



# GEF-6 FULL-SIZED PROJECT FOR ENDORSEMENT

PROJECT TYPE: FULL-SIZED PROJECT

TYPE OF TRUST FUND: LDCF/GEF TRUST FUND / MULTI TRUST FUND

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## PART I: PROJECT INFORMATION

Project Title: Enhancing Sustainability and Climate Resilience of Forest and Agricultural Landscape and Community Livelihoods			
Country(ies):	Bhutan	GEF Project ID: <sup>1</sup>	9199
GEF Agency(ies):	UNDP	GEF Agency Project ID:	5713
Other Executing Partner(s):	Gross National Happiness Commission - Secretariat	Submission Date:	14 March 2017, 10 June 2017
GEF Focal Area (s):	Biodiversity, Sustainable Forest Management	Project Duration (Months)	72
Integrated Approach Pilot	IAP-Cities <input type="checkbox"/> IAP-Commodities <input type="checkbox"/> IAP-Food Security <input type="checkbox"/>		Corporate Program: SGP <input type="checkbox"/>
Name of Parent Program	N/A	Agency Fee (\$)	1,257,041

### A. FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES<sup>2</sup>

Focal Area Objectives/Programs	Focal Area Outcomes	Trust Fund	(in \$)	
			GEF Project Financing	Co-financing
CCA-1	Reduce vulnerability of people, livelihoods, physical assets and natural systems	LDCF	4,950,000	10,000,000
CCA-2	Strengthen institutional and technical capacities for effective CCA	LDCF	4,950,000	10,000,000
CCA-3	Integrate CCA into relevant policies, plans and associated processes	LDCF	600,000	6,000,000
BD -1 Programme 1	Increased revenue for protected area systems and globally significant protected areas to meet total expenditures required for management; improved management effectiveness of protected areas	GEFTF	2,311,416	10,000,000
SFM - 2	Increased application of good management practices in all forests by relevant government, local community (both women and men) and private sector actors	GEFTF	1,155,708	6,630,300
<b>Total project costs</b>			<b>13,967,124</b>	<b>42,630,300</b>

<sup>1</sup> Project ID number remains the same as the assigned PIF number.

<sup>2</sup> When completing Table A, refer to the excerpts on [GEF 6 Results Frameworks for GETF, LDCF and SCCF](#).

## B. PROJECT DESCRIPTION SUMMARY

Project Objective: Operationalizing an integrated landscape approach through strengthening of biological corridors, sustainable forest and agricultural systems, and building climate resilience of community livelihoods						
Project Components/ Programs	Financing Type <sup>3</sup>	Project Outcomes	Project Outputs	Trust Fund	(in \$)	
					GEF Project Financing	Confirmed Co-financing
<b>Component 1:</b> Institutional capacity for integrated landscape management (ILM) and climate change resilience	TA	<b>Enhanced institutional capacity</b> for integrated management of forests, biodiversity and ecosystem services, increasing climate resilience and building a conducive environment for biological corridor network operationalization, indicated by: - <i>National Forest Monitoring System incorporates HCVF and carbon stock assessment;</i> - <i>National protocols established for habitat and biodiversity monitoring in PAs and BCs;</i> - <i>Ecosystem valuation piloted in the project landscapes</i>  <b>Strengthened planning framework for the biological corridor system:</b> - <i>Biological Corridor (BC) system mapped in detail based on results of delineation review and included in comprehensive integrated landuse plans;</i>  <b>Increased forest areas under sustainable management practices, indicated by the GEF</b>	<u>1.1: Strengthened policy and planning frameworks and institutional capacity</u> for integrated landscape management and climate change resilience within key national agencies, including decision support tools for holistic and comprehensive integrated landuse planning through zonation for the project landscapes, and refinement of the BC system delineation in relation to connectivity, HCVF, traditional land management, climate change adaptation and sustainability criteria; <u>1.2: Strengthened monitoring systems for forest condition, biodiversity status and carbon stocks</u> in DoFPS, including strengthened National Forest Inventory (NFI) and National Forest Monitoring System (NFMS) to measure status and condition of forest and carbon stocks, integration of the HCVF concept, protocols and capacity for monitoring habitats and biodiversity; <u>1.3: Sustainable financing system for biological corridor and PA system and sector-oriented valuation policy and tools developed</u> to measure ecosystem services benefits, including a sustainable financing strategy for the national PA/ BC system, lessons shared for upscaling PES/REDD+ schemes, test ecosystem valuation tools and conduct awareness programme on ecosystem values; <u>1.4: Strengthened national systemic and institutional capacity for management of the biological corridor and PA system</u> , including revised Biological Corridor Regulations, strategic plan for operationalizing the BC system including a reporting system, staffing standards, training and mechanisms for engagement of local	GEF TF	1,554,000	Total: 10,000,000
				LDCF	BD: 354,000 SFM: 600,000 LDCF: 600,000	GEF TF Cofinancing: 4,800,000  LDCF Cofinancing: 5,200,000

<sup>3</sup> Financing type can be either investment or technical assistance.

		<p><b>SFM Tracking Tool:</b> -100,000ha forest area brought under sustainable and climate-resilient management practices;</p> <p><b>Improved financial sustainability of PA/biological corridor management:</b> - Financing gap of US\$4,447,000 to achieve basic management of targeted PAs/BCs is closed and management of PAs/BCs more self-reliant through use of at least two new financial sources, GEF BD1 TT Sustainable Financing score of 75%;</p> <p><b>Institutional framework and capacity strengthened for integrating climate change concerns and adaptation options into local governance:</b> - Mainstreaming Reference Group (MRG) system strengthened and operating sustainably with guaranteed budget at central and dzongkhag level (12 dzongkhags)</p>	<p>stakeholders in BC/PA management, national awareness raising of the BC system; <u>1.5: Planning and monitoring capacity for sustainable forest management in FMUs and LFMPs</u>, including: updated planning, implementation and monitoring guidelines with new inventory data management system, training and equipment, field studies and lab analysis for inventory data management, mobility and field equipment/ instruments to FRMD and TFDs in for enhanced planning and monitoring, 1 new and 6 updated FMU management plans, and LFMPs for 33 gewogs; <u>1.6: Institutional mechanisms and tools strengthened for integration of Climate Change Adaptation (CCA) and environmental sustainability needs in local development planning</u> system at dzongkhag and gewog levels, through strengthened central and local Mainstreaming Reference Group system, and increased local government capacity for use of mainstreaming tools and integrate CCA and environmental issues into plans and programmes, capacity for SEA increased and SEA conducted for key sector-led development policies, programmes and plans affecting the project landscapes</p>			
<p><b>Component 2:</b> Emplacement of BC system governance and management system at pilot corridors</p>	TA	<p><b>Increased management effectiveness of the project landscapes</b> consisting of 4 biological corridors and 3 contiguous PAs as per GEF BD-1 Management Effectiveness Tracking Tool for each management unit, indicated by: -increased METT scores for three PAs (1,149,400ha) and four BCs (176,400ha): JKSNR:62&gt;75 JSWNP:66&gt;75</p>	<p><u>2.1: Conservation management plans (CMPs) integrating CCA needs in place</u> for the four BCs in the target project landscapes including review, demarcation and mapping of BC boundaries, increased capacity of WCD and TFDs for biodiversity and socio-economic survey methods that integrate CCVA into CMPs, prepare a climate-adaptive CMP for BC8 and incorporate CCA into CMPs for BCs 1,2 &amp; 4 at Mid-term stage; <u>2.2: Governance operationalized and management effectiveness enhanced for the targeted BCs</u>, including strengthened personnel capacity and sustainable financing, basic infrastructure (e.g. signage, patrol/ camping sites and outposts, boundary pillars) and</p>	GEF TF	<p>1,900,000 BD: 1,399,636 SFM: 500,364</p>	<p>Total: 8,320,000 GEF TF Cofinancing: 8,320,000 LDCF Cofinancing: 0</p>

		<p>PNP:73&gt;80 BC1:35&gt;65 BC2:26&gt;65 BC3:32&gt;65 BC8:20&gt;65</p> <p><b>Status of key species:</b> - Key species (tiger, musk deer, snow leopard) populations stable or increased over baseline level in PAs. Sightings of animals or indirect signs of animals (droppings, pug marks etc.) using BCs stable or increased compared to MTR level;</p> <p><b>Biodiversity threat reduction:</b> - Reduction in threat cases reported over the project period in project landscapes: Human Wildlife Conflict (HWC): 50% reduction in proportion of HHs affected by crop and livestock depredation over baseline in targeted areas; Poaching: cases reduced by at least 50% of baseline Forest Fires: number and area reduced by at least 50% of baseline.</p> <p><b>GHG emission reduction:</b> - 3,578,372tCO<sub>2</sub>eq direct GHG emissions avoided over 10 yrs owing to improved forest area management and sustainable land management as calculated using FAO-EXACT.</p>	<p>equipment, awareness of local stakeholders raised, METT system introduced for BCs; <u>2.3: Law enforcement and biological monitoring capacity increased</u> for key ecosystems for threatened species in the target BCs and adjoining PAs, through SMART patrolling and strengthened biological monitoring system, participation of local communities mobilized for monitoring and reporting of biodiversity conditions and threats, and inter-agency coordination and enforcement mechanisms; <u>2.4: Sustainable human wildlife conflict response strategies developed</u> and systems strengthened through innovative mechanisms based on global best practices in the target BCs and adjunct PAs, revision of the Bhutan National HWC Management Strategy 2008, implement HWC responses in hotspots in the BCs and adjoining PAs, evaluate and scale-up best practices.</p>			
<b>Component 3:</b>	INV	<b>Livelihood options for at least</b>	<u>3.1:Strengthened climate resilience and productivity of</u>	LDCF	9,154,000	Total:

Climate Adaptive Communities	TA	<p><b>70% of population in project landscapes made more resilient to climate risks, indicated by:</b></p> <ul style="list-style-type: none"> <li>-At least 25% increase in annual household incomes associated with project interventions over baseline,</li> <li>-At least 30% increase over baseline number of people adopting sustainable livelihood activities;</li> <li>-At least 50% increase over baseline quantity of climate resilient infrastructure;</li> <li>-All project area households aware of gender roles and women's role in HH decision making or consultation;</li> <li>-Women's contribution to productive work increased to 75% over baseline;</li> </ul> <p><b>Sustainable land and water resource management instituted in targeted landscapes through community-based and gender-equitable SLM, SFM and climate-smart agriculture practices indicated by:</b></p> <p>2000ha under SLM, 38 SFM groups and 100,000ha forest under SFM, Increased no. of water sources protected, and Erosion rate values for reference plots (bare), traditional practices and SLM practices (t/ha/yr) at each site.</p>	<p><u>agricultural and livestock management</u>, including: SLM interventions including traditional practices to enhance climate resilience and reduce land degradation, climate-smart agriculture, watershed management, and irrigation interventions, low-emission livestock practice management through enhanced management of grazing land and fodder production, stall feeding and breed improvement, and enhanced institutional capacity at dzongkhag and gewog levels for related extension services;</p> <p><u>3.2: Community livelihoods improved and sources of income diversified</u> and enhanced in the target landscapes, including: strengthened value addition in supply chains of priority climate resilient commodities; commercialization of organically-produced farm produce through cooperatives system; community-based crop and livestock insurance schemes piloted in selected hotspot areas, including capacity building at Dzongkhag and community level (GECC) for potential climate risk transfers; protection of watershed areas to safeguard environmental services (PES, PWS and REDD+) through water source protection, support to community forestry and water users' associations, and conservation livelihood opportunity development;</p> <p><u>3.3: Transformation of market access is demonstrated for selected rural communities to enhance their climate resilience</u>, including climate-resilience guidelines for roads, demonstrated CCR improvements to prioritized Gewog Connectivity roads, post-harvest storage and packaging and processing and sales facilities developed to improve marketing infrastructure, improved rural community access to market and weather/climate information, including commodity prices, and improved capacity of farmers to recognize market risks, linkages and explore opportunities (access to market) to maximize value addition in the supply chains.</p>	GEF TF	<p>LDCF: 8,854,000  BD: 300,000</p>	<p>19,000,000  GEF TF Cofinancing: 1,580,000  LDCF Cofinancing: 17,420,000</p>
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<b>Component 4:</b> Knowledge Management and M&E	TA	<p><b>Effective knowledge management</b>, indicated by:  <i>Information sources, best practices, lessons learned &amp; remaining knowledge gaps on ILM/CCR practices in Bhutan including all project results available online, Series of case studies presenting project-supported best practices and traditional knowledge of ILM /CCR, Biodiversity portal with updated comprehensive information on the PAs and BCs, including detailed GIS maps of BCs; Reports on project achievements and best practices on gender mainstreaming, and Project lessons learned fully documented and made available online.</i></p> <p><b>Mid-term review and final evaluation conducted in time</b></p>	<p><u>4.1: Institutionalized knowledge for ILM and Climate Change Resilience</u>, through review and documentation of existing information and lessons on ILM and climate change resilience, strengthened institutional base(s), human and financial resources for long-term knowledge management system, and strengthened biodiversity portal with information on PAs and BCs, including upgraded and detailed maps of the BCs;</p> <p><u>4.2: Enhanced generation, documentation and sharing of knowledge and best practices in ILM and climate resilient livelihood practices</u>, through: implementation of the project communications strategy, dissemination of case studies including traditional knowledge, gender roles and traditional grievance redress mechanisms for resolving resource management disputes, focus group discussions and exchange visits, develop and manage project website and share learning on gender mainstreaming and SESP integration;</p> <p><u>4.3: Project monitoring and evaluation system in place</u> and used to inform project management decision-making. This includes: inception workshop, annual planning workshops, monitoring of activities, outputs and outcomes, monitoring of the risk matrix and identifying potential risks and mitigation measures to reduce those unexpected risks; a project impact evaluation to capture the causal impacts of the project towards its stated outcomes; quality assurance according to UNDP requirements; Mid-term Review and Terminal Evaluation.</p>	LDCF GEF TF	695,000  LDCF: 500,000  BD: 195,000	Total: 2,000,000  GEF TF Cofinancing: 700,000  LDCF Cofinancing: 1,300,000	
<i>Subtotal</i>						<b>13,303,000</b>	<b>39,320,000</b>
Project Management Cost (PMC) <sup>4</sup>					LDCF	664,124	Total:

<sup>4</sup> For GEF Project Financing up to \$2 million, PMC could be up to 10% of the subtotal; above \$2 million, PMC could be up to 5% of the subtotal. PMC should be charged proportionately to focal areas based on focal area project financing amount in Table D below.

	GEF TF	LDCF: 546,000 BD: 62,780 SFM: 55,344	3,310,300 GEF TF Cofinancing: 1,230,300 LDCF Cofinancing: 2,080,000
	<b>Total project costs</b>	<b>13,967,124</b>	<b>42,630,300</b>

**C. CONFIRMED SOURCES OF CO-FINANCING FOR THE PROJECT BY NAME AND BY TYPE**

Please include evidence for co-financing for the project with this form.

Sources of Co-financing	Name of Co-financier	Type of Cofinancing	Amount (\$)
GEF Agency	UNDP	Grant	1,080,300
Recipient Government	GNH Commission	Grant	7,360,000
Recipient Government	GNH Commission	In kind	1,570,000
Recipient Government	MoAF	Grant	22,490,000
Recipient Government	MoAF	In kind	3,520,000
Recipient Government	MoWHS	Grant	6,610,000
<b>Total Co-financing</b>			<b>42,630,300</b>

**D. TRUST FUND RESOURCES REQUESTED BY AGENCY(IES), COUNTRY(IES) AND THE PROGRAMMING OF FUNDS**

GEF Agency	Trust Fund	Country	Focal Area	Programming of Funds	(in \$)		
					GEF Project Financing (a)	Agency Fee <sup>a)</sup> (b) <sup>2</sup>	Total (c)=a+b
UNDP	LDCF	Bhutan	N/A	N/A	10,500,000	945,000	11,445,000
UNDP	GEF TF	Bhutan	Biodiversity	N/A	2,311,416	208,027	2,519,443
UNDP	GEF TF	Bhutan	SFM	SFM	1,155,708	104,014	1,259,722
<b>Total Grant Resources</b>					<b>13,967,124</b>	<b>1,257,041</b>	<b>15,224,165</b>

a ) Refer to the Fee Policy for GEF Partner Agencies

## E. PROJECT'S TARGET CONTRIBUTIONS TO GLOBAL ENVIRONMENTAL BENEFITS<sup>5</sup>

Provide the expected project targets as appropriate.

Corporate Results	Replenishment Targets	Project Targets
1. Maintain globally significant biodiversity and the ecosystem goods and services that it provides to society	Improved management of landscapes and seascapes covering 300 million hectares	1,304,958 hectares
2. Sustainable land management in production systems (agriculture, rangelands, and forest landscapes)	120 million hectares under sustainable land management	100,000 hectares
4. Support to transformational shifts towards a low-emission and resilient development path	750 million tons of CO <sub>2e</sub> mitigated (include both direct and indirect)	3,578,372tCO <sub>2e</sub> eq

## F. DOES THE PROJECT INCLUDE A “NON-GRANT” INSTRUMENT? NO

(If non-grant instruments are used, provide an indicative calendar of expected reflows to your Agency and to the GEF/LDCF/SCCF Trust Fund) in Annex D.

## **PART II: PROJECT JUSTIFICATION**

### **A. DESCRIBE ANY CHANGES IN ALIGNMENT WITH THE PROJECT DESIGN WITH THE ORIGINAL PIF<sup>6</sup>**

#### ***A.1. Project Description.***

##### **1) the global environmental and/or adaptation problems, root causes and barriers that need to be addressed;**

There has been no significant change in the nature of the problem that the project is seeking to address. It has been further elaborated along the following lines. See project document Development Challenge (section II, pp6-21) for details.<sup>7</sup>

The development challenge that this project seeks to address concerns the adverse impacts of climate change on rural livelihood security (SDG 13) and poverty (SDG 1), and the effects of sector-led development practices on the ecological integrity of biodiversity-rich forested landscapes (SDG 15). Bhutan's renewable natural resource (RNR) sector, which is made up of agriculture, livestock production and forestry forms a significant part of the national economy, as the largest employer with 58 percent of the working population, and with agriculture contributing 16.7 percent to the national economy in 2015. However, the RNR sector is very vulnerable to climate change impacts, which have been increasing as a result of heavy rainfall, drought, frost, hailstorms, windstorms and related land degradation. In addition to climate-related losses, damage to crops and livestock from wildlife causes major production losses. Bhutan's biodiversity resources are of regional and global significance and the preservation of intact, forested landscapes through the protected areas network and associated biological corridors is needed to sustain these values. However, climate change impacts and other anthropogenic threats such as land conversion, forest fires, infrastructure development and unsustainable agriculture are placing increasing pressure on biodiversity and the integrity of ecosystems in the country. The relationships between the various levels of indirect factors and direct factors and the targets for the project intervention are illustrated in the conceptual model in **Fig. 4**, which also identifies the main entry points for the project intervention strategies.

<sup>5</sup> Update the applicable indicators provided at PIF stage. Progress in programming against these targets for the projects per the *Corporate Results Framework* in the [GEF-6 Programming Directions](#), will be aggregated and reported during mid-term and at the conclusion of the replenishment period.

<sup>6</sup> For questions A.1 –A.7 in Part II, if there are no changes since PIF, no need to respond, please enter “NA” after the respective question.

<sup>7</sup> Substantial additional information is available in **Annexes 18, 19 and 21**

The long-term solution envisaged by the project is to ensure the effective climate resilient management of forest areas including biological corridors and adjoining protected areas, securing ecosystem services that underpin livelihoods, local and national development and climate change adaptation (CCA). However, there are several barriers that need to be overcome: 1) Insufficient institutional capacity for integrated landscape management (ILM) and CCA; 2) Insufficient capacity to operationalize the biological corridor system; 3) Limited capacity, awareness and support for building livelihood resilience; and 4) Inadequate knowledge on natural resource status, ecosystem services and resilient livelihood options.

## **2) the baseline scenario or any associated baseline projects**

There has been no significant change in the baseline scenario or associated baseline projects, with the exception of the project's formerly anticipated engagement with the Rural Economic Advancement Programme (REAP) Phase II village-level development planning process using a culture-based, gender sensitive and environment friendly approach. During PPG consultations, GNHC-S indicated that REAP is still in a pilot stage and the village development planning process is not ready for upscaling through this project. Consequently, the project will instead focus on strengthening the Mainstreaming Reference Group approach as a means of mainstreaming climate change adaptation, environmental management, gender mainstreaming and other cross sectoral issues into local development planning. Lessons will still be drawn from REAP in the planning and implementation of local development and livelihood activities under this GEF/LDCF project. (See paras 33 and 34 of Development Challenge on p15, Table 3 and Annex 28 of project document).

Further information on the baseline situation is given in the Project Document Development Challenge Section II (pp14-16) and Results section IVi (pp.27-28; 32; 36-37; 44-45)

## **3) the proposed alternative scenario, with a brief description of expected outcomes and components of the project**

The project components can be summarized as follows:

**Outcome 1:** *Enhanced institutional capacity for integrated landscape management (ILM) and climate change resilience:* this component will focus on building institutional capacities for ILM as well enhancing climate resilience across rural communities. Specifically, it will incorporate biodiversity conservation objectives and safeguards and climate change concerns in the land use and natural resource use planning and management process, aiming to catalyse an economically and ecologically optimal land use mix and practices in the biological corridors and neighbouring landscapes.

**Outcome 2:** *Biological corridor (BC) governance and management established and demonstrated with management linkage to adjoining PAs:* this component will enable the RGoB to operationalize four BCs in the project landscapes through the development of climate-smart conservation management plans and the development of technical capacity and basic infrastructure, including strengthened biological monitoring and law enforcement systems and human-wildlife conflict management interventions to address threats including encroachment and poaching in conjunction with adjoining PAs in the project landscapes.

**Outcome 3:** *Livelihood options for communities are made climate-resilient through diversification, SLM and climate-smart agriculture and supported by enhanced climate-resilient infrastructure:* this component supports communities and service providers to enhance climate resilience of livelihoods by optimizing and diversifying production, adding post-production value and improving sustainable access to markets. In addition, it will demonstrate how climate change adaptation and biodiversity conservation as well sustainable forest management objectives can jointly be addressed, creating synergistic impacts for sustainable local development.

**Outcome 4:** *Knowledge management system established to support sustainable management of forest and agricultural landscapes and climate-resilient communities:* through this component, the project will ensure that information and knowledge accumulated and produced within the project will be documented and made available

for wider communication and dissemination of project lessons and experiences to support the replication and scaling-up of project results.

See Results Section IVi (pp.27-46)

During project preparation the following principal changes have been introduced – the table below summarizes the changes made, and the rationale for these changes, to the Outcomes and Outputs from the PIF.

Project/ Outcomes	PIF	GEF CEO ER	Rationale
<b>Component 1</b>	Four outcomes specified in the PIF project framework	<p>Five outcomes specified in CEO ER Table B. These are consistent with the PIF outcomes, with the exception that the following PIF outcome has been changed from:</p> <p><b>Institutional framework and capacity strengthened at village level, for integrating climate change concerns and adaptation options into sub-national levels, indicated by:</b></p> <p>i) climate change concerns integrated into VDP planning process add output; ii) VDP planning linked to overall sub-national planning process</p> <p>to:</p> <p><b>Institutional framework and capacity strengthened for integrating climate change concerns and adaptation options into local governance:</b></p> <p><i>- Mainstreaming Reference Group (MRG) system strengthened and operating sustainably with guaranteed budget at central and dzongkhag level (12 dzongkhags)</i></p> <p>Outputs have been revised, including the following significant changes:</p> <p>Addition to Output 1.1 of TA including decision support tools for holistic and comprehensive integrated landuse planning through zonation for the project landscapes.</p> <p>Addition of Output 1.5: <i>Planning and monitoring capacity for sustainable forest management in FMUs and LFMPs</i></p> <p>Revision of Output 1.6 to focus on strengthening of the MRG system as opposed to upscaling the REAP project’s village development planning approach</p>	<p>The change in outcome to focus on strengthening of the MRG system as opposed to upscaling the REAP project’s village development planning approach follows the intervention of GNHC-S during PPG consultations, noting that the VDP process was not ready for upscaling through this project as it is still at pilot stage. The MRG system, on the other hand, is a very appropriate vehicle for mainstreaming climate change adaptation, environmental management, gender and other cross-sectoral issues into local governance. The same rationale applies to revision of Output 1.6.</p> <p>The addition to Output 1.1 came at the request of the Implementing Partner (GNHC-S) during PPG consultations, which will strengthen the integration of the BC system into national land use planning, thus helping to head off fragmentation of the corridors by conflicting land uses.</p> <p>Output 1.5: <i>Planning and monitoring capacity for sustainable forest management in FMUs and LFMPs</i> has been added to strengthen the project’s intervention in support of SFM practices, through building capacity of the DoFPS for incorporating biodiversity and carbon monitoring, and supporting the development and updating of management plans for FMUs and LFMPs, incorporating CCA.</p> <p>Other changes are largely a question of presentation of the project intervention logic in the Theory of Change and Results Framework. The indicators in the Results Framework plus the GEF BD-1, CCA and SFM Tracking Tools cover the PIF outcomes and outputs.</p>

<p><b>Component 2</b></p>	<p>Four outcomes specified in the PIF project framework</p>	<p>Four outcomes specified in CEO ER Table B. These are consistent with the PIF outcomes.</p> <p>Other PIF outcomes reflected as indicators in the RF</p> <p>Outputs have been revised</p>	<p>No significant change in scope of this component from the PIF – although see next point regarding the design of the project landscapes.</p> <p>Current revisions are largely a question of presentation of the project intervention logic in the Theory of Change and Results Framework. The indicators in the Results Framework plus the GEF BD-1, CCA and SFM Tracking Tools cover the PIF outcomes and outputs.</p> <p>During the PPG, baseline assessments, consultations and analysis informed refinement of the outputs to deliver the operationalization of the targeted BCs on the ground through the Territorial Forest Departments in association with the associated PAs.</p>
<p><b>All Components</b></p>	<p>In Component 2, the PIF makes reference to on the ground support for three biological corridors (BCs) of importance to breeding tigers, and targeted support for at least 2 PAs in the larger corridor landscape. Meanwhile the PIF mentions that component 3 will select at least 10 Dzongkhags for support according to criteria including REAP priority areas, and presence of BCs. No geographical areas are specified, although potential BCs and PAs are listed.</p>	<p>Three project landscapes encompassing four BCs (1,2,4 and 8) and three PAs (JSWNP, JKSNR and PNP) across the centre of the country have been defined, totaling 1,304,958 ha and covering parts of 38 gewogs in 12 dzongkhags.</p> <p>Further details are given below including a map of the project landscapes. See also Project Document <b>Annex 18</b> for the landscape profiles and <b>Annex 24</b> for population and land cover information for the project landscapes</p>	<p>During the PPG, the project landscapes were defined through a consultation process with stakeholders, documented in UNDP’s reports on the PPG workshops. The final project landscapes greatly exceed the PIF plans, in that they cover four (not three) BCs, and a total of 1,304,958 ha (vs 350,000 ha), with tiger present in at least three of these BCs. They also cover parts of twelve (vs ten) dzongkhags associated with the BCs.</p>
<p><b>Component 3</b></p>	<p>Three outcomes specified in the PIF project framework</p>	<p>Two outcomes are given in the CEO ER – the third in the PIF has been combined with the first one, so the substantive content remains.</p> <p>PIF outcomes are reflected as indicators in the RF.</p> <p>The PIF outcome for livelihood options made more resilient for at least 155,000 people, while a projected total of 96,400 people reside in the project landscapes, some 70% of which are anticipated to benefit from the project livelihood resilience interventions.</p> <p>Outputs have been revised</p>	<p>No significant change in the scope of this component from the PIF, with the exception of the number of direct project beneficiaries for resilient livelihood options. The PIF outcome total of 155,000 is accompanied by the following footnote: <i>This estimate is based on the rural population of 10 dzongkhags and assuming 65% of the population is reached by the project. The selection of the communities will be undertaken during the PPG and this estimate will be revised.</i> Detailed assessment of the populations of the 38 gewogs within 12 dzongkhags of the project landscapes (all are within or immediately adjacent to BCs) was unable to exceed a projected total 96,400 people (comprising some 11.8 percent of the projected national population of 818,370), some 70% of which are targeted to benefit from project livelihood resilience interventions. While</p>

			<p>this is a lower figure, it is considered realistic for the project context of sparsely populated mountain landscapes. See project document <b>Annex 24</b> for details.</p> <p>Other changes are largely a question of presentation of the project intervention logic in the Theory of Change and Results Framework. The indicators in the Results Framework plus the GEF BD-1, CCA and SFM Tracking Tools cover the PIF outcomes and outputs.</p> <p>During PPG, baseline assessments, consultations and analysis informed refinement of the outputs.</p>
<b>Component 4</b>	None	New <b>Outcome 4: Knowledge management system established to support sustainable management of forest and agricultural landscapes and climate-resilient communities</b>	Given the UNDP/GEF recommendations regarding the importance of improving knowledge and sharing lessons learned from project interventions systematically, a new outcome has been introduced into the project design. This also has budgetary implications (see below).
<b>Budget revisions</b>	C1: USD 1,350,000 C2: USD 2,000,000 C3: USD 9,953,000	C1: USD 1,554,000 C2: USD 1,900,000 C3: USD 9,154,000 C4: USD 695,000	Budget reallocations in line with the above described programming priorities were undertaken. The most significant change is the addition of Component 4, with funds being drawn for knowledge management and M&E from the other Components. The budget for Component 1 was increased in order to include Output 1.5 in support of SFM interventions and additional land use planning support in Output 1.1. In addition, the project duration has been increased from 5 to 6 years (72 months). See the text below for the rationale for this change,

### Rationale for Extending the Project Implementation Period to Six Years

It is proposed to extend the planned duration of the project from five to six years in order to provide optimal conditions for achieving the project outcomes. This is a large and complex project that involves considerable logistical challenges in the context of a small country with limited government capacity. The main considerations are as follows:

1. Firstly, the current project is the only project that has integrated GEF Trust Fund and LDCF financing and while it is the first of its sort, this involves tackling administrative complexities and uncertainties which might delay its implementation.
2. Secondly, the implementation of the project will be decentralized to twelve project districts for the first time. Further, we learnt that during the Government's forthcoming 12th Five Year Plan which will span the project duration, one of their focus areas will be on decentralization, whereby the implementation of all related plans will be fully decentralized. While this is a worthy initiative, we are equally concerned about the capacities of local government to implement not just their planned program but our project as well.
3. Thirdly, the implementation phase of this project will encounter three major elections whereby most government officials will be engaged in electoral processes and that are likely to delay project implementation, as evident from past experience. The following elections will take place during this project's implementation period:
  - i. National Council/Upper House Election: Year 2018
  - ii. National Assembly/Lower House Election: Year 2018 [after National Council Election]
  - iii. Local Government & Thromde (municipal) election: Year 2021

In addition to national level elections, every district has its own local festivals and events whereby Local

Government Officials are engaged or on holidays. Therefore, since implementation is being decentralized, such local festivals and events will also affect our project implementation.

4. Further, this project will be implemented over two different plan periods (11th Five Year Plan and 12th Five Year Plan). Therefore, there may be certain things that might need to be adjusted as there may be several issues such as changes in project staff (particularly government counterparts), re-structuring of agencies, etc. which we may have to factor into our risks.

5. Finally, Bhutan being situated in fragile mountain ecosystem, most roads remain blocked during monsoon season (June to early August) thus restricting movement of goods and slowing down implementation. In most cases, physical activities are on halt during the monsoon due to inaccessibility.

Overall, the above factors will hinder project delivery, therefore the project duration should be adequate to fully complete the project and to realize its objectives.

### **Project Management Staff Capacity**

For such a large and complex project, it is considered essential to have adequate project management capacity to ensure that coordination is effective with the numerous related government units at all levels and other stakeholders, and that operations proceed in an efficient manner with due attention to UNDP and GEF project management, reporting and M&E requirements. The PMU has been designed in a highly cost-effective manner, making full use of the cofinancing contributions of the key project partners as follows.

There are only three LDCF financed PMU staff positions, as follows:

1. Project Officer – RGoB Contracted
2. M&E Officer – RGoB Contracted
3. Project Technical Specialist – UNDP Contracted

From the government side, there will be the following cofinanced staff;

1. Project Manager from GNHC (the Implementing Partner)
  2. Project Accountant also from GNHC
  3. Component 1 Manager from Policy and Planning Division, Ministry of Agriculture and Forests (MoAF)
  4. Component 2 Manager from Department of Forest and park Services, MoAF
  5. Component 3 Manager from Local Development Division, GNH Commission.
- Component 4 will be handled by the PMU.

Since the PMU will be housed in the GNH Commission, the project will use GNHC's procurement and finance personnel in addition to the above-mentioned PMU staff (both project hired and government co-financed staff) following government procurement guidelines and systems.

For any complex procurement of both services and equipment, UNDP CO has signed Country Office Support Services (COSS) agreement with the government, whereby government will request UNDP CO's services (see Project Document Annex 11).

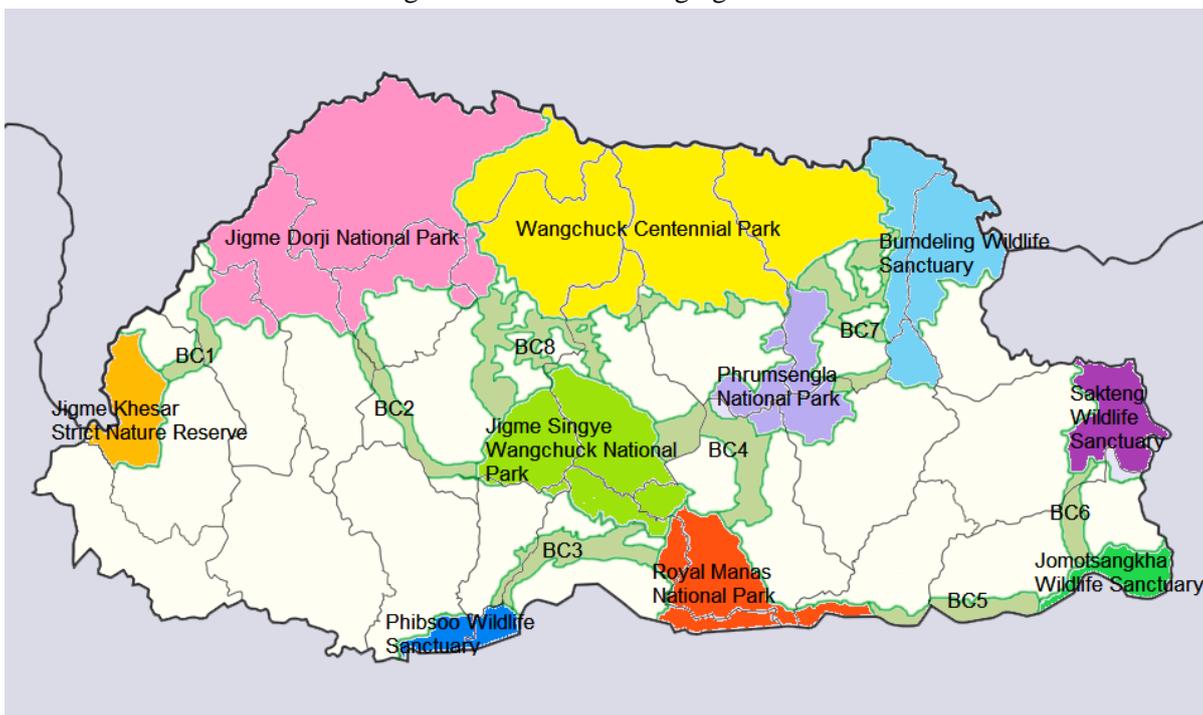
This PMU staffing capacity is considered to be adequate, and the strong commitment of GNH Commission has been given to ensure effective implementation. Once the project has been approved, the project activities will be integrated into the Annual Performance System (APA) which is managed by Government Performance Management Division (GPMD) under the Prime Minister's Office. All responsible agencies will be signing performance agreements with respective sector heads, including individuals responsible for implementing the activities of this project. Their performance will be rated annually based on their Individual Work Plan (IWP) which will include the implementation of this project.

Over and above this, the UNDP Country Office in Bhutan will be providing technical assistance and oversight to ensure effective implementation as per the Project Document (Governance and Management Arrangements section). Further, it was also discussed and agreed during the LPAC meeting that the PMU strength will be reviewed after one year to determine whether the present proposed strength is appropriate to achieve effective implementation.

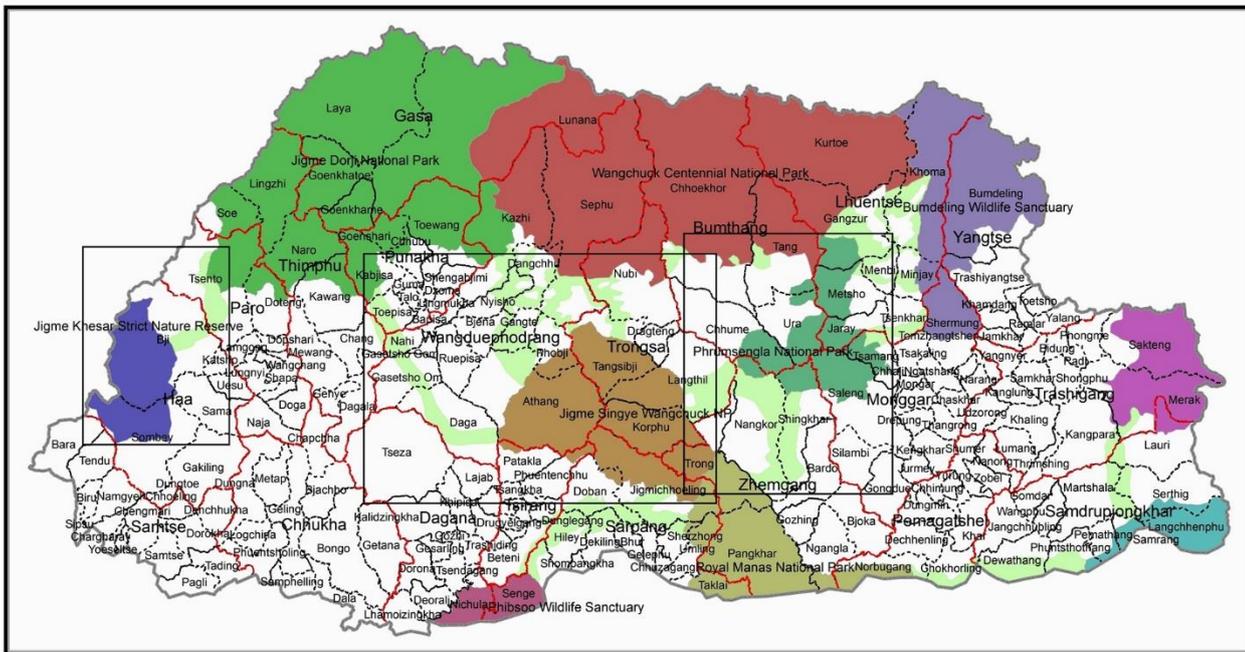
### Landscape Scoping and Rationale

The primary rationale for the selection of the project landscapes in the central belt of the country is based on the need to strengthen the ecological network connecting protected areas in the northern third of the country with those in the centre and south of the country (**Figs. 1&2**) – in other words, biological corridors that generally follow the alignment of river valleys and intervening ridges. This is of great importance for key wildlife species such as the tiger, leopard, snow leopard and elephant with large ranges. In particular, Bhutan is regarded as key source population for the tiger across the Himalayan range and this project will be of great significance in supporting national and global tiger recovery plans.

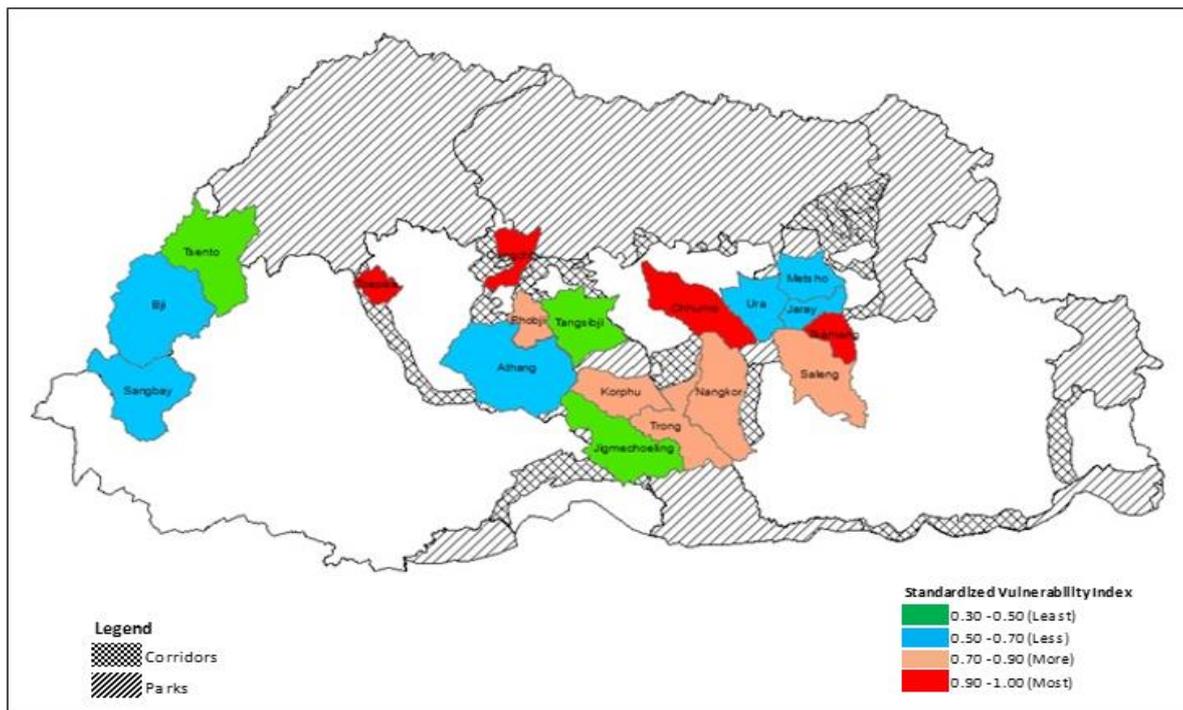
The project landscapes contain some of the finest representational samples of a continuum of ecosystems, connecting the largely subtropical zone of southern Bhutan and the predominantly sub-alpine/ alpine zone of northern Bhutan. These landscapes, with proper conservation management plans in operation and sustainable livelihoods in practice, will cushion the adverse impacts of climate change to key development sectors and local livelihoods and enhance the ecological resilience to changing climate and associated risks.



**Figure 1. Bhutan’s national PA and BC System**



**Figure 2. Locations of the project landscapes (boxes) superimposed over the PA and BC network**  
 The three landscapes<sup>8</sup> identified by the names of the protected areas and biological corridors (**Figs. 1 & 2**) are:  
**Landscape 1**, covering Jigme Khesar Strict Nature Reserve and Biological Corridor 1, in the west of the country;  
**Landscape 2**, covering Jigme Singye Wangchuck National Park and Biological Corridors 2 and 8, in the central-west;  
**Landscape 3**, covering Phrumsengla National Park and Biological Corridor 4, in the central-east.



**Figure 3. Gewog level Climate Change Vulnerability Map within the landscape areas**  
 (Source: PPG Climate Change Vulnerability Assessment Report – See **Annex 19**).

A climate change vulnerability assessment was conducted for the proposed project landscapes during the PPG

<sup>8</sup> See **Annex 24** for Population and land cover information for the project landscapes

process (see **Annex 14**). Assessment of vulnerability was done at chiwog level, then upscaled to gewog level. The assessment at the landscape level was then made based on the average score of gewogs within each landscape. The vulnerability scores for the sampled gewogs are shown in **Fig. 3**. Combined scores indicated that Landscape 1 in the west was least vulnerable, Landscape 2 in the centre was less vulnerable and Landscape 3 in the east was most vulnerable. Changes in summer temperature, windstorm and rainfall patterns are the major factors that contribute to the score in exposure index at the landscape level. Landscape 1 is the most affected by changes in rainfall and windstorm while Landscape 2 is affected the most by changes in winter temperature and hailstorm. Landscape three is the most affected by changes in summer temperature and flood. Thus, changes in exposure are highly localized in view of Bhutan's highly dissected topography and corresponding climatic variations. The CCVA results have informed the prioritization of livelihood interventions under the project, which will be fine-tuned during the project inception phase.

A further strategic consideration is the need to avoid overlap with related landscape level initiatives. The selected project landscapes generally complement these initiatives, which respectively focus on the southern, northern and eastern parts of Bhutan, as follows: a) WWF's Trans-boundary Manas Conservation Area (TRAMCA) project (2012-2015), which supports transboundary areas in southern Bhutan with India and Nepal; b) World Bank-GEF Sustainable Financing for Biodiversity Conservation and Natural Resources Management Project (GEF-5), which aims to improve the operational effectiveness and institutional sustainability of the Bhutan Trust Fund for Environmental Conservation (BT FEC) and improve conservation management of the High Altitude Northern Areas (HANAS) landscape; and c) IFAD's Commercial Agriculture and Resilient Livelihoods Enhancement Programme (CARLEP) (\$31.526 million, over seven years), which aims to promote climate smart approaches in agriculture and strengthen capacities of communities and local institutions in six eastern Dzongkhags with high production and marketing potential in the selected value chains. In addition, the project will coordinate with the transboundary ICIMOD Kangchenjunga Landscape Conservation and Development Initiative (KLCDI)<sup>9</sup>, which overlaps with Landscape 1 in the west of the country including Jigme Khesar Strict Nature Reserve. See **Annex 28** for details.

The total area covered by the project landscapes is 1,304,958 hectares (ha), or 13,049.58 km<sup>2</sup>, which is a little more than one-third of the country's total geographical area. Forest is by far the most dominant land cover accounting for 75.3 percent (982,873 ha) of the total area in the project landscapes. Agriculture area accounts for only a tiny 1.6 percent (20,057 ha) as large areas of the landscapes are characterized by rugged terrain, wilderness and high altitudes. In total, the three landscapes cover 12 dzongkhags and 38 gewogs, see **Annex 24**. While the selection of the three project landscapes is based on the location of the PAs and BCs along the central belt of the country, the project will cover the gewogs (that have areas within the PAs/BCs) in their entirety especially for the climate-resilient community livelihoods component, thus expanding the landscapes beyond the boundaries of the identified PAs and BCs. Local communities living on the fringes and outside the PAs/BCs have access to, and often significantly depend on, natural resources in the PAs/BCs for their subsistence and livelihoods.

See Development Challenge pp11-14.

#### **4) incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and co-financing;**

There were no significant changes in the incremental/additional cost reasoning and expected baseline contributions from the PIF and no change in total amounts of GEF TF and LDCF funds.

There was a minor increase in the total amount of parallel cofinancing, from \$41,900,000 to \$42,630,300. This was also reflected in changes in the distribution of cofinancing sources in the PIF, with \$41,550,000 sourced from various national and local government units through GNHC-S, and \$1,080,300 from UNDP. See Table 7 in Project Document.

#### **5) global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF); and**

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<sup>9</sup> See: <http://www.icimod.org/kl>

The primary global environmental benefits that will be delivered include the mainstreaming of biodiversity and ecosystem service conservation and climate change resilient livelihoods over a landscape of 1,304,958 ha, some 75.3 % of which is under forest cover, 9.7% shrub cover, a mere 1.6% agricultural land (due to the rugged terrain), and the remainder meadows, rocky terrain and snow 13.4%. 176,400 ha lies in the four BCs and 324,405 ha in the three associated PAs, thus totalling 500,805 ha of land within the national protected areas system (including the BCs). This far exceeds the PIF target of 350,000 ha of globally significant landscapes under improved management.

The project's climate smart agriculture and sustainable land management interventions will target SLM practices in at least 2,000 ha (some 10% of the agricultural land within the project landscapes), and SFM implementation will be supported over at least 100,000 ha of FMUs, LFMP areas and CF areas within the landscapes, in line with the PIF target. Sustainable forest management and forest conservation is anticipated to result in avoided GHG emissions of some 3,578,372tCO<sub>2</sub> eq over 10 years, exceeding the PIF target of 3,084,953 tCO<sub>2</sub> eq.

Baseline practices	Alternative to be put in place by the project	Global environmental benefit
<b>Forest landscape planning and management</b>		
<p>Forest protection and forest resource use planning is based on the limited forest inventory data without taking into account ecosystem values and biodiversity, leading to continued forest degradation and loss of ecosystem functions</p> <p>Narrow sectoral approach prevails in terms of land use decision making; forest planning does not incorporate SFM tools.</p> <p>National policies do not provide sufficient incentives and support mechanisms for forest land use optimization to sustain resource resilience nor do they allow implementation of a multiple-use forest landscape planning and management concept</p> <p>Insufficient human and financial resources for conducting regular and integrated forest, biodiversity and socioeconomic inventory and assessment.</p>	<p>Mainstreaming SLM/SFM principles and landscape approach into provincial and district and community land use planning and development planning in biological corridors, compliance monitoring and enforcement:</p> <ul style="list-style-type: none"> <li>-Land use decisions are made with full consideration for biodiversity and ecosystem values of the landscape, ecosystem integrity of the large multiple use forest landscapes ensuring biological corridor functions, and climate change adaptation needs of people and ecosystems;</li> <li>- Land use compliance is monitored and enforced by the established corridor governance body with full participation of the local stakeholders from different sectors;</li> <li>- SFM is implemented through strengthened National Forest Inventory data management, incorporation of biodiversity and carbon stocks in implementation of the National Forest Monitoring System and consideration of High Conservation Value Forests (HCVF) in forest functional zoning;</li> </ul> <p>Degraded areas are actively managed and restored for habitat enrichment and to create areas conducive for movement and dispersal of wild fauna and flora as well as counteract ongoing and past land degradation;</p> <ul style="list-style-type: none"> <li>- Communities are fully engaged in forest and natural use planning and management, with access to a range of incentives and support;</li> <li>- Human and financial resources secured for required data collection and applications.</li> </ul>	<p><b>SFM and BD benefits</b></p> <p>Pressures on forest and shrub landscapes (1,109,631 ha) reduced:</p> <ul style="list-style-type: none"> <li>-Well-functioning ecosystem services (increased water quality and quantity, reduced extent and severity of floods, higher carbon sequestration and tourism value) providing positive contributions to national economy and local livelihoods;</li> <li>-Future commercial forestry and agriculture initiatives integrate ecosystem services values and biodiversity concerns in their management and are only allocated to areas where economic value clearly outweighs that of ecosystems and biodiversity, and does not compromise the connectivity of forest complexes ensuring the full value of forest ecosystems are maintained.</li> <li>- Production forests integrate the concept of HCVFs and climate change adaptation in their management plans.</li> </ul> <p>See GEF BD1 Tracking Tool (Project Document <b>Annex 4a</b>)</p> <p>See GEF SFM Tracking Tool (Project Document <b>Annex 4c</b>)</p>
<b>Protected Area Management</b>		
<p>Protected areas will continue to be under-resourced resulting in suboptimal management effectiveness.</p> <p>Biological corridors will remain as “paper corridors” with no governance and management</p>	<p>Protected area – biological corridor multiple-use forest landscape management is operationalized, with corridor management plans that are compatible with local land use plans, governance structure and required staffing and financing, and with necessary capacity for managing the corridor areas benefitting both biodiversity and ecosystem</p>	<p><b>BD Benefits:</b></p> <p>Improved financial sustainability of protected area system including corridor management operationalization, closing the existing funding gap.</p> <p>Increased management effectiveness in</p>

<p>structure and activities. Corridors are not able to fulfil intended functions, resulting in habitat degradation and loss of connectivity between protected areas due to agricultural activities and over exploitation of natural resources.</p> <p>Degraded forest areas in important Wildlife Corridors are not restored.</p> <p>Disconnect between corridor management and local level land use planning and practices persist, exacerbating human wildlife conflict.</p>	<p>maintenance/enhancement and local livelihoods. Technical skills for SMART patrolling, biological monitoring, community engagement and outroll of national METT+ system strengthened for PA and TFD staff.</p> <p>Protected areas and biological corridors are fully integrated in the land use plans of <i>dzhongkhags</i> and <i>gewogs</i>, providing conducive landscape and land use practices that support maintenance of biodiversity and ecosystem services.</p> <p>Incentives for communities to refrain from unsustainable forest use created through application of various incentive and support systems, including alternative livelihood support schemes such as conservation job creation and high value non-wood forest product development and marketing.</p> <p>Emplaced effective enforcement and monitoring systems in three existing protected areas covering 324,405 ha and in the four biological corridors covering 176,400 ha.</p>	<p>the existing PAs in the PA/corridor landscapes measured by the METT</p> <p>See GEF BD1 Tracking Tool )Project Document <b>Annex 4a)</b></p> <p>Increased or stable numbers of tiger, snow leopard and musk deer</p> <p>Reduction of threats to biodiversity from human wildlife conflict and poaching and illegal wildlife trade, and forest fires.</p> <p><b>SFM Benefits</b></p> <p>Mitigated emission of 3,578,372 tCO<sub>2</sub>e over a 10 year period from improved forest area management and sustainable land management, and strengthening of PA management.</p> <p>Identification and monitoring of area high conservation value forest within project landscapes</p> <p>Capacity development for SFM within local communities to support community forestry practices</p> <p>Supporting sustainable finance mechanisms for SFM such as PES, PWS and REDD+.</p> <p>See GEF SFM Tracking Tool (Project Document <b>Annex 4c)</b></p>
<b>Community Livelihood resilience</b>		
<p>Rural development support programmes do not fully take into account climate vulnerability resulting in only short term measures for livelihood enhancement and local development.</p> <p>Community support projects are carried out in isolation from PA and corridor landscapes and their functions, resulting in loss of opportunities for strengthening resilience of “ecological infrastructure” which supports community adaptation efforts.</p>	<p>Awareness and capacity installed among supporting organisations and corridor community members about the need for integrating resilience in their thinking and practices, leading to actual on-the-ground actions for resilience strengthening – such as more resilient landscape planning to ensure connectivity and continued provision of essential ecosystem services, diversification of livelihoods, value addition to crop and forest products, development of supply chains, establishment of community ranger system.</p> <p>Climate resilience is introduced to rural livelihood options through investment in resilient irrigation design, soil protection/ management in steep slopes, and diversification of agricultural production.</p> <p>Clear linkages will be formed between community livelihood support and biodiversity conservation interventions, as well as adaptation benefits, demonstrating synergistic impact.</p>	<p><b>Adaptation Benefit</b></p> <p>Resilience of ecosystem services and natural assets enhanced under climate change and other stresses. This includes stability in the area and conditions of ecosystems of importance for ecosystem based adaptation, climate risk management and connectivity.</p> <p>Community capacity for climate change adaptation strengthened with diversified and climate change resilient livelihoods, and sources of income diversified and increased in targeted areas.</p> <p>See GEF Climate Change Adaptation Tracking Tool (Project Document <b>Annex 4b)</b></p> <p><b>Biodiversity Benefit</b></p> <p>Biodiversity mainstreamed in forest-agricultural landscape management (over 100,000 ha).</p>
<b>Local Agricultural Development</b>		

<p>RGoB programmes places a more emphasis on intensification of agriculture and building hard infrastructure than ensuring continuous water supply, and it will likely to result in increased incidences of small water sources sometimes run out and farmers abandon the irrigation channels, and ultimately, farmlands.</p> <p>Agricultural production enhancement support such as the provision of power tillers, seeds and extension services is rendered almost independently from addressing the extremely high soil erosion. Changes in rainfall patterns in the future, especially extreme rainfall following a dry spell, can trigger even greater runoff washing away important nutrients in soils.</p> <p>Production enhancement will be carried out without due consideration for maintenance of essential ecosystem services and biodiversity conservation, resulting in suboptimal return on investment due to negative impact on natural capital.</p> <p>MoAF places a significant emphasis on agricultural marketing, commercialization and private sector engagement. However these efforts, physical access to markets (and other public services) is constantly interrupted during and after the monsoon season as they are almost always unpaved, dirt roads.</p> <p>The Environmentally Friendly Road Construction standard is only applicable to national highways and other major roads, and it is practically impossible, financially and technically, for <i>dzongkhags</i> and <i>gewogs</i> to adhere to the standard for the construction of lesser roads.</p> <p>Private sector engagement continues to be significantly limited in scope and budget of government programmes, and builds on the notion of production intensification rather than diversification.</p>	<p>RGoB will explore the option of tapping more abundant water in larger rivers often located in gorges.</p> <p>Agricultural production will enhanced by investing in land development (i.e. terracing) and construction of small-scale check dams to maximize the value of the baseline development projects.</p> <p>Complimentary to climate-smart agricultural practices and SLM, the project will support low-emission livestock practice management and enhanced management of grazing land and fodder production.</p> <p>Agricultural production will be diversified in the same <i>gewogs</i> where intensification support is also provided by the government.</p> <p>National and sub-national governments has improved capacity for integrating climate adaptation and biodiversity objectives in agricultural development</p> <p>Markets and market accessibility will be enhanced in support of rural climate resilient livelihood options. Value chain analyses are carried out focusing on several key products. Over and above the conventional analysis, these will include additional elements such as increased risks of erratic rainfall and temperature during the post-harvest stage or locally-specific bottlenecks in physical access to markets with additional flood/landslide risks.</p> <p>Road design will be improved and made more resilient by adding design elements specifically to enhance the structural integrity of these roads so critical in ensuring continuous access to markets. Those elements include drainage, cross drainage and black-topping over existing roads. For ensuring sustainability of such measures, appropriate technologies are introduced within the realm of the existing financial and technical capacity of sub-national administrations. LDCF resources will also be used to produce a simplified EFRC standard that is more suitable for sub-national administrations given their technical and financial constraints.</p>	<p><b>Adaptation Benefit</b></p> <p>Climate resilience of rural livelihood options enhanced through investment in resilient irrigation design, soil protection/management in steep slopes, and diversification of agricultural production.</p> <p>SLM (2,000ha), low-emission livestock management, improved grazing land and agro-forestry (1,000ha).</p> <p>Value-chains, markets and market accessibility strengthened in support of rural climate resilient livelihood options.</p> <p>Strengthened institutional framework and capacity at local levels for integrating climate risks related to rural livelihoods.</p> <p>See GEF Climate Change Adaptation Tracking Tool (Project Document <b>Annex 4b</b>)</p> <p><b>Biodiversity Benefit</b></p> <p>Biodiversity internalised in agricultural development and agricultural landscape management in biodiversity rich forest dominated landscapes.</p>
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See Project Document Section III Strategy paras 58 and 59 and Table 1 on pages 25 and 26.

**6) innovation, sustainability and potential for scaling up.**

These sections have been elaborated during the PPG. See Project Document section III Strategy, p25 Innovativeness section; and section V iv on Sustainability and Scaling Up (p61)

**A.2. Child Project? If this is a child project under a program, describe how the components contribute to the overall program impact.**

N/A

**A.3. Stakeholders. Identify key stakeholders and elaborate on how the key stakeholders engagement is incorporated in the preparation and implementation of the project. Do they include civil society organizations (yes  /no )? and indigenous peoples (yes  /no )? <sup>10</sup>**

During the course of project preparation (PPG phase) all key project stakeholders were identified and extensive stakeholder consultations were conducted at all levels, including field visits to communities and meetings with gewog, dzongkhag and central government agencies, CSOs and technical experts. A full record of stakeholder consultations was maintained during the PPG phase and this has been annexed to the UNDP/GEF Project Document (Annex 13). Based on stakeholder analysis, a stakeholder engagement plan was developed and annexed to the UNDP/GEF Project Document (Annex 27). This table mapping stakeholder engagement by project output is also included in section A.3.

The project stakeholders include both civil society organizations and indigenous people. The table of key stakeholders notes that Tarayana Foundation will have a potentially key role for social mobilization and outreach to local communities for improved livelihoods including those that are more resilient to climate change; RSPN will have a potentially key role in terms of raising community awareness and understanding of environmentally sustainable and climate-resilient livelihoods, and innovative approaches of integrated conservation and development including community-based eco-tourism. RSPN is active in Phobjikha, a critical wetland that is home to black-necked cranes in winter, which is a part of the project landscape II (JSWNP+BC2+BC8). WWF will be a key project partner in view of their longstanding support to biodiversity conservation in Bhutan especially in the protected areas and biological corridors and for synergy and linkages with Bhutan for Life, a long-term collaborative scheme between RGoB and WWF to mobilize and operationalize sustainable financing for the protected areas/biological corridors system. Particular areas of technical support from, and partnership with, WWF include enhancement of management effectiveness of biological corridors and protected areas (through Bhutan METT+ system), conservation management planning in the biological corridors integrating CCA needs, SMART patrolling, and human-wildlife conflict management. The stakeholder engagement table in section A.3 notes that WWF will be involved in implementing Outputs 1.3, 1.4, 2.1, 2.3 and 2.4; CSOs including Tarayana Foundation and RSPN will be involved in Output 3.2.

In the on-going formulation of 12<sup>th</sup> Five Year Plan for Bhutan, there is strong commitment from the government to engage CSOs in the developmental programmes. One key purpose of the 12<sup>th</sup> Five Year Plan Guideline is: *“The Guideline is also expected to serve as a central reference document for all actors in nation building, including the various political parties and institutions, development partners, CSOs, as well as the private sectors.”*

Furthermore, 23 CSOs were recognised for their service to the national and awarded National Order of Merit-Gold during the National Day Celebration in 2016 December which is clear indication of active and impactful role played by the CSOs. (<http://www.bbs.bt/news/?p=64578> ).

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<sup>10</sup> As per the GEF-6 Corporate Results Framework in the GEF Programming Directions and GEF-6 Gender Core Indicators in the Gender Equality Action Plan, provide information on these specific indicators on stakeholders (including civil society organization and indigenous peoples) and gender.

The implementation of the GEF-LDCF-financed project will be based on extensive engagement with stakeholders at all levels across the project landscapes. The tables below list the project stakeholders at all levels and their main roles and responsibilities during implementation. At a broad level, participation and representation of stakeholders will be conducted through the governance structures put in place by the project as outlined and depicted in the organogram in the Governance and Management Arrangements (Project Document section VII), and through the existing structures at national and local/ field levels (e.g. central-level departments and agencies, Territorial Forestry Divisions, Protected Area Management Authorities, and Dzongkhag Administrations). Stakeholders will be consulted and engaged throughout the project implementation phase to: (i) promote understanding of the project's outcomes; (ii) promote stakeholder ownership of the project through engagement in planning, implementation and monitoring of the project interventions; (iii) communication to the public in a consistent, supportive and effective manner; and (iv) maximisation of linkage and synergy with other ongoing projects.

Outcome/ Output	Stakeholders	Key Responsibilities
<b>Outcome 1:</b> Enhanced systemic and institutional capacity for integrated landscape management and climate change resilience		
<b>Output 1.1:</b> Strengthened policy and planning frameworks and institutional capacity for integrated landscape management and climate change resilience within key national agencies	PPD/MoAF	Oversight, coordination and facilitation of the process, and mobilization of inter-sectoral and sectoral participation and inputs.
	Various departments and agencies within and outside MoAF, NEC-S	Participation in the policy and planning process and institutional capacity assessment, and timely delivery of sectoral inputs.
	GNHC-S	Participation in the policy and planning process, ensuring that the frameworks are consistent with overall national policies and plans.
<b>Output 1.2:</b> Strengthened monitoring systems for forest condition, biodiversity status and carbon stocks in DoFPS	DoFPS/ MoAF	Coordination of the development of the systems, and subsequent operationalization and management of the systems
<b>Output 1.3:</b> Sustainable financing system for biological corridor and PA system and sector-oriented valuation policy and tools developed to measure ecosystem services benefits.	PPD/ MoAF	Oversight, coordination and facilitation of the process, and instatement of policy and tools
	DoFPS/ MoAF	Technical inputs to the process, and implementation of the policy and tools
	WWF Bhutan	Technical support and guidance, and linkage with Bhutan for Life
<b>Output 1.4:</b> Strengthened national systemic and institutional capacity for management of the biological corridor and PA system	WCD/ DoFPS/ MoAF	Oversight, coordination and facilitation of the process, and mobilization of participation and inputs from relevant agencies within and outside the department
	WWF Bhutan	Technical support and guidance
	UWICE/ CNR	Provider of training services
<b>Output 1.5:</b> Planning and monitoring capacity strengthened for sustainable forest management in FMUs and LFMPs.	FRMD/ DoFPS/ MoAF	Oversight, coordination and facilitation of the capacity development process
	TFDs	Field-based inputs to the process, and implementation of the planning and monitoring systems and processes.
<b>Output 1.6:</b> Institutional mechanisms and tools strengthened for integration of CCA and environmental sustainability needs in local development planning system at dzongkhag and gewog levels.	LDD/ GNHC-S/NEC-S	Oversight, coordination and facilitation of the process
	DLG/ MoHCA	Mobilization of participation of local governments, and linkage with their capacity development support to LGs
	Dzongkhag/ Gewog Administration	Local inputs to the process, and employment of the developed mechanisms and tools in local planning.
<b>Outcome 2:</b> Biological corridor governance and management established, demonstrated, and linked to management of contiguous PAs		
<b>Output 2.1:</b> Climate-adaptive conservation management plans for the four biological corridors in the target project landscapes developed	WCD/ DoFPS/ MoAF	Oversight, coordination and facilitation of the process, and quality assurance of the conservation management plans.
	TFDs	Implementation of field surveys and studies, local stakeholder consultations, documentation and analysis, and

Outcome/ Output	Stakeholders	Key Responsibilities
through a stakeholder led process		preparation of the conservation management plans.
	UWICE/ CNR	Training support for field surveys and conservation management planning.
	Dzongkhag/ Gewog Administrations	Mobilization of participation of local stakeholders during field surveys and conservation management planning process.
	WWF Bhutan	Technical support and guidance
<b>Output 2.2:</b> Governance operationalized and management effectiveness enhanced for the targeted biological corridors, including strengthened personnel capacity and sustainable financing.	WCD/ DoFPS/ MoAF	Oversight, coordination and facilitation of the process, and mobilization of resources for implementation of the conservation management plans, and their monitoring.
	TFDs	Implementation of the conservation management plans and reporting on progress, and establishment of basic infrastructure.
	Dzongkhag/ Gewog Administrations	Support for raising public awareness on BC system among the local stakeholders.
	WWF Bhutan	Technical support and guidance, particularly in relation to technical capacity development and institution of METT system for BCs.
<b>Output 2.3:</b> Law enforcement and biological monitoring capacity increased through SMART patrolling and strengthened biological monitoring system for key ecosystems for threatened species in the target BCs and adjoining PAs	WCD/ DoFPS/ MoAF	Oversight, coordination and facilitation of the development and operationalization of the system
	TFDs and PAMAs	Instatement and implementation of the system at the field level
	Dzongkhag/ Gewog Administrations	Support for law enforcement and monitoring at the local level
	Other relevant law enforcement agencies	Support for joint enforcement mechanism
	WWF Bhutan	Technical support for law enforcement, particularly SMART patrolling
<b>Output 2.4:</b> Sustainable human wildlife conflict response strategies developed and systems strengthened through innovative mechanisms based on global best practices in the target BCs and adjoining Pas	WCD/ DoFPS/ MoAF	Oversight, coordination and facilitation of the development and operationalization of the system and mechanisms
	TFDs and PAMAs	Instatement and implementation of the HWC management interventions in the field
	Dzongkhag/ Gewog Administrations	Support for reporting and HWC management responses
	DoA and DoL, MoAF	Collaboration and technical support for HWC interventions within their areas of expertise
	WWF Bhutan	Technical support for HWC management interventions
<b>Outcome 3:</b> Livelihood options for communities are more climate-resilient through diversification, SLM and climate-smart agriculture and livestock management and supported by enhanced infrastructure.		
<b>Output 3.1:</b> Strengthened climate resilience and productivity of agricultural and livestock management	Dzongkhag Administrations	Dzongkhag-level oversight, coordination, facilitation and monitoring of the implementation of project interventions, among other things ensuring that the interventions are implemented in a participatory manner involving all segments of the local communities, particularly women and the poor.
	Gewog Administrations	Implementation of the project interventions in the field, and provision of extension services to local communities
	Local communities	Implementation of the project interventions at the household and village levels
	DoA/ DoL (MoAF)	Technical backstopping and support within their areas of expertise
<b>Output 3.2:</b> Community livelihoods improved and sources of income	Dzongkhag Administrations	Same as for the previous output

<b>Outcome/ Output</b>	<b>Stakeholders</b>	<b>Key Responsibilities</b>
diversified and enhanced in the target landscapes	Gewog Administrations	Same as for the previous output
	Local communities	Same as for the previous output
	Various technical departments and agencies under MoAF, MoH	Technical backstopping and support within their areas of expertise
	CSOs – Tarayana Foundation, RSPN	Support/ partnership for community mobilization, social approaches, and sustainable livelihoods including sustainable community based tourism, climate change adaptation
<b>Output 3.3:</b> Transformation of market access is demonstrated for selected rural communities to enhance their climate resilience	DoR/ MoWHS	Upgradation of GC roads for improved market access, enhancing their climate resilience using adapted EFRC methods and standards
	DAMC/ MoAF	Develop local capacity for market risk analysis and value addition, and facilitate access to viable markets Provide technical support and guidance for improving value chains and marketing of RNR products emanating from climate resilient livelihood practices, and Develop/strengthen community based groups and cooperatives to support local livelihoods.
	DoA/ MoAF	Strengthening of post-harvest facilities
	Dzongkhag/ Gewog Administrations	Facilitation and provision of extension services to improve post-harvest storage and marketing
<b>Outcome 4:</b> M&E and Knowledge management system established to support sustainable management of forest and agricultural landscapes and climate-resilient communities.		
<b>Output 4.1:</b> Institutionalized knowledge for ILM and Climate Change Resilience	GNHC-S	Oversight, coordination, and facilitation of capacity development for knowledge management and M&E systems
	NEC-S	Technical support and coordination on knowledge management with related national initiatives, the National Climate Change Committee and Climate Change Coordination Committee
<b>Output 4.2:</b> Enhanced generation, documentation and sharing of knowledge and best practices in sustainable management of forest and agricultural landscapes and climate resilient livelihood practices	GNHC-S	Oversight, coordination, and facilitation of knowledge resource development; production and dissemination of project-based knowledge resources; and organization of knowledge-sharing events
	NEC-S	Technical support and coordination on knowledge management with related national initiatives, the National Climate Change Committee and Climate Change Coordination Committee
	All Component Managers and RPs for implementation	Sharing of experiences and information related to their outputs and activities, and dissemination to project stakeholders within their areas of work
<b>Output 4.3:</b> Project monitoring and evaluation system in place and used to inform project management decision-making.	GNHC-S	Implementation of the project M&E system, ensuring all M&E requirements are met as per standards and time-frame set for the project.
	All Component Managers and RPs for implementation	Sharing of information/ monitoring and reporting on their respective project outputs and activities.

The table below summarizes the key stakeholders, their principal responsibilities and their roles in the project.

<b>Key Stakeholders</b>	<b>Mandate and Relevant Roles</b>
Gross National Happiness Commission	GNHC is responsible for coordinating the preparation, implementation and monitoring of Five-Year Plans as well as functions as the official organization through which development assistance is channeled. As the apex policy and planning coordination body and GEF/LDCF Operational Focal Point, it will provide overall coordination and monitoring of delivery of

	GEF/LDCF financing and co-financing. As the Implementing Partner of the project, the GNHC-Secretariat will house the PMU and provide project oversight, coordination and administration, ensuring linkages and alignment with national priorities and other relevant initiatives and programs.
Ministry of Agriculture and Forests	The MoAF is mandated to ensure conservation and sustainable use of renewable natural resources, comprising agriculture, forest resources, and livestock, and is the focal ministry for the Convention on Biological Diversity. The Policy & Planning Division of MoAF will coordinate and facilitate matters related to development of policy and institutional frameworks for integrated approach to management of agricultural and forest landscapes. The MoAF is the designated national focal agency for CBD and UNCCD.
Department of Forests and Park Services, MoAF	The DoFPS, through its network of functional divisions at the central level and field offices for forestry administration and PA/BC management, will be responsible for project implementation with regards to biological corridors and protected areas, sustainable forest management, and forest-based livelihoods.
Department of Agriculture, MoAF	The DoA, through its network of technical agencies and service centers, will provide technical guidance and backstopping for sustainable land management and climate-resilient agricultural livelihoods.
Department of Livestock, MoAF	The DoL, through its network of technical agencies and service centers, will provide technical guidance and backstopping for sustainable livestock and grazing management and climate-resilient livestock-based livelihoods.
Department of Agricultural Marketing and Cooperatives, MoAF	The DAMC will provide technical support and guidance for improving value chains and marketing of RNR products and for development of community-based groups and cooperatives to support local livelihoods.
National Environment Commission	NEC is mandated to coordinate with all government agencies and provide guidance and policy support on all issues related to environmental management and climate change. It also coordinates international environmental conventions and treaties including the UNFCCC, CBD and UNCCD. As the designated national focal agency for UNFCCC, it coordinated and led the development of NAPA (2006, updated 2012) and the Initial and Second National Communication Reports to UNFCCC. With respect to the project, NEC will have a policy and technical advisory role and will have representation in the Project Board as well as the Technical Advisory and Coordination Committee.
Department of Roads, Ministry of Works and Human Settlement	The DoR is mandated to develop and maintain the network of highways and roads, including the employment of environment-friendly road construction methods. It will be responsible for implementation of project activities related to enhancing the climate-resilience of GC roads.
Department of Local Governance, Ministry of Home & Cultural Affairs	The DLG is responsible for strengthening local governance and facilitating the functioning of local governments through policy and legislation support among other things. Their role in developing local capacity for mainstreaming cross-cutting issues including climate change, disaster risk reduction and environmental sustainability in local development planning in coordination with GNHC-S will be very important.
Department of Public Health, Ministry of Health	The DoPH is responsible for promoting public health safety including rural water supply and public sanitation. Its technical guidance is envisaged as important for the development of climate-resilient community and household level water supply systems.
Local Governments: Dzongkhag Administrations, (District) Gewog (Block/ County) Administrations	The local governments have the mandate for delivery of local community development programs and associated public services. They will have an active role in the implementation of climate-resilient livelihood activities in direct association with local communities. They will also have the role of mainstreaming CCA and environmental sustainability needs in the local development plans. Mobilization of local participation in matters related to the management of BCs/PAs and addressing local conservation issues will also be a key role of local governments.
Rural Communities	Some 97,000 people reside within and around the project landscapes. Communities have been widely consulted during project preparation in support of components that support community forestry, operationalization of biological corridors and livelihood support. Communities will be empowered to become custodians of the important natural resources with increased potential for developing conservation compatible livelihoods. Project interventions, especially for climate-resilient livelihoods, will be implemented directly at the community and household levels based on a participatory approach that is gender-sensitive and responsive to the needs of the poor and marginalized sections of the local communities.

Civil society organizations: Tarayana Foundation, Royal Society for the Protection of Nature	Tarayana Foundation is dedicated to socio-economic upliftment of the poor and marginalized communities and have a potentially key role for social mobilization and outreach to local communities for improved livelihoods including those that are more resilient to climate change.  RSPN is dedicated to nature conservation and have a potentially key role in terms of raising community awareness and understanding of environmentally sustainable and climate-resilient livelihoods, and innovative approaches of integrated conservation and development including community-based eco-tourism. RSPN is active in Phobjikha, a critical wetland that is home to black-necked cranes in winter, which is a part of the project landscape II (JSWNP+BC2+BC8).
Training service providers: Ugyen Wangchuck Institute for Conservation and Environment, College of Natural Resources	In the context of the project, these would include UWICE and CNR. The former specializes in biodiversity conservation and the latter in agriculture, forestry and livestock management with special attention to development of community livelihoods using rural extension approaches.
WWF Bhutan Program	WWF will be a key project partner in view of their longstanding support to biodiversity conservation in Bhutan especially in the protected areas and biological corridors and for synergy and linkages with Bhutan for Life, a long-term collaborative scheme between RGoB and WWF to mobilize and operationalize sustainable financing for the protected areas/biological corridors system. Particular areas of technical support from, and partnership with, WWF include enhancement of management effectiveness of biological corridors and protected areas (through Bhutan METT+ system), conservation management planning in the biological corridors integrating CCA needs, SMART patrolling, and human-wildlife conflict management.
Other development partners	There are several other DPs that are providing support in the RNR sector and in the area of climate change adaptation. These include (but are not limited to): Asian Development Bank, European Union, FAO, ICIMOD, IFAD, Japan International Cooperation Agency, Swiss Development Cooperation, SNV-Netherlands Development Organization, UNCDF, UNEP, and World Bank,. The project will dialogue with these DPs and seek linkages and synergies during implementation.
Bhutan Trust Fund for Environmental Conservation	The BTF is an independent grant-making organization that uses its annual investment income to finance conservation activities. Grants are awarded to eligible Bhutanese individuals and institutions for biodiversity conservation, and community livelihood initiatives including research for discovery and inventories of flora and fauna and traditional knowledge related to conservation. It will be a key collaborator for establishing corridor management systems and sustainable financing for this purpose.
UNDP	UNDP will serve as the GEF Implementing Agency (IA) for the project. In this role, UNDP will oversee project execution and provide technical quality assurance. The project assurance and support functions will be provided by the UNDP Bhutan Country Office as well as the UNDP-GEF Unit based at the Bangkok Regional Hub. As GEF Implementing Agency, UNDP will coordinate and monitor the delivery and utilization of GEF funds and co-financing.

With regard to the direct engagement of local communities, in Component 1, Output 1.6 will focus on mechanisms and tools to strengthen the integration of environmental sustainability and CCA needs in local development planning among other things using Participatory Rural Appraisal (PRA) methods involving visual tools. PRA methods are generally effective and appropriate for situations where local communities are reticent and illiterate, which is generally the case in most of rural Bhutan.

In Component 2, Conservation Management Plans (CMPs) for the BCs will be derived from a stakeholder-led process involving socio-economic surveys as well as a series of stakeholder consultations with special attention to local governments and communities. The CMPs will take into account customary rights and practices of the local communities related to natural resource use and outline appropriate conservation strategies for integrated conservation and development, and sustainable livelihoods. Furthermore, under this component, the project will work towards mobilizing local community participation for monitoring and reporting of biological conditions by means of training and appropriate incentives. Awareness raising activities will also be organized to develop the understanding of local stakeholders about the BCs and PAs and enlist local cooperation and support for their governance.

In Component 3, local stakeholders will be actively engaged through livelihood interventions largely taking place at community and household levels with field-level oversight, monitoring and backstopping from the Dzongkhag and Gewog Administrations. The local livelihood interventions will be based on community priorities identified through a participatory, gender-sensitive approach, and will be integrated in the gewog and dzongkhag annual plans. In general, the project will prioritize attention on communities that are recognized to be in poverty or otherwise highly vulnerable, and on individual households with these characteristics in other communities. Project engagement and monitoring will be sensitive to different economic groups among women and men.

To promote accountability of any adverse project impacts on local stakeholders and their environment, existing grievance redress mechanisms will be employed at the local level. These include the Gewog Tshogdes (County Committees) and Dzongkhag Tshogdus (District Councils), which are empowered local bodies for deliberation and resolution of local development plans and issues, and the Dzongkhag Environmental Committees, which are mandated to examine local development projects in relation to potential adverse environmental impacts including those that may affect local livelihoods and provide environment clearance based on procedures and requirements set by Environmental Assessment Act 2000 and associated regulations. Furthermore, the Social and Environmental Management Framework developed for the project will guide the project to manage potential adverse impacts whilst enhancing environmental benefits to local people (see **Annex 7**). Gender-specific needs and priorities will be addressed primarily through the gender action plan (See Project Document section IV.iv (pp52-53) and **Annex 14: Gender Analysis and Action Plan**).

During the PPG phase, extensive consultations with stakeholders at all levels have taken place through: bilateral consultations with central government agencies, CSOs and development partners; visits to the target project sites and meetings with local governments/ field agencies and local communities; a series of national-level stakeholder consultation workshops; and various studies and assessments which included field visits and local stakeholder consultations (see **Annex 17: List of People Consulted**, and **Annexes 18 to 25** for the various studies and assessments). Besides the inputs for project development, these stakeholder consultations have helped raise the awareness of the project concept and logic, project components and what they seek to achieve. This is expected to have developed a platform for further engagement of the stakeholders during project implementation.

**A.4. Gender Equality and Women's Empowerment. Elaborate on how gender equality and women's empowerment issues are mainstreamed into the project implementation and monitoring, taking into account the differences, needs, roles and priorities of women and men.**

**1) Did the project conduct a gender analysis during project preparation (yes  /no )?;**

Gender analysis and gender mainstreaming have been comprehensively addressed in the design of this project. During the PPG phase, a gender analysis was carried out to ensure an inclusive approach through which women and men are able to participate actively and benefit equitably, have equitable access to the project resources and receive fair social and economic benefits. A summary of the gender analysis conducted during the PPG phase is given in Section A.4. The report from the gender analysis is attached to the UNDP/GEF Project Document (Annex 12). According to the [UNDP Gender Equality Strategy](#) the project has been rated as GEN2: Gender equality as a significant objective.

In addition to the gender analysis a gender action plan was also developed for the project to mainstream gender equality and women's empowerment in the project design in line with the BPPS Integrated Work Plan Enabling Action 1.3.2 on engaging and monitoring impacts on poor and excluded women.. The objectives of the gender analysis were to: (i) identify the division of tasks between women and men in agricultural production, marketing, household (childcare etc) and socio-political activities at the household level; (ii) determine to what extent women as compared to men have access to and/or control over land and natural resources; (iii) identify practical and strategic gender needs for targeted development interventions by the project and; (iv) mainstream gender equality and women's empowerment in the design, implementation and, monitoring of UNDP/GEF/LDCF projects. The full report of this study is given in **Annex 14**, including the gender action plan for the project.

**2) Did the project incorporate a gender responsive project results framework, including sex-disaggregated indicators (yes  /no )?;**

The Project Result Framework (CEO ER - Annex A) includes specific indicators on gender equality and women's empowerment particularly under project component III (livelihood) – see indicators 2,10 and 11. In addition, see Page 63 onwards in the UNDP/GEF Project Document and the gender action plan in Gender Analysis Report, Annex 12).

**3) What is the share of women and men direct beneficiaries (women X%, men X%)? <sup>11</sup>**

46,600 women (48.34%) and 49,800 men (51.66%).

*Gender analysis*

The division of tasks between men and women on agricultural production and marketing revealed that most activities are done by both men and women. However, activities like vegetable cultivation and marketing were done by women, while land ploughing, cardamom cultivation and marketing were done by men. The findings revealed that the division of task varies by crops and the nature of activities. Generally, women's roles are confined to agricultural on-farm activities while men go for off-farm non-agricultural work. Mostly, women weeded crops, transplanted paddy seedlings and took care of the harvest, while men ploughed and collected fuelwood. Mostly, women marketed cereals, vegetables, fruits, livestock products (milk, cheese and butter), and home-made products underscoring women's active engagement from production to marketing.

Mostly, women were responsible for carrying drinking water while men sourced irrigation water and fuel wood including fodder and grazed cattle. Women were overwhelmingly engaged in food preparation and cooking, family health care, child care, house cleaning and hygiene maintenance including weaving handicrafts. It underscores that securing water for families has a direct bearing on women's health. The study affirmed women's triple roles ranging from productive to unpaid domestic and socio-political activities, with multiple tasks and responsibilities.

Unlike productive and unpaid domestic activities, women's engagement in the socio-political activities is less evident, which may be attributed to their overwhelming engagement in the former two activities. Men and women are tasked to perform religious and village ceremonies while voluntary labour contribution was tasked to men. The study revealed that men's participation in the Government-sponsored meetings, including training and other developmental activities, were more conspicuous than women. However, decision-making on agricultural activities was made based on consensus including the political decisions.

Although women have equal access (opportunity to use the resource) to land, men exercise more control over it (authority to determine the use of resource and impose the decision on others). Benefits accrued from land, however, were equally shared between men and women. Access to and control of land is also governed by the matrilineal or patrilineal system bestowing ownership and rights to either men or women-headed households across ethnic cultures. Men have better access to and control of forest products and agricultural machinery, as well as better access to and control of Renewable Natural Resources (RNR) training and, extension services. However, men and women had equal access to and control over agriculture, labour, credits (loans), health and, education services. With regard to livestock benefits, women had better access to these and control over men. The benefits accrued from agriculture and, forestry activities were equally shared between men and women, while benefits from an off-farm contract, business and farm labour accrued more to men. Benefits of decision-making on political activities at the Gewog and Dzongkhag accrued more to men than women as men dominated participation. Focus group findings underscore that enhancing men and women's access to and control of land, agriculture and forest resources require awareness and capacity building on job opportunities, knowledge and skills enhancement on agriculture, livestock and forest landscape management and, leadership and communication skills for women in local governance.

Women's practical needs and priorities were similar to men's, such as drinking and irrigation water, seeds and seedlings, agricultural equipment and tools, electric / solar fence against wildlife incursions and entrepreneurship skills. Women's strategic priorities, however, were different: they want education and health leveraging gender equality and women's empowerment, while men want farm roads and solar / electric fencing to improve accessibility and curb wildlife incursions. Women and men in focus groups overwhelmingly reiterated that

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<sup>11</sup> Same as footnote 8 above.

education has illuminated their lives, reducing gender disparity - education has empowered women to make rational economic and political decisions.

### *Recommendations*

To promote gender equality and women's empowerment, the project has integrated the following points in its design, implementation and monitoring that will contribute towards the BPPS Integrated Work Plan Enabling Action 1.3.2.:

- The project's outcomes, outputs and activities seek to balance the productive, unpaid domestic and socio-political roles of women and men across different socio-economic groups. The project's activities can be roughly categorised as 80 percent capacity building of formal institutions, 3 percent support for unpaid domestic and 17 percent for productive work. The project's activities are aligned with the gender action plan targeting capacity building of rural men and women beneficiaries under the respective outputs, to shift the balance in favour of women.

Meeting women and men's practical and strategic needs and priorities will support transformational change in gender relations. Project-based interventions can influence access to and control of land, agriculture, livestock and forest resources by paying attention to the following issues in policies and strategies promoted by the project:

- Meeting women and men's practical needs and priorities in improvement of drinking and irrigation water supplies, seed and seedling inputs, agricultural machines, equipment and tools, electric / solar fencing against wildlife incursions, and entrepreneurship skills;
- Meeting women's strategic needs and priorities on awareness and capacity building through education and training including non-formal teaching, improvement of health and sanitation, and where necessary, farm road establishment and maintenance;
- Meeting men's strategic needs on farm road, solar or electric fence installation, use and maintenance against wildlife incursion, education and, agricultural machinery;
- Scaling up of farmers' study tours for exchange of knowledge and skills through lessons learned on agriculture, livestock and forest landscapes management;
- Imparting training to women and men on: vegetable cultivation, drinking water and sanitation technology, tailoring, entrepreneurship skills and micro-finance saving schemes;
- Creating awareness of job opportunities and requirements to unemployed youths in villages, leadership, communication and decision-making skills to capacitate women's participation including provision of gender quota system in local governance as stepping stones;
- Access to markets, pricing policy and climate information through innovative information communication mechanisms such as Bhutan Broadcasting Service, radios, mobile phones, RNR Newsletter, Department of Agriculture/Centenary Farmers Market website and Gewog Information Centres, considering the difficulties of traversing mountain terrain to reach women in mountain communities.

To reduce the negative impacts of existing livelihoods on women (e.g. workload), the project should concentrate on the promotion of, and training for energy and labour-saving technologies:

- Electric / solar fence installation, use and maintenance that reduces women's crop-guarding time;
- Gender-friendly farm mechanization through promotion and use of labour-efficient and easy to use agricultural machinery and tools for harvest and post-harvest practices of maize, rice, wheat, buckwheat and barley and fuelwood efficient (or alternative fuel) cardamom driers;

To improve planning, decision-making and monitoring of development activities and ensure post-project sustainability, the project intervention should provide the following support:

- Strengthen cooperatives and farmers' groups on commodity value-chain addition and management with women's executive roles in agriculture, livestock, forestry, water, health, human-wildlife conflict, crops and livestock insurance schemes and environmental management groups;
- Monitoring impacts of project progress including gender-disaggregated indicators: reduction in women's unpaid domestic work with increased socio-political roles; equitable distribution of land and natural resources and benefits between men and women; and, increase women's participation and executive role in decision-making by 50% in commodity user groups and project's technical/coordination committee.

These recommendations have been incorporated into the design of the project strategy and activities, stakeholder engagement processes and monitoring and evaluation system.

**A.5 Risk. Elaborate on indicated risks, including climate change, potential social and environmental future risks that might prevent the project objectives from being achieved, and, if possible, the proposed measures that address these risks at the time of project implementation.(table format acceptable):**

As per standard UNDP requirements, the Project Manager will monitor risks quarterly and report on the status of risks to the UNDP Country Office. The UNDP Country Office will record progress in the UNDP ATLAS risk log. Risks will be reported as critical when the impact and probability are high (i.e. when impact is rated as 5, and when impact is rated as 4 and probability is rated at 3 or higher). Management responses to critical risks will also be reported to the GEF in the annual PIR. See the following table for details.

**Description of Project Risks and Mitigation Measures**

Description	Type	Impact & Probability	Mitigation Measures	Owner	Status
<b>Risk 1.</b> The government’s policy to retain small public service staffing levels may constrain adequate staffing for management of the biological corridors (BC). Coupled with the decentralization and high turnover of government staff who will be managing project components, this may impact implementation progress, and could seriously constrain management effectiveness for the BCs.	Operational	P=4, I=3 (PIF – Medium)	In supporting institutional capacity development for BC management, the project will support staffing needs assessment and plans for deploying permanent BC staff. The project will work closely with the government, investigating the possibility of linking up with its poverty alleviation, rural development and job creation strategies. It will explore possibilities to engage community inputs for BC management supported by a sound financial and skill base for sustainable and effective management. The project will support development of sustainable financing mechanisms for community corridor managers, in close collaboration with Bhutan for Life, BTFEC, and rural development and public works agencies.  To reduce potential negative impacts of decentralization and staff turnover, the project will appoint a project hired manager and supporting PMU staff to ensure strong project coordination, as well as continuity and smooth transition in case of government staff turnover. The project will focus on institutionalisation of all the outputs and outcomes to ensure the sustainability of project products and achievements.	<i>Project M&amp;E Officer</i>	<i>No Change</i>
<b>Risk 2.</b> Coordination amongst different agencies during implementation proves difficult and corridor management plans	<i>Organizational</i>	P=3, I=5 (PIF – Medium)	This project is multi-focal in nature, addressing biodiversity conservation, SFM and CCA. While this provides potential for demonstrating synergistic impact among the focal areas, it requires a high level of coordination between different entities working in	<i>Project M&amp;E Officer</i>	<i>No Change</i>

may create frictions between agencies with different mandates. It is unlikely that ILM will be effective if agencies are unwilling or unable to collaborate.			different fields, in particular, forestry, agriculture, conservation, rural development, local governments, infrastructure etc. The project has involved all key stakeholders during the PPG phase to ensure joint project development and planning to ensure effective coordination. GNHC-S will play a leading role in supporting the coordination. In addition, a corridor management plan should not simply create a new set of mandates that may collide with other mandates. Instead, consistent with the concepts of Gross National Happiness and the Middle Path, corridor management plans should seek to harmonise the various mandates. For example, rather than prohibiting road building, plans should provide guidelines that allow roads to be re-routed or built in a way that does not compromise corridor function.		
<b>Risk 3.</b> Sustainability of support for resilient livelihood options. This is a key sustainability risk for the project - if the capacity and financial sustainability of supporting extension services is not secured, then project gains may not be sustained over time.	<i>Financial</i>	P=3, I=3 (PIF – Medium)	Sub-national administrations currently have a limited financial envelope, which will pose a serious challenge for sustainability. To mitigate this risk, the project will select target community areas which are the poorest and most vulnerable (as well as demonstrating clear linkage to climate and HWC impacts, etc), and thus it is expected that the development/adaptive gains are more visible and local buy-ins stronger. Secondly, it will work closely with LGSDP, which has a dedicated component on improving the use of ACG (unconditional grants made available for sub-national administrations), future decisions on the ways ACG will be utilized will be made more climate-sensitive.	<i>Project M&amp;E Officer</i>	<i>No Change</i>
<b>Risk 4.</b> While the project will build capacity and demonstrate CSA options and rural livelihood diversification through its interventions, there is a risk that there will not be sufficient proactive uptake and sustained adoption of these advances through government-led agricultural and rural development programmes.	<i>Strategic</i>	P=2, I=3 (Medium)	The project will focus lead agency efforts and inter-agency coordination to increase the resilience of rural communities to climate change in rural development and its related planning, budgeting and implementation processes. This will include mainstreaming CSA and rural livelihood diversification into the five year plans of GNHC, MOAF and related agencies. The RNR extension system will be essential to build further awareness and capacity of the rural communities through continuous training and participatory approaches (including M&E) and enable inclusive participation through, for example. the combination of long-term CSA interventions with short-term livelihood support.	<i>Project M&amp;E Officer</i>	<i>No Change</i>
<b>Risk 5.</b> Climate change may undermine the conservation objectives of the Project. There is potential for extreme conditions resulting in local	<i>Environmental</i>	P=1, I=3 (PIF – Low)	The project will work to address the anticipated negative impacts of climate change by increasing resilience of ecosystems and communities. It will improve PA management and emplace structures and systems for biological corridor management. By doing this, the project will contribute to the maintenance of ecosystem resilience under differing	<i>Project M&amp;E Officer</i>	<i>Possible increase</i>

natural disasters (droughts, floods, winter storms) exacerbated by climate change to negate benefits of project supported interventions.			climate change conditions, so as to secure a continued sustainable flow of ecosystem services. The project will also provide direct support for enhancing community adaptation capacity through a range of field based interventions for adaptation actions that also yield conservation dividends. SLM interventions and climate proofing of GC roads will partially mitigate possible negative impacts of climate extremes.		
<b>Risk 6:</b> The review of biological corridor delineation and associated land use planning, and operationalization of biological corridor management may affect access to natural resources by local communities	<i>Operational /Social</i>	I = 2; P = 3 (SESP – Moderate)	The main framework for the project intervention to operationalize management of the BCs already exists in legal terms, therefore the related project activities are only likely to impact the legal rights of access to natural resources if the boundaries of the BCs are extended or if additional legal restrictions are placed on resource use. The responsible parties for the project activities will conduct a social impact assessment including full consultation with concerned communities before imposing any restrictions on resource uses and agree on any redress required in line with national legal processes. The Environmental and Social Management Plan (Annex 7) provides guidance and a screening template for such situations. In relation to existing uses of lands within the BCs, the project will undertake a major awareness campaign to build understanding of the BC system’s functions and the related regulations to reduce the potential for land use conflicts.	<i>Project M&amp;E Officer</i>	<i>Stable</i>
<b>Risk 7:</b> While specific gender concerns about the project have not been a significant issue, gender inequalities exist that stakeholders want the project to address; E.g. women’s overwhelming engagement in productive and unpaid domestic activities has constrained them from being proactive and productive in socio-political spheres, especially participation in Government sponsored training and decision-making at all levels	<i>Strategic / Operational</i>	I = 1; P = 3 (SESP – Low)	Gender considerations have been mainstreamed into the design of project activities based on findings from the gender analysis, including gender disaggregated indicators at outcome and objective levels for monitoring. A gender action plan has been developed for the project intervention, addressing practical and strategic gender needs and priorities including specific training for women’s empowerment in decision-making. See Prodoc section IViv and Annex 14. In terms of the UNDP Gender Marker, the project has been rated GEN 2 on the basis of the gender analysis undertaken, reflecting that both general and specific gender needs and priorities are mainstreamed in the project’s activities with gender disaggregated data and indicators at the outcome level for tracking project progress on gender equality and women’s empowerment.	<i>Project M&amp;E Officer</i>	<i>Stable</i>
<b>Risk 8:</b> The project landscapes include critical habitats and	<i>Environmental</i>	I = 2; P = 5	In the case of climate-proofing gewog connectivity roads, no new road construction is involved – only upgrading existing roads to improve	<i>Project M&amp;E</i>	<i>No Change</i>

<p>environmentally sensitive areas, including protected areas. The implementation of certain project activities such as climate-proofing of gewog connectivity roads, irrigation infrastructure improvement and construction of small-scale agricultural facilities in such areas poses the risk of localized environmental impacts.</p>		<p>(SESP – Medium)</p>	<p>their drainage and durability under anticipated increasingly demanding rainfall conditions. In addition, the application and improvement of environmentally-friendly road construction (EFRC) is integrated into the project design including capacity building of road engineers. A consultative approach to road planning, design and implementation are an integral part of the EFRC guidelines. Similarly, development of irrigation infrastructure will involve upgrading of existing systems rather than new systems. The Social and Environment Management Framework prepared for this project (Annex 7) includes screening templates for activities that may pose social or environmental risks, these should be applied for all project supported infrastructure development.</p>	<p><i>Officer</i></p>	
<p><b>Risk 9:</b> Harvesting of natural forests and reforestation in project areas may result in environmental impacts (SESP question) such as slope erosion, loss of biodiversity and introduction of alien species. Harvesting of trees from natural forests will take place in FMUs; there will be reforestation of degraded areas within FMUs, LFMPs, PAs &amp; BCs for conservation and enhancement of carbon stocks.</p>	<p><i>Environmental</i></p>	<p>I = 2; P = 3 (SESP - Medium)</p>	<p>Management plans developed/updated by the project for FMUs, LFMPs, PAs &amp; BCs will be based on SFM principles and DoFPS rules. Selective harvest methods based on diameter limit cut for rural use will be allowed in line with management plans under regular monitoring and supervision by the DoFPS local offices. No commercial harvesting will occur in LFMPs and BCs. Commercial and rural harvest from the FMUs will be strictly guided by the group selection harvest guidelines and rural use guidelines indicated in the Social and Environmental Management Framework (See <b>Annex 7</b>). Plantation and reforestation programmes will only use native species.</p>	<p><i>Project M&amp;E Officer</i></p>	<p><i>No Change</i></p>

### *Social and environmental safeguards:*

The UNDP environmental and social safeguard requirements have been followed in the development of this GEF/LDCF-financed project. During the PPG, UNDP contracted a national consultant to screen the project for social and environmental risks, during which extensive consultations were held with a wide range of stakeholders including village communities (see **Annex 17**). Risks identified at the pre-screening (PIF) stage were reviewed and their probability of occurrence and likely impact were estimated in order to rate each risk, and determine how they would be mitigated by the Project.

In accordance with the UNDP Social and Environmental Screening Procedure, the project has been categorized as moderate risk and – as outlined below – is not expected to have significant negative environmental or social impacts. Please see **Annex 6** – the Social and Environmental Screening report - for details. Nevertheless, risk avoidance and risk minimization, mitigation and management mechanisms are integrated into the project design (see **Table 5**) and a Social and Environmental Management Framework has been completed (**Annex 7**). This provides a framework for social and environmental screening checklists to be applied during the implementation planning of project activities, and specifies a requirement for compliance monitoring by the project implementing agency. The NEC has overall responsibility for compliance monitoring in relation to national environmental legislation.

One moderate human rights risk was identified, concerning the potential risk of reduced access to natural resources by local communities as a result of the operationalization of biological corridor management, while noting that the BCs were established in 1999 and their Rules published in 2007. A project awareness campaign will help to sensitize communities to the BCs, and social assessment is proposed for any increases in restrictions through boundary changes or management regimes. One low gender risk has also been identified, recognizing that there are existing gender inequalities that the project should seek to address through mainstreaming gender in its activities and monitoring framework. See **Gender Mainstreaming** section above for further details.

Two moderate environmental risks were determined during the SESP, concerning first, the potential local environmental impacts resulting from certain project activities such as climate-proofing of gewog connectivity roads, irrigation infrastructure improvement and construction of small-scale agricultural facilities, and secondly the potential environmental impacts resulting from the harvesting of trees from natural forests in FMUs and reforestation of degraded areas within FMUs, LFMPs, PAs & BCs. In both cases, the project will follow national guidelines for environmentally sustainable practices and also screen the activities for potential impacts. They will also be required to be subjected to environmental impact assessment and clearance requirements in keeping with the Environmental Assessment Act (2000) and Regulation for Environmental Clearance of Projects (2002).

*Human Rights:* In line with national law and UNDP principles, the project design seeks to uphold the centrality of human rights to sustainable development, poverty alleviation and ensuring fair distribution of development opportunities and benefits. Thus, it will implement a human rights-based approach in its delivery of goods and services. This will include maintaining and respecting the legal and traditional rights of local communities to land and natural resources within these landscapes. The project aims to address sustainable development, biodiversity conservation and climate change adaptation across three largely forested landscapes across central Bhutan through introducing an integrated landscape management approach. The preservation of ecological integrity within these landscapes will secure ecosystem services and goods that maintain current and future development options for local communities, while it will also proactively support sustainable land management, climate-smart agriculture and sustainable livelihood options that benefit these communities.

*Participation and inclusion:* While developing the project interventions, UNDP as the GEF Implementing Agency for the project ensured participatory process focusing on strengthening capacity of the duty bearers to meet their obligations and the right holders to claim their rights. The project gives special attention to vulnerable and marginalized groups, including ethnic minority communities within the targeted dzongkhags, protected areas (PAs) and biological corridors

(BCs). During the PPG phase, the project stakeholders at the national, dzongkhag, gewog and community levels were consulted to ensure that they were adequately informed of the proposed initiative, and for their full and effective participation, as appropriate, in the design of interventions that are inclusive, promote ownership and sustainable.

*Equality and non-discrimination:* The project will not discriminate on the grounds of race, ethnicity, gender, age, language, disability, sexual orientation, religion, political or other opinion, national or social or geographical origin, property, birth or other status including as a member of a minority. UNDP will ensure the meaningful, effective and informed participation of stakeholders during implementation, monitoring and evaluation. This will include contributing towards implementation of the BPPS Integrated Work Plan, Enabling Action 1.3.2 (on engaging and monitoring impacts on poor and excluded women). Community participation in the management and decision-making will be enhanced through the promotion of women's executive role in cooperatives and farmers' groups in commodity value chain management. By focusing on both practical and strategic gender needs and priorities, the project addresses the needs of both men and women consistent with human-rights principles of non-discrimination and gender equality. As part of the project's institutional strengthening, climate change, gender concerns, environmental awareness and education, waste management, organic farming, a grievance redress mechanism has been mainstreamed into the local level planning process consistent with participation and inclusive human rights principle. Capacity building training will be tailored to women and men at all levels including the project management office.

*Accountability and rule of law:* will be upheld by following all standard UNDP policies on monitoring, evaluation, audits and transparency in project implementation. The legal context of the project is defined by the CPAP signed by the Government and UNDP.

*Grievance redress:* To promote the rule of law and accountability of any adverse project impacts, existing formal and informal grievance redress mechanisms will be adopted at the gewog level. Smaller issues on grievances will be verified and resolved at the gewog level by the local government. Serious grievances that need attention will be brought to the notice of the Ministry of Home and Cultural Affairs by the dzongkhag and if necessary to judicial systems established in various sub-districts, all 20 districts and then high court and the supreme court for prompt compensation and fair redress of affected communities consistent with accountability and rule of law human rights principle. In addition, at project level, all grievances should be registered by the officer responsible for a particular activity with the Project Manager, who will immediately log the grievance and acknowledge it to the person(s) involved. The Project Manager will then determine on the response action to be taken, such as seeking additional information, consultation with all sides involved, and any need for technical or legal advice in order to inform redress actions, within two weeks. The response and any redress actions taken shall be logged and reported to the UNDP CO immediately, and subsequently reported to the next meeting of the Project Board, and included in the annual PIR.

*Gender Equality and Womens Empowerment:* UNDP's principle on gender equality and women's empowerment is respected in the Constitution of the Kingdom of Bhutan, which fortifies gender equality as fundamental rights of all Bhutanese citizens to be treated equal and effective protection under the law and shall not be discriminated against on the ground of race, sex, language, religion, politics or other status. Gender equality and empowerment of rural women and men are an integral part of the project design and implementation<sup>12</sup>. The findings of gender analysis (**Annex 14**) have been mainstreamed in the project design by integrating a gender action plan with gender-specific needs and priorities in the project's overall work plan for implementation. Gender indicators with gender disaggregated data are incorporated in the project's Results Framework for monitoring progress during implementation and evaluations. In terms of the UNDP Gender Marker, the project has been rated GEN 2. See the **Gender Mainstreaming** section above for further information.

*Mainstreaming Environmental Sustainability:* The project's design will directly support the implementation of Bhutan's obligations under CBD, UNFCCC, UNCCD, the SDGs, UNDAF priorities and national environmental policies and laws by incorporating project-level sustainable management principles and regimes for Protected Areas

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<sup>12</sup> In line with the BPPS Integrated Work Plan, Enabling Action 1.3.2 (on engaging and monitoring impacts on poor and excluded women).

(PA), Biological Corridors (BC) and Forest Management Units (FMU) in order to address the practical and strategic needs and priorities in the project landscapes. This will be realised through a range of activities in Component 1, including integrated landuse planning, strengthened forest inventory and monitoring, biodiversity monitoring and assessment, protected area management effectiveness and sustainable financing, and developing a functional MRG system to support environmental management and climate change resilience at local government level. Activities in Component 2 will address natural resource management at the landscape level with emphasis on making the BCs operational, and securing sustainable forest resources, biodiversity, carbon, and other ecosystem services. Component 3 activities will seek to integrate rural livelihoods with sustainable resource management through for example, community forestry, conservation and ecotourism livelihoods, and sustainable agriculture and land management.

The project design is based on good understanding and identification of conservation issues and priorities through biodiversity and socioeconomic surveys bridging the poverty-environment nexus, and overtly aims to strengthen biodiversity conservation and ecosystem integrity. Therefore, project-induced environmental concerns are minimal, and any arising during implementation will be minimized, mitigated and managed guided by national policy and legislation such as the National Environment Protection Act 2007, Forest and Nature Conservation Act 1995 and Forest and Nature Conservation Rules 2006 and Environmental Friendly Road Construction guidelines and other regulations under the Ministry of Agriculture and Forests and Ministry of Works and Human Resources, respectively. The project also focuses on increasing the environmental management capacities of Dzongkhag (district) and Gewog (sub-district) including grassroots communities on integrating climate change concerns, and adaptation measures through the local level planning process and law enforcement strengthening environmental compliance and monitoring by revitalizing the central Mainstreaming Reference Group and building capacities of local Mainstreaming Reference Groups. Good practices and lessons learnt will be shared amongst project beneficiaries during the project monitoring and evaluation for informing future project design.

## **B. ADDITIONAL INFORMATION NOT ADDRESSED AT PIF STAGE:**

***A.6. Institutional Arrangement and Coordination. Describe the institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.***

Roles and responsibilities of the project's governance mechanism: The project will be implemented in accordance with the National Execution (NEX) Manual agreed between the Royal Government of Bhutan (RGoB) and UNDP. It implies that all management aspects of the project are the responsibility of the national authority. However, the national authority remains accountable to the UNDP Country Office (CO) for production of the outputs, achievement of objectives, use of resources provided by UNDP, and financial / technical progress reporting. UNDP CO in turn remains accountable for the use of resources to the UNDP Executive Board and the project donors.

The **Implementing Partner (IP)**, or the national authority, for this project will be the Gross National Happiness Commission-Secretariat (GNHC-S). Within the GNHC-S, the Development Cooperation Division (DCD) will manage the project. The Implementing Partner is responsible and accountable for managing this project, including the monitoring and evaluation of project interventions, achieving project outcomes, and for the effective use of UNDP resources. A Project Management Unit (PMU, see below) will be established within the office of the IP.

A **Project Board (PB)** will be established to provide high-level guidance and oversight to the project. The PB will be chaired by the Honorable Secretary of GNHC. The PB is responsible for making by consensus, management decisions when guidance is required by the PMU, including recommendation for UNDP/IP approval of project plans and revisions. In order to ensure UNDP's ultimate accountability, PB decisions will be made in accordance with standards and practices that shall ensure management for development results, best value for money, fairness, integrity,

transparency, and effective international competition. See **Annex 5 Part A** for TOR for the PB, including its proposed membership. The PB will be made up of senior officials from various agencies representing the following categories:

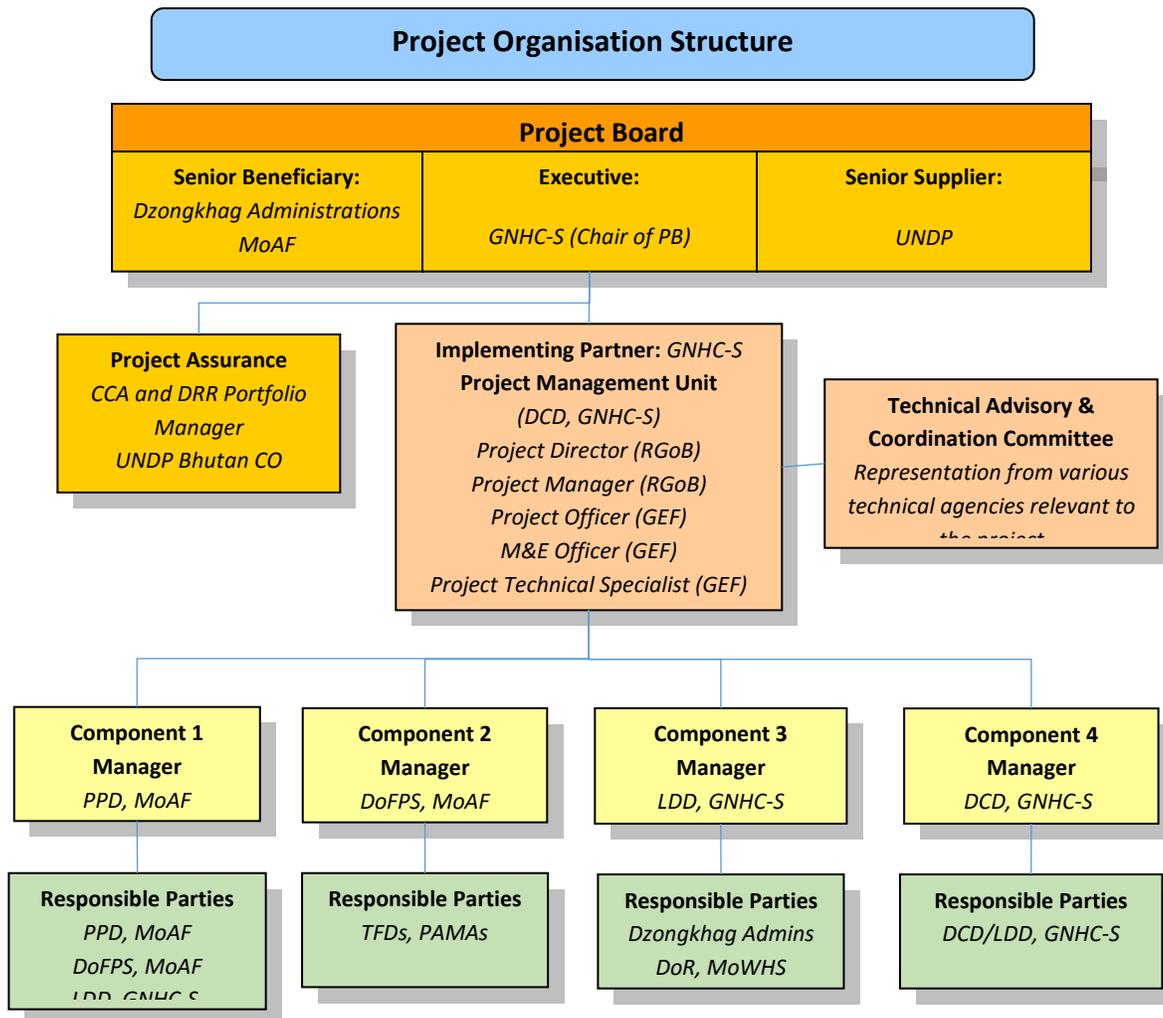
- Executive, representing project ownership including the chair of the PB and other senior representations from various key agencies relevant to project execution and management;
- Senior Supplier, representing the interests of the parties which provide specific cost-sharing projects and/or technical expertise to the project; and
- Senior Beneficiary, representing the interests of those who will ultimately benefit from the project. The Senior Beneficiary's primary function within the PB is to ensure the realization of project results from the perspective of project beneficiaries.

**Technical Advisory and Coordination Committee (TACC):** a multi-disciplinary team of technical people from various government agencies and implementing partners will be formed to provide technical advice to the project, ensuring that the project interventions are technically sound in keeping with RGoB and UNDP/GEF standards including social and environmental standards, and safeguarding a coordinated and integrated approach to project implementation. Such a group is deemed necessary especially given the technical intricacy of various project interventions and the vast scope of the project encompassing biodiversity conservation, climate change adaptation and community livelihoods. See **Annex 5 Part B** for TOR for the TACC, including its proposed membership.

**Project Management Unit:** A PMU will be established to run the project on a day-to-day basis on behalf of the Implementing Partner. Under the oversight and guidance of the Chief of the DCD, GNHC-S, as the Project Director, the PMU will be responsible for day-to-day project management, including monitoring and evaluation, and coordination with the various responsible parties for planning and implementation of the activities for the delivery of project results in a timely and effective manner and as per standards set for UNDP/GEF projects. Other staff of PMU will include: Project Manager (RGoB co-financed); Project Officer (GEF financed, RGoB-contracted); Monitoring and Evaluation Officer (GEF financed, RGoB-contracted); Project Technical Specialist (GEF financed, UNDP contracted and based in UNDP CO); and Project Accountant (RGoB co-financed). See **Annex 5 Part C** for TOR for the proposed PMU staff positions.

The **project assurance role** will be specifically assumed by the UNDP Bhutan CO. Additional quality assurance will be provided by the UNDP Regional Hub for Asia and the Pacific as necessary.

Responsible Parties for Implementation: These will be project partners that can receive project funds through the PMU for implementation of the assigned project activities, and, therefore, will be accountable for implementation and reporting of the project activities as per approved work plans and budgets. To the extent possible and relevant, the approach of the project is to decentralize implementation of the project activities to the stakeholders at the field/ local level so as to build ownership of the project activities and project implementation capacity at the local level and also in keeping with the national policy objective to increasingly decentralize governance of development programs. In this respect, project components 2 and 3 are most suited for decentralized implementation. Accordingly, the project is designed to be implemented by the following groups of agencies:



## Project organization structure

- **Central government agencies** that have the national-level programmatic, policy and administrative mandates in matters related to forest management, agriculture, environmental assessments, and integration of CCA/ environmental needs in local planning system will be responsible for component/ outcome 1: strengthening systemic and institutional capacity for integrated landscape management. These agencies would include DoFPS/MoAF, PPD/MoAF, DLG/MoHCA and GNHC-S. For coordination and consolidation of project activities, the PPD/MoAF as the nodal policy and program coordination entity of MoAF for matters related to agricultural and forest landscape management will function as the project component 1 manager;
- **Field-based agencies**, namely territorial forestry divisions (TFDs) and protected area management authorities (PAMAs), for component/ outcome 2: BC governance and management established, demonstrated and linked to the management of contiguous PAs. The following TFDs have jurisdictions over the four BCs in the project landscapes: Paro TFD for BC 1, Wangduephodrang TFD for BC 2, and Zhemgang TFD for BC 4 while three

TFDs – Bumthang, Wangduephodrang, and Zhemgang – have areas in BC 8, which is a large mosaic of several sub-corridors. The PAMAs in the project landscapes pertain to Jigme Khesar Strict Nature Reserve, Jigme Singye Wangchuck NP and Phrumsengla NP. The DoFPS, MoAF, as the central government department responsible for coordination and management of PAs, will function as the project component 2 manager.

- **Dzongkhag Administrations** that have the mandate for delivery of local development programs and associated public services for component/ outcome 3: livelihood options for communities are more climate-resilient through diversification, SLM and climate-smart agriculture and livestock management and supported by enhanced infrastructure. An exception will be the upgradation of gewog connectivity roads (for improved market access and enhanced climate resilience), which will be implemented by the **Department of Roads** under the Ministry of Works and Human Settlement. The project will involve 12 Dzongkhag Administrations that have gewog(s) inside the project landscapes. The coordination and consolidation of project activities for project component 3 will be done by the LDD, GNHC-S, which has the mandate for overall monitoring and coordination of local development activities.
- **The GNHC-S**, through the DCD, will be directly responsible for implementation of component/ outcome 4: monitoring and evaluation and knowledge management systems established to support sustainable management of forest and agricultural landscapes and climate-resilient communities.

The above agencies will implement the project activities assigned to them with technical support from, or in collaboration with other agencies, depending on the nature of the activities and requisite expertise. Key potential agencies for technical support and partnership include:

- **Department of Agriculture, MoAF** – The DoA, through its various technical agencies (which include National Soil Services Center, National Plant Protection Center, National Seed Center, National Post-Harvest Center, and Regional RNR Research and Development Centers) for technical support and guidance to the Dzongkhag Administrations in the implementation of activities related to sustainable land management and climate-resilient agricultural livelihood practices and systems.
- **Department of Agricultural Marketing and Cooperatives, MoAF** – for technical support and guidance for improving value chains and marketing of RNR products emanating from climate-resilient livelihood practices, and for development of community-based groups and cooperatives to support local livelihoods.
- **Department of Livestock, MoAF** – As the overall technical agency to enhance livestock productivity through appropriate animal husbandry and grazing management practices and services, DoL’s technical support and guidance to the Dzongkhag Administrations is envisaged for implementation of livestock-based livelihood activities that enhance community resilience to climate change.
- **National Environment Commission – Secretariat** – for coordination and technical support on climate change and environmental management issues (e.g. SEA, EIA). NEC-S leads the National Climate Change Committee (NCCC) and Climate Change Coordination Committee (C4), as the main forums for coordinating and discussing matters related to climate change in Bhutan.
- **Ministry of Health** – to provide advice and support on community based health and sanitation inputs to activities in Output 3.2
- **Tarayana Foundation**, a Bhutanese CSO dedicated to socio-economic upliftment of the poor and marginalized communities, can potentially have a key role in terms of social mobilization and outreach to local communities for improved livelihoods especially among the poor and disadvantaged groups in the project landscapes.
- **Royal Society for Protection of Nature**, a Bhutanese CSO dedicated to nature conservation, can potentially have a key role in terms of raising community awareness and understanding of environmentally sustainable and climate-resilient livelihoods, and innovative approaches to integrating conservation and local livelihoods including community based ecotourism.

- **WWF Bhutan Program** will be a key project partner in view of their longstanding support to biodiversity conservation in Bhutan especially in the protected areas and biological corridors and for synergy and linkages with Bhutan for Life, a long-term collaborative scheme between RGoB and WWF to mobilize and operationalize sustainable financing for the protected areas/ biological corridors system. Particular areas of technical support from, and partnership with, WWF include enhancement of management effectiveness of biological corridors and protected areas (through Bhutan METT+ system), conservation management planning in the biological corridors integrating CCA needs, SMART patrolling, and human-wildlife conflict management.

A stakeholder engagement plan is presented in Project Document **Annex 30**. It outlines the participation of all project stakeholders and their roles in respect of various project outputs during project implementation.

UNDP Direct Project Services as per Government Request: UNDP Bhutan CO may provide specific project services, such as for the recruitment and contract management of PMU staff and project consultants, on the request of RGoB. Such services are chargeable on an item-by-item basis against UNDP's Universal Price List. A Letter of Agreement (LoA) for UNDP direct project support services required by the IP (GNHC) is attached in **Annex 12**.

Agreement on intellectual property rights and use of logo on the project's deliverables and disclosure of information: In order to accord proper acknowledgement to the GEF for providing grant funding, the GEF logo will appear together with the UNDP logo on all promotional materials, other written materials like publications developed by the project, and project hardware. Any citation on publications regarding projects funded by the GEF will also accord proper acknowledgement to the GEF. Information will be disclosed in accordance with relevant policies notably the UNDP Disclosure Policy<sup>13</sup> and the GEF policy on public involvement<sup>14</sup>.

Project management: The PMU will be based in Thimphu and will operate from the office of GNHC-S. As part of the co-financing support from the RGoB, office space will be provided by Implementing Partner (GNHC-S). The project will coordinate with other ongoing projects and initiatives, in particular the Bhutan for Life program, IFAD-CARLEP project and GCF project especially where geographic coverage overlap so that there is coordination and synergy, and exchange of lessons and experiences that will strengthen the quality of project implementation (see IV.ii – Partnerships for details).

The overall coordination of the GEF/LDCF project will be led by the GNHC-S as the Implementing Partner for the project. In view of the relatively large geographical area covered by this project, and the focus on integrated forest and landscape management, it will engage with a wide range of government agencies and other stakeholders at all levels, and will both build on the results of, and intersect with several significant initiatives.

This project will ensure complementarity with other projects that are currently in appraisal and scoping stage, namely the national adaptation plan (NAP) and GCF project proposal on Smart Agriculture which UNDP is taking the lead in preparation; and World Bank's Pilot Program for Climate Resilience. From the government's side, all the project preparations are coordinated by GNHC as the GEF OFP, GCF NDA, and WB's partner for PPCR. GNHC as the coordinating agency for all these project proposals have clearly indicated to the partners on spatial coverage and the focus of the project interventions. For the current project, the focus is in the central region of the country covering four biological corridors and three parks. The GCF project sites will cover six southern & western dzongkhags of Samtse, Sarpang, Tsirang, Punakha, Wangdue Phodrang and Trongsa. GNHC proposes to focus the WB PPCR/CIF project

<sup>13</sup> See [http://www.undp.org/content/undp/en/home/operations/transparency/information\\_disclosurepolicy/](http://www.undp.org/content/undp/en/home/operations/transparency/information_disclosurepolicy/)

<sup>14</sup> See [https://www.thegef.org/gef/policies\\_guidelines](https://www.thegef.org/gef/policies_guidelines)

towards eastern Bhutan. These geographical considerations are explained further in the Strategy section, while the table below summarizes the connections with the components and outputs of the present project.

The UNDP Bhutan CO is supporting the Government to develop a National Adaptation Plan (NAP) process for the country. A project on NAP is being developed in collaboration with the NEC Secretariat and support from NAP Global Support Programme for LDCs, to be submitted to under the GCF readiness window. GCF resources will be used to mainstream climate change adaptation into national development policies and planning. Three key outcomes are proposed: i) establishing a climate and socio-economic information and knowledge management system to guide climate-resilient policy and decision-making; ii) appraising adaptation options for implementation, including for vulnerable regions, population groups and sectors; and iii) establishing a National Adaptation Plan (NAP) process to support Bhutan's medium- and long-term adaptation. Coordination with the GEF/LDCF project would be achieved through the NEC-S, which leads on NAP and is on the Technical Advisory and Coordination Committee for this project, while both UNDP CO and GNHC-S would facilitate this process.

Considering the synergistic potential between the GCF project and the GEF-LDCF project, close consultation has been undertaken between the key stakeholders to ensure avoidance of geographic and thematic overlap and to align implementation fields. The projects converge thematically in the fields of SLM, CSA, watershed management and irrigation, sustainable livelihoods, market access and climate/risk information. As an outcome of these consultations, it was decided that support to the generation and application of agro-meteorological information will be supported by the GCF project, whereas the development of innovative crop insurance pilots, as a mechanism for climate risk transfer, will be initially take up by the GEF-LDCF project and potentially scaled-up by the GCF project to maximize impact. The climate resilient EFRC manual and guidelines to be developed by the GEF-LDCF project will be applied by the GCF project in supporting construction of selected GC roads. There is geographic overlap in Wangduephodrang, Trongsa, Sarpang, Zhemgang, Tsirang and Dagana Dzongkhags, which requires coordination to ensure specific geographic complementarity or thematic focus in these common areas. The GEF-LDCF project will target specific gewogs close to Protected Areas and Biological Corridors, whereas the GCF project targets whole dzongkhags.

A highly significant venture that this project aims to collaborate with and contribute towards is Bhutan for Life (BFL)<sup>15</sup>, an innovative funding initiative by RGoB and WWF that aims to provide a sustained flow of finance to maintain the country's PAs and BCs in perpetuity. The goal of BFL is to "mobilize, in a single agreement, all the governmental, financial and other commitments needed to develop Bhutan's protected areas system and maintain it in perpetuity. The project will join forces with the BFL for its sustainable financing component, providing direct inputs into identifying and establishing new domestic streams of financing. During inception and PPG phase the project teams have been in close dialogue to ensure complementarity of outputs and activities, avoid geographic thematic and geographic overlap and to plan for sustainability of planned interventions and mechanisms taking into account that BFL will continue until 2030. The results of these discussions are summarized in **Table A25-1** in **Annex 28** that shows the GEF project activities against the corresponding BFL activities and milestones.

The full list of initiatives that the project will coordinate with during implementation is as follows:

- A. The UNDP/GEF NAPA-II FSP (2014-2018) "Addressing the Risks of Climate-induced Disasters through Enhanced National and Local Capacity for Effective Actions" (PIMS 4760), which commenced implementation in mid-2014, is investing \$11,491,200 to address immediate and urgent adaptation needs prioritized through the 2012 NAPA through strengthening national and local level capacity for disaster risk management and preparedness. Specific activities that may present synergies between the NAPA-II project and GEF/LDCF project will be identified and coordinated by the PMUs of the projects and GNHC. Identified areas of synergy are interventions under Outcome 2: "enhancing community resilience to climate-induced risks". This will include designing and building or rehabilitating systems for water harvesting, storage and distribution in selected villages and towns which face water scarcity, community-level water resources inventory to create the information base for water resource management. Experiences and lessons from NAPA-II implementation need to be shared and geographic overlap avoided. A

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<sup>15</sup> [http://www.wwfbhutan.org.bt/bhutan\\_for\\_life/](http://www.wwfbhutan.org.bt/bhutan_for_life/); <http://www.bfl.org.bt/>

second area of synergy is the interventions under Outcome 3: “Improving the quality, analysis and dissemination of climate information across climate-sensitive development sectors on a timely and reliable basis to aid climate change adaptation planning and to enhance preparedness and response to extreme weather events.” Intended support to DHMS and MoAF under Output 3.4 on generation, analysis and communication of agro-meteorological information needs to be closely coordinated with the NAPA-II project.

- B. The Local Governance Sustainable Development Program (LGSDP<sup>16</sup>) is another relevant initiative jointly supported by UNDP, UNCDF, UNEP, Denmark, Switzerland and the EU. The program has three major outcomes or ‘components’: (i) inclusive and equitable socio-economic development at local level; (ii) conservation and sustainable use of environment at local level; and (iii) strengthening good governance at local level. A major area of synergy under LGSDP pertains to performance-based grants which among other things include grants to a selected number of local governments for CCA investments using a performance-based system on an experimental basis with assistance from UNCDF-LoCAL (Local Climate Adaptive Living Facility) program. Another key area within LGSDP is the capacity development of local governments for mainstreaming cross-cutting issues namely gender, environment, climate change, disaster and poverty (GECDP) in local development plans. These areas present opportunities to build on earlier/ ongoing experiences, seek complementarity and take the interventions to a higher level of effectiveness.
- C. Global Climate Change Alliance (GCCA<sup>17</sup>), supported by EU (€4.4 million for 2012-2017, including (€0.8 million Fast Start Funding)), which is working in four central-eastern dzongkhags and has its PMU within MoAF. GCCA has supported the development of the State of Climate Change Report for the RNR sector, based on secondary data and information. Potential geographical overlap needs to be explored at the gewog level. GCCA has supported the development of Sector Adaptation Programme of Action (SAPA) for the RNR sector and consolidates and integrates the climate change adaptation related programmes, themes and actions of the RNR sector as proposed in the 11th Five Year Plan (FYP) and the Bhutan National Adaptation Programme of Action (NAPA). The SAPA was approved by the Secretary of GNHC in May 2013 and endorsed in April 2014.
- D. The UNDP Bhutan CO is supporting the Government to develop a National Adaptation Plan (NAP) process for the country. A project on NAP is being developed in collaboration with the National Environment Commission Secretariat and support from NAP Global Support Programme for LDCs, based in Bangkok, to be submitted to under GCF readiness window. The NAP readiness project will strengthen the capacity of the key agencies such as: the National Environment Commission Secretariat, the Department of Disaster Management, the Ministry of Agriculture and Forests, the Ministry of Economic Affairs, and the Ministry of Works and Human Settlement in Bhutan to integrate medium- and long-term climate change risks into existing planning and budgeting processes. GCF resources will be used to mainstream climate change adaptation into national development policies and planning. Three key outcomes are proposed: One, establishing a climate and socio-economic information and knowledge management system to guide climate-resilient policy and decision-making; two, appraising adaptation options for implementation, including for vulnerable regions, population groups and sectors; and three, establishing a National Adaptation Plan (NAP) process to support Bhutan’s medium- and long-term adaptation.
- E. UN-REDD supports RGoB in its REDD+ Readiness process with key support from UNDP, FAO and the Forest Carbon Partnership Facility (FCPF) of the World Bank. With the start of the Readiness Phase a National REDD+ Taskforce has been initiated, consisting of all key stakeholders, with representation of all technical agencies and governmental and non-governmental entities. The members of the National REDD+ Taskforce are divided over three distinct Technical Working Groups (TWGs): i) TWG on the design of a National Forest Monitoring System (NFMS) and the development of a national FREL/FRL; ii) TWG on REDD+ Safeguards (to limit negative social and environmental impacts, manage risks and opportunities and to develop and test benefit sharing mechanisms),

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<sup>16</sup> [www.gnhc.gov.bt/2013/10/signing-of-the-local-governance-sustainable-development-program-signed-by-gnhc-secretary-the-development-partners/](http://www.gnhc.gov.bt/2013/10/signing-of-the-local-governance-sustainable-development-program-signed-by-gnhc-secretary-the-development-partners/)

<sup>17</sup> <http://www.gcca.eu/national-programmes/asia/gcca-bhutan>

and iii) TWG on REDD+ Strategy Options, with the objective to lead discussions and generate proposals for strategy options to implement REDD+ activities in Bhutan through a consultative process, including for the design of demonstration activities, for subsequent review by the Taskforce. To build on the lessons learnt in the Readiness Phase the GEF/LDCF project will close coordinate its intended activities on PES/REDD+ and ecosystem valuation and support to the NFMS/NFI etc. with the Task Force.

- F. The Green Climate Fund (GCF) is preparing a project named “Enhancing Climate Resilient Agriculture and Food Security in Bhutan” (2017-2022) with the objective to increase food self-sufficiency in Bhutan through climate resilient agriculture and improved market access. The project will have three components focusing on i) Improved climate-resilience and enhanced productivity of the agriculture sector through the promotion of SLM, CSA and climate-resilient crops as climate smart practices intended to reduce negative impacts of climate change impact and boost production and food self-sufficiency , ii) Climate-resilient infrastructure to support market access through support to selected road sections that are presently very vulnerable to weather extremes (lack of climate proofing of planning, design and construction) and targeted support to improve irrigation system climate resilience, and iii) Enhanced market analysis and skills development to improve agricultural livelihoods including improved access to agro-meteorological information. There are clear opportunities for knowledge exchange and a need for close coordination to avoid geographic overlap and to enhance the impact of combined resources as some of the selected dzongkhags will receive related support from the GEF/LDCF project. For instance, the improved EFRC guidelines for GC road construction to be supported by this project, will be applied in the road support activities of the GCF project.
- G. The global Biodiversity Finance Initiative (BIOFIN) is developing activities with support of UNDP to innovate with the BIOFIN methodology in Bhutan, such that it delivers results not only related to biodiversity but also to tackling climate change and eradicating poverty. It will do so by assessing and integrating the methodologies of the Climate Public Expenditure and Institutional Review (CPEIR) as well as the Poverty Environment Initiative (PEI) and identified poverty initiatives with the BIOFIN methodology. The final product will be a ‘Green Investment Plan’ for Bhutan’s 12th Five Year Plan and beyond, advancing a new approach towards sustainable financing for development.
- H. The Rural Economic Advancement Programme (REAP) was initiated in 2009 for a period of three years with the specific purpose of addressing the socio-economic development needs of the extremely remote and unreached communities who had not benefitted much from broad-based poverty reduction interventions and economic growth. It focused on developing the capacity of targeted communities and provision of public services for improved agricultural production and incomes, enhancing local employment opportunities and improving the living conditions of the poor and marginalized. It employed a village-level development planning process using a culture-based, gender sensitive and environment friendly approach. The REAP program is being continued through Phase 2, corresponding with the ongoing 11<sup>th</sup> FYP. Lessons can be drawn from REAP in the planning and implementation of local development and livelihood activities envisaged under GEF/LDCF project.
- I. IFAD’s Commercial Agriculture and Resilient Livelihoods Enhancement Programme (CARLEP) aims to facilitate the transformation of a subsistence-based rural agricultural economy into a sustainable value chain and market driven productive sector by promoting climate smart approaches in agriculture and strengthening capacities of communities and local institutions. The programme will be implemented initially in six southern and eastern districts. There will be differentiation between the dairy and vegetable value chain areas with some overlap. Scaling-up interventions after the mid-term review will allow an additional four districts in the central and southwest to participate. The programme supports the Royal Government of Bhutan's 11th five-year plan focusing on climate-resilient agriculture production, value-chain enhancement and policy dialogue to boost agriculture commercialization. There are convergences of interest regarding value chain development in component 3 of the present project, and the potential for synergy and sharing lessons learned on climate smart agriculture practices.

In addition, the GEF/LDCF project will add value to a number of initiatives related to management of protected areas and biological corridors, as follows.

- J. Bhutan for Life (BFL) is an innovative funding initiative by RGoB and WWF and aims to provide a sustained flow of finance to maintain the country's PAs and BCs in perpetuity. The goal of BFL is to "mobilize, in a single agreement, all the governmental, financial and other commitments needed to develop Bhutan's protected areas system and maintain it in perpetuity. The project will join forces with the BFL for its sustainable financing component, providing direct inputs into identifying and establishing new domestic streams of financing. During inception and PPG phase the project teams have been in close dialogue to ensure complementarity of outputs and activities, avoid geographic thematic and geographic overlap and to plan for sustainability of planned interventions and mechanisms taking into account that BfL will continue until 2030. The results of these discussions are summarized in **Table A25-1 in Annex 28** that maps the GEF/LDCF project activities against the corresponding BFL activities and milestones.
- K. WWF's Trans-boundary Manas Conservation Area (TRAMCA) project (2012-2015) supports transboundary areas in southern Bhutan with India and Nepal. The project area includes the Khaling and Phibsoo Wildlife Sanctuaries and the Royal Manas National Park. The project supports biological surveys, development of park infrastructure including waterholes, watch towers and trails, and support community co-management and human wildlife conflict. The project will maintain close contact and collaboration with the TRAMCA project, ensuring cross fertilization between the two projects. The proposed project will replicate good practices for biological surveys, law enforcement, human wildlife conflict management etc. in the target biological corridors. The project will cover the central part of the PA-corridor network adjacent to TRAMCA, increasing the current coverage of support for protected areas and corridor operationalization. The latter will directly contribute to operationalization of the corridors in the TRAMCA area and the project will forge a close alliance with the TRAMCA project and explore provision of coordinated support for various corridors.
- L. The project will coordinate with the transboundary ICIMOD Kangchenjunga Landscape Conservation and Development Initiative (KLCDI), which overlaps with Landscape 1 in the west of the country including Jigme Khesar Strict Nature Reserve. <http://www.icimod.org/kl>
- M. World Bank-GEF Sustainable Financing for Biodiversity Conservation and Natural Resources Management Project (approved under GEF-5) aims to improve the operational effectiveness and institutional sustainability of the Bhutan Trust Fund for Environmental Conservation (BTF). In addition to enhancing the operational effectiveness and sustainability of BTFEC, the project provides focused support to improve conservation management of the High Altitude Northern Areas (HANAS) landscape including three northern areas with important watershed functions. The third component of the project is capacity building for mainstreaming of conservation and sustainable forest and natural resource management approaches in national policies, strategies and plans. While the proposed project's geographical focus is distinctly different, there is a need for close collaboration and joint planning between the third component of the World Bank-GEF project and the first component of the proposed project, which deals with enhancement of institutional capacity for sustainable forest landscape management.
- N. The project will make use of the lessons learnt by the World Bank-GEF Sustainable Land Management Project (SLMP) (2006-2013) that piloted and documented SLM technologies and approaches suitable for the steep slopes and agricultural practices of Bhutan. The planned SLM interventions will scale-up a suite of SLM technologies and build on the existing expertise and further develop and roll out SLM technologies as primary agricultural practices to build resilience against more extreme weather conditions, limit surface run-off and soil erosion, preserve and enhance soil fertility and agricultural production.
- O. COMDEKS<sup>18</sup> (community development and knowledge sharing for the Satoyama Initiative) has been designed to be community driven and support local community activities to maintain and rebuild Socio-Ecological Production Landscapes and Seascapes (SEPLS). Working through the Global Environmental Facility Small Grants Programme, COMDEKS provides small grants to local community organizations to develop sound biodiversity management and

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<sup>18</sup> Satoyama Initiative <http://satoyama-initiative.org/>; COMDEKS <http://comdeksproject.com/>

sustainable livelihood activities in order to maintain, rebuild, and revitalize socio-ecological production landscape and seascapes. COMDEKS has implemented some projects in Bhutan<sup>19</sup> since 2013, operating in concert with funding by the Japan Biodiversity Fund and GEF-small grant program to establish community-based programs, whose accumulated knowledge, experience and networks are of value to the present project. In Bhutan, COMDEKS focuses on the Gamri Watershed in Tashigang Dzongkhag province in the eastern region and supports development of sustainable livelihood activities in the biodiversity management. Approximately six villages are selected as priority villages under the government’s Rural Economic Advancement Programme (REAP). There is strong potential for collaboration between the current project and COMDEKS for combined support for sustainable rural development for communities.

**Table 1. Intersection of related initiatives with project outputs**

Related Initiative	Intersections with Components and Outputs of the Present Project			
	C1	C2	C3	C4
A: NAPA II			3.1, 3.4	4.1
B: LGSDP	1.1,1.6		3.1	4.1
C: EU-GCCA			3.1,3.4	4.1
D: NAP GSP	1.1			4.1
E: UN-REDD /WB FCPF	All outputs		3.2	4.1
F: GCF			All outputs	4.1
G: BIOFIN	1.1,1.3,1.6		3.2	
H: REAP	1.6		All outputs	4.1
I: IFAD-CARLEP			All outputs	4.1
J: BFL	All outputs	All outputs	All outputs	All outputs
K: WWF-TRAMCA	1.2,1.4	All outputs	3.2	4.1
L: ICIMOD-KLCDI	1.2	All outputs		4.1
M: WB/GEF5-HANAS	All outputs	?	?	4.1
N: WB-SLMP			3.1	4.1
O: COMDEKS			All outputs	4.1

As presented in the project Strategy, there is a need for strategic coordination and synergy with related landscape level initiatives, including avoidance of geographical overlap. The selected project landscapes generally complement these initiatives, which respectively focus on the southern (WWF - TRAMCA), northern (WB - HANAS) and eastern (IFAD – CARLEP) parts of Bhutan.

The project will draw upon lessons learned, as well as tools and methods developed under the range of projects above, to reduce duplication and avoid pitfalls during implementation, and, where appropriate, adopt successful approaches that are complementary to this project. In this context the project will invite key partners for various knowledge exchange dialogues, such as annual review workshops, to learn from emerging good practices and lessons learnt from key partners and inform mutually the partners of the knowledge generated within the GEF/LDCF project.

In line with RGoB policies, the project will delegate considerable resources and decision-making to local administrations at Dzongkhag and Gewog level in order to enhance their knowledge base. The project will thus strengthen local level structures through capacity building, community-based RNR related group formation (CFMG, NWFP, LFMP and other groups) and support, assistance to Gewog Environmental Coordination Committees and the RNR extension system.

The partnerships to be formed between these different structures and entities are key to the delivery and achievement of project goals and objectives. The role of the Project Board and the Project Management Unit in ensuring that the partnerships work and the interactions are kept functional is therefore key. As the Implementing Partner, support from various divisions within GNHC is required to ensure good coordination. For local government, this will be Local Development Division (LDD), for central agencies, it will be Plan Monitoring and Coordination Division (PMCD) and

<sup>19</sup> <https://comdeksproject.com/country-programmes/bhutan/>

for coordination with Development Partners it will be Development Cooperation Division (DCD). UNDP, in its project oversight role, and as both the Implementing Agency for this GEF/LDCF project and a development partner to the RGoB, will play a central role in ensuring that these partnerships work, and will liaise at the highest level with government to ensure that the project delivers the development results as agreed between the GEF-LDCF, UNDP and the government.

**A.7. Benefits. Describe the socioeconomic benefits to be delivered by the project at the national and local levels. Do any of these benefits support the achievement of global environment benefits (for GEF Trust Fund) and/or adaptation to climate change?**

Forest protection, strengthened SFM and watershed management achieved through the combined impacts of all project components will ensure the sustainability of ecosystem services that contribute directly to the national economy, including water supply for agriculture and hydropower, slope stabilization, soil protection, pollination, tourism and recreation, etc. These services are as yet unquantified, but underpin four of Bhutan’s most important economic sectors – hydro-electric power, agriculture, forestry and tourism development. In addition, in view of Bhutan’s position in the upper reaches of major rivers flowing southwards to the plains of India and Bangladesh, indirect environmental benefits (watershed services, regulation of floods, etc.) would benefit millions of people downstream through sustainable and climate-resilient management of these landscapes. The third component of the project will invest significantly in supporting a wide range of interventions that will: first, strengthen rural production through SLM, CSA seeds/varieties, water/irrigation, livestock, pest management, capacity building related to inputs and production; secondly, provide post-production, value-addition, diversification, livelihood support and insurance; thirdly, improve market access, commercialization and access to market information. Substantial social and economic benefits will accrue from this range of interventions, providing improvements in the livelihoods and climate-resilience of an estimated 97,000 people residing in the project landscapes, including rural poor communities. These benefits are summarized in the following table.

**Table 2. Social and economic benefits arising from the project outputs**

<b>Output</b>	<b>Social and Economic Benefits</b>
1.5	Enhanced SFM practices supporting at least 7 FMUs, LFMPs in 33 gewogs and numerous CFs will benefit both local employment and enhanced local benefits from forest resources.
1.6	The strengthened functionality of the MRG at local level will result in more effective and integrated local development planning, and increased climate resilience of infrastructure and livelihoods, reducing economic losses from extreme weather conditions
2.1, 2.2, 2.3	Operationalization of the management of four biological corridors in Component 2 will create employment and income-generating opportunities, including eco-tourism through the Territorial Forest Divisions
2.3	Operationalization of the management of four biological corridors in Component 2 will also create employment opportunities through engagement of local communities and provision of incentives.
2.4	The project’s significant intervention towards addressing Human-Wildlife Conflict as a major source of loss for farming communities will have widespread benefits in demonstration areas and subsequently through scaling up effective approaches.
3.1	Reduced land degradation, enhanced soil fertility, enhanced productivity, climate resilience and vegetative cover on 2,000 ha under SLM; climate resilient crop varieties introduced across project landscapes; watershed management strengthened and irrigation infrastructure climate-proofed and extended; enhanced management of grazing land and fodder production and low-emission livestock practices over 1000 ha; integrated pest management supported as part of CSA.
3.2	Value addition in supply chains of priority climate resilient commodities (e.g. cardamom, potatoes) including: commercialization of organically-produced farm produce; viability of crop and livestock insurance schemes will be tested to reduce major losses due to extreme weather and wildlife incursions; new livelihood options created based on value addition of wood and non-wood forest products; conservation livelihood opportunity development such as community ranger system establishment and other conservation jobs; and alternative community revenue streams such as PES/REDD+ pilots in Community Forests.
3.3	Guidelines developed for design and construction of climate-resilient road infrastructure; prioritized Gewog Connectivity road stretches upgraded to demonstrate enhanced climate resilience; marketing infrastructure improved through development of post-harvest storage and packaging and processing and sales facilities; and capacity of farmers

increased to recognize market risks, linkages and opportunities to maximize value addition in the supply chain.
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The global benefits will be delivered primarily from significantly improved management of Bhutan’s biological corridor system covering some 330,000 ha of predominantly forested land with its high concentration of globally significant biodiversity including tiger, snow leopard, leopard, red panda, takin, blue sheep, musk deer and black-necked cranes (see Project Document **Annex 21**).

Global carbon sequestration benefits will be derived from the adoption of SFM practices in the project landscapes totalling at least 100,000 ha of FMUs, LFMPs and community forests. Complimentary to climate-smart agricultural practices and SLM (approximately 2,000ha of SLM practices), the project will support low-emission livestock practice management and enhanced management of grazing land and fodder production (approximately 1,000ha of improved grazing land and agro-forestry). Overall, lifetime direct avoided GHG emissions through forest protection, SFM, SLM and smart livestock practices that will reduce land degradation and secure ecosystem services, totalling 3,578,372 tCO<sub>2</sub>eq over a 10-year period, plus a lifetime indirect GHG emissions avoided of 580,632 tCO<sub>2</sub>eq (See Project Document **Annex 4c**). Through support of UNCCD pilots on Land Degradation Neutrality (LDN) in the project landscapes, Output 3.1, carbon stock and sequestration in agricultural soils will be monitored.

The project will mainstream biodiversity conservation into the management of three project landscapes totalling 1,304,958 ha, of which 176,400 ha lies in four BCs and 324,405 ha in three associated PAs (see the table below). In addition, it will strengthen the management effectiveness of these PAs and BCs, assist in the outroll of the national METT+ system and secure sustainable financing to achieve at least a basic level of management.

The project will support the internalisation of immediate and long-term adaptation measures in conservation management, forestry management, agricultural and livelihood development, equipping the government to integrate support for rural development, biodiversity conservation and ecosystem management at the local level.

#### **Area of Protected Areas and Biological Corridors within the three project landscapes**

	<b>PAs</b>	<b>BCs</b>	<b>Total [ha]</b>
<b>Landscape 1</b>	60,950	14,900	75,850
<b>Landscape 2</b>	173,000	111,400	284,400
<b>Landscape 3</b>	90,505	50,100	140,605
<b>Total [ha]</b>	<b>324,405</b>	<b>176,400</b>	<b>500,855</b>

#### **A.8. Knowledge Management. Outline the knowledge management approach for the project, including, if any, plans for the project to learn from other relevant projects and initiatives, to assess and document in a user-friendly form, and share these experiences and expertise with relevant stakeholders.**

Through its fourth component, the project will ensure that information and knowledge accumulated and produced within the project will be documented and made available for wider communication and dissemination of project lessons and experiences to support the replication and scaling-up of project results. Project support will enable the strengthening of institutional, financial and human resource capacity for knowledge management and M&E for integrated climate-resilient forest and agricultural landscapes through review and synthesis of existing knowledge, identification of resource gaps and development of strategies to fill these gaps and strengthening of digital repositories of biodiversity information on PAs and BCs. Project support will also be geared towards enhanced generation, documentation and sharing of best practices and knowledge in sustainable management of forest and agricultural landscapes and climate resilient livelihoods. This will include case studies and technical reports to document best practices and traditional

(indigenous) technical knowledge and sharing and presenting these materials at national and international meetings. Information and knowledge generated by the project will be shared through a project website, social media and a range of outreach and communication materials. The project will also undertake an impact evaluation, the purpose of which evaluation is to ask policy relevant questions to generate an evidence base for not only Bhutan dialogue and policy, but also for the international climate change adaptation community on how an integrated approach to ecosystem management can help enhance sustainability and climate resilience of forest and agricultural landscape and community livelihoods.

#### **Output 4.1: Institutionalize knowledge for ILM and Climate Change Resilience**

Under Output 4.1 the project will support the strengthening of institutional, financial and human resource capacities for long term knowledge management and M&E for integrated forest and agricultural landscapes and climate resilient livelihoods. This will include stock taking and review of existing (sectoral) information sources and documents and related best practices and lessons learnt and mapping of existing knowledge gaps, based on this analysis (taking account of related initiatives such as the GCCA, NAPA 2 project and SLM project (see **Section B6 above**). Human resource development and related institutional and budget support will be provided to train staff for improved long-term knowledge management. Linked to this capacity development, the project will assist in improving the existing biodiversity portal with updated and more comprehensive information on the PAs and BCs, including detailed GIS maps of the BCs.

#### **Output 4.2: Enhanced generation, documentation and sharing of knowledge and best practices in ILM and climate resilient livelihood practices**

Under Output 4.2, the project will assist in improved generation and documentation of emerging good and best practices in integrated management of forest and agricultural landscapes and climate resilient livelihoods. This will include a series of case studies, targeted research and assessments to document and present best practices, based on innovation and global best practices piloted through project support, but also including traditional (indigenous) technical knowledge of sustainable land and forest management and climate resilient livelihood practices, including traditional grievance redress mechanisms for resolving resource management disputes. Study results will be published, disseminated and presented at various national and international knowledge sharing events, which will be supported and organized by the project. The project will make use of a targeted communication strategy to systematically document, publish and share information emanating from project activities and knowledge sharing events, including making use of websites and social media.

#### **Output 4.3: Project monitoring and evaluation system in place and used to inform project management decision-making**

To develop and implement an effective M&E system, the project will assist under Output 4.3 a series of activities to enable well-informed and participatory project management decision-making and stock taking and dissemination of emerging good and best practices to broader local, national, regional and global stakeholders. This will include the regular review and updating of the M&E plan (**Annex 2**) with indicators, baselines and targets, annual work plans and budgets and the generation of comprehensive monitoring and progress reports. The project will ensure that gender mainstreaming and SESP requirements are met as an integral part of the project planning, implementation and M&E cycle. Internal annual review and planning workshops will enable all key stakeholders to be actively involved in a participatory M&E process and that an efficient platform is provided for open information exchange to support project management and knowledge generation, including timely flagging of constraints and challenges and project mitigation approaches. Lastly, learnings from the MTR and TE will be shared and acted on to ensure optimal implementation efficiency and knowledge generation.

As part of the M&E plan, the project will carry out an impact evaluation, making use of a quasi-experimental design to capture the causal impact of the project for distinct project topics and applying a survey with household questionnaires at inception and project completion stages (see **M&E Plan section** and **Annex 15**). The impact evaluation will involve subcontracting a research team to design and implement a detailed evaluation methodology to determine baseline conditions in Year 1 and the overall impact of the project in the final year. The project has three main technical components with different activities under each, making for multiple treatment of households, farmers, communities

and policy makers in an evaluation. However, not all such treatments are amenable to rigorous impact evaluation. Therefore, the impact evaluation will address a subset of the activities components, with special attention given to component 3 of the project that relates to community resilience and improved livelihoods.

## **B. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:**

### ***B.1. Consistency with National Priorities. Describe the consistency of the project with national strategies and plans or reports and assessments under relevant conventions such as NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, etc.:***

Overall, the project is consistent with national climate change adaptation policy (NAPA), biodiversity policy (NBSAP) and national forest policy commitments to retain 60 percent of the country under forest cover and to achieve carbon neutral development. Bhutan completed its INC in 2000 and the SNC in 2011 as well as National Adaptation Programme of Action (NAPA) in 2006, updated in 2012. The project will primarily address NAPA priority of community-based food security and climate resilience, and to a certain extent the priority of application of climate-resilient and environment-friendly road construction. With respect to NBSAP 2014, it will specifically contribute to: target 2 of establishing national capacity for valuation and integration of biodiversity and ecosystem services in the national development planning; target 7 of managing areas under agriculture and forestry through adoption of sustainable practices ensuring biodiversity conservation; target 10 of identifying potential impacts of climate change on vulnerable ecosystems and strengthening adaptation measures; and target 11 of maintaining current PA system with enhanced management effectiveness and financial sustainability. The long-term development vision for Bhutan is provided by “Bhutan 2020: A Vision for Peace, Prosperity and Happiness”, which provides the operational framework for maximizing and realizing GNH and guides the formulation of the Five-Year Plans (FYP). The Eleventh FYP’s (2013-2018) objective is “Self-Reliance and Inclusive Green Socio-economic Development”. It seeks to promote carbon-neutral and environmentally sustainable development, and engenders mainstreaming of environment, climate change and disaster risk reduction as cross-cutting issues along with gender and poverty reduction. The process for the Twelfth FYP (2018-2023) preparation is underway. The Twelfth FYP preparation guidelines outline 16 National Key Result Areas (NKRA). This project will contribute to several of them but most specifically to NKRA 5 (healthy ecosystem services maintained), NKRA 6 (carbon-neutral and climate- and disaster-resilient development enhanced), and NKRA 8 (water, food and nutrition security ensured). Furthermore, through a decentralized project implementation approach to development of community-based climate-resilient livelihood practices and mainstreaming of climate change and environmental considerations in sub-national/ local development planning, the project will contribute to the NKRA 13 (democracy and decentralization strengthened). All these documents demonstrate Bhutan’s vulnerability to climate change-induced sudden and chronic hazards such as landslides, flash floods and droughts, and their impacts on agriculture and key economic infrastructure. Bhutan has also submitted its Intended Nationally Determined Contribution (INDC) to UNFCCC in September 2015, in the run-up to CoP21 in Paris, building on its declaration to remain carbon neutral. The National Environment Strategy (NES) (1998) describes the main approaches for sustainable development and, once revised, will focus on low-carbon and climate resilient development, addressing both climate change mitigation and adaptation aspects, which was not the case in the earlier NES. Also the Bhutan Water Vision and Policy (2003) advocates is integrated water resource management to address existing and emerging water issues including those emanating from climate change, to which the project will contribute through watershed conservation and integrated landscape management. Details of the project’s alignment with these national policies and plans are as follows (Project Document **Annex 29**).

**Eleventh Five Year Plan of the Royal Government of Bhutan** (2013-2018): The Eleventh Plan’s objective is “Self-Reliance and Inclusive Green Socio-economic Development”. It seeks to promote carbon-neutral and environmentally sustainable development, and engenders mainstreaming of environment, climate change and disaster risk reduction as cross-cutting issues along with gender and poverty reduction. Sixteen national key results areas (NKRA) have been identified as outcomes at the national level that the government will strive to achieve over the next five years in order to realize the Eleventh Plan objective. To achieve the NKRA, Sector Key Result Areas and Dzongkhag Key Result Areas with their respective KPIs have been defined for each sector and dzongkhag. The project will contribute towards achieving the following KRAs: NKRA 2: Poverty reduced and MDG Plus achieved; NKRA 3: Food secure and

sustained; NKRA 7: Carbon neutral/green & climate resilient development; NKRA 8: Sustainable utilization and management of natural resources.

**National Biodiversity Strategies and Action Plan (NBSAP) (2014):** It outlines the strategies and actions required to achieve the following national targets:

**Table 1. NBSAP targets towards which the project will contribute**

Target	Description
2	By 2018, national capacity is established for valuation of biodiversity and ecosystem services to integrate into the national development planning and policy making process and national accounting system, as appropriate (through support for pilot valuation of ecosystem services in project landscapes)
4	By 2020, relevant stakeholders to adopt the principles of sustainable production and consumption of natural resources and keep the impacts of use of natural resources well within safe ecological limits (through support for SFM and sustainable agriculture practices in the project landscapes)
5	By 2018, high-biodiversity value habitats are mapped, the rate of losses is accounted, trends monitored and overall loss and fragmentation reduced (through incorporating HCVF mapping into forest functional zoning and management plans for BCs, FMUs, LFMPs and CFs)
7	Areas under agriculture and forestry including rangeland are managed through the adoption of sustainable management practices, ensuring conservation of biological diversity (through support to SFM in FMUs, LFMPs and CFs, introduction of SLM practices on at least 2000 ha, BC management plans)
10	By 2020, potential impacts of climate change on vulnerable ecosystems identified and adaptation measures strengthened (through integrating climate change adaptation into systemic planning and site management plans for BCs, FMUs, LFMPs and CFs; into local government planning through MRG system; and into climate-smart agricultural practices in project landscapes)
11	The current PA system is maintained with enhanced management effectiveness and financial sustainability (through operationalization of the BC system that will connect and contribute towards the ecological integrity of the PAs; and collaborative work with associated PAs to develop staff capacity for biological monitoring, METT application, SMART patrolling, HWC interventions, etc.)
12	By 2020, the information on conservation status of prioritized taxonomic groups is made available and actions are taken to improve the status of prioritized species (through support to the NFI and NFMS, biological monitoring in BCs and associated PAs, also in FMUs; strengthening of the National Biodiversity Portal and its information content)
14	By 2020, key ecosystems and ecosystem services are identified, assessed and safeguarded for human well-being (through baseline assessments of BCs and operationalization of BC management in project landscapes)
15	By 2020, priority degraded ecosystems and habitats are identified and rehabilitated through a landscape approach (through baseline assessments of BCs and operationalization of BC management in project landscapes)
19	By 2020, science-based knowledge and technologies related to biodiversity are generated, improved, made accessible and applied, where appropriate (through support to development of NFMS, adoption of biological monitoring, SMART patrolling and other technologies)
20	By 2018, national capacity is established for valuation of biodiversity and ecosystem services to integrate into the national development planning and policy making process and national accounting system, as appropriate (through support for pilot valuation of ecosystem services in project landscapes and its consideration in integrated landscape management planning)

**National Forest Policy (2011):** serves as the main guiding policy framework for forest management and nature conservation. The project will contribute directly towards the policy goal: *Bhutan's forest resources and biodiversity are managed sustainably to produce a wide range of social, economic and environmental goods and services for the equitable benefit of all citizens and natural environment while still maintaining a minimum of 60 percent of the land under forest cover thereby contributing to Gross National Happiness.* It will also contribute towards the following policy objectives:

**Table 2. National Forest Policy objectives to which the project will contribute**

Policy Objective	Description
1	Manage Bhutan's forests for sustainable production of economic and environmental goods and services and to meet the long term needs of society (through operationalization of the BC system)
2	Manage Bhutan's production forests for sustainable supply of timber, other forest products and environmental goods and services and to meet the long term needs of society (through support to SFM in FMUs, LFMPs and CFs; and forest user groups)
3	Maintain species persistence and ensure long term sustainability of Bhutan's biodiversity, ecosystem services, natural habitats and cultural heritage through a network of Protected Areas, biological corridors and management of other parts of the forest landscape for positive environmental outcomes (through operationalization of the BC system and support for SFM in FMUs, LFMPs and CFs)
4	Provide for effective and integrated watershed management, maintain and improve water and watershed conditions and contribute to sustainable livelihoods through provision of watershed services (through consideration of watershed management functions in biological corridor management planning; demonstration of Payment for Watershed Services schemes in project landscapes)
5	Empower rural communities to manage forests sustainably for socio-economic benefits, poverty reduction and to contribute to overall sustainable forest management at national level (through support to community forestry, forest product user groups and wider SFM in project landscapes)

**National Adaptation Programme of Action for Climate Change (NAPA) (2012):** The priority projects in the updated NAPA which are consistent with the proposed project include: Landslide management and flood prevention; Community-based food security and climate resilience; Rainwater harvesting and drought adaptation; Community-based forest fire management and prevention (although the NAPA I<sup>20</sup> and NAPA II projects<sup>21</sup> have supported such interventions). This project picks up community-based food security and climate resilience which was not covered by the earlier NAPA projects, and will further support the other national priorities. The MOAF released the second Sector Adaptation Plan of Action (SAPA) for the Renewable Natural Resources (RNR) sector in June 2016<sup>22</sup>, which responds to the need identified in the NAPA for a specific plan of action (SAPA) for this sector in view of its inherent vulnerability to climate change and significant contributions to employment and the national economy. The task force members of SAPA 2016 recommended harmonization of the plan of action identified in the SAPA 2016 into the sectoral and Dzongkhag annual plans especially for the Climate Change Adaptation Programs such as GCCA as it had observed weak harmonization of sectoral annual plans with the sectoral adaptation plan of actions. The SAPA identified two key priorities: **Data and Knowledge Management covering** areas of research to assess the impacts of climate change on agriculture & food security, water resources and biodiversity; and **Capacity in Addressing Climate Change:** there is a lack of national capacity in terms of institutional, infrastructure, human, and technical capacity across the board in dealing with climate change and its effects on forest and biological diversity, food security and water resources. The proposed project will contribute directly toward both priorities through strengthening forest and biodiversity monitoring systems and developing national and local capacity for CCA.

**The RNR-SAPA (2016)** consolidates, integrates and updates the climate change adaptation related programs, themes and actions of the RNR sector as proposed in the 11th FYP with the objective of mainstreaming climate change adaptation into the 12th FYP. The adaptation plans of action are grouped into three core themes of Agriculture and Food Security, Water Resources, and Forest and Biodiversity. To focus the updated Plan of Action, a set of seven Adaptation Action Areas was adopted as follows: 1. Food Security and Poverty Alleviation; 2. Forest and Biodiversity

<sup>20</sup> The Bhutan National Adaptation Programme of Action (NAPA) was released in 2006 and the implementation of priority actions supported through the NAPA I Project <http://adaptation-undp.org/projects/bhutan-national-adaptation-programme-action-napa>

<sup>21</sup> NAPA-II FSP "Addressing the Risks of Climate-induced Disasters through Enhanced National and Local Capacity for Effective Actions" (PIMS 4760), which commenced implementation in mid-2014, is strengthening national and local level capacity for disaster risk management and preparedness. It was designed to address the immediate and urgent climate change adaptation needs prioritized through the update of the NAPA undertaken in 2011 (see Section ii Partnerships for details)

<sup>22</sup> MOAF. June 2016. The Renewable Natural Resources Sector Adaptation Plan of Action, 2016. RNR Climate Change Adaptation Program, Ministry of Agriculture & Forests, Royal Government of Bhutan

Conservation; 3. Governance and Sustainability; 4. Forest and Ecosystem; 5. Natural Disasters and Infrastructure; 6. Research, Education & Advocacy; and 7. Water Resources Use, Access and Management.

**National Strategy and Action Plan for Low Carbon Development (2012).** This Strategy presents a long-term national strategy comprising various scenarios analysing development paths from 2005 until 2040. Concomitant to these scenarios, the action plan articulates short and medium-term interventions under various development sectors to achieve sustainable economic growth through green and low-carbon growth. The project will support recommended measures to complete the National Forest Inventory and establishment of the National Forest Monitoring System to enable the assessment of current and future sequestration capacity, as well as contribute towards forested landscape conservation and SFM practices that foster carbon sequestration, and capacity to monitor progress in line with REDD+ readiness.

**Intended Nationally Determined Contribution (INDC) (2015).** The RGoB made a strong commitment during UNFCCC CoP15 in December 2009, by "...pledging that for all times to come, Bhutan will remain carbon neutral and that we will continue to follow and be guided by a strong sense of conservation ethics. That we will not produce GHG in excess of what we can sequester but that we will also serve as a carbon sequestration tank for the world in general. And that we would like to be rewarded for this." Subsequently, Bhutan submitted its INDC to UNFCCC in September 2015, in which it confirms that, based upon the Second National Communication (SNC, 2011), Bhutan is in fact carbon negative, emitting only 1.6MtC while sequestering an estimated 6.3MtC in its forests. This makes Bhutan unique as the only nation to declare itself carbon negative and committed to remain so in future, by adopting a National Strategy and Action Plan for Low Carbon Development (RGoB, NEC, EA 2012). The project will support this commitment through support to SFM, forest conservation, capacity building on carbon monitoring and evaluation of environmental services, and climate smart agricultural and livestock practices.

**National Environment Strategy (NES) (1998)** describes the main approaches for sustainable development. The strategy is currently under review and revision with support from UNDP. In the absence of a separate CC policy, the revised NES will among other things focus on low-carbon and climate resilient development, addressing both climate change mitigation and adaptation aspects, which was not the case in the earlier NES.

**Bhutan Water Vision and Policy (2003).** A key element that the policy advocates is integrated water resource management to address existing and emerging water issues including those emanating from climate change; the current project will contribute towards maintenance of the water cycle through forest conservation measures, as well as landscape interventions including catchment management planning, payment for watershed services schemes, water source protection and improved access to potable water and irrigation supplies for communities.

### **Contribution to the UN Sustainable Development Goals (SDGs)**

The project will contribute directly towards three SDGs that have been prioritized by the RGoB: *1: No poverty (end poverty in all its forms everywhere)* – through support to climate-smart agriculture (CSA) practices, improved value chains and access to markets, community forestry and resource user groups, and enhanced security of ecosystem service provision; *13: Climate Action (Take urgent action to combat climate change and its impacts)* – through ecosystem-based adaptation associated with operationalization of the BC system and support for SFM in project landscapes, support for adoption of CSA in project landscapes, climate-proofing of rural roads and enhanced access to markets and market and weather information; *15: Life on land (Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss)* – through operationalization of the BC system and support for SFM in FMUs, LFMPs and CFs, and recognition of biodiversity and ecosystem service values in integrated landscape planning. In addition, the project will also contribute towards SDG 2 (*End hunger, achieve food security and improved nutrition and promote sustainable agriculture*) through promoting CSA and SLM; SDG 3 (*Good health and well-being*) as a result of sustainable ecosystem services from the management of forest and agricultural landscapes and improved livelihoods<sup>23</sup>; and SDG 5

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<sup>23</sup> See p8 of: <http://www.undp.org/content/undp/en/home/librarypage/hiv-aids/hiv--health-and-development-strategy-2016-2021.html>

*(Achieve gender equality and empower all women and girls)* through capacity building for equal participation and equitable sharing of benefits from the implementation of project interventions.

### **C. DESCRIBE THE BUDGETED M&E PLAN:**

The project results as outlined in the project results framework will be monitored annually and evaluated periodically during project implementation to ensure the project effectively achieves these results. Supported by Component Four: Knowledge Management and M&E, the project monitoring and evaluation plan will also facilitate learning and ensure knowledge is shared and widely disseminated to support the scaling up and replication of project results.

Project-level monitoring and evaluation will be undertaken in compliance with UNDP requirements as outlined in the [UNDP Program and Operations Policies and Procedures \(POPP\)](#) and [UNDP Evaluation Policy](#). While these UNDP requirements are not outlined in this project document, the UNDP Country Office will work with the relevant project stakeholders to ensure UNDP M&E requirements are met in a timely fashion and to high quality standards. Additional mandatory GEF-specific M&E requirements (as outlined below) will be undertaken in accordance with the [GEF M&E policy](#) and other relevant GEF policies<sup>24</sup>.

In addition to these mandatory UNDP and GEF M&E requirements, other M&E activities deemed necessary to support project-level adaptive management will be agreed during the Project Inception Workshop and will be detailed in the Inception Report. This will include the exact role of project target groups and other stakeholders in project M&E activities including the GEF Operational Focal Point and national/regional institutes assigned to undertake project monitoring. The GEF Operational Focal Point will strive to ensure consistency in the approach taken to the GEF-specific M&E requirements (notably the GEF Tracking Tools) across all GEF-financed projects in the country. This could be achieved for example by using one national institute to complete the GEF Tracking Tools for all GEF-financed projects in the country, including projects supported by other GEF Agencies.<sup>25</sup>

#### **M&E Oversight and monitoring responsibilities:**

**Project Manager:** The Project Manager is responsible for day-to-day project management and regular monitoring of project results and risks, including social and environmental risks. The PM will ensure that all project staff maintain a high level of transparency, responsibility and accountability in M&E and reporting of project results. The PM will report and be accountable to GNHC and the Project Board, and GNHC in turn is accountable to the UNDP Country Office for the delivery of the project results. The PM will be responsible for managing the Project Management Unit (PMU) and its staff.

The PM will develop annual work plans based on the multi-year work plan included in Project Document **Annex 1**, including annual output targets to support the efficient implementation of the project. The PM will ensure that the standard UNDP and GEF M&E requirements are fulfilled to the highest quality. This includes, but is not limited to, ensuring the results framework indicators are monitored annually in time for evidence-based reporting in the GEF PIR, and that the monitoring of risks and the various plans/strategies developed to support project implementation (e.g. gender strategy, KM strategy etc.) occur on a regular basis.

**Project Board:** The Project Board will take corrective action as needed to ensure the project achieves the desired results. The Project Board will hold project reviews to assess the performance of the project and appraise the Annual Work Plan for the following year. In the project's final year, the Project Board will hold an end-of-project review to capture lessons learned and discuss opportunities for scaling up and to highlight project results and lessons learned with relevant audiences. This final review meeting will also discuss the findings outlined in the project terminal evaluation report and the management response.

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<sup>24</sup> See [https://www.thegef.org/gef/policies\\_guidelines](https://www.thegef.org/gef/policies_guidelines)

<sup>25</sup> See [https://www.thegef.org/gef/gef\\_agencies](https://www.thegef.org/gef/gef_agencies)

**Project Implementing Partner:** The Implementing Partner is responsible for providing all required information and data necessary for timely, comprehensive and evidence-based project reporting, including results and financial data, as necessary and appropriate. The Implementing Partner will strive to ensure project-level M&E is undertaken by national institutes, and is aligned with national systems so that the data used by and generated by the project supports national systems.

**UNDP Country Office:** The UNDP Country Office will support the PMU as needed, including through annual supervision missions. The annual supervision missions will take place according to the schedule outlined in the annual work plan. Supervision mission reports will be circulated to the project team and Project Board within one month of the mission. The UNDP Country Office will initiate and organize key GEF M&E activities including the annual GEF PIR, the independent mid-term review and the independent terminal evaluation. The UNDP Country Office will also ensure that the standard UNDP and GEF M&E requirements are fulfilled to the highest quality.

The UNDP Country Office is responsible for complying with all UNDP project-level M&E requirements as outlined in the [UNDP POPP](#). This includes ensuring the UNDP Quality Assurance Assessment during implementation is undertaken annually; that annual targets at the output level are developed, and monitored and reported using UNDP corporate systems; the regular updating of the ATLAS risk log; and, the updating of the UNDP gender marker on an annual basis based on gender mainstreaming progress reported in the GEF PIR and the UNDP ROAR. Any quality concerns flagged during these M&E activities (e.g. annual GEF PIR quality assessment ratings) must be addressed by the UNDP Country Office and the Project Manager.

The UNDP Country Office will retain all M&E records for this project for up to seven years after project financial closure in order to support ex-post evaluations undertaken by the UNDP Independent Evaluation Office (IEO) and/or the GEF Independent Evaluation Office (IEO).

**UNDP-GEF Unit:** Additional M&E and implementation quality assurance and troubleshooting support will be provided by the UNDP-GEF Regional Technical Advisor and the UNDP-GEF Directorate as needed.

**Audit:** The project will be audited according to UNDP Financial Regulations and Rules and applicable audit policies on NIM implemented projects.<sup>26</sup> While the project audits will be conducted by the Royal Audit Authority in line with standard practice in Bhutan, these will be annual and must be consistent with UNDP audit requirements.

**Additional GEF monitoring and reporting requirements:**

**Inception Workshop and Report:** A project inception workshop will be held within two months after the project document has been signed by all relevant parties to, amongst others:

- a) Re-orient project stakeholders to the project strategy and discuss any changes in the overall context that influence project strategy and implementation;
- b) Discuss the roles and responsibilities of the project team, including reporting and communication lines and conflict resolution mechanisms;
- c) Review the results framework and finalize the indicators, means of verification and monitoring plan;
- d) Discuss reporting, monitoring and evaluation roles and responsibilities and finalize the M&E budget; identify national/regional institutes to be involved in project-level M&E; discuss the role of the GEF OFP in M&E;
- e) Update and review responsibilities for monitoring the various project plans and strategies, including the risk log; Environmental and Social Management Plan and other safeguard requirements; the gender strategy; the knowledge management strategy, and other relevant strategies;
- f) Review financial reporting procedures and mandatory requirements, and agree on the arrangements for the annual audit; and
- g) Plan and schedule Project Board meetings and finalize the first year annual work plan.

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<sup>26</sup> See guidance here: <https://info.undp.org/global/popp/frm/pages/financial-management-and-execution-modalities.aspx>

The Project Manager will prepare the inception report no later than one month after the inception workshop. The inception report will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Adviser, and will be approved by the Project Board.

GEF Project Implementation Report (PIR): The Project Manager, the UNDP Country Office, and the UNDP-GEF Regional Technical Advisor will provide objective input to the annual GEF PIR covering the reporting period July (previous year) to June (current year) for each year of project implementation. The Project Manager will ensure that the indicators included in the project results framework are monitored annually in advance of the PIR submission deadline so that progress can be reported in the PIR. Any environmental and social risks and related management plans will be monitored regularly, and progress will be reported in the PIR. The PIR submitted to the GEF will be shared with the Project Board. The UNDP Country Office will coordinate the input of the GEF Operational Focal Point and other stakeholders to the PIR as appropriate. The quality rating of the previous year's PIR will be used to inform the preparation of the subsequent PIR.

Lessons learned and knowledge generation: Results from the project will be disseminated within and beyond the project intervention area through existing information sharing networks and forums. The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to the project. The project will identify, analyse and share lessons learned that might be beneficial to the design and implementation of similar projects and disseminate these lessons widely. There will be continuous information exchange between this project and other projects of similar focus in the same country, region and globally. This will be supported by knowledge management activities in Component 4, including the development and sharing of case studies, national and regional seminars / workshops and exchange visits, and information exchange via a project website.

GEF Focal Area Tracking Tools: The following GEF Tracking Tools will be used to monitor global environmental benefit results: GEF Biodiversity (METT and sustainable financing scorecard), GEF SFM and GEF CCA. The baseline/CEO Endorsement GEF Focal Area Tracking Tools – attached as **Annex 4a,b,c** to the project document – will be updated by the Project Manager/M&E Officer (not the evaluation consultants hired to undertake the MTR or the TE) with support from MOAF and shared with the mid-term review consultants and terminal evaluation consultants before the required review/evaluation missions take place. The updated GEF Tracking Tools will be submitted to the GEF along with the completed Mid-term Review report and Terminal Evaluation report.

Independent Mid-term Review (MTR): An independent mid-term review process will begin after the third PIR has been submitted to the GEF, and the MTR report will be submitted to the GEF in the same year as the 4<sup>th</sup> PIR. The MTR findings and responses outlined in the management response will be incorporated as recommendations for enhanced implementation during the final half of the project's duration. The terms of reference, the review process and the MTR report will follow the standard templates and guidance prepared by the UNDP IEO for GEF-financed projects available on the [UNDP Evaluation Resource Center \(ERC\)](#). As noted in this guidance, the evaluation will be 'independent, impartial and rigorous'. The consultants that will be hired to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. The GEF Operational Focal Point and other stakeholders will be involved and consulted during the terminal evaluation process. Additional quality assurance support is available from the UNDP-GEF Directorate. The final MTR report will be available in English and will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Adviser, and approved by the Project Board.

Terminal Evaluation (TE): An independent terminal evaluation (TE) will take place upon completion of all major project outputs and constituent activities. The terminal evaluation process will begin three months before operational closure of the project allowing the evaluation mission to proceed while the project team is still in place, yet ensuring the project is close enough to completion for the evaluation team to reach conclusions on key aspects such as project sustainability. The Project Manager will remain on contract until the TE report and management response have been finalized. The terms of reference, the evaluation process and the final TE report will follow the standard templates and guidance prepared by the UNDP IEO for GEF-financed projects available on the [UNDP Evaluation Resource Center](#). As noted in this guidance, the evaluation will be 'independent, impartial and rigorous'. The consultants that will be

hired to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated, as well as its Mid Term Review. The GEF Operational Focal Point and other stakeholders will be involved and consulted during the terminal evaluation process. Additional quality assurance support is available from the UNDP-GEF Directorate. The final TE report will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Adviser, and will be approved by the Project Board. The TE report will be publicly available in English on the UNDP ERC.

The UNDP Country Office will include the planned project terminal evaluation in the UNDP Country Office evaluation plan, and will upload the final terminal evaluation report in English and the corresponding management response to the UNDP Evaluation Resource Centre (ERC). Once uploaded to the ERC, the UNDP IEO will undertake a quality assessment and validate the findings and ratings in the TE report, and rate the quality of the TE report. The UNDP IEO assessment report will be sent to the GEF IEO along with the project terminal evaluation report.

**Final Report:** The project's terminal PIR along with the terminal evaluation (TE) report and corresponding management response will serve as the final project report package. The final project report package shall be discussed with the Project Board during an end-of-project review meeting to discuss lesson learned and opportunities for scaling up.

**Table 5. Mandatory GEF M&E Requirements and M&E Budget**

GEF M&E requirements	Primary responsibility	Indicative costs to be charged to the Project Budget <sup>27</sup> (US\$)		Time frame
		GEF grant	Co-financing	
Inception Workshop	GNHC/PMU	USD 15,000		Within 2m of project document signature
Inception Report	PMU	None		Within 2weeks of inception workshop
Standard UNDP monitoring and reporting requirements as outlined in the UNDP POPP	UNDP Country Office	None		Quarterly, annually
Monitoring of indicators in project results framework	PMU	USD 4,000/year = USD 24,000		Annually
GEF Project Implementation Report (PIR)	PMU and UNDP Country Office and UNDP-GEF team	None		Annually
NIM Audit as per UNDP audit policies	UNDP Country Office	USD 4,000/year = USD 24,000		UNDP/RGoB projects are audited by Royal Audit Authority as per NEX manual between RGoB & UNDP.
Monitoring of environmental and social risks, and corresponding management plans as relevant	PMU UNDP CO	None		On-going
Addressing environmental and social grievances	PMU UNDP Country Office BPPS as needed	None for time of project manager, and UNDP CO		Costs associated with missions, workshops, BPPS expertise etc. can be charged to the project budget.
Project Board meetings	Project Board UNDP Country Office PMU	USD 800 per meeting = USD 9600		Meeting twice annually
Technical Advisory Group	TAG	USD 800 per		Meeting twice

<sup>27</sup> Excluding project team staff time and UNDP staff time and travel expenses.

GEF M&E requirements	Primary responsibility	Indicative costs to be charged to the Project Budget <sup>27</sup> (US\$)		Time frame
		GEF grant	Co-financing	
meetings*	UNDP Country Office PMU	meeting = USD 9600		annually
Participatory review and planning workshops for project stakeholders*	PMU	USD400/meeting = USD 28,800		Quarterly meetings for 3 landscapes
Supervision missions	UNDP Country Office	None <sup>28</sup>		Annually
Oversight missions	UNDP-GEF team	None <sup>28</sup>		As needed
Knowledge management (Output 4.2) incl lessons learned	PMU	USD 195,000		On-going
GEF Secretariat learning missions'/site visits	UNDP Country Office PMU & UNDP-GEF team	None		To be determined.
Mid-term GEF Tracking Tools to be updated by: <ul style="list-style-type: none"> <li>• DoFPS for BD TT</li> <li>• DoFPS for SFM TT</li> <li>• DoA for SLM TT</li> </ul>	PMU	USD 10,000		Before mid-term review mission takes place.
Independent Mid-term Review (MTR) and management response	UNDP Country Office and PMU and UNDP-GEF team	USD 50,000		Between 2 <sup>nd</sup> and 3 <sup>rd</sup> PIR.
Impact Assessment*	Consultants	USD 140,000		At project inception, before MTR & TE
Terminal GEF Tracking Tools to be updated by: <ul style="list-style-type: none"> <li>• DoFPS for BD TT</li> <li>• DoFPS for SFM TT</li> <li>• DoA for SLM TT</li> </ul>	PMU	USD 10,000		Before TE mission takes place
Independent Terminal Evaluation (TE) included in UNDP evaluation plan, and management response	UNDP Country Office and PMU and UNDP-GEF team	USD 35,000		At least three months before operational closure
<b>TOTAL indicative COST</b> Excluding project team staff time, and UNDP staff and travel expenses		USD 551,000		

\*Note – these items are not mandatory M&E requirements for GEF

### Impact Evaluation

Impact evaluations seek to answer cause-and-effect questions. Unlike general evaluations, which can answer many types of questions, impact evaluations are structured around one type of question: **What is the impact (or causal effect) of a program on an outcome of interest.** The purpose of the impact evaluation is to ask policy relevant questions to generate an evidence base for not only Bhutan dialogue and policy, but also for the international climate change adaptation community on how an integrated approach to ecosystem management can help enhance sustainability and climate resilience of forest and agricultural landscape and community livelihoods.

<sup>28</sup> The costs of UNDP Country Office and UNDP-GEF Unit's participation and time are charged to the GEF Agency Fee.

This project has three main technical components with different activities attached to each of them. This makes for multiple treatment of households, farmers, communities and policy makers. However, not all the treatments can be amenable to rigorous impact evaluation. Thus we will be evaluating a subset of these components. Special attention will be placed on evaluating component 3 of the project that relates to community resilience and improved livelihoods.

This will start with a series of research questions on *what do we want to learn about the Integrated approach in Bhutan?* Examples of such questions are:

*Component 1:* Will the interventions in this Component lead to enhanced institutional capacity for ILM and climate resilience (and would this be more so than alternative approaches)?

*Component 2:* Will the innovative approach to managing BCs in Bhutan be able to reduce the loss of forest cover in the BCs and by how much? Could the same reduction have been achieved through other approaches?

*Component 3:*

*Output 3.1:* Will the range of SLM measures introduced under the project limit soil erosion on the steep Himalayan slopes, improve soil moisture availability and enhance soil fertility and productivity?

*Output 3.2:* Will the supply chains developed through the project on priority climate-resilient commodities, such as potato, maize, cardamom, ginger and dairy, improve key livelihood sources within the project landscapes?

These questions will span the whole project scope, but with emphasis on Component 3. Answering the research questions will contribute to our understanding of how an integrated approach to landscape management and biological corridors can be used as an adaptation strategy in a country like Bhutan. It will also lend itself to upscaling of the project in the country.

The Impact evaluation will also look at chosen indicators of interest, based on international norms (eg GEF tracking tools). Indicators based on national norms and protocols may also be added. The Results Framework already includes a range of outcome indicators including the GEF tracking tools that are suitable for this purpose, while other outcome indicators may be added for the impact evaluation.

For each outcome, an evaluation strategy that identifies the causal impact of the intervention will need to be developed. This will involve using a control group and collecting both baseline and post intervention data on treatments and controls. The exact strategy for selecting the control will depend on the operational rules of the specific program/intervention. Within the context of the operational rules, the control group must be selected to obtain an accurate estimate of the counterfactual: i.e. what would have happened to treatments in the absence of the program. The control group should satisfy the requirement that the average observed and unobserved characteristics of the treatment and control groups are identical at baseline as well as be subject to the same time series shocks. Then, any differences in the average outcome measurements of treatment and control groups following the program implementation can be attributed to the intervention. Impact evaluation is part of a broader agenda of evidence-based policy making that aims at valuing these impacts: *Did the project improve the outcome of the society?* These questions are asked across all projects and most especially by governments and development agencies working on climate change adaptation projects. **The basic premise of these questions is based on understanding causality.** Even though definitive answers may not always be possible due to different constraints that surrounds the project implementation and data, economists and social scientists have improved the methodology on pinning down the estimates the past three decades. The central focus of this research is developing a unified framework centered around *counterfactuals*.

Causal impact is the difference in outcomes that is caused by the program - How do people who participated in the program perform compared to how they would have fared if they had not participated in the program? This hypothetical condition is called the *counterfactual*. The key assumption of the counterfactual framework is that each household that benefits from a project or program has a potential outcome (increased productivity, profit, higher labor supply, etc.) under the program and without the program. For example, each farmer that adopts climate smart agriculture practice will have a potential what-if profit level if they did not adopt it and vice versa. This alternative income/outcome level serves as the counterfactual. *These two states of potential income exist in theory!* For a case where we have only two states under consideration, we refer to the two states as treatment and control with the state with the project called treatment and the state without the project control. Unfortunately, we only observe what happens with the program - we

can never observe the same people at the same time both with and without the program: the **counterfactual is never directly observed**. The central focus of the impact evaluation framework is finding a way to infer the counterfactual from what happened to other people or what happened to the participants of the program before the start of the program. The validity of any impact evaluation framework estimate depends on the validity of the assumptions on the counterfactuals. An impact evaluation is only as good as the comparison group it uses to mimic the counterfactual and a bad comparison group ruins an evaluation and makes impact estimate invalid.

Further considerations and methodological details for the experimental design of the impact evaluation and the draft TOR and indicative schedule for a subcontract are given in **Annex 16** (impact evaluation concept note) and additional information on methodologies and indicators in **Annex 15** (monitoring and evaluation framework report). The impact evaluation will be conducted two times: at project inception (year 1) and completion (year 6) stages to provide insight on quantitative impacts and to answer questions related to attribution and is part of the M&E strategy and workplan. Therefore, a research team will be contracted soon after project inception to complete the detailed experimental design and to coordinate the initial assessment (which could be implemented by different trained teams, depending on need).

### **PART III: CERTIFICATION BY GEF PARTNER AGENCY(IES)**

#### **A. GEF Agency(ies) certification**

<b>This request has been prepared in accordance with GEF policies<sup>29</sup> and procedures and meets the GEF criteria for CEO endorsement under GEF-6.</b>					
<b>Agency Coordinator, Agency Name</b>	<b>Signature</b>	<b>Date</b>	<b>Project Contact Person</b>	<b>Telephone</b>	<b>Email Address</b>
Adriana Dinu, UNDP-GEF Executive Coordinator		06/10/2017	Srilata Kammila, Regional Technical Specialist (CCA)  Doley Tshering Regional Technical Advisor ( EBD)	+66 929874508 (SK)  +66-871030505 (DT)	srilata.kammila@ undp.org  doley.tshering@ undp.org

<sup>29</sup> GEF policies encompass all managed trust funds, namely: GEFTF, LDCF, and SCCF

**ANNEX A: PROJECT RESULTS FRAMEWORK** (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).

<b>Goal: Sustainable and Climate Resilience Forest and Agricultural Landscape and Community Livelihood.</b>					
<b>This project will contribute to the following country outcome included in the UNDAF/Country Programme Document:</b> Sustainable and green economic growth that is equitable, inclusive, climate and disaster resilient and promotes poverty reduction, and employment opportunities particularly for vulnerable groups enhanced.					
<b>This project will be linked to the following outputs of the UNDP Strategic Plan:</b>					
Output 1.3: Solutions developed at national and sub-national levels for sustainable management of natural resources, ecosystem services, chemicals and waste.					
Output 1.4: Scaled up action on climate change adaptation and mitigation cross sectors which is funded and implemented.					
Output 2.5: Legal and regulatory frameworks, policies and institutions enabled to ensure the conservation, sustainable use, and access and benefit sharing of natural resources, biodiversity and ecosystems, in line with international conventions and national legislation.					
	<b>Objective and Outcome Indicators</b>	<b>Baseline<sup>30</sup></b>	<b>Mid-term Target<sup>31</sup></b>	<b>End of Project Target</b>	<b>Assumptions<sup>32</sup></b>
<b>Project Objective:</b> To operationalize an integrated landscape approach through strengthening of biological corridors, sustainable forest and agricultural systems, and build climate resilience of community livelihoods.	1. Number of new partnership mechanisms with funding for sustainable management solutions of natural resources and ecosystem services at national and/or subnational level.	<ul style="list-style-type: none"> <li>Limited partnership mechanism with funding for sustainable management solutions. MRG system not yet operational – central level not functional, dzongkhag level still being established.</li> <li>Bhutan for Life initiative aims to develop improved governance and sustainable financing for PA/BC system.</li> <li>Project will synergize and support this</li> </ul>	Increased partnership mechanisms in form of functional MRG system at central and dzongkhag level (12 dzongkhags) including clear national and dzongkhag leadership	Increased partnership mechanisms in form of functional MRG system that is strengthened and operating sustainably with increased funding at central and dzongkhag level (12 dzongkhags)	High level of willingness between different agencies to cooperate at national and landscape levels in order to achieve ILM-CCA

<sup>30</sup> Baseline, mid-term and end of project target levels must be expressed in the same neutral unit of analysis as the corresponding indicator. Baseline is the current/original status or condition and need to be quantified. The baseline must be established before the project document is submitted to the GEF for final approval. The baseline values will be used to measure the success of the project through implementation monitoring and evaluation.

<sup>31</sup> Target is the change in the baseline value that will be achieved by the mid-term review and then again by the terminal evaluation.

<sup>32</sup> Risks must be outlined in the Feasibility section of this project document.

		initiative.			
	2. Number of direct project beneficiaries	Besides traditional uses of forest products and limited benefits from ecotourism and commercial NTFP collection, no other benefit from PAs/BCs.	19,350 women and 20,650 men benefited (total beneficiaries =40,000)	46,600 women and 49,800 men benefited (total beneficiaries =96,400)	There will be effective coordination between PA/BC authorities and local governments (dzongkhag and gewog administrations) to reconcile conservation objectives and community livelihood needs.
	3. Increased status of all indicators in the GEF Climate Change Adaptation Tracking Tool ( <b>Annex 4b</b> )	See baselines in the GEF CCA TT ( <b>Annex 4b</b> )	At least 40% progress towards targets set at CEO Endorsement in the updated GEF CCA TT For MTR ( <b>Annex 4b</b> )	Achievement of Targets set at CEO Endorsement in the updated GEF CCA TT for TE ( <b>Annex 4b</b> )	The RGoB is fully committed to addressing the impacts of climate change, with forest conservation, watershed management & climate smart agriculture key elements of the country's adaptation pathway.
<b>Component/Outcome 1</b> Enhanced systemic and institutional capacity for integrated landscape management and climate change resilience.	4. Status of Biological Corridor system delineation, including climate change resilience considerations, GIS mapping and inclusion in integrated landuse plans	BC system proclaimed in 1998 but neither operationalized nor reviewed in relation to climate change impacts, settlement patterns or optimization of benefits from ecosystem services and biodiversity	BC system delineation reviewed against criteria agreed by key stakeholders, incl. connectivity, climate change vulnerability assessment results, & HCVF distribution.	BC system mapped in detail based on results of delineation review and included in comprehensive integrated landuse plans	The RGoB continues to provide strong political and financial support for integrated landscape management as a key element of national prosperity and ecological security
	5. Area under sustainable and climate-resilient management practices including incorporation in Local Forest Management Plans and Forest Management Units	National protocols for monitoring habitats and biodiversity in BC/PA systems lacking. No systematic consideration of climate resilience in management plans.	Updated GE SFM TT For MTR ( <b>Annex 4c</b> ) 50,000ha forest area brought under sustainable and climate-resilient	Updated GEF SFM TT ( <b>Annex 4c</b> ) 100,000ha forest area brought under sustainable and climate-resilient management	As above

	indicated by the GEF Sustainable Forest Management Tracking Tool	DoFPS and relevant agencies. See GEF SFMTT ( <b>Annex 4c</b> )	management practices.	practices	
	6. Financing gap for sustainable management of the protected area and biological corridor system closed as indicated by improvement in GEF BD-1 Financial Sustainability Scorecard	GEF BD1 Tracking Tool ( <b>Annex 4a</b> ) Total Score 44% Financing gap of US\$ 4,447,000 to achieve basic management of targeted PAs/BCs. Bhutan for Life (BFL) initiative by RGoB and WWF aims to provide a sustained flow of finance to maintain the country's PAs and BCs, currently in development phase to secure financing	GEF BD1 Tracking Tool ( <b>Annex 4a</b> ) Targeted Score:60% Specific policy, planning, regulatory and fiscal barriers to sustainable PA/BC financing removed.	GEF BD1 Tracking Tool ( <b>Annex 4a</b> ) Target Score:75% Financing gap closed and management of PAs/BCs more self-reliant through use of at least two new financial sources.	As above
<b>Component/ Outcome 2</b> Biological corridor governance and management established, demonstrated, and linked to management of contiguous PAs.	7. Percentage increase in METT Score for three protected areas (1,149,400ha) and four Biological Corridors (176,400ha):	Baseline METT score ( <b>Annex 4a</b> ) JKSNR:62 JSWNP:66 PNP:73 BC1:35 BC2:26 BC3:32 BC8:20	Mid-term METT targets: JKSNR:68 JSWNP:70 PNP:77 BC1:45 BC2:40 BC3:45 BC8:35	EoP METT targets: JKSNR:75 JSWNP:75 PNP:80 BC1:65 BC2:65 BC3:65 BC8:65	Consistent application of METT assessments for PAs and BCs. Up-to-date information required for METT is available across all the target BCs and PAs.
	8. Population size of key species: tiger in lower elevation, Snow leopard and Musk deer in higher elevation of PAs and sightings of animal or evidence (indirect signs) of movement of animals in the BCs:	<b>Tiger:</b> JKSNR=0 but found in BC) JSWNP=TBC * PNP=TBC* <b>Musk deer:</b> all PAs/BCs, data will be available once the analysis is completed by the Wildlife Conservation Division <b>Snow Leopard</b> JKSNR=9;	Populations of key species stable or increased over the baseline in PAs. Sighting of animals or signs of animals (droppings, pug marks etc.) using BCs stable or increased compared to baseline level.	(1) Key species populations stable or increased over MTR level in PAs. Sightings of animals or indirect signs of animals (droppings, pug marks etc.) using BCs stable or increased compared to MTR level.	Monitoring and status surveys of key species are done systematically

		JSWNP and PNP will be studied in baseline study*. Animal sign information in BCs will be added after baseline survey*			
	<p>9. Reduction in threat cases reported over the project period in project landscapes:</p> <ul style="list-style-type: none"> <li>▪ % decrease in annual number of human-wildlife conflict cases for sample areas totaling 2,000 ha;</li> <li>▪ % decrease in the annual number of poaching and illegal wildlife trade cases;</li> <li>▪ % decrease in the annual number and area of forest fires.</li> </ul>	<p>HWC: 100% of respondents affected by crop depredation and 61.8% by livestock depredation;</p> <p>Poaching: 13 cases of mega-fauna poaching detected;</p> <p>2015 baseline: 9 forest fire incidents covering 12,265.33 acres<sup>33</sup></p>	<p>HWC: proportion of HHs affected by crop and livestock depredation reduced by at least 25% of baseline in targeted areas;</p> <p>Poaching: Poaching cases reduced by at least 25% of baseline</p> <p>Forest Fires: number and area reduced by at least 25% of baseline.</p>	<p>HWC: proportion of HHs affected by crop and livestock depredation reduced by at least 50% of baseline in targeted areas;</p> <p>Poaching: Poaching cases reduced by at least 50% of baseline</p> <p>Forest Fires: number and area reduced by at least 50% of baseline.</p>	<p>Records are systematically maintained.</p> <p>[Note: Improved anti-poaching activities as a result of project support may initially lead to higher detection of poaching cases]</p>
<p><b>Component/ Outcome 3</b></p> <p>Livelihood options for communities are more climate-resilient through diversification, SLM and climate-smart agriculture and livestock management and supported by enhanced climate-resilient infrastructure.</p>	<p>10. Gender-equitable livelihood options for at least 70% of population in project landscapes made more resilient to climate risks, indicated by:</p> <ul style="list-style-type: none"> <li>• change in annual household income for selected sample communities attributable to project interventions</li> <li>• % reduction in women's unpaid domestic work with corresponding increase in productive work and socio-political engagement</li> <li>• number of people adopting climate-resilient livelihood activities associated with</li> </ul>	<p>Baselines to be quantified in Year 1 through impact assessment (see <b>Annex 16</b>)</p> <p>Roles of men and women vary in agricultural production: Vegetable production, kitchen garden and marketing of processed products and livestock are dominated by women. Ploughing, cardamom production and marketing are</p>	<p>Livelihood program reached 35% of the population of the project area</p> <p>At least 10% increase in annual household incomes associated with project interventions over baseline;</p> <p>Awareness generated regarding consequences of women's unpaid domestic role;</p>	<p>Livelihood program reached at least 70% population of the project area</p> <p>At least 25% increase in annual household incomes associated with project interventions over baseline;</p> <p>All project area households aware of gender roles and women's role in HH decision making or consultation; women's</p>	<p>In line with national food security and climate change adaptation policy goals, the farmers, community and government are committed to increasing food production and are willing to take up improved and climate resilient food/agricultural production practices and technologies.</p> <p>Identified climate-resilient technologies and practices for community livelihoods are economically viable;</p> <p>There is adequate capacity within the MoAF and</p>

<sup>33</sup> See **Annex 21** - Baseline studies on biodiversity and Socio economics - for all baselines in Indicator 9

	<p>conservation management and processing of renewable natural resources (gender disaggregated) as quantified by the impact assessment</p> <ul style="list-style-type: none"> <li>• quantity of climate resilient infrastructure including irrigation systems (types by area covered), climate-proofed roads (length in km), post-harvest storage and agricultural extension facilities (numbers &amp; capacity)</li> </ul>	<p>dominated by men. Women's participation in HH decision making is 34%. See <b>Annex 14.</b></p>	<p>women's role in HH decision making increased to 50%;</p> <p>At least 10% increase over baseline number of people adopting sustainable livelihood activities</p> <p>At least 20% increase over baseline quantity of climate resilient infrastructure</p>	<p>contribution to productive work increased to 75% over baseline</p> <p>At least 30% increase over baseline number of people adopting climate-resilient livelihood activities</p> <p>At least 50% increase over baseline quantity of climate resilient infrastructure</p>	<p>local governments for technical guidance and backstopping on climate-resilient livelihood practices at the local level.</p>
	<p><b>11.</b> Sustainable land and water resource management instituted in targeted landscapes through community-based and gender-equitable SLM, SFM and climate-smart agriculture practices indicated by:</p> <ul style="list-style-type: none"> <li>• Area of agricultural land under SLM</li> <li>• Number of community SFM groups (CF/NWFP), with gender disaggregated membership data</li> <li>• Number of water sources protected</li> <li>• Soil erosion rates in one sample site for each of 3 landscapes<sup>34</sup></li> <li>• Improved gender equity in land and natural resources</li> </ul>	<p>112.5ha under SLM (to be confirmed)</p> <p>5 SFM groups*</p> <p>No of water sources protected *</p> <p>Soil erosion plots to be established in Year 1 at each site</p> <p>Access and control of men is higher in agriculture machinery and forest product collection</p> <p>61% of political decisions are made by both genders. Men's</p>	<p>1000ha under SLM</p> <p>25 SFM groups</p> <p>Increased no. of water sources protected *</p> <p>Erosion rate values for reference plots (bare), traditional practices and SLM practices (t/ha/yr) at each site</p> <p>Women's access and control over agricultural machinery and forest product collection increased by 50%</p>	<p>2000ha under SLM</p> <p>Total 38 SFM groups (100,000ha forest)</p> <p>Increased no. of water sources protected</p> <p>Erosion rate values for reference plots (bare), traditional practices and SLM practices (t/ha/yr) at each site</p> <p>Women's access and control of land and natural resources decision-making and benefits increased by 75% over baseline.</p> <p>Women's participation</p>	<p>The Ministry of Agriculture and Forests is committed to improving the quality of agricultural extension and advisory services as well as watershed management</p> <p>Gender mainstreaming is accepted and supported by national and local government leaders</p>

<sup>34</sup> For methods, see: National Soil Services Centre (NSSC), 2010. Soil Erosion Plots - Measurement and analysis of soil erosion plot data for 2009. Report: SLMP-2010. [Http://www.moa.gov.bt/nssc](http://www.moa.gov.bt/nssc)

	<p>decision-making and benefits between men and women</p> <ul style="list-style-type: none"> <li>increased women's participation and executive role in decision-making in commodity user groups and project committees</li> </ul>	<p>participation is higher in government organized trainings, meetings and other programs</p> <p><b>See Annex 14.</b></p>	<p>over baseline.</p> <p>Gender parity of participation in commodity user groups, project-supported meetings, trainings and field activities</p>	<p>in commodity user groups, project meetings, training and development activities reaches 60% of total participants</p>	
<p><b>Component/ Outcome 4</b> M&amp;E and Knowledge management system established to support sustainable management of forest and agricultural landscapes and climate-resilient communities.</p>	<p><b>12.</b> Effective sharing of knowledge, lessons learned and project results enable replication and up-scaling of the project approach including:</p> <ul style="list-style-type: none"> <li>Status of knowledge on information sources, best practices, lessons learned &amp; mapping of knowledge gaps on existing ILM/CCR practices in Bhutan</li> <li># of case studies presenting project-supported best practices and traditional knowledge of ILM /CCR</li> <li>Biodiversity portal with updated comprehensive information on the PAs and BCs, including detailed GIS maps of the BCs.</li> </ul>	<p>No baseline on this as project is at the development phase.</p>	<p>Information sources and initial best practices, lessons learned &amp; knowledge gaps on existing ILM/CCR practices in Bhutan documented &amp; made available online.</p> <p>Initial documentation of project supported best practices and traditional knowledge of ILM/CCR</p> <p>Biodiversity portal with updated information on the PAs and BCs</p>	<p>Information sources, best practices, lessons learned &amp; remaining knowledge gaps on ILM/CCR practices in Bhutan including all project results available online.</p> <p>Series of case studies presenting project-supported best practices and traditional knowledge of ILM /CCR</p> <p>Biodiversity portal with updated comprehensive information on the PAs and BCs, including GIS maps of BCs.</p>	<p>Involvement in the design and implementation of project interventions and knowledge sharing on the experiences and expected benefits of ILM, CSA and SFM practices will result in long-term support for the project and adoption of new knowledge, skills and practices in integrated landscape management and climate resilient livelihoods</p>

**ANNEX B: RESPONSES TO PROJECT REVIEWS** (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

Comments	Responses	Reference in Project Document
<b>Responses to STAP Review Comments 29 September 2015:</b>		
<p>1. The PIF provides a description of how climate change can affect biodiversity conservation, agricultural management, and livelihoods in Bhutan. In the full proposal, STAP recommends defining further the target areas, and the enabling conditions for biodiversity conservation, sustainable forest management and climate change adaptation in each site. It also recommends describing the ecology and socio-economic characteristics of each target region. This will enable the project to define policies and planning processes (responses) that are appropriate to the sites, and to the populations needs. In particular, it would be important to capture some of the unique and specific climate change risks faced in Bhutan, such as GLOFTs and changes in glacier hydrology. See, for example: Johnson, Fiifi Amoako, and Craig William Hutton. "Dependence on agriculture and ecosystem services for livelihood in Northeast India and Bhutan: vulnerability to climate change in the Tropical River Basins of the Upper Brahmaputra." <i>Climatic Change</i> 127.1 (2014): 107-121.</p>	<p>The three project landscapes are described in detail in Annexes 18 and 24 and specific information on biodiversity and conservation values are presented in the PPG study "Biodiversity and Socio-Economic Assessment" Wang, 2016. GLOF as a country specific risk has been the targeted theme of the NAPA-I project on GLOF where GLOF mitigation, early warning system establishment and community-based disaster risk management were successfully addressed. The ongoing NAPA-II project is rolling-out the EWS to more river basins/ sub-basins vulnerable to GLOF. GLOF hazard is described for Landscape II, along the Punatsangchu.</p>	<p>Annexes 18, 21 and 24</p>
<p>2. Rural communities are expected to be involved in the design and implementation of the project, which STAP supports. The three components should reflect, therefore, the integration of local knowledge with outside expert knowledge on biodiversity conservation, sustainable forest management and climate change adaptation. Traditional knowledge plays an important role in ecosystem management and in coping capacities to climate change in Bhutan (Refer to the following paper for further information on the role of hybrid knowledge in ecosystem management and climate adaptation in Asian highlands: Xu, Jianchu, and R. Edward Grumbine. "Building ecosystem resilience for climate change adaptation in the Asian highlands." <i>Wiley Interdisciplinary Reviews: Climate Change</i> 5.6 (2014): 709-718.)</p>	<p>Rural community knowledge and existing adaptation practices on SFM, SLM and biodiversity conservation are important themes and have been considered in the PPG consultation process. Community members have been consulted on their present perceptions on climate change and how they react in their practices, see the Climate Change Vulnerability Assessment Penjor et al. (Annex 19). Traditional or Indigenous Technical Knowledge (ITK) is one of the defined study themes to be covered under Knowledge Management of Component 4. The project intends to roll out best practices of SLM, partly described in BHUCAT (WOCAT based description of soil and water conservation technologies and approaches) containing traditional practices as <i>sokshing</i>, leaf litter collection as input for organic manure.</p>	<p>IVi Results, Output 4.2 (p46) Annex 19 (Penjor et al.). BHUCAT, NSSC (2011)</p>
<p>3. For example, literature suggests that a drop in shifting cultivation as a result of policy enforcement has altered traditional land use practices that might have benefited biodiversity conservation, forest and ecosystem management in Bhutan. (Refer to Siebert, S., and Belsky, J.M. "Historical livelihoods and land uses as ecological disturbances and their role in enhancing biodiversity: An example from Bhutan". <i>Biological Conservation</i> 177 (2014) 82-89.) Investigating further local practices could help inform strategies to enhance climate-resilient landscape management and local livelihoods. Thus, STAP recommends for the project developers to take into account the role of traditional livelihoods in managing social-ecological systems in the</p>	<p>The formal ban of <i>tseri</i>, actively enforced through the MoAF and the Land Act, have resulted in visible changes in land use and fallowing of previously rotating cultivation systems (see amongst other LCMP, 2010 describing the impact of this trend). The project intends to support community groups (CF and NWFP management groups) that partly replace the previous traditional forest resource uses by individual households (through customary <i>tsamdro</i> and <i>tseri</i> rights, now revoked). Traditional practices are incorporated in the project's ILM policy and planning in Output 1.1, SLM intervention in Output 3.1, and learning reflected in Output 4.2.</p>	<p>IVi Results, Outputs 1.1 (pp28-29), 3.1 (pp39-41), 4.2 (pp41-42) Annex 1</p>

<p>development of conservation interventions, and in the design of integrated land-use planning.</p>		
<p>4. To appropriately address the multiple and complex links between biodiversity conservation, integrated agricultural/forest management and climate change adaptation, STAP recommends applying a conceptual framework that helps identifies the drivers, trade-offs, and risks between these elements. This framework also should allow for a stakeholder/institutional analysis that enables cross-sector engagement between institutions (local and external), and individuals.</p> <p>Thus, STAP encourages UNDP to define further an approach to landscape management in order to achieve the proposed global environmental outcomes on biodiversity conservation, forest conservation and climate change mitigation and adaptation. At the moment, an approach on integrated landscape management appears to be defined minimally in the proposal. By strengthening this aspect further, the proposal's scientific rationale could be reinforced. One approach that UNDP may wish to consider is the "Resilience, Adaptation Pathways and Transformation Assessment" Framework (RAPTA). The framework guides the users to apply a multi-stakeholder process to describe the system, including the key interactions between social, economic and environmental elements, to identify key driving variables, and vulnerable aspects that should be the focus of interventions and monitoring. Based on this process-level understanding of the system, RAPTA enables assessment of its resilience, and identifies whether it needs to adapt or transform. (Further information about the RAPTA can be found at: <a href="http://www.stapgef.org/the-resilience-adaptationand-transformation-assessment-framework/">http://www.stapgef.org/the-resilience-adaptationand-transformation-assessment-framework/</a>)</p> <p>A second approach that can be considered is that of multifunctional landscapes, including protected areas. This approach is detailed in Dewi, S. et al. "Protected areas within multifunctional landscapes: Squeezing out intermediate land use intensities in the tropics?" Land Use Policy 30 (2013). The paper discusses the temporal scales of land-use change inside and outside four protected areas in the tropics, and the multifunctionality of the different landscapes. It may be helpful to adopt an approach to project development that explicitly considers multiple objectives and multiple benefits.</p>	<p>The project design has taken account of the diversity of direct threats to biodiversity, underlying root causes (indirect factors) and climate change factors described in the Development Challenge section and supporting material in Annex 26, and illustrated in the conceptual model in prodoc Figure 4. These relationships have been used to identify the project intervention strategies and results chains that have been included in the development of the project theory of change (prodoc Figure 5) and the intervention logic articulated in the Strategy section. While RAPTA has not been applied during the project preparation process, it is proposed that training and application of this framework will be included in Output 1.1 of the project to build local capacity and inform the review of policies, plans and programmes for integrated landscape management.</p> <p>The project does seek to pursue a multi-functional landscape approach in that all the three landscapes encompass varying functions: livelihoods development (agriculture, livestock production, community forestry, NTFP, etc); sustainable forest management (FMUs, LFMPs, CFs, etc); biodiversity conservation (PAs and BCs); involving multiple stakeholders at the central, sectoral and local levels. PAs in Bhutan operate along the principle of zonation: core zone (fully protected, only allowing regulated research and scientific monitoring), multiple use zone (in areas that support local communities, allowing sustainable use of natural resources) and buffer zone.</p>	<p>II Devt Challenge (pp7-24), III Strategy (pp25-29), Figs 4 &amp; 5, Results Section IVi (p28-29), Annex 1 Workplan Annex 26.</p>
<p>5. Component 3 will focus on activities that support livelihood options for communities vulnerable to climate change. STAP proposes for UNDP to detail further how each activities will contribute to communities' adaptive capacity to climate change. It also suggests to link better this component to Bhutan's climate adaptation priorities under its National Adaptation Programme of Action (NAPA) for 2014 - 2017. Refer to: <a href="http://www.undp.org/content/bhutan/en/home/presscenter/pressreleases/2014/04/18/bhutan-toimplement-world-s-largest-climate-change-adaptation-project-under-ldc-fund.html">http://www.undp.org/content/bhutan/en/home/presscenter/pressreleases/2014/04/18/bhutan-toimplement-world-s-largest-climate-change-adaptation-project-under-ldc-fund.html</a> ) NAPA priorities on agriculture and food security are described under the baseline activities, and it would be useful to detail how this</p>	<p>In addition to alignment to NAPA, the project, and specifically Component 3, will contribute to SAPA, the RNR adaptation priorities as defined by MoAF in 2013 with specific vulnerabilities of sectors distinguished (food security and agriculture, water resources and natural disasters and infrastructure). The alignment of the project design with the NAPA, SAPA (2013) and other CCA policies and plans is described in the Development Challenge subsection on alignment with national priorities (see also Annex 29), while coordination with other initiatives (including the NAPA II project) is described in in the Partnerships section and Annex 28. See also Component 3 in Results section IVi (Output 3.1 in particular).</p>	<p>Prodoc sections II Dev Chall. (pp.7-8, 19-20), III strategy, IVi Results (pp39-41), IVii Partnerships</p>

project will complement those activities.		(pp46-48 and Table 3, Annexes 28, 29
6. In component 3, STAP encourages UNDP to address the possibility that REDD+ activities may contribute to leakage. Jadin, S. et al., suggests that forest conservation policies that have successfully maintained a high forest cover in Bhutan might be have been accompanied by an increasing displacement of forest use to India. (Refer to: Jadin, S., Meyfroidt, P., Lambin, E. "Forest protection and economic development by offshoring wood extraction: Bhutan's clean development path". Regional Environmental Change, 2015. Therefore, STAP suggests that the proponent consider further the potential for redistribution of the project's impacts on the environment, and identify measures that could reduce this risk.	Leakage is understood as a potential risk for REDD+ activities. The REDD+ activities proposed to be supported by the project, pilots of limited scale and aimed at exploring functional REDD+ approaches for Bhutan, mainly target community forest management groups (CFMGs) and their empowerment to have access to local timber sources, actively managed by the community itself. It will therefore facilitate sustainable access to local timber sources and limit any need for accessing (costly) timber from areas outside of the gewog. The project is also designed to support sustainable forest management through improved management of FMUs and LFMPs which are established to cater to the timber needs of the Bhutanese based on the principles of ecological and productive sustainability. See Results section Output 3.2, Baseline study on national forest inventory, carbon stocks, REDD+ and SFM scorecard (Annex 23).	IVi Results (p42), Annex 23
7. In component 1 there is no detail on the methods to be applied to strengthen the biological corridor network, to monitor extent of forest cover, and to identify the vegetation types most vulnerable to climate change. Will this involve developing capacity in GIS, downscaling climate projections, and forest modelling? Will it involve remote sensing, and/or on-ground forest inventory? In order to determine the resources required, and to plan this component, these aspects will need to be clarified in project development.	Strengthening of the biological corridor network will involve its consideration within an integrated land use planning context taking account of other land uses, as well as application of the National Forest Inventory data (currently in final analysis stage), including advanced GIS/RS analysis at national level and a fixed monitoring grid for monitoring through the National Forest Monitoring System, plus consideration of HCVF distribution (see Outputs 1.1 and 1.5). This will be supported by baseline information from the field that will be collected to support management plans for the biological corridors in Output 2.1 - this process will primarily constitute a series of biodiversity and socio-economic surveys that integrate the appraisal of local climate change vulnerabilities and risks, and extensive stakeholder consultations. Note that a climate change vulnerability assessment was conducted for a large portion of the project landscapes during the PPG (see Annex 19). The project M&E framework includes an impact assessment that will conduct baseline assessments in year 1 including forest vegetation and biodiversity surveys (see Annex 16).	IVi Results (pp28-29,30-31,33-34) Annexes 19, 23, 16
<b>Responses to GEF Secretariat Review Comments 14 September 2015:</b>		
By CEO Endorsement: <b>1) Please see comments for items 3, 4, 5 and 6:</b> <b>Item 3:</b> Does the PIF sufficiently indicate the drivers of global environmental degradation, issues of sustainability, market transformation, scaling, and innovation? By CEO Endorsement: Please consider measures to sustain the efforts this project will make towards integrating climate resilience in biodiversity and forest related activities in Bhutan. This could be done through formal inclusion of climate change related issues in PA/forest management plans and frameworks, and capacity building activities, for example.	Climate change resilience has been overtly incorporated across all project components, and most outputs and activities. For example, proposed activities under output 1.5 (FMUs, LFMPs) and output 2.1 (conservation management plan development for BCs) are intended to integrate CCA in sustainable forest management/ BC management planning systems. Development of new guidelines and staff training to integrate the appraisal of climate change vulnerabilities in the conservation management planning of BCs and sustainable forest management planning of FMUs and LFMPs are envisaged to improve the sustainability of the project efforts.	IVi Results (pp30-31, 33-34)), Annex 1 Workplan

<p><b>Item 4: Is the project designed with sound incremental reasoning?</b>  By CEO Endorsement: Agency is requested to provide refined calculations for the estimation of carbon benefits.</p>	<p>See Annex 23, EX-ACT calculation of direct and indirect carbon benefits</p> <p>The total estimated direct mitigation benefits of 3,578,242 tCO<sub>2</sub>eq over a 10 year period (5 year implementation and 5 year capitalization phase) are about 14% higher than the PIF estimate.</p> <p>The total estimated indirect mitigation benefits, through avoided emissions based on catalytic action for replication or related capacity building in the remainder of the BC system, scaling-up outside the project landscape, amounts to 580,632 tCO<sub>2</sub> equivalent after a 5 year capitalization phase.</p> <p>These estimates are based upon the calculated project landscape areas; gewog forest areas outside Protected Areas and Biological Corridors have been added for sustainable forest management practices to reduce forest degradation.</p> <p>Based on an average 73% forest cover for the project landscapes, the approximate forest cover for the protected areas and biological corridors has been estimated as follows:  Protected Areas: 324,450*0,73= 236,849ha  Biological Corridors: 167,400*0,73= 128,772ha  The total forest area outside of the Protected Areas and Biological Corridors in the 37 gewogs of the project landscapes is 955,083 - 365,621 (PAs and BCs) equals 589,462ha.</p> <p>Taking into account assumptions discussed in Annex 23, the following data have been used for the EX-ACT estimations:</p> <ul style="list-style-type: none"> <li>• The Protected Areas would be impacted without project interventions with in total 5% degradation (reduced from the 7% degradation used for the PIF, which is thought to be relatively high) (11,842ha),</li> <li>• The Biological Corridors would be impacted without project interventions with 10% degradation (12,877ha),</li> <li>• The forest areas of the Gewogs, would suffer without project interventions about 10% degradation (58,946ha),</li> <li>• The degradation level of the forest vegetation would change from very low □ low (10%-20%) without project interventions, and</li> <li>• The total area used for the carbon assessment totals 83,665ha.</li> </ul> <p>The total avoided emissions from this part of the analysis are assessed to equal 3,477,395 tCO<sub>2</sub> equivalent over a 10 year period.</p> <ul style="list-style-type: none"> <li>• The potential benefit from SLM activities for agricultural land, such as improved agronomic practices, nutrient and water management, manure management and residue management have been added for an area of 2,000 ha.</li> <li>• For the livestock sector, climate smart livestock practices interventions as fodder base development/grazing land improvement have been added for an</li> </ul>	<p>Annex 23</p>
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	area of 1,000 ha.	
<p><b>Item 5: Are the components in Table B sound and sufficiently clear and appropriate to achieve project objectives and the GEBs?</b>  By CEO Endorsement: Please provide details on how climate resilience considerations will be used to guide realignment of biological corridors. Please provide information on how many and which dzongkhags will be supported through LDCF funding. Are the communities living in the PAs and BCs vulnerable to climate change, and will the project be assisting with their adaptation needs, or will the LDCF-supported communities be in other areas?</p>	<p>See Annexes 18 (landscape profiles), 19 (Baseline info on vulnerability assessments and adaptive livelihoods &amp; CCA scorecard), 24 (Population and land cover information for the project landscapes).</p> <p>The three project landscapes cover 38 gewogs across 12 dzongkhags and collectively have a projected population of 88,813 in 2016. The projected population (by the end of the project, 2021) is 96,472. This includes 49,800 males (51.6 %) and 46,672 females (48.4 %). The total projected population (2016) for the gewogs covered by the project landscapes constitutes 11.4 % of the country's current total projected population of 776,557.</p> <p>The Gewogs covered by the project landscapes are as follows (grouped by Dzongkhag): Bji, Gakiling, Sama and Sombay (Haa); Tsento (Paro); Kabjisa and Toepisa (Punakha); Chhudzom/Doban and Jigmechhoeling (Sarpang); Chang (Thimphu); Korphu, Langthel, Nubi and Tangsibji (Trongsa); Patakla and Phuentenchhu (Tsirang); Athang, Bjena, Daga, Dangchhu, Gangte, Gasetsho Wom, Kazhi, Nahi, Nyisho, Phobji and Sephu (Wangdue); Trong; Nangkor and Shingkar (Zhemgang); Chume, Tang and Ura (Bumthang); Gangzur, Jarey and Metsho (Lhuentse); Saleng and Tsamang (Mongar).</p> <p>The project will assist all communities within the project landscapes to develop their resilience to climate change, including those within the PAs and BCs and those outside these areas. The exact nature of the project intervention will vary between locations, with communities that are most vulnerable as a result of factors including isolation / poor access, poverty and areas identified as being of high climate vulnerability (see climate change vulnerability assessment in <b>Annex 19</b>).</p>	Annexes 18, 19, and 24
<p><b>Item 6: Are socio-economic aspects, including relevant gender elements, indigenous people, and CSOs considered?</b>  By CEO Endorsement: Please provide details on measures to ensure gender mainstreaming, and how the project will benefit vulnerable groups such as children and the elderly.  The application of the HCVF concept is noted and its potential for wide stakeholder involvement. An outline of the process conforming to HCV Network best practice would be expected by CEO Endorsement.</p>	<p>The UNDP Social and Environmental Screening Procedure (Annex 6) plus a gender assessment and gender mainstreaming action plan (Annex 14) were compiled during the PPG and an Environmental and Social Management Plan prepared for the project (Annex 7).</p> <p>For the baseline on HCVF, see the baseline biodiversity survey (Annex 21). During PPG consultations, it was made clear that HCVF application in Bhutan requires a locally-specific approach in view of the very high forest cover (70%) and generally low pressures on forest resources. Therefore, DoFPS staff will be trained in the HCVF concept and its integration with functional forest zoning introduced. In reality, high conservation value forest types (eg native oak forest) are being protected through FMU management plan restrictions to some extent. The project's review and upgrading of FMU management plans (Output 1.5) and development of biological corridor management plans (Output 2.1) will further strengthen this approach.</p>	IVi Results (pp30-31, 33-34), Viii Feasibility, (pp55-57) Annexes 6,7,14,21

<p>2) As Components 3 and 4 of this project are based on the technically-cleared GEF LDCF Project ID 5872 ('Climate- resilient Villages), please fully address all comments that had been provided for CEO endorsement stage in the review sheet for Project ID 5872 by CEO Endorsement stage for this project.</p>	<p>See below for responses to STAP review comments, GEFSEC review comments not available for 5872.</p>	
<p>3) Please also discuss how the heightened inter-agency coordination needs that this multi-focal area project requires will be addressed.</p>	<p>The <b>Implementing Partner (IP)</b>, or the national authority, for this project will be the Gross National Happiness Commission-Secretariat (GNHC-S), the government's main coordination body. Within the GNHC-S, the Development Cooperation Division (DCD) will manage the project (see the Governance and Project Management Arrangements Section). The Project Board and Technical Advisory and Coordination Committees provide mechanisms for engagement of key stakeholder agencies in project governance. For technical implementation, arrangements are as follows:  GNHCS central role, PPD-MoAF and NEC as vital players.  <b>Central government agencies</b> that have the national-level programmatic, policy and administrative mandates in matters related to forest management, agriculture, environmental assessments, and integration of CCA/ environmental needs in local planning system will be responsible for <b>component 1</b>: These agencies would include DoFPS/MoAF, PPD/MoAF, DLG/MoHCA and GNHC-S. For coordination and consolidation of project activities, the PPD/MoAF as the nodal policy and program coordination entity of MoAF for matters related to agricultural and forest landscape management will function as the project component 1 manager;  <b>Field-based agencies</b>, namely territorial forestry divisions (TFDs) and protected area management authorities (PAMAs), for <b>component 2</b>: BC governance and management established, demonstrated and linked to the management of contiguous PAs. The following TFDs have jurisdictions over the four BCs in the project landscapes: Paro TFD for BC 1, Wangduephodrang TFD for BC 2, and Zhemgang TFD for BC 4 while three TFDs – Bumthang, Wangduephodrang, and Zhemgang – have areas in BC 8, which is a large mosaic of several sub-corridors. The PAMAs in the project landscapes pertain to Jigme Khesar Strict Nature Reserve, Jigme Singye Wangchuck NP and Phrumsengla NP. The DoFPS, MoAF, as the central government department responsible for coordination and management of PAs, will function as the project component 2 manager.  <b>Dzongkhag Administrations</b> that have the mandate for delivery of local development programs and associated public services for <b>component 3</b>: An exception will be the upgradation of gewog connectivity roads (for improved market access and enhanced climate resilience), which will be implemented by the <b>Department of Roads</b> under the Ministry of Works and Human Settlement. The project will involve 12 Dzongkhag Administrations that have gewog(s) inside the project landscapes. The coordination and consolidation of project activities for project component 3 will be done by the LDD, GNHC-S, which has the mandate for overall monitoring and coordination of local</p>	<p>VIII  Governance  (pp83-87)</p>

	<p>development activities.</p> <p>Under the Dzongkhag Administrations, all development sectors (agriculture, livestock production, environmental management, engineering services, rural water supply, etc) function within one institutional set-up. The DAs will be supported by Gewog Administrations technically assisted by extension agents for agriculture, livestock development and forestry.</p> <p><b>The GNHC-S</b>, through the DCD, will be directly responsible for implementation of <b>component 4</b>.</p>	
<b>Responses to STAP Review Comments on Project 5872 dated 10 February 2016:</b>		
<p>To strengthen the overall project design, STAP would like to offer the following recommendations:</p> <p>1. Bhutan has made strong commitments to organic agriculture. It would therefore be particularly appropriate to examine the interactions between this priority and the need for ensuring climate resilience. Further, many of the interventions for enhancing climate resilience - particularly to monsoon variability - might be well aligned with organic farming practices (Letter et al, 2003; Borron, 2006) however, this is an aspect that might be specifically addressed during project development.</p>	<p>The project will promote commercialization of organically-produced farm produce (supported under Activity 3.1.2) through post-production value-addition making use of the cooperatives system (with support of DAMC). This will involve support to certification of organic (niche) products, if possible in partnership with private enterprises, branding of (certified) organic products for the internal and international market and targeted marketing of these products based on the premise of 'Brand Bhutan' espoused in the Economic Development Policy 2010. Organic agriculture is considered to be beneficial for carbon sequestration in agricultural soils and to limit surface runoff, soil erosion and therewith enhance soil fertility. Benefits of organic agriculture and SLM interventions will be monitored in the SLM demonstration villages, linked to UNCCD Land Degradation Neutrality pilots.</p>	<p>IVi Results (p40), Annex 1 Workplan</p>
<p>2. STAP recommends examination of the interactions between multiple stresses and drivers of environmental degradation and climate change so that adaptation strategies are more robust. A focus on social vulnerability (Tucker et al, 2015) will be helpful for prioritizing interventions.</p>	<p>The project design has taken account of a range of direct threats to biodiversity, root causes (indirect factors) and climate change factors described in the Development Challenge section and supporting material in Annex 26, and illustrated in the conceptual model in prodoc Figure 4. These relationships have been used in the development of the project theory of change (prodoc Figure 5) and the intervention logic articulated in the Strategy section. In addition, baseline studies conducted during the PPG analysed social vulnerability to climate change in the project landscapes. Based on the assessment of vulnerability component indicators, strategies and priorities have been identified which have informed the design of project activities for strengthening community resilience to climate change (see Annex 19, section 5.2).</p>	<p>II Devt Challenge (pp7-11), III Strategy (pp25-29) Figs 4, 5 Annex 15 section 5.2, Annex 26</p>
<p>3. The project design should include a strong learning component, enabling adaptive management throughout the project. This entails putting in place clear process indicators and clear reporting strategies, especially in a context where a large number of site locations may be involved.</p>	<p>Component 4 has been added to the project design to enable effective knowledge management and its incorporation in M&amp;E. See also the prodoc M&amp;E Plan, Results Framework and impact assessment (Annex 15).</p>	<p>IVi Results (pp44-46), IV RF (pp62-67), VII M&amp;E Plan (p70 para 194), Annex 15</p>
<p>4. It is recommended to adequately address climate change projections uncertainties by developing scenarios of change based on the latest climate</p>	<p>The most recent climate change report for Bhutan (2016) takes AR5 scenarios into account, as does the SAPA for the RNR sector (2016). The present</p>	<p>II Devt Challenge</p>

change projections (see IPCC AR5), and evaluating different management options' ability to support the transformation of agricultural systems, where required.	projections for Bhutan indicate clear trends of temperature increase and precipitation decrease in winters and increase in monsoon. Support is therefore targeted at reducing impact of these projected extremes with most foreseen impacts (monsoon rains with floods and potential impact on infrastructure, need to climate proof design of irrigation systems, need to introduce climate-resilient crop varieties able to withstand droughts and short cropping periods etc. See Development Challenge, Annex 26 (climate related threats), Annex 19 (Climate Change Vulnerability Assessment).	(p7), Annexes 19, 26
5. STAP values the inclusion of vulnerable groups in the project development phase. It is important that the relevant groups be involved throughout the project, yet it has to be recognized that not all stakeholders need to be engaged at all stages.	Consultations during the PPG did make an effort to include vulnerable groups amongst the wide range of stakeholders consulted, and GNHC and other agencies have pushed for inclusion of poor communities in the project interventions during meetings. The social and environmental screening has been applied during project development with attention to such groups, as well as a gender analysis (Annexes 6 and 14), with a gender mainstreaming action plan and environmental and social management plan (Annex 7) to guide implementation.	Viii Feasibility (pp55-57), Annexes 6,7,14

GEF Council Comments	Response at PIF	Response at CEO Endorsement & Prodoc References
<b>Comments from United States – 20 November 2015</b>		
<p>The United States applauds the innovative multi-trust fund approach of this project. We appreciate the GEF's aim to align biodiversity and climate change adaptation needs and priorities in country, and utilizing available funding to address these issues jointly. As UNDP prepares the draft final project document for CEO endorsement, we urge UNDP to:</p> <ol style="list-style-type: none"> <li>1. Provide more information on how the project plans to coordinate with other initiatives addressing climate change adaptation and Bhutan's national adaptation planning process in Bhutan, including the World Bank's Pilot Program for Climate Resilience (PPCR). While it is stated that this project will coordinate with other related initiatives, it is crucial that efforts are aligned to ensure non-duplicative work.</li> </ol>	<p>Thank you very much for the positive comment. We regard this project to be transformative in nature, providing the country with a greatest opportunity to install integrated system to tackle biodiversity and climate change adaptation needs. This project will ensure complementarity with other projects that are currently in appraisal and scoping stage namely – national adaptation plan (NAP) and GCF project proposal on Smart Agriculture which UNDP is taking the lead in preparation; World Bank's Pilot Program for Climate Resilience. From the government's side, all the project preparations are coordinated by Gross National Happiness Commission as GEF OFP, GCF NDA, and WB's partner for PPCR. GNHC as the coordinating agency for all these project proposals have clearly indicated to the partners on spatial coverage and the focus of the project interventions. For the GEF-LDCF project, the focus will be in the central region of the country covering 3 biological corridors and 2 parks. The GCF project sites will cover 6 southern &amp; western dzongkhags of Samtse, Sarpang, Tsirang, Punakha, Wangdue Phodrang and Trongsa. GNHC proposes to focus the WB PPCR/CIF project to eastern Bhutan. The PPG Initiation Plan has clearly outlined the detail stakeholder consultation that will be undertaken to review the</p>	<p>The <b>Implementing Partner (IP)</b>, or the national authority, for this project will be the Gross National Happiness Commission-Secretariat (GNHC-S), the government's main coordination body. Within the GNHC-S, the Development Cooperation Division (DCD) will manage the project (see the Governance and Project Management Arrangements Section). The DCD has direct responsibility for coordination of development projects, thus the project is optimally positioned to ensure such coordination takes place. In addition, the UNDP CO is involved in the development and oversight of related initiatives such as a GCF project in preparation. Coordination with other initiatives is comprehensively described in the Project Document partnerships section (pp 46-48) including Table 3 showing the intersections at output level, and supporting material in Annex 28.</p>

	past, on-going and planned projects in the proposed dzongkhags through this project to build synergies and scale-up interventions.	
2. Include the International Centre for Integrated Mountain Development (ICIMOD), a regional intergovernmental science-for-policy regional organization of which Bhutan is a member, as a stakeholder throughout this project. Further, we also encourage UNDP to include the Regional Environment, Science, Technology and Health (ESTH) Office for South Asia at the U.S. Embassy, Kathmandu as a stakeholder since they are currently coordinating various related interventions taking place in Bhutan through the US Fish & Wildlife Service, Forest Service, and National Park Service.	Bhutan is a long-standing active member of ICIMOD and we will ensure thorough consultation with ICIMOD during the PPG period. We will also ensure engagement with the ESTH office for South Asia at the US Embassy in Kathmandu during the PPG phase as suggested.	Coordination is important for ICIMOD's transboundary Kangchenjunga Landscape Conservation and Development Initiative (KLCDI) which overlaps with Landscape 1 in the west of the country including Jigme Khesar Strict Nature Reserve. Following discussions on site and in Thimphu during the PPG with the Wildlife Conservation Division and JKSNR management staff, they will be the main contact points during implementation. See Annex 27 Plan for Stakeholder Engagement, and Annex 28 Related initiatives.
3. Elaborate on scaling-up and sustainability strategies for the project, including continued financing, communication and outreach, and potential for applying to additional areas and regions;	<p>The sustainability strategies for the project will be ensured by aligning project interventions with the development of country's 12<sup>th</sup> FYP for sectors and local governments (LGs). The planning process follows a decentralized approach of bottom-up planning from the lowest unit of LGs that is Gewog and Chiwog. The preparation of this project coincides with the 12<sup>th</sup> FYP preparation which will start from mid-2016 and the implementation from July 2018. In this way, the project interventions for sectors and local governments will already feature as a priority in their plans.</p> <p>In addition, the project will also partner with WWF's Bhutan for Life Initiative which is 'Project Finance for Permanence (PFP)' mechanism to provide sustained flow of fund to effectively manage Bhutan's protected areas and biological corridors. During the PPG, the project will identify complimentary conservation activities and support under BFL umbrella to ensure long term sustainability of GEF's investment in selected Protected Areas (PAs) and Biological Corridors (BCs).</p> <p>The project interventions will receive continued financing from the government through various sources. For the BCs &amp; PAs, the institutional structures through the designated national</p>	Further to the response at PIF stage, scaling up and sustainability is addressed in Project document section V iv (p61). The Bhutan for Life initiative in particular is a major vehicle for financial sustainability of project outcomes related to financing of the biological corridors and associated protected areas, and the project will also facilitate improved financial sustainability of the PA/BC system through addressing barriers and constraints identified in and tracked by the GEF BD1 Sustainable Financing Scorecard. Knowledge management and systematic communications guided by a project communications strategy are covered in Component 4 (see IV i Results section, pp44-46).

	<p>parks and territorial divisions under the Department of Forest and Park Services (DoFPS) will continue to exist even after the project termination. The LG (Dzongkhag &amp; Gewogs) within the Pas/BCs where livelihood interventions to address vulnerability of communities to CC, will also continue to receive resources from the central government through the annual capital grant (ACG) mechanism. Resources are allocated based on the priority of LGs in the five year and annual plans. Once the CC interventions are well mainstreamed into LG's plans and programmes, long term sustainability of GEF's investments are ensured.</p> <p>Communication and outreach of project interventions will be accorded high priority and a communication strategy will be developed as part of the PPG to document and disseminate information, lessons, best practices and knowledge products generated from the project.</p> <p>The potential for including additional areas will be explored during the PPG where there will be series of consultations with the local stakeholders in identifying appropriate interventions based on vulnerability assessments. Best practices and innovative interventions will be replicated through the wide network of extension officers (agriculture, livestock and forestry) who are government officers and rotates on transfer to different gewogs across the country.</p>	
<p>4. Expand on how this project will coordinate the support for integrating climate change considerations at sub-national levels in component one. While it is stated that lessons from this component will be captured, analyzed, and shared, it is important that sub-national and national priorities are aligned as the project is developed.</p>	<p>The project will undertake vulnerability assessment to identify key interventions to support vulnerability communities to their livelihood assets such as farmland, water sources, forestry resources, non-wood forest produce, rural infrastructures such as farm roads, community centres, health centers, etc. The vulnerability assessment initiated through this project at the sub-national level (dzongkhag &amp; gewog) should be mainstreamed into the planning process of the LGs to determine their five year plan programme activities. Currently the LGs do not have a systematic assessment to determine the impacts of CC to their livelihood assets. There has been an effort made during the 11<sup>th</sup> FYP preparation to develop a mainstreaming framework to assist LGs to integrate environment, climate change and disaster concerns into their plans. This has to be further strengthened through this project. The other approach that this project will take to integrate climate change at sub-national level is through strengthening capacity of the local level Mainstreaming Reference Group (MRG) set up in every dzongkhag through the Local Governance Sustainable Development Programme (LGSDP</p>	<p>A climate change vulnerability assessment was conducted during project preparation for the majority of the project landscape areas – see Annex 19. This informed project design and will also inform implementation. Component 1 (Output 1.6) of the project will support strengthened functioning of local government level Mainstreaming Reference Groups which will be responsible for integrating CC into local government planning and practices, as described at PIF stage. See Prodoc Results section IV I (pp31-32)</p>

	<p>2014-2018). This group comprises of a multi-sectoral representation (District Forestry Officer, Planning Officer, Dy. Governor, Environmental Officer, Livestock Officer, Agriculture Officer) and serves as a technical group at the dzongkhag to advice and support gewogs and local level sectors to integrate climate change, environment, disaster and poverty concerns into their plans and programmes. MRG members at the dzongkhag also have direct linkages with the central departments and ministries. Support to the local MRG though the project will ensure linkage and alignment of national and sub-national priorities.</p>	
<p>5. Provide more information on how climate change impacts will be considered in the design elements of the infrastructure development outlined in component three.</p>	<p>During the PPG phase, a design study will be undertaken to set a baseline and identify design and implementation considerations related to climate proofing of the infrastructure for farm roads.</p> <p>The project will also identify and incorporate best practices and recommendations highlighted in Climate Change Vulnerability Assessment and Adaptations report for the South Asia Subregional Economic Cooperation (SASEC) Road connectivity pilot project including environmentally-friendly road construction (EFRC) standards and appropriate asphalt mix and drainage to reflect the latest climate projections such as intense rainfall affecting water run-off and drainage as well as roadside bioengineering to provide erosion control and slope stabilization.</p>	<p>A climate change vulnerability assessment was conducted during project preparation for the majority of the project landscape areas – see Annex 19. Additional information on climate change impacts has recently been published for Bhutan, notably <i>the State of Climate Change Report for RNR Sector</i>. RNR Climate Change Adaptation Program, Ministry of Agriculture and Forests, RGoB (May 2016).</p> <p>During the PPG, a baseline study was also conducted on climate-proofing gewog connectivity roads (Annex 22). The project will support the adaptation of the Environment Friendly Road Construction guidelines to include climate resilience, and demonstrate them for specific priority road stretches (Results section IVi, Output 3.3, p43)</p>
<p>6. Provide more information on an insurance scheme output, including what existing mechanism the project plans to consult with and /or model after and elaborate on alternative arrangements if insurance is deemed unfeasible during the PPG phase.</p>	<p><b><u>At the National level</u></b></p> <p>Currently there is no systematic crop insurance mechanism in place at the national level. There is a proposal submitted by the Royal Insurance Corporation of Bhutan (RICB) to the Cabinet. The insurance scheme proposes to cover crop damages due to: 1) Weather: rainfall, Hailstone, Drought, Floods &amp; Landslides; 2) Pest &amp; Diseases; and 3) Wild animals: Wild pigs, Elephants, Monkeys &amp; Deer. However, the proposal is based on a subsidy where government will reimburse with the insurance firm if claims are higher than the premiums.</p> <p>Under existing practice, HM’s welfare office extends support to rural farmers in the event of crop damages by natural calamities. There is no formal mechanism within the government to compensate farmers in the event of crop damages. Damage assessments are conducted by MoAF and the District administration. There are opportunities to institute a crop insurance mechanism within the government agency</p>	<p>A baseline study on crop and livelihood damage and insurance assessment was conducted during the PPG phase (see Annex 25). In view of the very serious and widespread losses from wildlife incursions, as well as climate-related crop risks, the project aims to pilot community-based crop and livestock insurance schemes in selected hotspot areas to provide protection and mitigation against climate and wildlife damage risks, including capacity building at Dzongkhag and community level (GECC) for potential climate risk transfers (Output 3.2, prodoc Results section, pp41-42). Review of the results of the baseline assessment have indicated tensions between the level of premium that local farmers are able to afford, the level of payouts for losses of crops and livestock for such a scheme to be attractive, and its commercial viability and sustainability. Consequently, it is clear that such an insurance scheme is not of commercial interest to national or international insurance companies, but will need to be</p>

	<p>such as MoAF, local development bank, private insurance companies, etc.</p> <p>Weather/climate index based crop insurance also can be explored based on the capability of the hydro-met services to provide reliable weather data.</p> <p>There is a need to do a comprehensive assessment to institute an appropriate crop insurance mechanism owing to farmers/country's vulnerabilities to natural disasters such as hailstorm, flash floods, windstorm, earthquakes etc.</p> <p><b><u>Informal mechanism instituted at the local level</u></b></p> <p>Pilot initiatives have been supported in few rural communities to address human-wildlife conflict which are manifested in the form of crop damage and livestock depredation by wild animals. One of the local NGOs - Royal Society for Protection of Nature has established a locally managed institutional mechanism in two villages under Trashigang district to deal with crops and livestock damages by wildlife in 2012.</p> <p>RSPN developed a mechanism based on the principles of sustainability and equity with components of insurance, research and ownership. The mechanism is operated through farmers' group and instituting a by-law. The by-law prescribes ways in which HWC affected households will be compensated based on a formula used to calculate the loss and equivalent compensation in monetary figures. The initial start-up fund (of BTN 200,000) was provided by RSPN and has to be sustained through membership fee, contributions and income generating activities by the members. The seed money is deposited in the group's joint account that is opened with the Bhutan Development Bank Limited. RSPN developed a training manual to manage HWC, and reporting and damage assessment format in the event of crop and livestock damage. Because of a strong ownership of the mechanism, RSPN has reported in 2014 that the group is still sustaining.</p> <p>If the proposed national mechanism is not feasible, then project would explore similar arrangements at a small scale.</p>	<p>subsidized by the government. Consequently, the project opted for a piloting phase on a limited scale in key areas to obtain further information on viability and sustainability issues, and to consider further options for afflicted farmers within the wider context of holistic approaches towards wildlife management and climate change adaptation.</p> <p>The recommendations of the baseline study for pilot interventions throughout the project Landscapes are as follows:</p> <p>(i) SAFE human wildlife conflict management strategy: Review and retrofit the national HWC management strategy, to adapt and adopt the SAFE Systems approach presently undergoing field-testing in Bhutan. The SAFE system has been found to be more interactive and prescriptive than ongoing tools and has been pioneered by in tiger range countries.</p> <p>(ii) Private livestock insurance: A public-private partnership model using GECCs can help to create a market-based insurance scheme, that will (a) attract participation of livestock owners, (b) guarantee near market-value payment for livestock losses, and (c) ensure a sustainable business model to relieve the government of unsustainable financial handouts. A pilot scheme is proposed to cover 10 Gewogs: this will include 5 Gewogs identified under 'Very High' and 'Moderate' severity ranking and another 5 Gewogs from 'Low' severity. The latter 5 Gewogs are selected based on high livestock loss (above 35 heads) even though they may have been clubbed under 'Low' severity.</p> <p>For every domestic animal insured, participating households will pay 30 basis points of a 'reasonably-estimated' annual premium of 1%, while the government will pay another 30 basis points, and the project will pay the balance 40 basis points. In order to subsidize the project's 40% contribution, and create a reserve fund with any surplus to sustain the scheme, the project will set aside \$225,000 to capitalize each Gewog fund with Nu. 1,500,000 (\$22,500). The pilot scheme will finance only insurance claims, and in order for insurance to succeed in the pilot sites, direct monetary compensation for livestock depredation has to be discontinued.</p> <p>(iii) Private crops insurance: Globally, crop insurance remains one of the most heavily subsidized economic sectors. A World Bank survey of 65 countries in 2009-2010 confirmed premium subsidies to be a common mechanism (by 63% of countries) for public sector involvement in crop insurance. Similar to the above livestock insurance proposal, a public-private</p>
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		<p>partnership model using GECCs is proposed for a crop insurance scheme in 17 hotspot Gewogs identified for vulnerability to wildlife and/or climate induced disasters (i.e., 10 Gewogs ranked under Very High severity and 7 Gewogs ranked under High severity).</p> <p>For every unit of cropland insured, participating households will pay 30 basis points of a ‘reasonably-estimated’ annual premium of 1%, while the government will pay another 30 basis points, and the project will pay the balance 40 basis points. In order to subsidize the project’s 40% contribution, and create a reserve fund with any surplus to sustain the scheme after the project cycle, the project will set aside \$380,000 to capitalize each Gewog fund with Nu. 1,500,000 (\$22,500). Compared to livestock insurance, the premiums for crop insurance will be more affordable and further subsidies may not be necessary at project conclusion.</p> <p>(iv) Financial plan: Preliminary estimates indicate a 5-year requirement of Nu. 49,500,000 (\$740,000) to implement the above recommendations. Insurance costs are conservatively budgeted, as premiums need to be negotiated with commercial insurers. In a recent development, the central bank has advised the launch of micro-insurance for rural development needs. Once approved, deposit-taking micro-insurance providers can offer a choice to consumers, especially through competitive pricing on annual premiums.</p>
<p>In addition, we expect that UNDP in the development of its full proposal will:</p> <p>7. Engage local stakeholders, including community-based organizations, environmental non-governmental organizations and the private sector in both the development and implementation of the program;</p>	<p>PPG phase will involve extensive stakeholder consultations at both national and local levels and across sectors including CBOs, NGOs and private sector. Consultations will ensure full participation in the development of the project results framework and involvement in project implementation with clear roles of responsibilities described in the project document. In addition, the PPG funds will support carrying out a targeted capacity assessment of local communities to engage in community based natural resource management and help define strategic interventions to address gaps. Furthermore, in consultation with key stakeholders, UNDP and GNHC will negotiate partnerships with on-going projects to align their activities and the project to build synergies and complementarities.</p>	<p>Extensive consultations were conducted during project development involving a wide range of stakeholders including CBOs, NGOs and private sector as well as government representatives. Consultees are listed in Annex 17, and further information is provided in the thematic baseline reports (Annexes 19-25).</p> <p>Stakeholder engagement during implementation is described in Prodoc section IV iii (stakeholder engagement) and in the Plan for Stakeholder Engagement in Annex 30. NGOs including WWF Bhutan, Tarayana Foundation and RSPN are expected to provide technical support for implementation of a number of project activities, while a substantial portion of the funding for component 3 activities on climate resilient livelihoods is expected to directly benefit community based organizations, local cooperatives, water user groups, farmers groups, community forestry groups, NWFP user groups and so on.</p>
<p>8. Clarify on how the implementing agency and its partners will communicate results, lessons learned</p>	<p>For effective communication of project results, UNDP will develop a communication strategy for the project during the PPG. Communication is a critical component of UNDP’s move</p>	<p>During the PPG, Component 4 has been added in recognition of the need to emphasize knowledge management and communications of lessons learned and best practices during</p>

<p>and best practices identified throughout the project to the various stakeholders both during and after the project.</p>	<p>towards programming quality standards where projects will be accessed through 7 quality criteria at key decision points i.e. appraisal, annual review and operational closure. Project quality assurance will be a mandatory requirement for all projects managed by UNDP and will be effective from 2016 globally.</p> <p>Communication strategy will cover how project results will be disseminated to different audiences using different media such as creating project's own webpage, social media, Dzongkhag website, ministry's website, local print and broadcast media, UNDP's website, etc. Exchange of ideas and best practices within the project sites will be also encouraged through farmers' exchange visits, local fairs, etc.</p> <p>UNDP will also ensure communicating results through mid-term and terminal evaluation. This will be done in collaboration with the Research &amp; Evaluation Division of GNHC to document results and lessons, and follow through implementation and adoption of recommendations by sectors and LGs for new programme development.</p>	<p>project implementation (see Prodoc Section IVi Results, pp44-46). This includes Output 4.1: Institutionalize knowledge for ILM and Climate Change Resilience, which will review existing (sectoral) information sources and documents and related best practices and lessons learnt and mapping of existing knowledge gaps, based on this analysis (taking account of related initiatives such as the GCCA, NAPA 2 project and SLM project (see Partnerships section below). Human resource development and related institutional and budget support will be provided to train staff for improved long-term knowledge management. Linked to this capacity development, the project will assist in improving the existing biodiversity portal with updated and more comprehensive information on the PAs and BCs, including detailed GIS maps of the BCs.</p> <p>Output 4.2: Enhanced generation, documentation and sharing of knowledge and best practices in ILM and climate resilient livelihood practices will support improved generation and documentation of emerging good and best practices in integrated management of forest and agricultural landscapes and climate resilient livelihoods. This will include a series of case studies, targeted research and assessments to document and present best practices, based on innovation and global best practices piloted through project support, but also including traditional (indigenous) technical knowledge of sustainable land and forest management and climate resilient livelihood practices, including traditional grievance redress mechanisms for resolving resource management disputes. Study results will be published, disseminated and presented at various national and international knowledge sharing events, which will be supported and organized by the project. The project will make use of a targeted communication strategy to systematically document, publish and share information emanating from project activities and knowledge sharing events, including making use of websites and social media.</p>
<p><b>Comment from Japan- October 29, 2015</b></p>		
<p>Regarding the sustainable land management through agriculture and forestry and new livelihood creation in component 3, Japan recommends GEF to use the knowledge and experience of Satoyama Initiative (SI), which has the vision of realizing societies in harmony with nature and having sustainable use of resources. UNDP is a member of SI, so it is</p>	<p>Thank you for the comment. The project employs a landscape approach in securing biodiversity and ecosystem services as well as livelihoods, which does indeed build on the approach of the Satoyama Initiative. Experiences and lessons learned from the activities of the Community Development and Knowledge Management for the Satoyama Initiative (COMDEKS) in 20 countries including Bhutan will be extremely valuable in project development. In Bhutan,</p>	<p>While the project landscapes have been defined as covering the central region of Bhutan (not extending to cover eastern Bhutan or Biodiversity Corridor 6), the project will coordinate with a range of related initiatives during implementation through the Implementing Partner (GNHC-S), which is ideally placed to ensure such collaboration given its mandate for development coordination. The intersection of the project with related initiatives is described in the Table 3 of the Partnerships</p>

<p>possible to use UNDP’s experience for implementation. Under the concept of SI, UNDP have achieved great results through COMDEKS which is in concert with funding by the Japan Biodiversity Fund and GEF-small grant program, establishing community -based programs which can contribute to this new project. Furthermore, COMDEKS have already implemented some projects in Bhutan in 2013. Japan recommends to use those preceding projects accumulated knowledge, experience, and networks effectively. Satoyama Initiative <a href="http://satoyama-initiative.org/">http://satoyama-initiative.org/</a> COMDEKS <a href="http://comdeksproject.com/">http://comdeksproject.com/</a></p>	<p>COMDEKS focuses on the Gamri Watershed in Tashigang Dzongkhag province in the eastern region and support development of sustainable livelihood activities in the biodiversity management. Approximately six villages are selected as priority villages under the government’s Rural Economic Advancement Programme (REAP) programme, which is a major cofinancing project for the proposed GEF/LDCF financed project. Therefore, the PPG phase of the project will conduct full review of COMDEKS and will explore the possibility for complementing COMDEKS efforts. Tashigang Dzongkhag also includes Sakteng Wildlife Sanctuary (WS) and part of the corridor 6 which links the WS with the Khaling WS to the south. Although corridor 6 is not a candidate corridor for component 3, lessons from the project will be highly applicable to other corridors that are targeted in the programme. We will ensure close consultation with COMDEKS stakeholders during the project preparation.</p>	<p>section and details of these initiatives including the Satoyama Initiative/COMDEKS work in Eastern Bhutan are given in Annex 28.</p>
<p><b>Comments from Germany – October 14, 2015</b></p>		
<p><u>Suggestions for improvements to be made during the drafting of the final project proposal:</u></p> <ul style="list-style-type: none"> <li>The proposal would benefit from including realistic quantification of the project outcomes.</li> </ul>	<p>Noted. The proposal includes many quantitative indicators such as increase in areas covered by forest, carbon enhancements tracked in GEF tracking tools, increase in availability of financing, increase in income level of communities and target hectares of land and number of beneficiaries. The quantitative baseline and target values will be defined during the PPG phase of the project.</p>	<p>The project outcomes have been quantified as far as possible – see Part I Table B in this CEO Endorsement Request, as well as the GEF BD1 Tracking Tool, GEF CCA Tracking Tool and GEF SFM Tracking Tool (Annexes 4a,b and c).</p>
<ul style="list-style-type: none"> <li>Germany suggests assessing possible synergies between the ongoing ecosystem valuation work carried out in Bhutan in cooperation with UNEP TEEB and achieving the project output “Institutional capacity strengthened for using sector oriented valuation tools to measure economic benefits of a range of forest ecosystem services in the decision making process”.</li> </ul>	<p>The UNDP Country Office in Bhutan has been participating in the TEEB consultations. The TEEB work in Bhutan focuses on Hydropower and is expected to be completed by June 2016. The work is undertaken by the Ugyen Wangchuck Institute of Conservation and Environment (UWICE). During the PPG phase, we will closely collaborate with the remaining period of the TEEB programme and review its outputs in order to ensure the value added nature of the LDCF/GEF project. In addition, we will closely liaise with the UWICE during the PPG and implementation phase of this project. This will also help the government to institutionalise valuation tools within the decision making process for land use and fiscal planning, as well as within the curricula of environmental and forestry studies in Bhutan.</p>	<p>During the course of PPG stakeholder consultation workshops, it was indicated that the National Statistics Bureau is working on Green Accounting (including tourism, HEP, RNR and other relevant sectors), therefore the project will collaborate with NSB to support the elaboration and upscaling of their work and pilot the valuation of ecosystem goods and services in the project landscapes in Output 1.3 (Results Section IVi, p30). UWICE has also been included as a supporting partner for this activity in the Workplan (Annex 1).</p>
<p>Germany appreciates the detailed PIF and the integrative approach of the project which seeks synergies between biodiversity protection, resource management and resilience of rural</p>	<p>Noted. Bhutan has undertaken a few community level vulnerability assessments including an environmental, climate change, and poverty vulnerabilities assessments undertaken 5 Dzongkhags in 2011 through the Poverty Environment</p>	<p>A climate change vulnerability assessment was conducted during project preparation for the majority of the project landscape areas – see Annex 19 and development challenge section II (pp7-8). Additional information on climate change</p>

<p>livelihoods. The PIF mentions several climate change impacts and a lack of capacity to address them by the local authorities. Yet, the basis for determining the specific climate change vulnerabilities remains unclear. Germany therefore recommends undertaking climate change vulnerability assessments for the selected dzongkhag and gewog levels to inform the identification of options to enhance resilience (component 3). Potential synergies with the EU-funded Climate Change Information System should be explored as mentioned in the PIF.</p>	<p>initiative. This study assessed vulnerabilities of communities in relation to their livelihood assets such as farmland, water resources, rural infrastructure, etc. through the poverty environment initiative. The lessons and experiences from this and other assessments will be applied to the selected sites for the project during PPG to define livelihood interventions. Further assessments will be undertaken during the PPG phase to fill in gaps and build on existing analyses. The project also aims to undertake an extensive participatory consultative process to identify viable livelihood options and will build on the vulnerability assessments and potential synergies as noted.</p>	<p>impacts has recently been published for Bhutan, notably <i>the State of Climate Change Report for RNR Sector</i>. RNR Climate Change Adaptation Program, Ministry of Agriculture and Forests, RGoB (May 2016). This has been considered during project design.</p>
<p>Germany supports the aim of strengthening the climate resilience of livelihoods, particularly in rural areas (Component 3). In order to assess whether and how resilience has been improved in the course of the project Germany strongly recommends considering how the enhancement of resilience can be assessed and documented and how lessons learned can be shared among the dzonghags and beyond.</p>	<p>Noted. An M&amp;E framework will be developed during the PPG phase including the development of an impact assessment strategy. An impact assessment will be undertaken during project implementation. In addition, the project will undertake capacity assessments, which will also be part of the vulnerability assessments, towards establishment of the baseline. Capacity assessments will be undertaken again at the end of the project and a capacity scorecard used to assess how the project activities have contributed to enhancing resilience. Finally, during PPG, a knowledge management plan will also be developed including the mechanisms for generation and dissemination of lessons learned from the project. The impact assessment will also be disseminated widely and will include lessons learned, evaluation of the effectiveness of the interventions, opportunities for scaling up, and recommendations on project design and implementation.</p>	<p>Further to the PIF stage responses, the project M&amp;E Framework does in fact include an impact assessment which includes resilience of rural livelihoods (see M&amp;E Plan Section VIIpp72-74, and Annex 15). Component 4 has been added to the project in order to strengthen the project's capacity to absorb lessons learned from implementation and to document and share such lessons with stakeholders including local stakeholders (see Results Section IVi Outputs 4.1, 4.2 and 4.3, pp44-46).</p>

**ANNEX C: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS<sup>35</sup>**

Provide detailed funding amount of the PPG activities financing status in the table below:

<b>PPG GRANT APPROVED AT PIF: US\$ 450,000</b>			
<b><i>PROJECT PREPARATION ACTIVITIES IMPLEMENTED</i></b>	<b><i>BUDGETED AMOUNT</i></b>	<b><i>AMOUNT SPENT TO DATE</i></b>	<b><i>AMOUNT COMMITTED</i></b>
<b><i>GEF AMOUNT (\$)</i></b>			
1. STOCKTAKING, DESK REVIEWS, STAKEHOLDER CONSULTATION	140,000	82,059	57,941
2. FORMULATION OF FULL-SIZED PROJECT DOCUMENTS	10,000	9,117	883
<b><i>LDCF AMOUNT (\$)</i></b>			
1. STOCKTAKING, DESK REVIEWS, STAKEHOLDER CONSULTATION	270,000	213,941	56,059
2. FORMULATION OF FULL-SIZED PROJECT DOCUMENTS	30,000	23,771	6,229
<b>TOTAL</b>	<b>450,000</b>	<b>328,888</b>	<b>121,112</b>

**ANNEX D: CALENDAR OF EXPECTED REFLows (if non-grant instrument is used)**

Provide a calendar of expected reflows to the GEF/LDCF/SCCF Trust Funds or to your Agency (and/or revolving fund that will be set up)

N/A

<sup>35</sup> If at CEO Endorsement, the PPG activities have not been completed and there is a balance of unspent fund, Agencies can continue to undertake the activities up to one year of project start. No later than one year from start of project implementation, Agencies should report this table to the GEF Secretariat on the completion of PPG activities and the amount spent for the activities. Agencies should also report closing of PPG to Trustee in its Quarterly Report.