomes by gender.

Project monitoring and reporting

235. Project-level monitoring will be the responsibility of the PMU. The PMU will establish an effective monitoring system to track implementation and continuously assess efficacy, targeting and project assumptions and targets. The project's monitoring will be designed to be responsive, and provide ongoing feedback to permit for adaptive management as needed, and to generate key lessons learned.
236. Within the PMU, the National Project Director (NPD) will oversee project implementation and monitoring, and ensure coordination between FAO, PSC and PMU, as well as other relevant stakeholders. The NPD will be supported by a project gender focal point and monitoring & reporting specialists, all of whom will be members of the PMU. FAO will support the NPD and project management entities as necessary to ensure transparent, effective and inclusive monitoring & reporting. All members of project management bodies will be trained on project monitoring & reporting protocols during project inception.
237. Project progress will be assessed in part against the detailed project implementation plan, gender action plan, indigenous peoples plan and social inclusion plan, while results will be measured against the targets outlined in Section H.1 (above). Such assessments will be guided by a detailed Monitoring Plan, which will be developed during project inception and submitted to the GCF as part of the Project Inception Report. Monitoring of project progress will take place on a quarterly basis, with PPMUs reporting to the main monitoring & reporting specialist in the PMU, who in turn will provide progress updates to the PSC and FAO (as AE). Project progress will be communicated to the GCF Secretariat in the form of Annual Progress Reports.
238. The basic parameters of the anticipated BRCRN monitoring system are briefly summarized here, and elaborated in more detail in Annex 2 – Feasibility Study, Section 7.2. The project monitoring system will feature a combination of activity-based proxy indicators and scientific models that will be used to assess performance. The system design is based on a **COMBINATION** of field-based surveys and user group self-monitoring and digital data collection, communication and information technologies. The system will be directly developed as an integral part of the CKC (Component 3). In terms of monitoring project impact/ performance in a quantitative manner, the key approach is that beneficiaries in the project perform periodic self-assessments (using easy self-assessment sheets) using proxy indicators. For every 5-10 registered CBOs, one community member is selected as the Community Group Leader (CGL). The group leader is trained on how to total the specific data from individual self-assessment sheets (those developed by individual group members) into a group record. Summarized data of each group will be collected and entered into the web-based data project MIS system – the CKC. This aggregated self-assessment data can then be used to complement other elements of the monitoring system and ultimately assess progress against targets. To avoid any potential bias in monitoring and reporting of project results, the project will also recruit an external entity to administer baseline and completion surveys in the project area, providing robust data that will contribute to providing a complete picture of the evolving economic, social and environmental conditions in the 26 targeted river systems over the course of the project implementation period. This project-generated information will also be triangulated against data sources generated outside the project, including the National Population and Housing Census (which is expected to be administered in 2021). In addition, the project will use remote sensing to monitor some forest and land use-related indicators (as outlined in Section H.1) as well as triangulate data from other indicators to ensure accuracy.

I. SUPPORTING DOCUMENTS FOR FUNDING PROPOSAL

- NDA No-objection Letter
- Feasibility Study
- Integrated Financial Model that provides sensitivity analysis of critical elements (xls format, if applicable)
- Confirmation letter or letter of commitment for co-financing commitment (If applicable)
- Project/Programme Confirmation/Term Sheet
- Environmental and Social Management Framework
- Appraisal Report or Due Diligence Report with recommendations(If applicable)
- Evaluation Report of the baseline project(If applicable)
- Map indicating the location of the project/programme
- Timetable of project/programme implementation

List of Annexes:

Annex	Name of Annex	Document(s) within Annex
Annex 1	Commitment letters	1.1 – Letter of No-Objection by the NDA (Ministry of Finance)
		1.2 – Co-financing letter
Annex 2	Feasibility Study	2.1 – Feasibility Study
Annex 3	Integrated Financial Model	3.1 – Economic and Financial Analysis 3.2 – Detailed budget 3.3 – Indicative procurement plan 3.4 – GHG mitigation calculations
Annex 4	Environmental and Social Management Framework	4.1 – Environmental and Social Management Framework (including Indigenous Peoples Planning Framework and Biodiversity Management Framework) 4.2 – ESMF Annex 3 (Consultations)
Annex 5	Gender assessment and action plan	5.1 – Gender assessment and action plan
Annex 6	Timetable for project implementation	6.1 – Timetable for project implementation

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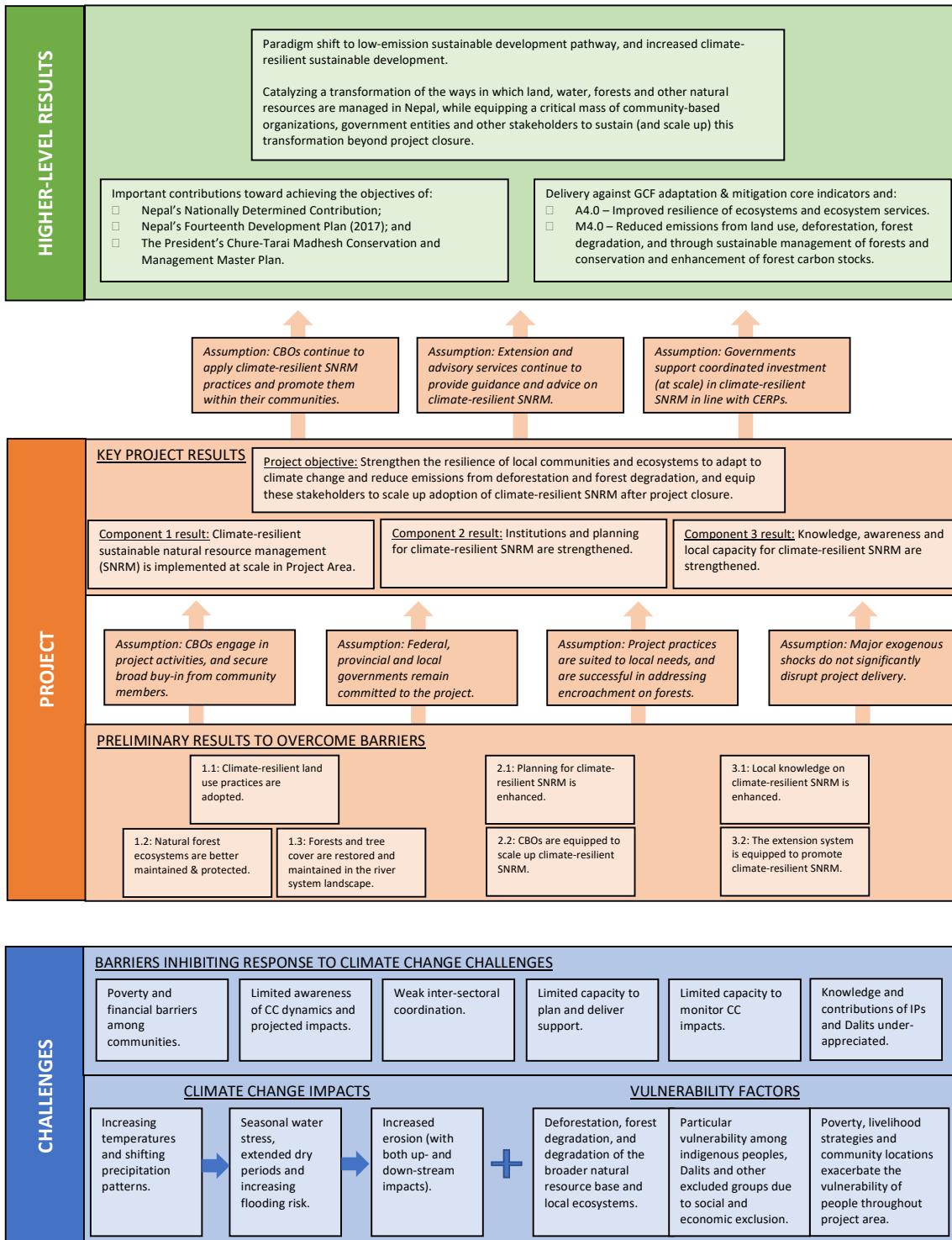
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Attachment 1 – Theory of Change



ANNEXES

GREEN CLIMATE FUND FUNDING PROPOSAL | PAGE 99 OF 117

Attachment 2 – Simplified overview of climate change impacts, baseline conditions and project-promoted measures, disaggregated by biophysical zone

CHURIA HILLS				
Climate change challenges	Description of baseline land use trends	Land use driving vulnerability to climate change	Relevant climate-resilient land use practices to be promoted	Role of project-promoted practices in responding to climate change
<ul style="list-style-type: none"> Increasing summer and monsoon precipitation, coupled with decreasing numbers of moderate rainfall days <u>and</u> increasing numbers of very wet days, is expected to: (i) increase soil erosion and top soil loss in the hills, with significant downstream impacts; and (ii) increase risks of landslides in the hills. 	<ul style="list-style-type: none"> Households use fuelwood for household energy needs. Forests also provide fodder, forage, timber and NTFPs. Majority of terrain unsuitable for agriculture, however many households have subsistence farms within the hills. Agricultural production is characterized by rain-fed, low-yield fallow agriculture with different crops. Erosion and soil degradation pose major barriers. Subsistence from agriculture provides livelihoods only for 6-8 months a year. Many households have small-livestock⁶⁵ and/or buffalo raised in primarily low-yield free-grazing systems. Churia Hills play a vital function as a watershed for the downstream Terai plain - where inhabitants rely on delivered water resources for domestic and agricultural purposes (regulating water). 	<ul style="list-style-type: none"> 75% of deforestation in BRCRN area occurs in the Churia Hills. Deforestation and degradation increase vulnerability to erosion and sedimentation that reduce agricultural productivity, and increase exposure to flooding and landslides. Unsuitable agricultural practices increase vulnerability to erosion through vegetation removal and soil degradation (e.g. agricultural practices on sloped hills, lack of soil and water conservation practices). 	<ul style="list-style-type: none"> Climate-resilient agricultural practices: implementing practices that stabilize slopes (agroforestry, terracing, grass strips, alley crops etc.), improved livestock practices (stall-feeding, fodder banks). Intensification of agricultural land through integrated agroforestry-crop-livestock systems in order to improve soil fertility and productivity while reducing pressure on forests. Ecosystem restoration: gully stabilization in landslide susceptible areas, forest restoration and sustainable management, bio-engineering/ soil and water conservation infrastructure to stabilize river banks and reduce flows 	<ul style="list-style-type: none"> Reduced risk of erosion, reduced exposure to landslides. Reduced exposure to flooding, particularly in downstream areas. Reduced emissions from deforestation and forest degradation. Improved storage of soil carbon. Improved forest quality and quantity.

⁶⁵goats, rams, pigs

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BHAVAR REGION				
Climate change challenges	Description of baseline land use trends	Land use driving vulnerability to climate change	Relevant climate-resilient land use practices	Role of project-promoted practices in responding to climate change
<ul style="list-style-type: none"> Increasing summer and monsoon precipitation, coupled with decreasing numbers of moderate rainfall days <u>and</u> increasing numbers of very wet days, is expected to: (i) increase soil erosion and top soil loss in the hills, with significant downstream impacts; and (ii) increase gully erosion (land loss) and vulnerability to flooding. 	<ul style="list-style-type: none"> Terrain is primarily unsuitable for rain-fed agriculture due to the irregular supply of water. Many households have small-livestock and/or buffalos using primarily free-grazing production systems. Majority of households use fuelwood for household energy needs. Forests also provide fodder, forage, timber and non-timber forest products. 	<ul style="list-style-type: none"> Deforestation and degradation contribute to increased sedimentation and erosion that reduce agricultural productivity. Such land use trends further increase the vulnerability of downstream communities to flooding through accelerated sedimentation and erosion. Reduced vegetation cover (from deforestation and inappropriate agricultural practices) limit ground water recharge, increasing the vulnerability of downstream communities to extreme heat and challenges related to water deficit. Gully erosion leads to significant loss of land. 	<ul style="list-style-type: none"> Climate-resilient agriculture practices to reduce erosion and improve soil moisture and overall soil fertility (tillage management, nutrient management, residue management, inter-cropping, alley crops), improved livestock practices to reduce degradation (stall-feeding, fodder banks). Ecosystem restoration: gully stabilization in landslide susceptible areas, green belt establishment along vulnerable river banks, forest restoration, sustainable forest management, bio-engineering/ soil and water conservation (conservation ponds, check-dams, contour bunds). Resilient forestry: commercial plantations, wood lots and horticulture plantations to sustainably produce fuelwood and other forest products. 	<ul style="list-style-type: none"> Improved resilience to extreme heat and water deficit challenges. River bank stabilization limits the impact of flooding. Reduced emissions from deforestation and forest degradation. Improved forest quality and quantity. Improved groundwater recharge due to reduced sedimentation/ erosion, improving resilience to water scarcity downstream.

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DUN VALLEY				
Climate change challenges	Description of baseline land use trends	Land use driving vulnerability to climate change	Relevant climate-resilient land use practices	Role of project-promoted practices in responding to climate change
<ul style="list-style-type: none"> Decrease in average precipitation in the winter season, coupled with increases in the number of consecutive dry days as well as particularly large increases in winter temperature, are expected to further increase the risk of water deficit in the winter months. Increasing summer and monsoon precipitation, coupled with decreasing numbers of moderate rainfall days <u>and</u> increasing numbers of very wet days, is expected to increase sedimentation and riverbank cutting (land loss) as well as risk of flooding in downstream communities, in part as a result of the upstream impacts of these changes in climatic variables (as described further above). 	<ul style="list-style-type: none"> Most households use fuelwood for household energy needs. Forests also provide fodder, forage, timber and non-timber forest products. Among the most fertile and productive lands in Nepal with steady groundwater supply. Major production area for staple foods including paddy, cereals, pulses and oilseeds. Many households have small-livestock and/or buffalo raised in primarily low-yield free-grazing production systems. 	<ul style="list-style-type: none"> Deforestation within the Dun Valley, as well as in the Churia Hills, increases the vulnerability of local communities and ecosystems to extreme flooding events. Inappropriate agricultural practices do not apply soil or water conservation practices that leave areas vulnerable to flooding, extreme heat, water deficit and soil erosion. Upstream deforestation and forest degradation, as well as the continued use of practices that fail to address issues related to soil degradation and water deficit, exacerbate challenges associated with dry-season crop production. 	<ul style="list-style-type: none"> Climate-resilient agriculture practices to reduce erosion and improve soil moisture and overall soil fertility. Ecosystem restoration: gully stabilization in landslide susceptible areas, green belt establishment along vulnerable river banks, forest restoration, sustainable forest management, bio-engineering/ soil and water conservation to reduce erosion, improve ecosystem stability and resilience. Resilient forestry: commercial plantations, wood lots and horticulture plantations to sustainably produce fuelwood and other forest products, 	<ul style="list-style-type: none"> Improved resilience to extreme heat and water deficit challenges. River bank stabilization limits the impact of flooding. Reduced emissions from deforestation and forest degradation. Improved forest quality and quantity. Improved groundwater recharge due to reduced sedimentation/ erosion, improving resilience to water scarcity downstream.

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TERAI				
Climate change challenges	Description of baseline land use trends	Land use driving vulnerability to climate change	Relevant climate-resilient land use practices	Role of project-promoted practices in responding to climate change
<ul style="list-style-type: none"> Decrease in average precipitation in the winter season, coupled with increases in the number of consecutive dry days as well as particularly large increases in winter temperature, are expected to further increase the risk of water deficit in the winter months. Increasing summer and monsoon precipitation, coupled with decreasing numbers of moderate rainfall days <u>and</u> increasing numbers of very wet days, is expected to increase sedimentation and riverbank cutting (land loss) as well as risk of flooding in downstream communities, in part as a result of the upstream impacts of these changes in climatic variables (as described further above). 	<ul style="list-style-type: none"> Farmers in the Terai produce most of the country's grains (wheat, maize, rice, among others) and other crops. The Terai is the sole region in agricultural surplus, and thus is the principal area of production relied upon to supply the less productive hill and mountain areas. More heavily populated than the other three zones. Population growth in the Terai puts increased pressure on natural resources. Many communities in the Terai are '<i>distant forest users</i>', dependent on forest resources in Churia and Bhavar forests. While most households use cow dung for energy needs, forests are still an important source of fodder, forage, timber and NTFPs. 	<ul style="list-style-type: none"> 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 flooding, extreme heat, water deficit and soil erosion. Combined factors from upstream deforestation and forest degradation, as well as use of practices that fail to address issues related to soil degradation and water deficit, exacerbate challenges associated with dry-season crop production in the Terai. Upstream land management practices (described above) increase exposure to sedimentation in the Terai. 	<ul style="list-style-type: none"> Climate-resilient agriculture practices to reduce erosion and improve soil moisture and overall soil fertility (tillage management, nutrient management, residue management, inter-cropping, alley crops). Ecosystem restoration: gully stabilization in landslide susceptible areas, green belt establishment along vulnerable river banks, forest restoration, sustainable forest management, bio-engineering/ soil and water conservation (conservation ponds, check-dams, contour bunds, stone walls) Resilient forestry: commercial plantations, wood lots and horticulture plantations to sustainably produce fuelwood and other forest products, 	<ul style="list-style-type: none"> Improved resilience to extreme heat and water deficit challenges. River bank stabilization limits the impact of flooding. Planted forests are able to reduce the reliance on upstream forests. Improved groundwater recharge due to reduced sedimentation/ erosion, improving resilience to water scarcity downstream.

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Attachment 3 – Activity description, deliverables and sustainability considerations

Activity	Description	Sub-activities	Deliverables	Impact	Sustainability Considerations
COMPONENT 1 – SCALING UP CLIMATE-RESILIENT SUSTAINABLE NATURAL RESOURCE MANAGEMENT (SNRM)					
Sub-Component 1.1 – Climate-resilient land use practices are adopted					
1.1.1: Establish Farmer Field Schools (FFS) to promote climate-resilient land use.	Establish network of training sites on which farmers can be trained on climate-resilient SNRM during and after the project.	<ul style="list-style-type: none"> - Identify FFS sites. - Establish FFS, including procurement of farming equipment. - Training of trainers (ToT) for field staff to build capacity of FFS. 	<ul style="list-style-type: none"> - 120 FFS established and operational. 	<ul style="list-style-type: none"> - 120 FFS established in each river system at or near locations which are either i) highly or moderately susceptible to erosion or ii) highly or moderately susceptible to flooding (i.e. highly vulnerable to climate-related hazards). FFS support particularly vulnerable people, and aim to strengthen their capacities to implement climate-resilient land use practices, offering them improved livelihood opportunities (combined with improved knowledge for FFS, covered in Component 3, and the operationalization of FFS in 1.1.2 and 1.1.3). 	<p>Alignment with the Critical Ecosystem Restoration Plan (CERP) will ensure that FFS are strategically established in the most vulnerable areas, ensuring climate-informed advisory and extension services. Such an approach can be replicated in different river systems to provide targeted and climate-informed services for the most vulnerable people and ecosystems. FFS will enable interested CBOs in vulnerable areas to adapt and scale-up climate resilient agriculture practices and technologies (within sub-component 1.2-1.4).</p> <p>Provincial Ministries will mobilize their extension staff to support FFS from year 3 to the end of the project period. The Government is providing considerable co-financing to improve the extension system throughout project implementation, demonstrating their recognition of this pressing need and commitment to address it. Knowledge management systems (CKC), institutionalization of trainings, development of high-quality training modules on low-GHG and climate-resilient SNRM, and capacity development of government staff will facilitate Provincial and Central Government to mobilize the funds needed and continue investment beyond project closure.</p> <p>With support from extension services, farmers participating in FFS will continuously improve and consolidate their knowledge and skills, including through testing and validating on their own farmland.</p> <p>The FFS and the practices promoted by the project are economically sustainable. Participation in FFS is voluntary and will employ locally available resources (materials and labour),</p>

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Activity	Description	Sub-activities	Deliverables	Impact	Sustainability Considerations
					<p>so economic means will not limit farmers to undertake the improved practices. Moreover, the practices promoted improve farmers' income through increased productivity, cost savings, or other means.</p> <p>FAO experience in the region including in Nepal shows a positive rate of farmers adopting new technologies/practices through FFS, including among non-participant who observe the benefits of such practices.</p> <p>Ultimately, investments in FFS will address the main barriers faced by the current system (highlighted in the FS in Table 9 and Box 1) by improving the reach of services in highly vulnerable areas, and increasing the quality of trainings (trained Local Resource Persons, promoted good climate-resilient land use practices), and providing targeted support for women and excluded/ marginalized groups (see GAP and IPPF/SIPF for specific measures).</p>
1.1.2: Train farmers to adopt and apply climate-resilient land use practices.	Strengthen farmers' capacities to adopt/apply climate-resilient farming practices and as support other members of their CBOs to adopt/apply such practices.	<ul style="list-style-type: none"> - Procure basic farming tools/equipment to support adoption of tailored climate-resilient farming practices (based on results of CERPs). - Deliver trainings and associated farming tools/equipment. 	<ul style="list-style-type: none"> - 260 training events organized (reaching about 7,800 Farmer Beneficiaries). 	<p>48,772 ha of climate-resilient, profitable agricultural practices implemented (mid-term: 12,189 ha)</p> <ul style="list-style-type: none"> - Increased-resilience to climate change through the adoption of SNRM, especially practices that improve soil moisture, improve resilience to water scarcity and extreme heat, enhance soil carbon conservation, reduce soil erosion, and promote improved farmer income. - Reduced deforestation and forest degradation by addressing a key driver in the Churia hills and Bhavar region. 	<p>Improved awareness of climate change, climate-risks, and risk-reduction strategies will encourage CBOs to adopt climate-resilient practices. Strengthened capacities will enable CBOs and farmers to adopt low-carbon and climate-resilient practices during and after the project. The selection of profitable, climate-resilient farming techniques and dissemination of economic benefit evidence will encourage CBOs and farmers to continue the practices beyond the life of the project.</p> <p>Initial investments in climate-resilient practices covered by the project will enable highly vulnerable and poor small-holder farmers to apply the practices and benefit from them.</p> <p>Increased income from climate-resilient practices, combined with additional benefits (improving soil nutrition and soil moisture, increased resilience to flooding, improved yields, increased food security, etc.) will incentivize the continued</p>

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Activity	Description	Sub-activities	Deliverables	Impact	Sustainability Considerations
				<ul style="list-style-type: none"> - More detailed info on climate benefits available in Table 4 of the FP, and in the FS in the Table on page 82 and FS Annex A 	<p>adoption of the practices including risk-taking by farmers to invest in these practices.</p> <p>Financing of equipment/ tools for climate-resilient practices beyond project end will be from increased revenue streams from these practices. Measures that deliver financial benefits for farmers have been intentionally designed and selected to ensure financial sustainability (see financial and economic assessment).</p> <p>Promoted activities (described in greater detail in FS and FP, designed for their relevance for Nepal) were assessed to have a NPV of \$735 on a per hectare basis, providing incentives for CBOs and local farmers to reinvest in climate resilient agriculture. A 2019 case study in Nepal demonstrated that climate-resilient activities like those promoted by the project can deliver benefits for farmers (Subedi et al. 2019 - Climate-smart practices for improvement of crop yields in mid-hills of Nepal).</p>
1.1.3: Train farmers to adopt agroforestry and livestock management practices.	<p>Strengthen farmers' capacities to adopt/apply suitable agroforestry and livestock management practices on their own land, as well as support other members of their CBOs to adopt/apply such practices, thereby building household-level resilience and easing drivers of deforestation and forest degradation.</p>	<ul style="list-style-type: none"> - Organize initial training for CBO households on agroforestry and livestock management practices (materials to be developed in Component 3; examples of suitable practices identified in FS Appendices 1.6-1.7). - Procure materials to establish small on-farm tree nurseries. - Regular site visits by field staff in PY3-7 to support broader adoption of agroforestry and livestock management practices, as well as identify and support livestock- 	<ul style="list-style-type: none"> - 120 initial Beneficiaries supported to adopt promoted practices and establish small on-farm tree nurseries. - Approximately 500 households supported to access the government biogas subsidy and purchase/install biogas digesters. - Agroforestry activities implemented on about 15,202 ha (models identified as relevant for the project area included) 	<ul style="list-style-type: none"> - Establishment of agroforestry activities on 15,202 ha of agricultural land, while simultaneously reducing the impact per livestock unit on the degradation of forests in the project area. - Increased-resilience to climate change through the adoption of SNRM and agriculture, especially practices that improve soil moisture, reduce soil erosion, and enhance soil organic carbon, among other benefits (refer to FS appendices A1.6-A1.7). - Reduced deforestation and forest degradation by 	<p>Improved awareness of climate change, climate-risks and climate-resilient livelihood strategies will encourage CBOs to adopt agroforestry and livestock management practices understanding the relevance, costs, and additional benefits.</p> <p>Strengthened capacities will enable CBOs and local people to adopt low-carbon and climate-resilient practices by improving their understanding of the benefits.</p> <p>Such practices will increase the incomes of poor and vulnerable small-scale households.</p> <p>Biogas support will be targeted to middle-income households with larger livestock (and considering other key criteria, as presented in the response to ITAP comments).</p> <p>The project's activities can be financially supported after the project as they are profitable: a biogas unit generates US \$217 in NPV.</p> <p>One of the key barriers identified for households to access the biogas subsidy is a lack of</p>

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Activity	Description	Sub-activities	Deliverables	Impact	Sustainability Considerations
		owning households to access the government biogas subsidy.	in FS Appendices A1.6-1.7).	reducing pressure on forests from agriculture and livestock.	knowledge and capacity, as well as (often) more limited access to relevant advisory services that would enable them to overcome this barrier. Therefore, the project proposes to scale up the provision of advisory services to targeted CBOs to enable interested households to access the government subsidy and credit facility (if needed) to install and operate biogas plants. FAO and MoFE are confident that with the technical advisory services budgeted into this project (of which about 77% is financed through MoFE co-financing), approximately 500 households will be able to access the subsidy and install biogas digesters, who would not otherwise do so.
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.	Construct local structures in each of the 26 targeted river systems that will reduce community vulnerability to climate change impacts (accounting for both upstream and downstream dynamics), including: (i) erosion risk and sedimentation in upstream areas; and (ii) flooding risk and water stress in downstream areas. The structures are presented in Appendix A2 and are based on best practices and experiences in Nepal assessed in the FS, including those highlighted in the MOFSC Green Book for Soil Conservation and Watershed Management, as well as experiences from FAO, ICIMOD and others (see FS for references in	<ul style="list-style-type: none"> - Identify specific sites for community structures. - Develop technical specifications and construction guidelines for individual structures once sites are identified. - Recruit service providers to build structures in upstream and downstream locations, and supervise them while they do so. - Train communities and government officials to monitor and maintain structures. 	<ul style="list-style-type: none"> - Establish relevant structures and practices to stabilize 86 gullies, mostly in the Churia hills. - Establish and maintain check dams and/or community-managed water harvesting ponds in 129 sites, mostly in the Bhawar zone. 	<ul style="list-style-type: none"> - Sedimentation level in each of the targeted river systems in which the project constructs / establishes gully and riverbank stabilization measures is reduced by 25% (relative to the baseline level) by the end of PY7. - Improved resilience against climate-related hazards, in particular through the adoption of bio-engineering (check dams, contour bunds and stonewalls, conservation ponds, gully stabilization and river bank stabilization). See Table on the climate benefits of promoted bio-engineering measures on page 84 of the FS, which provides a more detailed summary of the relevant 	<p>The water and soil conservation infrastructure investments will be operated and maintained by CBOs. Selected measures are often combined with revenue generating activities to ensure their financial sustainability (e.g. river bank stabilization with grasses and bamboo/ tree planting), as evidenced in the financial and economic analysis (water conservation practices have a NPV of \$2,002 per hectare). Investments on public land will be maintained by the government institutions responsible for the infrastructure.</p> <p>Project-supported bio-engineering measures and structures are mostly made from locally available materials, and thus operations and maintenance costs are expected to be modest, and can be covered by revenues from sustainably produced products (e.g. bamboo, broom grass, NTFPs in riparian areas).</p> <p>In addition, the structures are all durable, thus further contributing to ensuring that maintenance costs to be borne by CBOs remain sufficiently modest that they can cover such costs beyond project closure.</p>

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Activity	Description	Sub-activities	Deliverables	Impact	Sustainability Considerations
	regards to design considerations).			climate-resilient land use practices.	
<i>Sub-Component 1.2 – Natural forest ecosystems are better maintained and protected</i>					
1.2.1: Support CBOs to develop/strengthen and deliver forest management operational plans.	Improving the application of sustainable forest management practices in all forest land managed by forestry-related CBOs within the Project Area, ensuring silvicultural practices are implemented and maximizing ecosystem service provision and resilience, as well as generating significant climate change mitigation benefits.	<ul style="list-style-type: none"> - Recruit service providers to work with all forestry-related CBOs to develop and/or strengthen forest management operational plans. - Procure relevant equipment for each relevant CBO to support implementation of forest management operational plans. - Regular site visits by field staff (in PY3-7) to provide ongoing advice and guidance to enable implementation of forest management operational plans. 	<ul style="list-style-type: none"> - Approximately 600 forest management operational plans developed and/or strengthened. 	<ul style="list-style-type: none"> - Management plans will guide project management and post-project management of CBO forests, enabling a medium-term trajectory for the continued adoption of sustainable forest management resulting in REDD+ and increased ecosystem resilience. 	<p>Increased awareness and strengthened capacities of CBOs and government staff on sustainable forest management planning will ensure that SFM (incl. planning for climate risks and the promotion of resilient and sustainable practices) is mainstreamed in current and future plans. Planning in Component 2, and knowledge management and transfer via the CKC will also help these groups to continue to utilize climate information in planning and decision making during and after the project.</p> <p>Training of government staff, and supporting the institutionalization of trainings (through ToT and training module development), will enable the replication of similar processes in the future within other areas of the 26 river systems, and in other river systems in Nepal.</p> <p>Networks in place to support information exchange and continued upscaling for CFUGs in 26 river systems. These networks are also a key institution to support knowledge dissemination and sharing of experiences between CFUGs, and will share project information and lessons learned and ultimately encourage CBOs within the river systems (including non-direct beneficiaries) to understand climate-risks specific to their river system, and encourage them to adopt suitable climate-resilient SNRM practices</p>
1.2.2: Train CBOs and land owners to enable more sustainable management of forest ecosystems.	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	<ul style="list-style-type: none"> - Deliver Training of Trainer (ToT) events for MoITFE field staff. - Deliver trainings for forestry-related CBOs and other land owners ("Forest Training Beneficiaries"). 	<ul style="list-style-type: none"> - Approximately 26 ToT events organized. - Approximately 122 local training events for forestry-related CBOs organized. 	<p>148,998 ha of forests are sustainably managed, contributing to REDD+ and increasing the resilience of forest ecosystems in vulnerable river systems..</p> <ul style="list-style-type: none"> - Forest ecosystems with healthy structure permanent cover 	<p>Forests if sustainably managed provide one of the best low-cost adaptation measures for this region of Nepal, with high vulnerability and exposure to climate-induced disasters</p> <p>SFM is financially sustainable. Improving training capacities, networks, and CBO management plans, will enable in the long-term CBOs to finance future investments in SFM, which has an estimated NPV of \$833 per ha.</p>

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Activity	Description	Sub-activities	Deliverables	Impact	Sustainability Considerations
	practices after project closure.			<p>maximize ecosystem services including flood protection, water recharge, erosion control, wind control, sponge effect against heavy rainfall events, reduction of gully formation, reduction in water runoff, biodiversity enhancement, and conservation, and various other socio-economic benefits (see Annex A in the FS for more detailed info)</p> <ul style="list-style-type: none"> - REDD+ - Sequestration of additional carbon in forests under protection and SFM - Increase in soil organic carbon 	<p>Income from SFM will incentivize the continued adoption of SFM, combined with additional benefits (improving biodiversity, increased resilience to flooding, etc.).</p> <p>Financing of equipment/tools, fencing and other materials (see Annex 3.2 for equipment budget under Activity 1.2.1) for maintaining SFM beyond project end will be financed by increased revenue streams.</p>
<i>Sub-Component 1.3 – Forests and tree cover are restored and maintained in the river system landscape</i>					
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.	Establish tree nurseries in the Project Area to support tree planting and forest restoration under this project, as well as planting and restoration by communities throughout the Project Area during the project and after project closure.	<ul style="list-style-type: none"> - Procure equipment and materials needed to establish two nurseries in each of the 26 river systems. - Identify suitable sites and establish nurseries on these sites. - Procure material inputs and labour needed for production of seedlings in PY3-7, ensuring each nursery has the capacity to produce at least 50,000 seedlings per year. 	<ul style="list-style-type: none"> - 52 tree nurseries established and under operation. 	<ul style="list-style-type: none"> - Establishment and operationalization of 52 multi-purpose tree nurseries to serve the plantation and restoration needs of CBOs and other forest sector stakeholders. This ensures that there are suitable inputs to support reforestation and ecosystem-based adaptation efforts within the project area. 	<p>Nurseries established through project support will be hosted and managed by CFUGs, or other CBOs, where there is a presence of individuals trained and/or experienced in nursery management, availability of, and willingness to allocate, necessary space and labour. The CBOs must be assessed as possessing the potential capacity to sustain the nursery as a viable enterprise beyond the duration of the project. Nursery sites will be selected based on criteria described in the FP, to ensure their long-term suitability for seedling production, and also for access to markets and transport networks</p> <p>Nurseries, once established, have the potential to become self-sustaining, through provision of planting materials to CBO members and to</p>

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Activity	Description	Sub-activities	Deliverables	Impact	Sustainability Considerations
					external stakeholders as an income-generating activity
1.3.2: Establish and maintain 7,300 ha of forest plantations to enhance resilience.	Establish and support maintenance of different types of forest plantations (demonstration plantations; public land forests on river bank sites; and public land forests on community land) to build resilience and deliver mitigation benefits, while also building capacity to support sustainable forestry activities beyond project closure.	<ul style="list-style-type: none"> - Train MoITFE staff in each province on sustainable plantation management. - Procure materials, seed stock and local labour needed to plant 1,300 ha of demonstration plantations in the Bhawar and Terai zones, and directly support and oversee this planting. Procure materials, seedlings and local labour needed to establish 1,000 ha of riparian plantations (on river bank sites), and directly support and oversee this planting. - Assist relevant CBOs to sign formal agreements with local Municipality offices for management of riparian plantations, as well as develop management plans. - Procure materials, seedlings and local labour needed to establish 5,000 ha of plantations on community land, and directly support and oversee this planting. 	<ul style="list-style-type: none"> - Three training events organized (1 per province) for MoITFE staff. - 1,300 ha of demonstration plantations established. - 1,000 ha of riparian plantations established (on river bank sites). - 5,000 ha of plantations established on community land. 	<ul style="list-style-type: none"> - Establishment and maintenance of 7,300 ha of forest plantations to enhance resilience. - Expanded forest cover (with a focus on vulnerable, degraded, sub-utilized and/or abandoned land) 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 mitigation benefits (e.g. REDD+, carbon stock enhancement, soil organic carbon). - More detailed information on the impacts available in FS page 90, and within FS Annex A (see A3.1 overview of interventions for tree planting on private and public lands). 	<p>Plantation support will be provided to highly vulnerable and marginalized households on community land and in riparian areas, safeguarding key ecosystem services, strengthening resilience and enhancing carbon stocks.</p> <p>Tree planting and multi-purpose tree plantations are needed to reduce pressure on natural forests for timber, fodder and fuelwood among other products. Highly marginalized households do not have the resources to invest in such plantations, and may need support for plantation establishment combined with inputs and technical trainings. The formalization of public land forest user groups will be an effective measure to engage such households (considering public land forest groups consist of some of highly vulnerable and marginalized men and women, often including indigenous peoples, women and Dalits), supporting them to establish planted forests on degraded, sub-utilized or abandoned land. As well as receiving direct support through this activity for plantation establishment, the public land forest user groups will, once registered be eligible for support from provincial government extension services.</p> <p>The financial and economic analysis demonstrated that these activities are profitable in the long-run, enabling and incentivizing re-investment by CBOs.</p> <p>Demonstration plantations in accessible public land (1,300 ha) will be established to expand tree cover of native high value timber species and build capacity of local forestry staff to promote sustainable plantation management beyond project closure. This in turn will deliver long-term</p>

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Activity	Description	Sub-activities	Deliverables	Impact	Sustainability Considerations
		<ul style="list-style-type: none"> - Assist relevant CBOs to sign formal agreements with local Municipality offices for management of plantations on community land, as well as develop management plans. 			<p>adaptation and mitigation benefits. To do so, project staff will train 20 forestry staff in each of the three provinces and support inputs for plantation in Bhawar and Terai zones of the 26 targeted river systems. These demonstration plantations will enable forestry staff to promote and support sustainable plantation management after project closure.</p> <p>CBOs, such as CFUGs, will learn from the demonstration plantations and targeted extension support to promote CBO investment in high value timber species. It will support CBOs and interested private sector actors to understand necessary site-conditions, and management practices for successful investments (reducing investment risk and improving awareness on investment opportunities).</p>
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.	Assist and build the capacity of CBOs to expand forest cover and restore forest landscapes in critical locations in each of the 26 targeted river systems, thereby restoring crucial ecosystem functions and ecosystems resilience while generating significant mitigation benefits.	<ul style="list-style-type: none"> - Prepare training materials on Forest Landscape Restoration (FLR). - Train provincial forestry field staff on FLR. - Train CBOs on FLR. - Identify specific sites and communities for Assisted Natural Regeneration (ANR) support, and develop ANR methodologies and implementation plans. - Procure tools, equipment, inputs and local labour needed to implement ANR on 15,990 ha of community-managed forest land, and directly support and oversee this planting. 	<ul style="list-style-type: none"> - 12 training events on FLR organized for provincial forestry field staff. - 180 training events on FLR organized for relevant CBOs. - ANR methodologies and implementation plans (adapted to local contexts) developed. - ANR implemented on 15,990 ha of community-managed forest land. 	<ul style="list-style-type: none"> - Implement Assisted Natural Regeneration on 15,990 ha by training government field staff and CBOs on Forest Landscape Restoration. 	<p>Building up the training capacities on FLR will enable in the long-term CBOs to finance future investments in FLR.</p> <p>Increased income from FLR will incentivize the continued adoption of SFM, combined with additional benefits (improving biodiversity, increased resilience to flooding, etc.).</p> <p>Financing of equipment/ tools, fencing and other materials for assisted regeneration (relatively low-cost) beyond project end will be financed by increased revenue streams from FLR.</p>

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Activity	Description	Sub-activities	Deliverables	Impact	Sustainability Considerations
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.	Establish woodlots on small-scale landowners' land, thereby enhancing resilience of soils and broader ecosystems, while also easing expansionary pressures (particularly from downstream communities and "distant forest users") that are driving deforestation and forest degradation.	<ul style="list-style-type: none"> - Identify landowners with whom to collaborate to establish woodlots. - Organize exchange visits between prioritized small-scale landowners and other successful forest owners in neighbouring districts. - Procure seedlings needed to establish woodlots on 16,500 ha of land, and directly oversee and support this planting (coupled with labour provided by beneficiary households and advisory services provided by government). 	<ul style="list-style-type: none"> - Woodlots established on 16,500 ha of land owned by small-scale landowners. 	<ul style="list-style-type: none"> - Tree cover established on 16,500 ha of woodlots to enhance ecosystem resilience, and improve fuelwood and timber availability in downstream communities. - <i>Reduced forest degradation from fuelwood collection (especially from distant-forest users downstream), improving forest health and the provision of ecosystem services</i> - <i>Reduced erosion and sedimentation, reduced exposure to landslides and flooding from upstream deforestation</i> - <i>Improved energy security</i> - <i>Carbon sequestration (REDD+ from reducing pressure on natural forests, carbon stock enhancement)</i> 	<p>Sites for woodlot establishment will (i) focus on households with clarity of tenure and no prevailing ownership disputes; (ii) prioritize lower-income households (specific thresholds due to be determined during inception, based on baseline survey) to maximize sustainable development benefits and ensure project does not crowd out private investment; (iii) provide maximum 1 ha plantation support per household; and (iv) ensure at least 100 households are supported in each river system. Sites will be proposed by MoTTF after consultation with local municipalities and Private Forest Owners Associations, validated by MoFE and FAO experts, and finalised through dialogue with private land owners</p> <p>The small land-owners targeted under this activity will be primarily identified through public land forest user groups, therefore receiving extension support through provincial government staff beyond project timeframe, to facilitate sustainability</p>

COMPONENT 2 – STRENGTHENING INSTITUTIONS AND PLANNING FOR CLIMATE-RESILIENT SNRM

Sub-Component 2.1 – Planning for climate-resilient SNRM is enhanced

2.1.1: Strengthen institutions on climate change impacts and ecosystem mapping.	<ul style="list-style-type: none"> - Build the capacity of key entities that intend to collaborate with and/or benefit from the project – including those that will play an important role in sustaining and scaling up support for climate-resilient SNRM after project closure – on climate change and climate-resilient land 	<ul style="list-style-type: none"> - Train relevant national, provincial and local stakeholders on climate change and climate-resilient land use planning & management, as well as GESI principles and measures. - Train relevant national and provincial stakeholders on relevant 	<ul style="list-style-type: none"> - 4 national-level trainings on climate change and climate-resilient land use planning & management organized. - 3 provincial-level trainings on climate change and climate-resilient land use & planning organized. 	<ul style="list-style-type: none"> - Strategy and action plan will provide an improved policy framework and clear roadmap for mainstreaming and scaling up climate-resilient SNRM and DRR, including measures with adaptation benefits 	<p>Strengthened capacities of provincial and local authorities to understand climate risks, interlinked dynamics related to REDD+ and climate risk, and important planning considerations.</p> <p>The creation of a framework to identify ecosystems and communities that are vulnerable to climate change, especially climate-related hazards, combined with strengthening government capacities to operationalize this framework and conduct a vulnerability assessment will enable them to consider climate-related information in planning, and decision-</p>
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Activity	Description	Sub-activities	Deliverables	Impact	Sustainability Considerations
	use planning & management practices.	GIS tools for critical ecosystem mapping.	<ul style="list-style-type: none"> - 64 local-level trainings on climate change and climate-resilient land use & planning organized. - 1 national-level training on GIS tools for critical ecosystem mapping organized. - 6 provincial-level trainings on GIS tools for critical ecosystem mapping organized. 		<p>making. This is particularly relevant given the political context in Nepal and the devolution of decision making power to the provincial and local levels.</p> <p>Materials (guidelines, manuals, protocols and trainings) will be stored in the CKC, enabling institutionalized knowledge management and information retention, and will ultimately help facilitate replication of this approach in other river systems.</p>
2.1.2: Develop and validate Critical Ecosystem Restoration Plans (CERPs) for 26 river systems.	Assist provincial and local stakeholders to develop a CERP for each of the 26 targeted river systems, thereby providing governments and CBOs with common plans and priorities to guide coordinated investments in climate-resilient SNRM.	<ul style="list-style-type: none"> - Recruit a service provider to perform a multi-criteria spatial analysis for each of the 26 targeted river systems, and use this analysis as a basis to identify needs and propose investment/intervention priorities in each river system. - Organize a consultation in each river system to discuss identified priorities and develop them into a CERP for each river system. - Organize field consultations to raise awareness about (and secure buy-in for) CERP priorities among relevant CBOs. - Organize national and provincial-level workshops to secure 	<ul style="list-style-type: none"> - 26 CERPs developed and validated. - 26 river system-level consultations organized. - 52 field consultations organized. - 2 national and 6 provincial validation workshops organized. 	<ul style="list-style-type: none"> - 26 CERPs will identify particularly vulnerable priority areas within already vulnerable river systems and enable holistic planning to plan and implement priority measures for climate change adaptation and mitigation. 	<p>The capacity of government stakeholders and local CBOs will be built to understand and assess climate risks, utilize climate information and vulnerability assessments to plan, and monitor climate resilient land use, and further monitor local risks and resources in the future. This will equip them 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.</p> <p>Priority measures will be implemented through investments covered in Component 1, and aligned with best practices (see FS) and Nepal's Churia Master Plan, among other national policies and strategies.</p> <p>Additional funding for further measures (e.g. non-priority measures) may be provided by the Provincial Government and/or the President's Chure Terai Madhesh Conservation Development Board; both have been working in forests, soil and water conservation initiatives in the project area.</p> <p>Engagement of diverse stakeholders, including governmental entities from different sectors and levels (national, provincial, local), NGOs, CBOs and local people will create improved commitments and ownership over climate</p>

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Activity	Description	Sub-activities	Deliverables	Impact	Sustainability Considerations
		high-level government validation of CERPs.			<p>change adaptation and mitigation efforts within each river system.</p> <p>Improved cross-sectoral coordination (including strengthening the engagement of DHM in planning processes), will result in improved planning and decision-making (including trans-provincial decision-marking) outcomes that benefit multiple sectors and promote low-carbon and climate-resilient development.</p> <p>Supported by the activities in Component 1, CBOs will be able to reinvest profits in climate-resilient practices, with ongoing communication and guidance from the Nepali Government.</p> <p>Based on the demonstration of this process, this process can be replicated in other parts of the country (due to strengthened capacities, supporting materials, improved knowledge management and institutional trainings) with notable benefits for the government to invest in maintaining such processes (reduced disasters, strengthened livelihoods and ecosystem services).</p>
2.1.3: Support provincial governments to plan and increase resilience to projected climate change-related extreme events.	Raise awareness of the evolving risks related to climate change-induced extreme events within the Project Area and assist provincial governments to develop risk management plans for such extreme events.	<ul style="list-style-type: none"> - Organize awareness-raising workshops for provincial and local government staff. - Develop provincial risk management plans for climate change-induced extreme events, building on detailed hazard mapping, vulnerability assessments and risk mapping from CERPs. - Organize multi-stakeholder validation workshops for risk management plans. 	<ul style="list-style-type: none"> - 26 awareness-raising workshops organized. - 3 provincial risk management plans for climate change-induced extreme events developed. - 26 multi-stakeholder validation workshops organized. 	<ul style="list-style-type: none"> - Holistic planning that considers climate risks, upstream and downstream impacts, and vulnerable ecosystems and communities will enable provinces 1, 2 and 3 to increase their resilience to climate change-related extreme events. 	<p>Land use planning processes are strengthened and applied by balancing integrated spatial planning with participatory land use planning, accompanied by capacity building for local and provincial governments and CBOs. Combined with Activities 2.1.1-2.1.2, this will enable provincial governments to understand climate risks, and implement a holistic approach for disaster risk-reduction, as well as low-carbon and climate-resilient land use. Such an approach will demonstrate a new framework for low GHG and climate-resilient planning in Nepal, which will be replicable in other river systems in the country. This is necessary to support the country's needs, given the high vulnerability of the region and the political context of the country, where there is a need to quickly invest in the capacities of provincial and local policy makers to enable the adoption of necessary adaptation measures.</p>

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Activity	Description	Sub-activities	Deliverables	Impact	Sustainability Considerations
<i>Sub-Component 2.2 – Community-based organizations (CBOs) are equipped to scale up climate-resilient SNRM</i>					
2.2.2: Train CBOs on climate-resilient land use planning, and assist them to mainstream SNRM into their CBO management plans.	Build technical capacities of CBOs to 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.	<ul style="list-style-type: none"> - Recruit a service provider to organize Training of Trainers (ToT) for Local Resource Persons (LRPs) on climate-resilient land use. - Organize community workshops at which LRP will train members from all 750 beneficiary CBOs. - Provide advice and guidance to mainstream climate-resilient SNRM into CBO management plans for the most vulnerable CBOs in the Project Area. 	<ul style="list-style-type: none"> - 26 ToT training events for LRPs organized. - 250 community-level workshops for CBOs organized (with about 3-5 CBOs per workshop). - 250 CBO management plans developed and/or strengthened to mainstream support for climate-resilient SNRM. 	<ul style="list-style-type: none"> - Adaptation and mitigation measures mainstreamed into local CBOs' management plans, which provide short- and medium-term guidance for planning and implementing climate-resilient land use to improve the resilience of local livelihoods and ecosystems. This will strengthen local capacities, and reduce their vulnerability to climate change. - Improved awareness on climate-change impacts from deforestation and forest degradation and unsustainable NRM, and building capacities on SNRM and DRR measures in 750 CBOs. - Improved awareness on climate-change risks, and building capacities on climate resilient SNRM. - Improved use of climate information in planning and decision-making at the local level in 750 CBOs. 	<p>CBOs and their members will have increased awareness on climate-risks, and climate-risk reduction measures, and measures for REDD+ and climate-resilient land use that are suitable for their context.</p> <p>Mainstreaming support will provide them with clear guidance for adopting climate-resilient SNRM (in combination with other technical and investment support within Components 1 and 3). The integration of training materials into the CKC, and the institutionalization of training (training trainer materials and handbooks, training materials) will enable such an approach to be replicated in other areas of the river system, and within the country. For example, there are over 18,000 CFUGs alone established in Nepal, comprised of 2.2 million households that manage over 1.7 million ha of forests. Once materials are developed, early experiences conducted and staff trained, there is a significant potential to replicate such an approach in other parts of the country through extension services of provincial and local government staff and CBOs.</p> <p>Mainstreamed climate-resilient SNRM measures (implementation and investment support included within Component 1 and 3) will have various co-benefits, including improved water quality and quantity, food security, improved health, biodiversity conservation, among others, providing additional incentives for CBOs to continue to invest in climate-resilient land use.</p>
<i>COMPONENT 3 – IMPROVING KNOWLEDGE, AWARENESS AND LOCAL CAPACITY FOR CLIMATE-RESILIENT SNRM</i>					
<i>Sub-Component 3.1 – Local knowledge on climate-resilient SNRM is enhanced</i>					
3.1.1: Equip Local Resource Persons (LRPs) with best practices on climate-resilient	Gather local and indigenous knowledge on climate-resilient SNRM and distil this information into user-friendly guidelines for LRPs	<ul style="list-style-type: none"> - Recruit a service provider to organize local consultations to gather local and indigenous knowledge. 	<ul style="list-style-type: none"> - 105 community consultations organized (about 4 in each of the 26 	<ul style="list-style-type: none"> - Local and indigenous knowledge on climate-resilient SNRM will be identified and distilled into user-friendly 	<p>Indigenous and local knowledge should be combined with scientific knowledge and other best practices to provide vulnerable communities with diverse strategies to adapt to climate change. Local and traditional knowledge</p>

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Activity	Description	Sub-activities	Deliverables	Impact	Sustainability Considerations
SNRM from local experience, including indigenous knowledge.	to train and support CBO members to adopt such practices during and beyond the project.	<ul style="list-style-type: none"> - Develop a compendium of local and indigenous knowledge, building on insights gained from consultations. - Organize workshops to review/validate the compendium. - Recruit a service provider to develop best practice guidelines for LRP, drawing in part on the compendium. 	<ul style="list-style-type: none"> - targeted river systems). - 1 compendium of local and indigenous knowledge developed. - 5 provincial-level validation workshops organized. - 1 set of best practice guidelines for LRP developed. 	<ul style="list-style-type: none"> - guidelines for LRP and other local stakeholders to train and support CBO members to adopt such practices during and beyond the project, scaling up best practices piloted by the Government of Nepal (MoSTE 2015, mentioned in the FS). 	<p>identified from this activity will provide insight into how local communities from different cultural backgrounds identify climate change and cope with these changes – building on their own lessons learned. Such practices can help ‘bridge’ national strategies with local level realities, and enable the adoption of climate-resilient land use based on local and traditional knowledge – especially promotion the adoption of such practices by men and women from diverse indigenous groups, and castes (as suitable - see IPPF/SIPF for more information).</p> <p>Knowledge and information on local climate-adaptation strategies will be integrated and disseminated via CKC (3.2.3), and awareness campaigns (3.1.2). This knowledge will further be mainstreamed into the training modules below, promoting the adoption of low-cost, local and culturally appropriate adaptation strategies. Combined with investment support provided in Component 1, this enables the promotion and adoption of such practices taking into account the available resources and barriers faced by particularly vulnerable households.</p>
3.1.2: Raise awareness on climate-resilient SNRM through local schools, media and intra-regional exchange.	Organize awareness-raising campaigns and other forms of information exchange to promote climate-resilient SNRM, and increase interest in such practices and communities living throughout the Project Area.	<ul style="list-style-type: none"> - Recruit a service provider to develop a knowledge dissemination and communication plan. - Recruit a service provider to develop curricula on climate-resilient SNRM for local high schools. - Establish student-run eco-clubs in all 26 targeted river systems. - Organize local-level radio programmes. 	<ul style="list-style-type: none"> - 1 knowledge dissemination and communication plan developed. - 1 set of high school curricula developed. - Student-run eco-clubs established, and 260 sessions held at schools in the Project Area. - 119 local-level radio programmes broadcast. - 28 local exchange visits for local 	<ul style="list-style-type: none"> - Increased awareness of local people on climate change, climate risks and climate-resilient SNRM and available resources, initiatives and opportunities. 	<p>Engagement 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 what is developed under Sub-Component 3.1 and the information contained in the CKC established under Sub-Component 3.3) via these entities’ respective networks.</p> <p>This will increase awareness of climate risks and available resources (including the CKC), to support local people to adapt to climate-risks.</p>

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Activity	Description	Sub-activities	Deliverables	Impact	Sustainability Considerations
Sub-Component 3.2 – The extension system is equipped to promote climate-resilient SNRM					
3.2.1: Develop 10 modules on climate-resilient SNRM to be used by extension workers, including in the FFS.	- Develop locally-relevant training modules that cover the range of climate-resilient SNRM practices to be supported by the project, which extension workers and other trainers can use to promote more widespread adoption/application of climate-resilient SNRM throughout the Project Area during and after the project.	- Develop training modules. - Recruit a service provider to translate training modules.	- 10 training modules developed and translated.	- 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 (supporting trainings and adoption of measures presented in Component 1). The modules will cover sensitization 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.	- Training modules draw on best practices identified in 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). Enables improved institutional and individual learning, improved knowledge management, and facilitates the replication of training in other parts of the country.
3.2.2: Enhance and deliver quality extension services on climate-resilient SNRM to households.	- Build the capacity of extension workers and LRP to understand and apply the 10 training modules developed under Activity 3.2.1; engage the services of provincial extension workers to promote and support adoption of climate-resilient SNRM in the Project	- Train extension workers and LRP on climate-resilient SNRM, including how to use/apply the 10 training modules developed under Activity 3.2.1. - Engage provincial extension workers (using MoFE co-financing) to deliver climate-informed extension support in the Project Area, including	- 78 training events organized. - Extension workers providing 11,880 months of project-related support for climate-resilient SNRM, with the specific distribution of these working months (i.e. days per worker) to be determined.	- To promote lasting and sustainable behavioural change to enable the adoption of climate-resilient and low-carbon land use (including practices aimed at addressing the main drivers and underlying causes of deforestation and forest degradation, and increasing resilience of local livelihoods and	- 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.

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Activity	Description	Sub-activities	Deliverables	Impact	Sustainability Considerations
	Area by: (i) supporting delivery of project-organized trainings; and (ii) continuing to support CBOs to adopt and continue using climate-resilient SNRM, including among households who were not selected by their CBOs to participate directly in project-organized trainings.	under Components 1 and 2.		<ul style="list-style-type: none"> - ecosystems), it is essential to scale up the delivery of high-quality, climate-informed extension services in all 26 targeted river systems. - Extension workers will directly support delivery of project-financed trainings and extension & advisory services that support investments under Component 1. 	<p>MoFE co-financing will be used to engage the services of provincial-level extension workers (on contract with MoITFE and MoALMC) to specifically support the delivery of climate-informed extension modules and support under the BRCRN project, and signals an intention to continue to finance these services after closure. They will 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.</p>
3.2.3: Establish and operate a 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.	<ul style="list-style-type: none"> - Establish (and build capacity to use) the CKC as a platform to underpin the continued provision of climate change-informed extension and advisory services, as well as support continued monitoring of natural resources and evidence-based planning in the Project Area, beyond project closure. 	<ul style="list-style-type: none"> - Recruit a service provider to establish the CKC, including provincial hubs within the MoITFE offices in Provinces 1, 2 and 3. - Train government staff and other relevant specialists to understand the CKC, and the information they can access from it. - Develop CKC manuals, protocols and guidelines (including Standard Operating Procedures, SOPs). - Train relevant MoITFE staff on CKC protocols and SOPs to support continued maintenance/operation of the CKC. 	<ul style="list-style-type: none"> - CKC platform established. - 3 provincial CKC hubs established in MoITFE offices in Provinces 1, 2 and 3 (integrating into existing institutions). - 4 training events on CKC use/access organized. - 1 set of CKC manuals, protocols, guidelines and SOPs developed. - 3 training events on CKC maintenance/operations organized. 	<ul style="list-style-type: none"> - Improved collection, analysis, and dissemination of climate-related information leading to the delivery of climate-informed extension services, integration of climate change into decision making process and planning, and to support monitoring and implementation of climate interventions. 	<p>CKC will be embedded in existing institutions – within MoITFE Offices (specifically within the Science Environment and Climate Change Division). It will support knowledge management and learning beyond project closure. Besides investing in the design and development of CKC, an emphasis is placed on building the capacity of MoITFE staff in each of the provincial CKC hubs to operate the CKC. 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 (ensuring it is fully embedded within the institution). MoITFE staff will be trained on the 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.</p>