Integrated Forest Landscape Management for Strengthening the Northeastern and Eastern Forest Corridors

Part I: Project Information

GEF ID
10390

Project Type
FSP

Type of Trust Fund
GET

CBIT/NGI
☐CBIT
☐NGI

Project Title
Integrated Forest Landscape Management for Strengthening the Northeastern and Eastern Forest Corridors

Countries
Thailand

Agency(ies)
FAO

Other Executing Partner(s)   **Executing Partner Type**

Other Executing Partner(s)
Royal Forest Department; Ministry of Natural Resources and Environment

Executing Partner Type
Government

GEF Focal Area

Biodiversity

Taxonomy

Protected Areas and Landscapes, Mainstreaming, Focal Areas, Biodiversity, Private Sector, Stakeholders, Communications, Gender Mainstreaming, Gender Equality, Gender results areas, Knowledge Generation, Knowledge Exchange, Capacity, Knowledge and Research, Productive Landscapes, Community Based Natural Resource Mngt, Biomes, Tropical Dry Forests, Tropical Rain Forests, Agriculture and agrobiodiversity, Forestry - Including HCVF and REDD+, Influencing models, Demonstrate innovative approache, Transform policy and regulatory environments, Strengthen institutional capacity and decision-making, Local Communities, Public Campaigns, Awareness Raising, Behavior change, Individuals/Entrepreneurs, SMEs, Beneficiaries, Civil Society, Non-Governmental Organization, Community Based Organization, Indigenous Peoples, Type of Engagement, Consultation, Information Dissemination, Partnership, Participation, Sex-disaggregated indicators, Gender-sensitive indicators, Women groups, Capacity Development, Access and control over natural resources, Participation and leadership, Access to benefits and services, Innovation, Seminar, Professional Development, Training, Course, Workshop, Peer-to-Peer, Field Visit, Learning, Theory of change, Adaptive management

Rio Markers

Climate Change Mitigation

Climate Change Mitigation 1

Climate Change Adaptation

Climate Change Adaptation 0

Duration

48 In Months

Agency Fee($)

298,079

Submission Date

10/10/2019

A. Indicative Focal/Non-Focal Area Elements

Programming Directions	Trust Fund	GEF Amount($)	Co-Fin Amount($)
BD-1-1	GET	3,137,671	28,000,000
Total Project Cost ($)		**3,137,671**	**28,000,000**

B. Indicative Project description summary

Project Objective

To strengthen the conservation of globally significant biodiversity in four landscape complexes of Northeastern and Eastern Thailand through improved management of forests between and around protected areas.

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount($)	Co-Fin Amount($)

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount($)	Co-Fin Amount($)
1. Policy, planning and institutional framework for improved forest landscape management	Technical Assistance	Outcome 1: Enhanced national level government policy and capacities to promote effective landscape (forest complex) level biodiversity conservation, focusing on forest management outside protected areas to contribute to improved connectivity of habitats and buffer zone management	Output 1.1: Output 1.1: Inter-departmental collaboration on landscape level and Forest Management Unit (FMU)[1] level forest and resource management for biodiversity conservation [1] Including forest management units of the Royal Forest Department (RFD), the Department of National Parks, Wildlife and Plant Conservation (DNP), the Forest Industry Organization (FIO), community forests, and private land owners. Output 1.2: Policy formulation to support landscape level land use planning and implementation through multi-stakeholder involvement for globally important forest complexes in Thailand Output 1.3: Capacity development programme on forest complex-level forest and land use planning through stakeholder participation (including women) Output 1.4: Guidelines on Landscape forest and land use planning to identify globally important biodiversity areas, that incorporate longer term climate change perspective as well as other socioeconomic development in the forest complex areas, as well as human-wildlife conflict and parks/ people interactions Output 1.5 Practical guidance for incorporating biodiversity principles into the establishment and management of community and private forests	GET	478,121	8,100,000

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount($)	Co-Fin Amount($)
Component 2: Biodiversity objectives mainstreamed into managed natural forests outside protected areas	Technical Assistance	Outcome 2: Biodiversity objectives are effectively incorporated in natural forests under Royal Forest Department and community management in four forest complexes in Northeastern and Eastern Thailand	Output 2.1: Landscape (forest complex) level biodiversity information system, focusing on globally important ecosystems and species in four forest complexes Output 2.2: Revision (or development) of landscape and community level forest management plans to explicitly incorporate biodiversity conservation targets in government and community managed forests (Target: 1,290,000 ha under improved landscape-level forest management plans; 15,000 ha of community forests that incorporate biodiversity objectives.) Output 2.3: Community Forestry networks strengthened and are promoting expansion and improvement of community or collective forests in priority areas in support of biodiversity conservation and rural livelihoods. (Target: 500 local stakeholders participate in stakeholder platforms (at least 50% women)) Output 2.4: Clarification of land tenure and use rights supported through participatory demarcation and other mechanisms (including for community forests, STK and SPK[1] land). (Target: 5,000 ha covered by participatory demarcation and other mechanisms) Output 2.5: Assessment of incentives and economic opportunities for local communities (in particular, women) to benefit from wildlife conservation and sustainable forest management. (Target: 1 assessment)	GET	866,595	8,400,000

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount($)	Co-Fin Amount($)
Component 3: Biodiversity objectives mainstreamed into management of private land in forest complexes	Technical Assistance	Outcome 3: Biodiversity objectives achieved through improvement of private production areas within globally important forest complexes, including reducing human-wildlife conflicts	**Output 3.1:** Improved practical guidance for incorporating biodiversity standards and principles into private forest and agriculture land management (including through SFM certification). (Target: 1 guideline developed) - **Output 3.2:** Province-level Private Forest Producer Associations or Cooperatives (PFPAs or PFPCs) strengthened and a) are applying biodiversity standards and principles in the expansion and improvement of forest in priority areas and b) developing market linkages between associations and national/international actors. (Target: at least 2 FPPAs a) applying biodiversity standards and principles and b) developing market linkages between associations and national/international actors, covering 50,000 ha). **Output 3.3:** SAFE System approach adopted nationally and piloted in 5 sites, including the Eastern Forest Complex, employing a systematic and multi-stakeholder approach to Human Wildlife Conflict (HWC) and leading to a decrease to socially acceptable levels of HWC as a result of: fewer injuries and loss of human life; reduced wildlife mortality; reduced damage to crops and property. (Target: At least 5 SAFE Systems baselines and corresponding strategies developed in 5 HWC areas.) Output 3	GET	1,195,303	8,000,000

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount($)	Co-Fin Amount($)
Component 4: Project management, coordination and knowledge management	Technical Assistance	Outcome 4: Effective project management, coordination, monitoring and evaluation and knowledge management in place to support replication and scaling up.	Output 4 Output 4.1: The project is implemented and coordinated effectively among agencies and stakeholders. (Target: At least 2 knowledge management and monitoring systems in place.) Output 4.2: The project's knowledge and lessons learned are shared at the national level and with other relevant sites in Thailand, and regionally (e.g. via Asia Pacific Forestry Week or other TBD). Output 4.3: Monitoring system established and operational to monitor biodiversity and socio-economic indicators beyond the lifetime of the project. Output 4.4: Plans for scaling and replication of integrated forest landscape management and habitat connectivity formulated. (Target: At least 2 plans for scaling and replication of integrated landscape management and habitat connectivity developed).	GET	448,239	3,100,000
			Sub Total ($)		**2,988,258**	**27,600,000**

Project Management Cost (PMC)

	GET	149,413	400,000
	Sub Total($)	**149,413**	**400,000**
	Total Project Cost($)	**3,137,671**	**28,000,000**

C. Indicative sources of Co-financing for the Project by name and by type

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
Government	Royal Forest Department (RFD)	Public Investment	Investment mobilized	9,930,000
Government	Royal Forest Department (RFD)	In-kind	Recurrent expenditures	4,000,000
Government	Department of National Parks, Wildlife and Plant Conservation (DNP)	In-kind	Recurrent expenditures	7,000,000
Government	Department of Water Resources (DWR)	In-kind	Recurrent expenditures	150,000
Government	Regional Environmental Office 9 (REO9)	In-kind	Recurrent expenditures	750,000
Government	Land Development Department (LDD)	In-kind	Recurrent expenditures	2,000,000
Government	Biodiversity-based Economy Development Office (BEDO)	In-kind	Recurrent expenditures	100,000
CSO	World Wide Fund for Nature (WWF Thailand)	In-kind	Recurrent expenditures	170,000
Private Sector	Eastern Hugchanghugpa Community Enterprise	In-kind	Recurrent expenditures	1,000,000

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
Private Sector	Private Forest Plantation Cooperative Limited (PFPC) ((a membership body consisting of private cooperatives/associations)	In-kind	Recurrent expenditures	1,600,000
GEF Agency	FAO	Unknown at this stage	Recurrent expenditures	1,300,000

Total Project Cost($)   28,000,000

Describe how any "Investment Mobilized" was identified

Beyond the investments allocated by the Royal Forest Department, the project will mobilize additional grant investments from Governmental Programs and from private-sector actors who have a vested interest in supporting local SMEs and conservation outcomes through investment and sustainable market development and integration (and will not be recurrent expenditures).

D. Indicative Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)	Total($)
FAO	GET	Thailand	Biodiversity	BD STAR Allocation	3,137,671	298,079	3,435,750
				Total GEF Resources($)	**3,137,671**	**298,079**	**3,435,750**

E. Project Preparation Grant (PPG)

PPG Required

☐

PPG Amount ($)

150,000

PPG Agency Fee ($)

14,250

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)	Total($)
FAO	GET	Thailand	Biodiversity	BD STAR Allocation	150,000	14,250	**164,250**
				Total Project Costs($)	**150,000**	**14,250**	**164,250**

Core Indicators

Indicator 3 Area of land restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
0.00	0.00	0.00	0.00

Indicator 3.1 Area of degraded agricultural land restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 3.2 Area of Forest and Forest Land restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 3.3 Area of natural grass and shrublands restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 3.4 Area of wetlands (incl. estuaries, mangroves) restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 4 Area of landscapes under improved practices (hectares; excluding protected areas)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
1365000.00	0.00	0.00	0.00

Indicator 4.1 Area of landscapes under improved management to benefit biodiversity (hectares, qualitative assessment, non-certified)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
1,355,000.00			

Indicator 4.2 Area of landscapes that meets national or international third party certification that incorporates biodiversity considerations (hectares)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
10,000.00			

Type/Name of Third Party Certification

FSC and Programme for Endorsement of Forest Certification (PEFC)

Indicator 4.3 Area of landscapes under sustainable land management in production systems

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 4.4 Area of High Conservation Value Forest (HCVF) loss avoided

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Documents (Please upload document(s) that justifies the HCVF)

Title	Submitted

Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO_2e (direct)	1781089	0	0	0
Expected metric tons of CO_2e (indirect)	0	0	0	0

Indicator 6.1 Carbon Sequestered or Emissions Avoided in the AFOLU (Agriculture, Forestry and Other Land Use) sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO_2e (direct)	1,781,089			
Expected metric tons of CO_2e (indirect)				
Anticipated start year of accounting	2021			
Duration of accounting	20			

Indicator 6.2 Emissions Avoided Outside AFOLU (Agriculture, Forestry and Other Land Use) Sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO_2e (direct)				
Expected metric tons of CO_2e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

Indicator 6.3 Energy Saved (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Total Target Benefit	Energy (MJ) (At PIF)	Energy (MJ) (At CEO Endorsement)	Energy (MJ) (Achieved at MTR)	Energy (MJ) (Achieved at TE)
Target Energy Saved (MJ)				

Indicator 6.4 Increase in Installed Renewable Energy Capacity per Technology (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)

Indicator 11 Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	12,500			
Male	12,500			
Total	25000	0	0	0

Part II. Project Justification

1a. Project Description

1.1.a.1.   Global Environmental Problems and Root Causes

Thailand is one of the most biodiverse countries in Southeast Asia containing over 15,000 plant species[1]**[1]**, and 4,722 species of vertebrates (CBD, 2019). Many of these species are threatened and classified as globally endangered due to various anthropogenic pressures, including urbanization, infrastructure development and agricultural expansion which support Thailand's growing population and economy (IUCN, 2018). The rich biodiversity of Thailand represents the confluence of flora and fauna from the two major biogeographical regions and from other parts of Asia (CBD, 2019; OECD, 2018).

However, this rich biodiversity is under threat. Thailand's forest cover has shrunk to approximately 30% of the total land area, from over 50 % in the 1960s (CBD, 2019; FAO, 2015). While Thailand has been regarded as an economic success--as it rapidly moved from a low-income country to an upper-middle income country in just over three decades-- rural poverty persists and has increased in recent years due to falling agricultural commodity prices and slower wage growth (WB, 2019). Much of the country's poverty is concentrated in rural areas where the majority of people still depend heavily upon the natural resource base – agriculture, forest resources and fisheries – for their livelihoods. Rural poverty is particularly pronounced among the northeastern and rural eastern provinces, including Amnat-Charoen, Buriram, Mukdahan, Nakhon Phanom, Sa Kaew, Sakon Nakhon, Sisaket, and Surin provinces along the eastern border of Thailand (NESDB, 2019; Richter and Jitsuchon, 2012). Since the areas of the country where rural poverty is highest largely coincide with the areas of critical importance for biodiversity conservation, effective conservation policy must take account of rural development priorities.

Thailand has long recognised the importance of establishing a network of protected areas in order to conserve biodiversity. Roughly 18% of the country's forests are 'protected' as national parks, wildlife sanctuaries and forest parks, which provide critical habitat to vulnerable and endangered flora and fauna. However, to be effective for conservation purposes, protected areas need to be sufficiently large to include viable populations of important species. For larger species with wide ranges, such as elephants, tigers and hornbills, this is particularly important. Many of Thailand's protected areas are too small, individually, to be effective. This is particularly the case in the east and northeast parts of the country, where rural development and land tenure status means there is little or no potential for expanding or adding to these protected areas.

Consequently, Thailand has recognised the importance of landscape approaches for biodiversity conservation, because the effectiveness of protected areas depends to a large extent on what happens in the surrounding lands and waters. Perhaps more importantly, such landscape approaches can also generate positive changes over a larger area, including both protected areas and the surrounding areas, in terms of both biodiversity and social impacts. To address these concerns and opportunities, Thailand has become a regional leader in the concept of establishing 'complexes' of protected areas, designed to facilitate the planning and management of ecosystems whereby the surrounding areas are

included (Suksawang, 2018). Thailand has identified several forest complexes that have global significance. These complexes contain a mix of tenures including protected areas, various types of government managed forest lands and farmland. The management of forests outside of protected areas and government managed forests, where there are substantial areas of farmland, is complex involving communities, private landowners and many government agencies. The government has recognised that it needs new approaches and models to improve livelihoods and conserve biodiversity in these areas. Such approaches need to also include a greater focus on engaging the private sector and using market-based approaches.

Along the eastern border, there are four forest complexes, which include critical wildlife corridors (*see Map 1*, below), namely: the i) Phu Phan Forest Complex (including the Songkram River Basin), the ii) Phanom Dongrak-Pha Tam Forest Complex, the iii) Dong Phayayen-Khao Yai Forest Complex and the iv) Eastern Forest Complex, encompassing a total land area of 1.58 million hectares (ha). Across the four complexes, approximately 900,000 of forests are within protected areas, more than half of which is in the Dong Phayayen-Khao Yai complex. Nearly 500,000 ha of forests are outside protected areas, and 185,000 ha are non-forest. The design of these forest complexes was originally considered to provide biodiversity corridors linking protected areas, production landscapes and water systems across jurisdictions to ensure habitat connectivity for a wide range of threatened and endangered species. These species include vertebrates like the Asian elephant (*Elephas maximus*), Indo-Chinese tiger (*Panthera tigris corbetti*) and banteng (*Bos javanicus*) and fish species like the Giant Mekong Catfish (*Pangasianodon gigas*). The reserved forest land under the Royal Forest Department (RFD)'s management plays an important part in these corridor areas. The detailed land area in the four landscape complexes is shown in Table 1 below.

Table 1: Land area under four forest complexes in Eastern and North-eastern Thailand (all figures in ha)

Complex No.	Name	Protected area forest (DNP[2][2])	Reserved forest (RFD – not protected)	Non-forest land (non-DNP/RFD)	Total area
7	Phu Phan	219,106	33,980	75,544	328,630
8	Phanom Dongrak – Pha Tam	123,600	171,997	23,625	319,222
9	Dong Phayayen – Khao Yai	499,700	96,072	65,012	660,784
10	Eastern	60,592	188,684	21,196	270,472

Total area			902,998	490,733	185,377	1,579,108

However, these reserved forest areas, which form a corridor and buffer between and around the protected areas, have become under threat. As forest cover has reduced in the east and northeast of the country in recent decades, as in the rest of the country, wildlife is increasingly exposed to human activities through habitat encroachment and fragmentation, further increasing the importance of the 'forest complex' approach to conservation (MoNRE, 2015). The reduced forest cover in the country's critical catchment areas and watersheds has meant that the quality and quantity of ecosystem services, such as water provision and regulation, flood control and soil formation that are particularly essential to rural agrarian livelihoods, have been notably compromised (IUCN, 2018). This has particularly affected the poor in the north and northeast whose livelihoods heavily depend on farming and fisheries in downstream areas and the collection of non-timber forest products (NTFPs). Key threats to biodiversity in forest complexes have been identified as forest loss/encroachment – forest area in forest reserves changing to agricultural and settlement areas; illegal wildlife poaching and trade of wildlife (including cross-border trade), including illegal logging of high value tree species such as Siamese Rosewood; unsustainable NTFP collection; encroachment by high numbers of domestic livestock; and infrastructure development (highways, road, dam, etc.)[3][3]. In the four target forest complexes, agricultural expansion is the leading cause of forest loss.[4][4]

Another threat to biodiversity is human-wildlife conflict (HWC). A study by the Economy and Environment Program for Southeast Asia (2011) in and around the Khao Ang Rui Nai Wildlife Sanctuary in the Eastern Forest Complex (EFC) suggests that human-elephant conflicts (HECs) cost local households approximately USD 1,200 annually in 2011, or more than 20% of average household income in this relatively impoverished area. The EFC, encompassing several national parks, wildlife sanctuaries, forest parks, community forests and production landscapes, is one of the worst-affected areas by HECs in Thailand (Jarungrattanapong et al., 2017). Women and the poor are particularly vulnerable due to their greater involvement in and dependency on agricultural activities (van de Water and Matteson, 2018). Consequently, there are significant tensions between local communities and conservation efforts within the EFC. The incidence of HWCs in the EFC is expected to increase significantly due to the combination of the recovering Asian elephant population and growing pressure on land for agricultural expansion and infrastructure development. This raises a need to strengthen the EFC as a wildlife corridor for long-ranging species like elephant and tiger by ensuring its connectivity within the complex and with the neighbouring Phanom Dongrak-Pha Tam and Dong Phayayen-Khao Yai Forest Complexes and adjacent protected areas in Cambodia. Considering the significantly higher rates of forest cover loss observed in Cambodia and Lao PDR along their borders with Thailand (GFW, 2019), the existing biodiversity corridors provided by the four forest complexes function as a critical transboundary refuge for many threatened and endangered species. Improving habitat connectivity within and between these forest complexes would, therefore, also have regional and indeed global significance for biodiversity conservation.

With an increasing population pressure and persistent poverty that will continue to drive agricultural intensification and expansion, the river basins of the targeted area, including globally significant wetlands, are expected to face increased biodiversity loss. This would have a considerable bearing on livelihoods in the area that are heavily dependent on local biodiversity and intact, healthy and functioning ecosystem services.

In this context, it is increasingly important that the forest complexes serve their intended function, as a means to extend conservation measures beyond protected areas to the surrounding landscape, particularly through the development and maintenance of biodiversity corridors. These corridors function as a critical transboundary refuge for many threatened and endangered species. Improving habitat connectivity around and between protected areas would, therefore, have regional and global significance for biodiversity conservation. In order for this approach to be effective, biodiversity conservation approaches need to be mainstreamed into the management approaches of all relevant stakeholders, not only the Department of National Parks (DNP), but other government agencies, private landowners, farmers and community-based organisations. This can best be achieved through integrated land-use planning and management that aims to provide biodiversity-friendly, sustainable livelihoods. An integrated approach will help create an enabling environment for effective biodiversity conservation at the landscape level through a combination of regulatory, economic and social participation approaches.

This project, therefore, proposes to *strengthen the conservation of globally significant biological diversity in Thailand's forests, outside of protected areas, with a focus on four landscape complexes in northeastern and eastern Thailand,* building on existing experiences and best practices in the country and incorporating tools and techniques developed by FAO.

The project will also consider the effects of climate change on biodiversity and local livelihoods as changing precipitation patterns, and extreme weather events are expected to exacerbate biodiversity loss and pose challenges including reducing food security, which, in turn, places additional pressure on biodiversity and livelihoods.

1.a.2.   Barriers

While acknowledging the site-specific circumstances facing each forest complex, protected area, jurisdiction and community within the target area of the project (see *Map 1*), barriers to addressing threats to globally important habitat encroachment and fragmentation, and low support and involvement of local people in conservation include:

·   *Limited landscape level mechanisms and capacities for integrated, cross-sectoral land use planning necessary for improving connectivity of critical forest areas for biodiversity conservation and for redressing inefficient/suboptimal land use*: The landscapes targeted in the proposed project landscapes include a mosaic of land uses, including

protected areas under the management of the Department of National Parks, Wildlife and Plant Conservation (DNP), forest areas under the management of the Royal Forest Department (RFD), farmlands under various tenure arrangements, and forests managed by private companies. The lack of formal mechanisms for collaboration between communities, the private sector, key agencies and institutions is a barrier to the effective incorporation of biodiversity standards and principles into forest and land use management. *Thailand's Master Plan for Integrated Biodiversity Management 2015-2021* calls for concerted efforts among national and subnational governments, local communities, the private sector, non-governmental organizations and research community. The responsibility for coordinating efforts in support of the Master Plan is spread between several central ministries and their departments, including RFD, DNP, the Department of Water Resources (DWR), and the Biodiversity-Based Economy Development Office (BEDO) under the Ministry of Natural Resources and Environment (MoNRE), as well as the Land Development Department (LDD), the Department of Agricultural Extension (DAE) and the Department of Agriculture (DoA) under the Ministry of Agriculture and Cooperatives (MoAC). The mandates and responsibilities of these institutions often overlap and sometimes compete with one another which complicates integrated land use planning and management and results in lost opportunities for effective stakeholder engagement and creating habitat connectivity (MoNRE, 2015).

The lack of integrated planning and management in the institutional framework also creates tensions and confusion between authorities and local communities. For instance, the RFD considers recently deforested areas as 'degraded' and therefore suitable for agriculture; farmers sometimes burn areas of forest to open them up for agricultural use. Some protected areas are allegedly encroached because the boundaries of the protected area are unclear or disputed, particularly in areas with newly changed designations. These factors have resulted in land-use conflicts. The monitoring and enforcement of laws and regulations to promote sustainable land use and curtail encroachment are complicated by the complex mosaic land-use systems with overlapping and often conflicting mandates and responsibilities of central and sub-national agencies. The recent changes in the policy environment (such as the adoption of the Community Forestry Bill in 2019, the development of a National Forest Certification system (PEFC) and a National Forest Management Standard (FSC), the revision of Article 7 of the Forestry Act relaxing the requirements related to the harvesting of restricted native timber species on private land, and RFD's mission to increase green cover) provide significant opportunity for mainstreaming biodiversity into the management of the land under RFD's mandate. These revised policies all explicitly include a commitment to integrate biodiversity into reserve forest (and private forest) management. However, the RFD's capacities are currently inadequate to fill this mandate effectively, and especially for the achievement of global biodiversity conservation.

· *Limited stakeholder engagement and participation in the management, conservation and restoration of landscapes due to inadequate incentives and perceived low benefits.* This is contributed by several factors, such as complex and unclear land and resource tenure and use rights, notably in areas adjacent to protected areas and limited economic incentives and mechanisms for the protection of forests and key habitats, including a lack of viable options for generating livelihoods through the sustainable use of biodiversity. Complex and unclear land tenure and use rights includes perceived uncertainty about usufruct certificates 'Sor Tor Kor' (STK) and tenure certificates Sor Por Kor (SPK). STKs issued by the RFD allow crop production in forest allotments while maintaining 20% forest cover, SPKs are issued by the MoAC for agricultural production. Uncertainty often leads to short-sighted and unsustainable land use practices by farmers when they opt for informal land claims that encroach forests and critical habitats.

The combined effect of the barriers listed above is to limit active engagement and participation by relevant sectoral institutions, local governments, communities, including cooperatives and the private sector in biodiversity-friendly and sustainable land-use management outside of protected areas (see, van de Water and Matteson, 2018).

These barriers interact and compound one another to create conditions to reduce habitat connectivity through encroachment and fragmentation in and around protected areas and across the wildlife corridors along Thailand's eastern border with Cambodia and Lao PDR.

1.a.3.   Baseline Scenario

There are several initiatives by the Government of Thailand, including some that have support from development partners, that are relevant to the proposed project. However, many of these initiatives focus on critical conservation areas such as the Western Forest Complex (WEFCOM) and Kaeng Krachan Forest Complex along Thailand's western border with Myanmar, for example through the Dawna Tenasserim Landscape Integrity project of WWF, and the UNDP-GEF project Strengthening Capacity and Incentives for Wildlife Conservation in WEFCOM, or on national-level policy. Support for forest complexes in the northeast and east has historically been more limited. Moreover, while there are valuable experiences from these projects in terms of improved effectiveness of protected area management, the WEFCOM and Kaeng Krachan forest complexes are over 90% comprised of protected areas, under DNP management, with very limited areas either under RFD or non-forest cover. The issues of mainstreaming biodiversity in the wider landscape and maintenance of biodiversity corridors for connectivity are much more pressing in the forest complexes in the northeast and eastern parts of the country.

For example, an ecological corridor study by the DNP (2012) based on statistical modelling and GIS-based analysis of species[5][5] distribution and forest patch connectivity identifies the Dong Phayayen-Khao Yai, Eastern and Phanom Dongrak-Pha Tam Forest Complexes as the most critical for effective biodiversity corridors in the country, in terms of forest area and habitat for important wildlife species. Moreover, Phu Phan forest complex has more existing examples of effective biodiversity corridors (5) than any other complex outside the northwest of Thailand. Finally, the study shows that Phanom Dongrak-Pha Tam and Eastern forest complexes contain more than half (five out of eight) of all of Thailand's transboundary biodiversity corridors, making the region of critical importance for efforts to maintain viable populations and transboundary migration routes for key species, such as elephants and tigers, within the Lower Mekong Region. The study highlighted that the design of ecological corridors to connect forest patches is a substantial

strategy for biodiversity conservation of the country. It revealed that the most important threat to biodiversity conservation in corridors is forest reserves encroachment. Thus, the study recommended several management actions to address the issue of habitat fragmentation in the corridor areas. These actions include, but are not limited to, the following:

· Economic incentives for farmer collaboration on wildlife passing on their property, forest plantation, agroforestry;

· Forest plantation in corridors and surrounding areas by the local forest cooperatives;

· Sustainable forest management for timber and forest products;

· Community forest establishment and management for wildlife usage;

· Forest Plantation of Forest Industry Organization (FIO) or private forest plantation: Management for wildlife corridor under Forest Stewardship Council (FSC);

· Outreach and information/knowledge dissemination; and

· Participatory management of human-wildlife conflict.

However, technical and financial support has so far been disproportionately concentrated in flagship protected areas such as the Khao Yai National Park, while limited attention has been given to biodiversity corridor management outside of the protected areas.

There are several models/examples from Thailand where DNP, RFD, conservation organizations such as WWF, Wildlife Conservation Society (WCS) and local stakeholders have worked on establishing and enhancing biodiversity corridors to enhance connectivity for elephants, tigers and other globally important species between protected areas in forest landscape complexes. The most notable example is the connectivity area between the Western Forest Complex (WEFCOM) and the Kaeng Krachan Forest Complex (Suksawang et al., 2018). There are also several models of successful implementation of community forestry and agroforestry that leads to increased canopy and biodiversity on both private and public lands in the buffer zone of protected areas. For example, in Suan Pa District of Trat Province, communities have grown rubber integrated with Siamese rosewood and other, diverse agroforestry species for over 30 years. A biodiversity corridor has been established on 10,000 rai (1,600 ha), and in this area alone there is potential for an additional 20,000 rai (3,200 ha) of forest corridor to enhance connectivity and reduce HEC. In Sakon Nakhon Province, the Impaeng Community Forest Network has demonstrated similar approaches, providing benefits for both biodiversity and local livelihoods in the buffer zone of national parks. The use of local herbs, nutraceuticals, oleo-resins and fruit tree species not only provides economic benefits to local communities, but also enhances habitat for biodiversity, such as birds and pollinators and globally significant wildlife, as well as ecosystem functions.

Another successful example is the buffer zone of Kuiburi National Park (in western Thailand), where adding diverse species has led to diverse income so that the communities are financially able to cope with HEC, and has created long-term incentives and solutions to address conflict of agricultural expansion and encroachment in the forest reserve from having sustainable incomes and livelihoods. In Kuiburi NP, there are three layers of the buffer zone (elephant route):

(1) At the inner buffer, diverse species are grown that are preferred by elephants and other wildlife – pineapple, banana, sugarcane, including small water dam.

(2) At the middle buffer, neutral plants are grown – Eucalyptus, Acacia, Tamarind. Bamboo and diverse plantations, community forests and public plantations that lead to the restoration of ecosystem for wildlife in the middle buffer area, benefiting both people for local products and improving wildlife habitat that connects to the forest complexes.

(3) At the outer buffer, species that elephants dislike are grown as fences along the corridor in proximity to private plantations (micro forestry up to 50 rai). For example, durian monocultures in private plantations in the outer buffer area, which is elephants' preference, had previously faced major losses linked to HEC. Diversifying species helped improve productivity, soil enrichment, and adding diversified seasonal income for farmers.

There have been several recent changes to the policy and institutional environment for landscape level planning and management in Thailand, representing a significant opportunity for this project. It is anticipated that through these changes, some of the root causes of forest degradation and barriers to sustainable forest management and buffer zone management will be addressed. The relevant changes include:

·   The adoption of the Community Forestry Bill 2019 which aims to promote community participation in natural resource conservation and rehabilitation by creating collective action for sustainable management and utilization. The bill will strengthen and formalize use rights and management of community forests outside of protected areas under the auspices of the RFD. In Thailand, community forests are considered one of the key strategies to reduce forest loss in areas adjacent to protected areas, by providing economic incentives to local communities. The adoption of the bill represents an important step towards formalizing and expanding forests under community management in Thailand. When declared as a community forest, people are able to participate in the management of biodiversity of wildlife and plants, both for conservation, use and preservation and for economic use within the community.

·   The development of RFD's Strategy and Action Plan for the promotion of economic tree plantations (2018-2036). While this promises to support the expansion of Thailand's forest area, and thus support forest land restoration and climate change mitigation objectives, it is important to ensure that the promotion of economic tree plantations is consistent with the principles of biodiversity conservation.

·   The development of a National Forest Certification system (PEFC)[6][6] and a National Forest Management Standard (FSC), both incorporating biodiversity criteria.

·   Regulatory reform triggered by the FLEGT Voluntary Partnership Agreement process

·   Revision of Article 7 of the Forestry Act relaxing the requirements related to the harvesting of restricted native timber species on private land, which is intended to discourage plantation of exotic monocultures such as *Eucalyptus spp* and rubber, and stimulate the utilisation of multi-purpose, mixed native species such as Siamese Rosewood (*Dalbergia cochinchinensis*), Burmese rosewood (*D. bariensis*) and Teak (*Tectona grandis*), thus contributing to efforts to mainstream biodiversity and conservation objectives into wider landscape management, and

·   National REDD+ strategy development

According to its mission statement in line with Thailand's *20-Year Strategic Plan (2017-2036)*, RFD plays a key role in protecting forests and in achieving a balance between the conservation and sustainable use of forested areas. RFD has over 65 million rai (10.4 million hectares) of **Reserved Forest** land under its management, representing more than 20% of country's land area. Reserved Forest land was originally defined (in line with the term used in countries across South Asia) as land reserved, under government ownership, for timber production, and this was essentially formalised in the National Reserved Forest Act of 1964. Since the cancellation of logging concessions in 1989 formally ended the era of timber harvesting in natural forests, the main purpose of RFD's management of Reserved Forest has been to ensure the conservation and sustainable use of forests and secure the livelihoods that depend on them.

RFD's main mission on reserved forest land is:

1) The prevention and suppression of intrusion, illegal logging and deforestation;

2) Promoting economic forest and valuable species of long standing trees;

3) Promoting community forest;

4) Forest and land distribution management; and

5) Increasing green cover.[7][7]

There are sub-categories of Reserved Forests that have different primary objectives, as summarized in the Table below.

A	National Reserved Forest (under RFD management)		
1	Por. Sor. 31	Section 20	To restore degraded forest
2	Por. Sor. 23	Section 16	For livelihood or agriculture and livestock
3	Sor. Tor. Kor. 1 Kor. (STK)	Section 16 bis	Sor. Tor. Kor is a project under the **Resolution of Cabinet on 30 June B.E. 2541 (1998)** to verify and certify a right of livelihood and utilisation for persons who live in an area before the area was announced to be national reserved forest.
4	Cor. Tor. Chor	Section 16	Cor. Tor. Chor is a project under the **National Land Policy Committee** (Cor. Tor. Chor) related to community land use. However, the permit title is "Por.Sor.23" because this is issued under Section 16.

In addition to the mandate for management of public land (Reserved Forest) which falls directly under its jurisdiction, RFD is the government agency responsible for sustainable forest management (SFM) in all forested areas throughout the country, both on public and private land.

The public and private land categories where RFD also has a mandate to support SFM are illustrated in the Table below. Under these land categories, which are traditionally dominated by agriculture and rubber plantations, RFD's mission is also to promote an increase in green area through agroforestry, planting high-value, native perennial species, etc.

B	Public Land (other than National Park and National Reserved Forest) (where RFD's mandate is to ensure that SFM practices are followed)		
5	Permit of Utilization in forest area under Section 54 the Forestry Act	Forestry Act B.E. 2484 (1941) Section 54	Utilization and livelihood.
6	Sor. Por. Kor (SPK)	Agricultural land reform Act B.E 2518 Section 30	Agricultural activities (which may include agroforestry/forestry)
C	Private Land (where RFD's mandate is also to ensure that SFM practices are followed)		
7	Freehold Title Deed (Nor. Sor. 4)	Land Code	Ownership

8	Utilization Certificate (Nor. Sor. 3)	Land Code	Possessory right

The Forest Industry Organization (FIO), a government enterprise, which works closely with RFD, also has the mission to ensure the sustainable use of natural resources in economic forest plantations.

Previous efforts to promote cross-sectoral policies and institutional mechanisms that enable integrated land use planning have not had the benefit of the policy and institutional environment changes listed above. These changes have created opportunities for promoting more sustainable forest management practices in support of biodiversity conservation at landscape and Forest Management Unit (FMU) levels. However, capacity of stakeholders within RFD, as well as of local communities and cooperatives, to implement and benefit from these changes is still limited.

Thailand's Master Plan for Integrated Biodiversity Management (2015-2021) sets out strategies and measures in order to 'integrate the management for protection, restoration and utilization of biodiversity in an efficient way so as to halt biodiversity loss through participation at all levels,' and to 'increase policy and management importance, raise social awareness on roles and importance of biodiversity to sustainable development and green economy' (MoNRE, 2015 p. 26). The Master Plan recognizes the significance of sustainable utilization of biodiversity, effective stakeholder engagement and streamlined knowledge development and management concerning social and economic values of biodiversity and ecosystems in ensuring conservation outcomes and sustainable development. The Master Plan underscores the role of biodiversity and ecosystems in climate change mitigation and adaptation. This is also reflected in Thailand's Nationally Determined Contribution (NDC), submitted to the United Nations Framework Convention on Climate Change (UNFCCC) with an aim to restore its forest cover to 40% of the land area and to restore vulnerable forest ecosystems through inter-sectoral efforts as part of its ecosystem-based approaches to climate change adaptation (ONEP, 2015).

In the baseline also, Province-level Private Forest Producer Associations or Cooperatives (PFPAs or PFPCs), supported by the membership body PFPC, as well as community forest networks, supported in particular by RECOFTC[8], are assisting local communities and cooperatives in benefiting from sustainable forest management. Local civil society organizations (CSOs) and NGOs also support conservation of protected areas and adjacent forests. Protected Area Committees (PACs), such as the one established in Dong Phayayen-Khao Yai under the UNDP/GEF-4 Catalysing Sustainability for Thailand's Protected Area System (CATSPA) Project, also play a role in engaging stakeholders in the conservation and sustainable use of biodiversity in areas adjacent to the protected areas.

The following projects are relevant to the participatory landscape approaches to be used in this proposed project:

· Dawna-Tenasserim Landscape (DTL) Integrity Project (DNP, WWF) aims to address threats to the integrity of the landscape through participatory development, and conservation approaches within the Western Forest Complex, comprising the most significant remaining forest tract in the mainland Southeast Asia along Tenasserim Hills bordering Myanmar. (2013 – ongoing)

· The Kaeng Krachan Forest Complex: Engaging local communities in participatory management processes and benefit sharing (DNP, IUCN) aims to contribute to the conservation of the Kaeng Krachan Forest Complex by engaging local communities in participatory management processes and benefit sharing. As mentioned above, the use of participatory landscape approaches will be relevant to the proposed project. (2016 – ongoing)

The following projects are relevant to linking productive forest areas to markets that encourage biodiversity conservation through participatory landscape approaches:

· The Strengthening Capacity and Incentives for Wildlife Conservation in the Western Forest Complex (DNP and UNDP/GEF) aims to mainstream globally important biodiversity species conservation into production sectors through improved management of critical habitats. (2013 – 2018, $31,000,000)

· The Conserving Habitats for Globally Important Flora and Fauna in Production Landscapes (ONEP, ZPO with UNDP/GEF) aims to mainstream globally important biodiversity species conservation into production sectors through improved management of critical habitats with a focus on habitat protection. (2013 – ongoing, $12,000,000)

In addition, the following two projects will provide guidance for improving inter-sectoral coordination and integrated land-use planning:

· TEEB for Agriculture and Food (MoNRE, MoAC, UN Environment, International Climate Initiative (IKI) of Germany). This national level study aims to mainstream values of nature in decision-making by highlighting the trade-offs between agricultural practices, which are usually not captured through conventional assessments such as Strategic Impact Assessments or agronomic studies. (2017 – 2019)

·   Readiness Preparation Project for Reducing Deforestation and Forest Degradation (REDD+) (DNP, FCPF) aims to develop capacities to implement REDD+ in Thailand. A national REDD+ strategy and action plan, national reference (emission) level, national forest monitoring system, safeguards and a safeguards information system to report on progress are being prepared. (2018 – ongoing, $3,800,000)

The project will build on these baseline investments and policy changes to develop capacity for improved, integrated forest landscape management in order to provide the necessary incentives to avoid further forest loss and ensure habitat connectivity in the four landscape complexes of Northeastern and Eastern Thailand.

1.a.4.   Proposed Alternative Scenario

Whilst the forests in the proposed project area (see *Map 1*) provide critical refuge for many threatened and endangered species, the mid to long term prognosis for these species and related habitats is poor given the high levels of encroachment and fragmentation, unsustainable land use practices, human-wildlife conflicts and illegal logging. To compound this situation, climate change is exacerbating environmental pressures affecting both biodiversity and socio-economic well-being.

An alternative scenario involves mitigating the barriers to integrated forest landscape management which will enable more coordinated and participatory approaches to address land degradation and watershed management issues by improving forest and land management at critical corridor locations around and between the protected areas.

Accordingly, the objective of the project is to strengthen the conservation of globally significant biodiversity in four landscape complexes of Northeastern and Eastern Thailand through improved management of forests between and around protected areas. To achieve this objective, the project will:

·   Promote inter-sectoral coordination and integrated land-use planning and management.

· Demonstrate the effectiveness of biodiversity-friendly and sustainable livelihood and economic models for enhancing habitat connectivity in forest areas between and around protected areas (in reserved forest areas and some SPK and private land). This includes consideration of biodiversity and ecosystem values and innovative market-based solutions (e.g. value addition and certification programs) into land-use planning and management at the landscape level.

· Encourage the development of clear incentives, mechanisms and capacities to enable integrated conservation landscape planning and management among the sectoral institutions.

· Promote the effective inter-sectoral evaluation of evidence to provide coherent and consistent information to aid evidence-based policy making and management action. This includes developing harmonized knowledge management and communication approaches and systems

· Support and build the capacity within the RFD to:

o   Implement the Community Forestry Bill by improving community forest management practices to support the connectivity of wildlife habitat while demonstrating approaches to enhance local biodiversity benefits.

o   Build the capacity of forest managers to take advantage of the national forest certification system, the national forest management standard, and regulatory reform triggered by the FLEGT voluntary partnership agreement process, which all require conformity with biodiversity indicators.

o   Improve the management of forests outside protected areas, particularly forests managed for production of timber and wood products, to be more consistent with biodiversity-related principles and standards.

The project comprises the following four components and corresponding outcomes, outputs and activities.

Component One: Policy, planning and institutional framework for improved forest landscape management

The key expected Outcome under this component is: Enhanced national level government policy and capacities to promote effective landscape (forest complex) level biodiversity conservation, focusing on forest management outside protected areas to contribute to improved connectivity of habitats and buffer zone management.

This component will focus on developing the necessary systemic and institutional capacities to ensure effective coordination of relevant sectoral policies and actions to support integrated forest landscape management across multiple land use types outside of protected areas.

This component draws on RFD's experience with implementing landscape level approaches and supporting both community forestry and smallholder forest management. It also draws on FAO's proven expertise on integrated forest landscape management for enhancing biodiversity and ecosystem services, geospatial planning tools like OpenForis CollectEarth (OF CE) and SEPAL to aid evidence-based policymaking and action as well as capacity development approaches and tools[9][9] to identify specific capacity needs and strategically develop the necessary operational and technical capacities of relevant sectoral institutions and stakeholders.

This Outcome will be achieved through the following proposed Outputs:

Output 1.1: Inter-departmental collaboration on landscape level and FMU level forest and resource management for biodiversity conservation.

Under this Output, the project will support at least one inter-departmental framework to promote effective cross-sectoral work to support landscape level conservation efforts. Where relevant, this will build on existing structures such as the provincial reserved forest committees or Protected Areas Committees. Indicative activities under this Output include:

·   Identify and review relevant, successful inter-sectoral approaches in Thailand and other countries to develop a robust and fit-for-purpose model for the inter-departmental framework;

·   Support the establishment of the inter-departmental framework under relevant ministerial decrees (e.g., MoNRE and MoAC); and

·   Provide technical support and, as necessary, capacity building for the effective operation of the inter-departmental framework so that participating agencies can collectively provide regular oversight for the implementation of improved connectivity of habitats and buffer zone management.

Output 1.2: Policy formulation to support landscape level land use planning and implementation through multi-stakeholder involvement for globally important forest complexes in Thailand.

Under this Output, at least one policy or programme at national level is expected to be revised. Indicative activities under this Output include:

· Assess reserved forest/production forestry related policies and programmes through a consultative process with the view of strengthening landscape level approaches to maximize mainstreaming of global environmental benefits, especially conservation and sustainable use of globally significant biodiversity; and of disincentivizing deforestation.

· Propose revisions and improvements to existing and new community-based and production forestry related policies and programmes

Output 1.3: Capacity development programme on forest complex-level forest and land use planning through stakeholder participation (including women). The project expects to train at least 500 agency staff reached by training programs (50% women). Indicative activities include the following:

· Identify gender-responsive capacity strengthening programs through a facilitative process; and

· Regularly monitor the progress of capacity development.

Output 1.4: Guidelines on landscape forest and land use planning to identify globally important biodiversity areas, that incorporate longer term climate change perspective as well as other socioeconomic development in the forest complex areas, as well as human-wildlife conflict and parks/ people interactions.

The guideline produced is expected to be relevant to forest complex management in all parts of Thailand and is intended to be used by the RFD, as well as local government and other stakeholders. The guideline will also support better incorporation of climate resilience concerns in forestry management to maintain and enhance global biodiversity values in the context of changing climate.

Component Two: Biodiversity objectives mainstreamed into managed natural forests outside protected areas

Under this component, the expected Outcome is: Biodiversity objectives are effectively incorporated in natural forests under Royal Forest Department and community management in three forest complexes in Northeastern and Eastern Thailand.

This component seeks to mainstream biodiversity standards and principles into the management of forests outside protected areas. It takes advantage of recent regulatory reform that supports sustainable forest management practices for biodiversity conservation at landscape and Forest Management Unit (FMU) levels. In addition, this outcome will aim to enhance benefits from sustainable forest management for local communities, in order to provide incentives for the conservation of forest areas in the corridor areas.

The component will employ FAO's multi-stakeholder engagement approaches and tools[10][10], including the voluntary guidelines on tenure[11][11], and existing successful co-management approaches, to identify critical barriers and opportunities at the landscape level to support the demonstration of integrated forest landscape management approaches and biodiversity-friendly management and production technologies and techniques. This will draw on existing best practices in the country and FAO's globally available expertise in forestry and integrated land management. The effects of climate change on forests will be taken into consideration. This component will be delivered through the following outputs and corresponding activities.

Output 2.1: Landscape (forest complex) level biodiversity information system, focusing on globally important ecosystems and species in four forest complexes. Indicative activities include:

· Participatory assessment of important wildlife corridors and priority sites for biodiversity conservation outside of protected areas in the target landscapes

· Maintenance of database to ensure wide access and use and its regular updating

Output 2.2: Revision (or development) of landscape and community level forest management plans to explicitly incorporate biodiversity conservation targets in government and community managed forests. It is expected that by project end, 1,290,000 ha of landscape complexes will be under improved forest management plans, and 15,000 ha of

community forests will incorporate biodiversity objectives into management plans (such as maintaining important corridor areas for globally important biodiversity, maintaining forest cover, enhancing diversity of planted species, etc.). Indicative activities, through participatory approaches, include:

·   Revise existing, or where relevant develop new, landscape-level forest management plans that incorporate biodiversity and sustainable forest management objectives.

·   Identify target locations where the incorporation of biodiversity principles and standards in the establishment, expansion and management of community and collective forest areas on public land can significantly improve biodiversity and local livelihoods;

·   Review and identify relevant best practices (including public-private partnerships through, e.g., forestry, agriculture, aquaculture, apiculture and tourism value chains) to diversify rural income through the promotion of sustainable biodiversity utilization;

·   Identify entry points for incorporating biodiversity principles and standards and livelihood diversification options;

·   Develop and implement site-specific activities;

·   Raise local awareness of the agreed approach to promote its wider application and adoption by local communities; and

·   Communicate best practices and lessons from the process to support evidence-based policymaking and action and promote replication.

Output 2.3: Community Forestry networks strengthened and are promoting expansion and improvement of community or collective forests in priority areas in support of biodiversity conservation and rural livelihoods. The project will target 500 local stakeholders participating in stakeholder platforms (with the target of at least 50% women). Indicative activities include:

·   Build the capacity of targeted Community Forestry networks to integrate biodiversity conservation and rural livelihoods into the expansion and management of community or collective forests ; and

·   Regularly monitor the progress of targeted Community Forestry networks.

Output 2.4: Clarification of land tenure and use rights supported through participatory demarcation and other mechanisms (including for community forests, STK and SPK land). The project is expected to cover 5,000 ha through participatory demarcation and other mechanisms. Indicative activities include:

· Review areas of informal land claims and land disputes in the priority conservation landscapes to identify specific areas where support to establish formal community forests and agroforestry areas might lead to a resolution;

· Develop and implement a land claim/dispute resolution roadmap for each identified area in a consultative manner;

· Communicate best practices and lessons from the process to support evidence-based policy making and action and promote replication.

Output 2.5: Assessment of incentives and economic opportunities for local communities (in particular, women) to benefit from wildlife conservation and sustainable forest management (one assessment produced). Key indicative activities for this Output are:

· Assess economic opportunities for local communities (in particular, women) to benefit from wildlife conservation and sustainable forest management in priority sites;

· Identify gender-responsive sectoral action, technical support requirements and financing needs through participatory stakeholder engagement approaches; and

· Produce a report on economic opportunities for local communities (in particular, women) to benefit from wildlife conservation and sustainable forest management.

Output 2.6: SFM Certification (in areas identified in 1.4) of community forests and Forest Industry Organization (FIO) forests promote environmental and social benefits. At least 10,000 ha of forests are expected to be under SFM certification by project end. Indicative activities include:

· Identify target community forest groups and FIOs that are willing and able to seek SFM certification;

· Build the capacity of targeted community forest groups and FIOs to obtain SFM certification.

· Communicate best practices and lessons from the process to support evidence-based policymaking and action and promote replication.

Under Output 2.6, the project will promote SFM certifications in reserved forest and other public land. Both FSC and PEFC certification are available to forest managers in Thailand, and both of these standards incorporate strong biodiversity principles and criteria. The criteria include, among others, the availability of information on species biodiversity found in the managed forest, and the existence of guidance and measures for conserving and protecting forest biodiversity, especially rare and/or extinct species. The project will promote the use of these standards, including the national certification standard being developed for endorsement by PEFC, among FIO forests, smallholders,

community forest groups and private forest owners, through institutional support to RFD as the government agency responsible for SFM, and capacity building to forest managers to understand and apply the management approaches required to comply with the biodiversity principles under these standards.

Component Three: Biodiversity objectives mainstreamed into management of private land in forest complexes

Expected Outcome under this Component is: Biodiversity objectives achieved through improvement of private production areas within globally important forest complexes, including reducing human-wildlife conflict.

This component applies integrated forest landscape management models to serve specific local conservation and livelihood needs in distinctive landscape types (e.g., protected area buffer zone, mixed cropland, forested wetland, and upstream/downstream area). These models aim to link production landscapes with contiguous forest cover along critical wildlife corridors to provide improved habitat connectivity.

This component will support local communities, smallholders and private landowners to increase their knowledge and awareness of income diversification through sustainable biodiversity benefit utilization. It will draw on best practices within Thailand and from other parts of the world and FAO's global expertise on livelihood diversification in agriculture, forestry and fisheries. It will also seek to establish public-private partnerships to support the integration of social and economic values of biodiversity into local economic activities. It will aim to reduce human-wildlife conflict in order to increase public support for wildlife conservation. The following Outputs and activities are envisaged under this Component/Outcome:

Output 3.1: Improved practical guidance for incorporating biodiversity standards and principles into private forest and agriculture land management (including through SFM certification). Indicative activities include:

·   Identify appropriate management approaches for incorporating biodiversity standards and principles into forest establishment and management on private land (including through SFM certification), including the use of biodiversity-friendly technologies and techniques that incorporate essential sectoral development needs and opportunities;

·   Use a participatory approach to develop and field test a guideline for forest establishment and management on private land that integrates forest landscape management and production models; and

·   Promote the guideline amongst relevant stakeholders using appropriate formats and approaches.

This output will build on existing guidelines, including the "Thailand Criteria and Indicators for Sustainable Management of Planted Forests and Community Forests" published by RFD in 2019 with support from the International Tropical Timber Organization (ITTO).

Output 3.2: Province-level Private Forest Producer Associations or Cooperatives (PFPAs or PFPCs) strengthened and a) are applying biodiversity standards and principles in the expansion and improvement of forest plantations in priority areas and b) developing market linkages between associations and national/international actors. The project's target under this Output include at least two FPPAs are a) applying biodiversity standards and principles and b) developing market linkages between associations and national/international actors, covering an area of 50,000 ha. Key indicative activities will include:

This output is related to private production forest areas under Private Forest Producer Associations or Cooperatives management. The biodiversity standards and principles will be incorporated through SFM certification or other means, such as improved management plans. The exact mechanisms will be identified in more detail during the project preparation.

·   Identify the need for establishing or strengthening existing Province-level Private Forest Producer Associations or Cooperatives (PFPAs or PFPCs);

·   Support stakeholders to establish PFPAs or PFPCs, as necessary;

·   Assist PFPAs/PFPCs to developing market linkages between associations and with national/international actors, including through certifications;

·   Identify and implement capacity strengthening programs that enable PFPAs/PFPCs to apply biodiversity standards and principles in the expansion and improvement of forests in priority areas; and

·   Regularly monitor the progress of PFPAs/PFPCs

Output 3.3: SAFE System approach adopted nationally and piloted in 5 sites, including the Eastern Forest Complex, employing a systematic and multi-stakeholder approach of assessing, mitigating and monitoring Human Wildlife Conflict (HWC) and leading to a decrease to socially acceptable levels of HWC. At least five (5) SAFE Systems baselines

and corresponding strategies will be developed in 5 HWC areas by the end of the project. The SAFE SYSTEMS approach was designed to overcome the weaknesses of the usual approaches to HWC and addresses the following six elements concurrently:

· Policy: Human Wildlife Conflict policy mainstreaming legal protocols to manage conflict animals;

· Prevention: fencing; barriers; deterrents; early warning systems;

· Mitigation: interim relief, compensation and insurance schemes; alternative livelihoods programs;

· Understanding the Conflict: hotspot mapping; community attitude surveying; impact and severity monitoring;

· Response: rapid response teams; first aid; and crowd management;

· Monitoring: Human Wildlife Conflict program performance measurement.

Indicative activities include:

· SAFE Systems baselines conducted in 5 HWC areas including, but not limited to the Eastern Forest Complex

· SAFE Systems strategies to reduce HEC developed for the five project sites

· Local teams developed to deliver the strategy for each site, potentially consisting of DNP, RFD, local groups, farmers, local government, CSOs, NGOs, universities, and other stakeholders

These above-described components and corresponding outcomes, outputs and activities will contribute directly to meeting the Aichi Targets 1, 2, 4, 5, 7, 11, 12, 14, 15, 18 and 20.

Component Four: Project management, coordination and knowledge management

Expected Outcome under this Component is: Effective project management, coordination, monitoring and evaluation and knowledge management in place to support replication and scaling up. There will be four Outputs under this Outcome.

Output 4.1: The project is implemented and coordinated effectively among agencies and stakeholders. Under this, the Project Coordination Unit (PCU) will be established and operational throughout the project duration. Indicative activities include:

·   Multi-stakeholder PCU established and mandated, under chairmanship of ==RFD==

·   Regular (2-3 times annually) PCU meetings held, alternately in Bangkok and project area

·   Multi-stakeholder consultation forum convened annually

Output 4.2: The project's knowledge and lessons learned are shared at the national level and with other relevant sites in Thailand and regionally. The project will organize at least six media events; six communication materials; and one social media platform will be developed with at least 10,000 followers. Indicative activities include:

·   Project communications and knowledge management plan developed

·   Project website developed and actively managed

·   Media outreach strategy implemented, including bi-annual press releases

·   Bi-annual exchange events between project beneficiaries and other Thailand forest complexes

·   Bilingual (Thai/English) articles published on website and disseminated through multiple channels

·   Social media (Twitter, LINE) accounts maintained

·   Potential for regional sharing via regional conferences and workshops (e.g. Asia Pacific Forestry Week).

Output 4.3: Monitoring system established and operational to monitor biodiversity and socio-economic indicators beyond the lifetime of the project. The project target is at least two knowledge management and monitoring systems in place. Indicative activities include:

· Assess the strengths and weaknesses of existing baseline information and monitoring methodologies (e.g., national biodiversity database, national forest inventory and national agricultural land-use database)

· Baseline spatial analysis of project area, using Open Foris toolkit; building on existing monitoring systems established in DNP under REDD+; and on the Land Use System Map and Land Degradation Map of Thailand established in the Land Development Department (LDD) under the FAO/GEF-5 global SLM project.

· Baseline socio-economic and environmental surveys conducted

· Sub-national Land Monitoring System (SLMS) platforms established for two complexes in project area, and populated with baseline data

· Training events in SLMS management and operation for RFD, DNP and provincial stakeholders

· Establish an inter-sectoral technical group (linked to Output 1.2) to periodically assess data quality and gaps (e.g., data on values of biodiversity) and identify gap filling actions from multi-sectoral perspectives

· Continuous management and operation of SLMS platforms throughout project duration, including regular incorporation of data

· Report of land use change analysis over project timeframe, and impacts in terms of biodiversity, climate and social indicators calculated and verified, and

· Establish a mechanism for agencies to regularly communicate primary findings and trends with key stakeholders, including policymakers, senior bureaucrats, civil society groups and development partners.

Output 4.4: Plans for scaling and replication of integrated landscape management and habitat connectivity formulated. The project will ensure plans for scaling and replication of integrated landscape management and habitat connectivity are developed. Indicative activities include:

· Annual field visits for senior officials of RFD, DNP and other relevant government institutions organized

· Based on Mid-Term Evaluation and analysis of data from SLMS platforms, recommendations for adaptive management of project approaches developed

· Manual (Thai/English) developed for mainstreaming biodiversity objectives in Thailand productive forest landscapes, produced and endorsed by RFD, DNP leadership

1.a.5.   Alignment with GEF Focal Area

The project supports the GEF biodiversity focal area Objective One: Mainstream biodiversity across sectors as well as landscapes and seascapes. Under this Objective, the project is directly aligned with the programme on "Biodiversity Mainstreaming in Priority Sector". The primary sector that the project targets is forestry sector. In line with the GEF Objective and programme priority, the project will directly contribute to the following GEF activities aimed at advancing the mainstreaming of biodiversity:

•   Spatial and land-use planning to ensure that land and resource use is appropriately situated to maximize production without undermining or degrading biodiversity. Linking the objective of sustaining protected areas and their conservation objectives with targeted investments in spatial and land use planning in the surrounding geographies. This is being done at the forest complex level in at least three forest complexes in Thailand.

•   In line with the GEF programming, the project will also support "Improving and changing production practices (i.e. agriculture and forestry sectors) to be more biodiversity-positive" in government, community and private forestry practices as well as other key land uses within the forest complexes.

•   Furthermore, the project also aims to strengthen policy and regulatory framework under Component 1 to ensure sustainability and replicability of project's approaches and lessons.

The project will pay particular attention to making its activities inclusive and equitable by ensuring full and effective participation of local forest-dependent communities and women and men in all relevant decision-making processes. Components two and three of the project are particularly focused on developing site-specific conservation measures and sustainable use of biodiversity for local benefits by improving the knowledge, awareness and capacity of local women and men, local forest-dependent communities and private forest owners and managers.

1.a.6.   Incremental/additional Cost Reasoning and Expected Contributions to the Baseline

The project will directly build on and support the implementation of Thailand's *Master Plan for Integrated Biodiversity Management 2015-2021* as well as *the 12th National Economic and Social Development Plan 2017-2020 as part of the 20-year strategic plan*. Particularly, this will support RFD's mission and priorities:

I. Increasing national green area cover to 55%, with 15% to occur within economic/production forests
II. Promoting economic forests with valuable species (with reference to revision of article 7 of the Forestry Act), and mainstreaming biodiversity objectives within forest establishment and management
III. Supporting community forest management and land rights and mainstreaming biodiversity objectives into community forest management planning.

As reflected in the co-financing, there is a strong commitment by the Government of Thailand to implement the Master Plan based on the understanding that healthy biodiversity and ecosystems are the basis for Thailand's sustainable development.

Thailand is an upper-middle income country with relatively ample operational and technical capacities to realize its goals under the Master Plan. However, much of the current effort is put towards maintaining and strengthening protected areas, but this leaves many important wildlife corridors across production landscapes outside of protected areas with limited support. In addition, the areas outside protected areas are the most critical areas for addressing poverty reduction efforts. Accordingly, there is an increasingly urgent need to change land use practices to both improve livelihoods and conserve biodiversity and the associated ecosystem services.

Whilst there are several initiatives that focus on wildlife corridors in Thailand, much of this support concentrates on forest complexes along the western border with Myanmar. Without this project, the increasing population pressure and persistent poverty will continue to drive habitat encroachment and fragmentation of the eastern wildlife corridors. This project thus demonstrates strong incrementality to justify a GEF investment.

Without GEF support, globally important biodiversity landscapes in Northeastern and Eastern part of Thailand that border with Cambodia and Lao PDR are likely to be further degraded and lost in absence of common landscape management approach that integrates biodiversity conservation objectives in a mosaic of land uses managed by different government institutions, as well as the private sector and local communities. In addition, the current level of low coordination and low capacities across stakeholder groups will continue- and role of the private sector will continue to be minimal in pro-biodiversity conservation actions. As outlined earlier in the PIF, the project will emplace landscape planning, coordination and multi-stakeholder involvement mechanism to mainstream biodiversity in different types of forests managed by different government agencies, the

private sector, local communities and even households – by ensuring that their actions lead to overall positive contributions to global biodiversity at landscape level. This is expected to serve as a model for all other forest complexes in the country.

1.a.7.   Global Environmental Benefits

The project will generate global environmental benefits for globally significant biodiversity in the project area (i) by reducing threats, such as habitat encroachment and human-wildlife conflict, to globally threatened species, and (ii) by enhancing connectivity areas through the implementation of biodiversity corridors and enhanced forest function.

The project aims to reduce habitat encroachment and fragmentation and improve habitat connectivity for threatened and endangered species including but not limited to the Asian elephant, the Indo-Chinese tiger, Pileated and Lar Gibbon, and the Great Hornbill. Identifying and linking fragmented forest areas within project sites will allow for maintenance and extension of critically important habitats and help conserve threatened species and habitats as well as improve conditions in riparian areas. Threatened and globally endangered species that are likely to benefit from this project include:

Mammals:

- Asian elephant (*Elephas maximus*) EN
- Indo-Chinese tiger (*Panthera tigris*) EN
- Pileated Gibbon (*Hylobates pileatus*) EN
- Lar Gibbon (*Hylobates lar*) EN
- Asiatic black bear (*Ursus thibetanus*) VU
- Leopard (*Panthera pardus*) VU
- Sambar deer (*Rusa unicolor*) VU
- Malayan Sun Bear (*Helarctos malayanus*) VU
- Asian Leopard Cat (*Prionailurus bengalensis*) LC
- Fishing cat (*Prionailurus viverrinus*) VU
- Gaur (*Bos gaurus*) VU

Reptiles:

- Elongated tortoise (*Indotestudo elongata*) CR
- Siamese Crocodile (*Crocodilus siamensis*) CR
- Spiny Terrapin (*Heosemys spinosa*) EN
- Asian box turtle (*Cuora amboinensis*) VU
- Asiatic softshell turtle (*Amyda cartilaginea*) VU
- Malayan snail-eating turtle (*Malayemys subtrijuga*) VU

Fish:

- Giant Mekong Catfish (*Pangasianodon gigas*) CR
- Giant Pangasius (*Panagasius sanitwongsei*) CR
- Jullien's Golden Garp (*Probarbus jullieni*) CR
- Laotian Shad (*Tenualosa thibaudeaui*) VU

Birds:

- Great Hornbill (*Buceros bicornis*) VU
- Pale-capped Pigeon (*Columba punicea*) VU

Plants:

- *Dalbergia cochinchinensis* VU
- *Hopea odorata* VU
- *Afzelia xylocarpa* EN

These global environmental benefits will be realized through the targeted mainstreaming of biodiversity across multiple land uses. Through a focus on areas around and between protected areas, the project will improve the enabling environment and inter-departmental cooperation for biodiversity conservation. It will also build the capacity of community

forest networks, smallholder tree growers and forest managers to better enable them to plan, invest and generate sustainable income, while having positive impacts for biodiversity.

A key aspect of the project will be to provide incentives for local communities to preserve and sustainably manage forest areas in the buffer zone of protected areas, in order to address the drivers of environmental degradation and reduce threats to globally significant biodiversity. By promoting diverse native plant species that provide economic benefits to local communities, including high value tree species, herbs and fruit trees, the project will generate benefits both for globally significant biodiversity as well as local livelihoods. Forest form, function, structure (e.g. seral succession of canopy, soil horizon) and complexity of forests and other land uses in the connectivity areas will be improved.

Overall, the project will increase the area of landscapes (1.365m ha) under improved management to benefit biodiversity and people, seek to increase the area under national or international third-party certification and reduce the area of habitat loss for globally significant biodiversity in the project area.

Whilst mitigation of greenhouse gas emissions is not a targeted activity of the project, there will be global co-benefits generated through the sequestering of and the avoidance of emissions, and soil and water conservation and enhancements from the Agriculture, Forestry and Other Land Use sector as well as on ensuring sustainable land management.

1.a.8.   Innovation, Sustainability and Potential for Scaling Up

Innovativeness: The project is innovative in two important ways. First, the integration of social and economic values of biodiversity into land-use planning and management across production landscapes for enhancing habitat connectivity and local biodiversity benefits outside of protected areas is a relatively new concept in Thailand. Second, the project's approach involves an innovative attempt to mainstream biodiversity across vital sectors, notably forestry and agriculture at the landscape level. This approach relies on the strategic identification of critical corridor locations within the project area based on target habitats and species and the careful matching of biodiversity-friendly production technologies and techniques with specific local and sectoral needs and opportunities to ensure local biodiversity benefits through corridor establishment. The project's efforts to actively involve the private sector in mainstreaming biodiversity with a larger landscape perspective is also expected to be innovative in Thailand's context. Rather than having the conventional one-size-fits-all approach, this project will demonstrate a site-specific and context-driven approach to biodiversity conservation that is novel in Thailand.

Sustainability: The project builds on a strong baseline, and the commitment of the Government of Thailand to realize its *Master Plan for Integrated Biodiversity Management 2015-2021*. The project components, outcomes, outputs and activities support the aims of the Master Plan. The project design draws on the knowledge, lessons and tools developed by other GEF-funded projects with an aim to mainstream biodiversity in local governance and economics of biodiversity into national land-use policy processes. The project builds on current government institutional framework, so is expected to be sustainable on this front.

The central strategy of the project is the promotion of sustainable utilization of biodiversity for the benefit of local governments, local forest-dependent communities, smallholders, cooperatives and SMEs. The project will, therefore, seek to establish effective public-private partnerships to mainstream biodiversity conservation into local livelihoods and economic activities to help ensure sustainability. The focus of the project on involving multiple stakeholders and ensuring incentives for their involvement is also expected to strengthen sustainability of the project.

Scaling-up: The demonstration of this site-specific and context-driven approach to establishing an extended biodiversity corridor across production landscape is expected to generate critical knowledge, lessons and tools to provide a strong baseline for replicating a similar approach in other crucial wildlife corridors in Thailand. The project also presents a significant opportunity to scale up its approach and activities into adjacent wildlife corridors in Cambodia and Lao PDR to establish transboundary partnerships to expand the eastern wildlife corridor over the three countries. One of the main outcomes of this project is to establish the sustainability and capacity of a functional inter-sectoral landscape committee. Institutional capacity developed as a result of the project will be mobilized for scaling up impacts beyond the project area.

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[1] Plant species representing ca. 8% of the global total.

[2] Department of National Parks, Wildlife and Plant Conservation.

[3] FINAL REPORT ECOLOGICAL CORRIDOR STUDY FOR IMPORTANT FOREST COMPLEXES IN THAILAND

 Department of National Parks, Wildlife and Plant Conservation, 2012

[4] See Geo-Informatics and Space Technology Development Agency (GISTDA) statistics https://gfms.gistda.or.th/stat.

[5] Species studied were Asian elephant (*Elephas maximus*), Gaur (*Bos gaurus*), banteng (*Bos javanicus*), samba deer (*Rusa unicolor*), barking deer (*Muntiacus muntjak*), and tiger (*Panthera tigris*) with a focus on elephant and tiger.

[6] The Programme for Endorsement of Forest Certification (PEFC) is an international non-profit organisation dedicated to enabling and promoting sustainable forest management through independent third-party certification. It is the world's largest forest certification system.

[7] In line with Thailand's *12th National Economic and Social Development Plan 2017-2020* as part of the *20-Year National Strategic Plan*, Thailand aims to increase national green area cover to 55%, with 15% to occur within economic/production forests.

[8] An international not-for-profit organization that focuses on capacity building for community forestry in the Asia Pacific region.

[9] http://www.fao.org/capacity-development/resources/practical-tools/capacity-assessment/en/

[10] http://www.fao.org/capacity-development/resources/practical-tools/capacity-assessment/en/

[11] http://www.fao.org/3/a-i3016e.pdf

1b. Project Map and Coordinates

Please provide geo-referenced information and map where the project interventions will take place.

Please note that the sites highlighted in red text are the proposed project landscapes in the map above.

2. Stakeholders
Select the stakeholders that have participated in consultations during the project identification phase:

Indigenous Peoples and Local Communities Yes

Civil Society Organizations Yes

Private Sector Entities Yes

If none of the above,please explain why:

FAO has collaborated with RFD as Project Executing Entity to develop the GEF7 proposal on biodiversity objectives along with WWF, DNP, DWR, PFPC, RECOFTC, and other project partners mentioned above. The working group was formed on 24 May 2018 at RFD to develop the GEF 7 proposal initially based on national policies and priorities on 12th National Economic and Social development of 20 years strategic plan as well as RFD's mission on increasing green area cover, promoting economic forest and plantation and supporting community forest. The working group has conducted nine official meetings from May 2018 – October 2019 to develop consensus regarding proposed project areas

and to collaborate on relevant details for project components. The proposal was revised to integrate OFP's comment and the endorsement letter was issued on 27 September 2019 by OFP to confirm that the project proposal is in accordance with national priorities and commitment to relevant global environmental convention focal points.

In addition, provide indicative information on how stakeholders, including civil society and indigenous peoples, will be engaged in the project preparation, and their respective roles and means of engagement.

The project, in line with FAO's FPIC policy as well as GEF policies, will ensure that indigenous communities are fully engaged and are in agreement with project activities during PPG phase. This will be done through use of participatory approaches at proposed project locations involving men, women and youth. In addition representative leaders (formal and informal) and community based organizations will also be invited to formal meetings and workshops organized at national and local levels.

The Civil Society will also be consulted during project design stages through focused meetings at sites as well as by inviting them to meetings and workshops organized during PPGs at national to local levels. Draft project documents will also be shared with them for their formal inputs and advice prior to finalization.

Key stakeholders and their indicative roles in project are presented below. During the PPG stage, stakeholders will be involved through workshops, semi-structured interviews, and focus group discussions. A formal technical advisory committee may be constituted at the national level to guide the overall project development process, under RFD's leadership. FPIC will be ensured with any indigenous communities present at the project sites.

Stakeholder	Responsibility	Role in the Project
Government		
Royal Forest Department (RFD)	- Conserve, preserve, protect, restore and maintain forests; - Promote forestry work, sustainable logging, NTFPs collection, land use in forest areas, etc.	Project Executing Entity
Department of National Parks, Wildlife and Plant Conservation (DNP)	- Conserve, promote and restore forests in protected areas, and protect wildlife and plants throughout the country.	Implementing partner for Components 1-3, project steering committee member
Department of Agriculture (DoA)	- Conduct studies, research and development in agriculture; - Transfer plant production technology to public and private sectors	Implementing partner for Components 1-3, project steering committee member

Department of Agricultural Extension (DAE)	- Conduct studies and research on agricultural extension and technology transfer.	Implementing partner for Components 1-3, project steering committee member
Department of Fisheries (DoF)	- Conduct studies, research and development in fisheries to manage fisheries resources.	Implementing partner for Components 1-3, project steering committee member
Department of Water Resources (DWR)	- Develop integrated policies, measures, plans, mechanisms and knowledge concerning the management of water resources. - Rehabilitation and conservation of reservoirs.	Implementing partner for Components 1 and 2, project steering committee member
Land Development Department (LDD)	- Develop integrated policies, measures, plans, mechanisms and knowledge concerning sustainable land management and development.	Implementing partner for Components 1 and 2, project steering committee member
Office of Natural Resources and Environmental Policy and Planning (ONEP)	- Develop environmental and natural resources conservation policies and plans; - Monitor and assess environmental impact mitigation measures.	GEF Operational Focal Point
Regional Environmental Offices (REOs)	- Formulate, implement and monitor regional environment quality management plans; - Develop an information system and enhance capacity of local agencies in environmental management.	Implementing partner for Components 1-3, project steering committee member
Provincial Offices for Natural Resources and Environment	- Formulate, implement and monitor provincial environmental management plans; - Undertake tasks according to laws concerning forests, national reserved forests, wildlife protection and preservation.	Implementing partner for Components 1-3
Provincial Agricultural Office	- Support farmers, farmer organizations and community enterprises; - Coordinate production knowledge transfer.	Implementing partner for Components 1-3

Local Governments	- Formulate local development plans, protect, restore, maintain and utilize natural resources and environment at district level; - Undertake environmental monitoring and promote public participation in development and environmental management.	Implementing partner for Components 2 and 3
Biodiversity-Based Economy Development Office (BEDO)	- Collate and analyze data and assess needs for the development of biodiversity-based economy; - Make policy recommendations and propose measures.	Implementing partner for Components 2 and 3, project steering committee member
Local communities and CSOs		
Local forest-dependent communities	- Participate in protection, conservation, restoration and utilization of biodiversity in their areas.	Implementing partner for Components 1-3, project steering committee member as a project beneficiary group
Civil Society Organizations (CSOs)	- Increase local awareness and capacity - Promote local knowledge and participation in conservation and land-use planning and management.	Implementing partner for Components 1 and 3
Academic Institutions	- Conduct studies - Support formation of science-policy interfaces	Implementing partner for Components 1 and 3, particularly as a source of scientific knowledge
Development partners, including World Wide Fund for Nature (WWF), Stockholm Environment Institute (SEI), RECOFTC – The Center for People and Forests, UN agencies, International Development Banks (IDBs) and donors.	- Support government agencies, private entities, CSOs and local forest-dependent communities in meeting international commitments and obligations under global environmental agreements and realizing sustainable development. - Provide technical and financial support	External advisory and direct and parallel co-financing sources (some may be directly involved as project steering committee members)
Private sector		
Community enterprises, local small and medium enterprises (SMEs) and cooperatives	- Local enterprises	Will be engaged under Components 2 and 3 to demonstrate economically viable biodiversity-friendly and sustainable livelihood models.

Private Forest Plantation Cooperative Limited (PFPC)	- Membership body consisting of private cooperatives/associations	Will be engaged under Component 3 to implement sustainable forest management that incorporates biodiversity standards and principles.

3. Gender Equality and Women's Empowerment

Briefly include below any gender dimensions relevant to the project, and any plans to address gender in project design (e.g. gender analysis).

Since 1997, women's rights and gender equality have been enshrined as a core principle in the Constitution of the Kingdom of Thailand. One of the key national mechanisms for the promotion of gender equality and the empowerment of women in Thailand is the Department of Women's Affairs and Family Development under the Ministry of Social Development and Human Security. Despite significant progress made over the last few decades, gender inequality still manifests in violence against women, trafficking, stereotype attitudes on employment and roles between women and men, as well as unequal participation in social and economic development. Furthermore, women are still underrepresented in politics and decision-making, including in decision-making on protected area management.

As highlighted in a policy brief by FAO and RECOFTC (2015), men and women in Thailand have distinct roles, skills and knowledge in relation to forestry. Women generally focus more on protecting traditional knowledge, forest rituals and keeping records of customary laws on forest protection and conservation. Over 60% of forest-dependent women gather non-wood forest products for subsistence and sale. Men, on the other hand, generally enforce written agreements and laws that pertain to logging and forest patrolling, and tend to dominate decision-making processes concerning the management of forests and forest resources.

Community forestry and participatory forest management represent opportunities to secure greater benefits for women and other vulnerable groups. However, for these opportunities to be realized, it is important to enhance the awareness and capacity of local officials and other stakeholders on gender-responsive planning and decision-making.

A detailed gender assessment will be undertaken during the PPG to identify the different roles of women and men in sustainable livelihoods, access and sustainable benefit sharing and biodiversity conservation in the target area. A gender action plan will be developed to ensure that opportunities for women empowerment are realized and that the project generates socio-economic benefits for both women and men. Special consultations will be held with women's

groups and organizations supporting gender empowerment in the proposed project sites to ensure that the full proposal has strong gender transformative approach. The project will ensure gender equity and women's empowerment through integrated forest landscape management and demonstration of biodiversity-friendly and sustainable production technologies and techniques.

Given the cross-sectoral nature of this project, gender-responsive activities will be integrated across multiple land use types and related activities through the application of social safeguards, stakeholder engagement, institutional arrangements and capacity building. The project will aim at achieving the following gender-specific targets:

- Meaningful engagement of women and men in all decision making and other relevant activities;
- Women represent at least 50% of any decision-making body, committee, consultation or workshop;
- Participation of the Department of Women's Affairs and Family Development under the Ministry of Social Development and Human Security in the project's technical advisory committee;
- Active involvement of local CSOs promoting gender and women's empowerment in project implementation;
- Provision of adequate technical and financial to support the integration of gender and women's empowerment considerations in all relevant outputs of the project; and
- Gender-responsive design, collection, monitoring and reporting of biodiversity and socioeconomic data.
- The project will ensure gender assessments in the proposed landscapes during PPG to inform gender sensitive project development and implementation.

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[1] The Government of Thailand's National Review (2014). Implementation of the Beijing Declaration and Platform for Action (1995) and the outcomes of the twenty-third special session of the General Assembly (2000).
[2] FAO, RECOFTC (2015). Understanding women's participation in forestry in Thailand. Policy brief.

Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment? Yes

closing gender gaps in access to and control over natural resources; Yes

improving women's participation and decision-making; and/or Yes

generating socio-economic benefits or services for women. Yes

Will the project's results framework or logical framework include gender-sensitive indicators?

Yes

4. Private sector engagement

Will there be private sector engagement in the project?

Yes

Please briefly explain the rationale behind your answer.

The project will support small and medium-sized enterprises (SMEs) that are involved in forest management on private and public land.

The project recognizes that efforts to incentivize greater diversification and sustainable production within the private sector to create more jobs and local economic opportunities and expand the tax base of local governments are essential in ensuring the sustainability of the project's results beyond its life. To this end, the project will engage with private sector stakeholders from sectors that can contribute to the project outcomes including, agriculture, forestry, fisheries and tourism with a view to establishing public-private partnerships that demonstrate economically viable biodiversity-friendly and sustainable livelihood models.

The project will seek to partner with private-sector actors who have a vested interest in supporting local SMEs and conservation outcomes through investment and sustainable market development and integration.

5. Risks

Indicate risks, including climate change, potential social and environmental risks that might prevent the Project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the Project design (table format acceptable)

Risk	Risk Level	Approach to Risk Mitigation

Weak coordination and cooperation between national government agencies and between national and local government agencies and other stakeholders.	Moderate	Relevant central and subnational agencies, CSOs, local forest-dependent communities, the private sector and research community will participate in the oversight of the project through an inter-sectoral committee under Outcome 1 to ensure the necessary horizontal and vertical coordination and cooperation.
A lack of horizontal coordination across agencies to hinder data sharing, coordination and harmonization efforts.	Moderate	Under the inter-sectoral committee, an inter-sectoral technical group under Outcome 1 will periodically assess data quality and gaps and identify gap filling actions from multi-sectoral perspectives. This group will ensure different sectoral interests and needs are met through data sharing, coordination and harmonization.
Resistance towards biodiversity conservation in areas outside of protected areas.	Moderate	Under Component Three, local livelihoods are improved through increased awareness and capacity to sustainably utilize local biodiversity benefits for improving livelihoods. This will create an enabling local environment for biodiversity conservation.
Limited impact from the sustainable utilization of biodiversity benefits to incentivize behavior change at the local level	Moderate	Specific local needs and opportunities are assessed under Output 3.1. Conservation approaches and production technologies and techniques will be carefully matched with the specific local needs and opportunities to ensure highly targeted and sustainable impacts.
Climate variability and consequent changes in environmental and social pressures in the project area	Moderate	A detailed climate risk screening will be undertaken at early PPG stage and mitigation measures will be built into the project design in consultation with stakeholders. Generally, the project is anticipated to enhance the resilience of biodiversity and livelihoods to the adverse impacts of climate change. Incorporation of climate-related information into complex level planning has been included in the project to ensure resilience of forests in globally important forest complexes.

The project has been screened against environmental and social risks and has been rated 'moderate risk' in line with FAO's Environmental and Social Safeguards (see certification in annex). The risks will be further analysed at PPG stage, and the Agency will make sure that any potential adverse environmental and social impacts will be duly identified and mitigation measures included in the CEO Endorsement package. Also, although self-identifying indigenous peoples in Thailand are mostly located in the Western and Northern parts of the country, a more detailed analysis and consultations by a social safeguards expert will be conducted during PPG, and the project will ensure that free, prior and informed consent (FPIC) is applied for any indigenous communities in the target area.

6. Coordination

Outline the institutional structure of the project including monitoring and evaluation coordination at the project level. Describe possible coordination with other relevant GEF-financed projects and other initiatives.

FAO will be the GEF Implementing Agency for this project. The Royal Forest Department (RFD) under the Ministry of Natural Resources and Environment (MoNRE) will be the Lead Executing Agency. RFD will be responsible for the overall coordination and execution of the project, including monitoring and evaluation. Other stakeholders will be involved in the project implementation as described in Section 2. Stakeholders.

The project will establish a project steering committee, which will include project beneficiaries such as local forest-dependent communities, to ensure its overall effectiveness through regular monitoring and evaluation of implementation progress.

The project will coordinate with other relevant GEF projects. The UNDP/GEF-5 project 'Sustainable Management Models for Local Government Organizations to Enhance Biodiversity Protection and Utilization in Selected Eco-regions of Thailand' (implemented in Samut Prakarn and Samut Songkhram Provinces) provides essential lessons for ensuring enabling conditions for biodiversity-friendly land-use planning and management through local governance practices.

The project will liaise with the UNEP/GEF project 'Integration of Natural Capital Accounting in Public and Private Sector Policy and Decision-Making for Sustainable Landscapes'. With its aim to alleviate threats to biodiversity and ecosystem services in critical production landscapes in Thailand by integrating values of forests and other Natural Capital into policies and operations of key economic sectors, the proposed project will draw on the knowledge and tools developed by this UNEP/GEF project to devise highly targeted approaches for integrating the economics of biodiversity into land-use planning and management and local sectoral activities.

Another UNDP/GEF project 'Strengthening Capacity and Incentives for Wildlife Conservation in the Western Forest Complex' together with the WWF's 'Dawna-Tenasserim Landscape (DTL) Integrity Project' will provide an opportunity for knowledge sharing and cross-regional learning on wildlife corridor management and local stakeholder engagement to develop a comprehensive body of knowledge on integrated forest landscape management for enhancing habitat connectivity in Thailand.

The project will also draw previous experience and information from the recent project with RFD and IUCN (January, 2019) on ASEAN's leadership in forest landscape restoration.

The proposed integrated landscape management will build upon the existing framework of RFD policies on increasing forest cover, the promotion of economic forest, and support to community forestry.

The project will emphasize technical support and capacity development to implement these policies through key stakeholders.

RECOFTC, as an implementing agencies partner, has developed the 'Citizen's Forest network' covering 38 provinces in Thailand of which 8-9 provinces are in the targeted area. The land-use planning and policy change will be discussed with the network to continue the ongoing work of the Community Forest management plan, networking development, forest governance, the capacity development for the CF leaders on the CF Act, and participation in the subsidiary law preparation.

Regarding involvement of smallholder forest owners and managers in the targeted areas, capacity development and knowledge management of best practices will be provided to the existing and new network of PFPC members, including the Tree-bank network, to upscale and diversify their forests and to incorporate biodiversity standards and principles. FAO has been working with the two long-term partners, through Letters of Agreement funded by FAO-EU FLEGT programme, including the PFPC on improving supply chain control through IT development and RECOFTC on enhancing the community forest network and on developing a Timber Legal Assurance System (TLAS).

The project will also coordinate with interventions by the Department of Water Resources (DWR). For instance, in 2019, DWR improved water resources for wild elephants in Khao Ang Rui Nai.

7. Consistency with National Priorities

Is the Project consistent with the National Strategies and plans or reports and assesments under relevant conventions

Yes

If yes, which ones and how: NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc

This project is in line with Thailand's *20-year National Strategic Plan (2017-2036)* – 'Security, prosperity, sustainability' through 'resilience enhancement' and 'environment-friendly development'. With the primary focus on supporting the implementation of Thailand's *Master Plan for Integrated Biodiversity Management 2015-2021*(i.e., NBSAP), the above-described project outcomes, outputs and activities directly contribute to the following strategies and measures under the Master Plan:

 Strategy 1: Integrate biodiversity values and management with participation at all levels.

Measure 1: Raise awareness and knowledge on the importance of biodiversity.

Measure 3: Promote participation of communities and other sectors in conservation, restoration, and sustainable utilization of biodiversity.

 Strategy 2: Conserve and restore biodiversity Measure.

Measure 2: Conserve, restore, and protect biodiversity at provincial, local and community levels.

Measure 3: Reduce threats to biodiversity and habitats.

 Strategy 3: Protect the country's rights and enable management to enhance and share benefits from biodiversity in line with green economy.

Measure 2: Promote sustainable utilization of biodiversity.

 Strategy 4: Develop biodiversity knowledge and database systems to be consistent with internationally recognized standards.

Measure 1: Promote and develop biodiversity knowledge management.

 The project is congruent with the National Forest Resources Protection Master Plan by supporting sustainable forest management and practices and critical forest ecosystem connectivity.

 The project will contribute to the development of practical implementation plans for the 12th National Economic and Social Development Plan (NESDB) by establishing and demonstrating collaborative management for improved protection, maintenance and use of forest natural resources and will also contribute towards the national target of 40% forest cover.

Relatedly, the project will support the implementation of Thailand's NDC in promoting ecosystem-based approaches to climate change adaptation. Thailand's prioritized adaptation efforts indicated in the NDC include (among others): (i) Increase national forest cover to 40% through local community participation, including in particular headwater and mangrove forests to enhance adaptive capacities of related ecosystem; and (ii) Safeguard biodiversity and restore ecological integrity in protected areas and important landscapes from the adverse impacts of climate change, with the emphasis on vulnerable ecosystems and red list species.

The project is in line with the 10th policy (10.1, 10.2 and 10.3) of the 12 national strategy policies related to natural resources restoration and environmental protection for sustainable growth.

The project's expected outcomes directly address many other global environmental priorities, such as SDG targets 2.4, 5.a, 15.2 and 15.5 and Aichi Targets as described earlier.

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.

Enhancing understanding of related forest laws and providing clear information and usage on disputed land will benefit the livelihoods of local forest-dependent communities and the viability of businesses for smallholder forest owners and managers by providing clear commercial incentives for biodiversity conservation.

Regarding improving livelihoods of local forest-dependent communities, the project will consult with the FAO-EU FLEGT programme to build upon the lessons learnt from past projects on promoting the legal timber trade and improving forest governance.

The REDD+ team will provide geospatial mapping in the targeted area including Remote Sensing and GIS on Forest Reference Level and Mapping Elephant Distribution to analyze possible forest corridors and to enhance connectivity of the fragmented areas. At the national policy level, FAO will provide support to government and stakeholders to make use of the Voluntary Guidelines on the Responsible Governance of Tenure (VGGT) to address tenure issues as clear tenure rights can provide an incentive for sustainable management and conservation of forests.

A general knowledge management strategy for the project will be developed during the PPG stage. The strategy will have a specific emphasis on the following:

· Production and dissemination of knowledge through the project activities in a coordinated manner across relevant sectors to inform policy processes concerning land-use planning and management around protected areas to ensure habitat connectivity and sustainable rural development;

· Development and dissemination of communication, awareness-raising and training materials and tools to target audiences (e.g., policymakers, local governments, local forest-dependent communities, farmers, cooperatives, SMEs and tourists) in a context-specific and targeted manner; and

· Use of existing knowledge and knowledge management platforms in the country and internationally through FAO, GEF, CBD and others to ensure the project activities build on the existing knowledge and best practices and new knowledge generated by the project are shared widely and effectively within the country and internationally.

· The project's knowledge products and lessons will also be shared though RFD and MONRE's websites and communication channels as well as through Thailand's Clearing House Mechanism (CHM) under the CBD (under ONEP).

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· The project's knowledge products and lessons will also be shared though RFD and MONRE's websites and communication channels as well as through Thailand's CHM.

5b. Environmental and Social Safeguard (ESS) Risks

Provide preliminary information on the identified environmental and social risks and potential impacts associated with the project/program based on your organization's ESS systems and procedures

Overall Project/Program Risk Classification*

PIF	CEO Endorsement/Approval	MTR	TE

Types and Level of identified or anticipated risks (Select all applicable)

Risk	PIF	CEO Endorsement/Approval	MTR	TE
- (MS1) Climate Change and Disaster				
- (MS1) Disadvantaged or Vulnerable Individuals or Groups				
- (MS1) Disability Inclusion				
- (MS1) Adverse Gender-related Impact				
- (MS3) Biodiversity Conservation and the Sustainable Management of Living Natural Resources				
- (MS4) Restrictions on Land Use and Involuntary Resettlement				
- (MS5) Indigenous Peoples				
- (MS6) Cultural Heritage				

Risk	PIF	CEO Endorsement/Approval	MTR	TE

- (MS7) Resource Efficiency and Pollution Prevention

- (MS8) Labor and Working Conditions

- (MS9) Community Health Safety and Security

Measures to address identified risks and impacts
Provide informationi on any preliminary measures to address identified risks and impacts during project/program design

Supporting Documents
Upload any supporting documents, such as ESS screening reports, assessment reports, management plans (or equivalent).

For "High" or "Substantial" risk project, management plan must be submitted

Title	Submitted

Part III: Approval/Endorsement By GEF Operational Focal Point(S) And Gef Agency(ies)

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S): (Please attach the Operational Focal Point endorsement letter with this template).

Name	Position	Ministry	Date
Dr. Wijarn Simachaya	Permanent Secretary and GEF OFP	Ministry of Natural Resources and Environment	9/27/2019

ANNEX A: Project Map and Geographic Coordinates

Please provide geo-referenced information and map where the project intervention takes place