



# PROJECT IDENTIFICATION FORM (PIF)<sup>1</sup>

PROJECT TYPE: Full-sized Project

TYPE OF TRUST FUND: GEF Trust Fund

## PART I: PROJECT IDENTIFICATION

Project Title:	Strengthening Capacity and Incentives for Wildlife Conservation in the Western Forest Complex		
Country(ies):	Thailand	GEF Project ID: <sup>2</sup>	
GEF Agency(ies):	WB (select) (select)	GEF Agency Project ID:	P126225
Other Executing Partner(s):	Department of National Parks	Submission Date:	March 2012
GEF Focal Area (s):	Multi-focal Areas	Project Duration (Months)	60
Name of parent program (if applicable):	For inclusion into GMS Forest and Biodiversity Program	Agency Fee (\$):	660550
➤ For SFM/REDD+ <input checked="" type="checkbox"/>			

### A. FOCAL AREA STRATEGY FRAMEWORK<sup>3</sup>:

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Co-financing (\$)
(select) BD-1	1.1. Improved management effectiveness of existing and new protected areas	1.1. New protected areas (number) and coverage (hectares) of unprotected ecosystems 1.2. New protected areas (number) and coverage (hectares) of unprotected threatened species (number)	GEFTF	3295762	14980641
(select) BD-1	1.2 Increased revenue for protected area systems to meet total expenditures required for management	1.3. Sustainable financing plans (number).	GEFTF	199214	2000000
CCM-5 (select)	5.1 Good management practices in LULUCF adopted both within the forest land and in the wider landscape	5.1 Carbon stock monitoring systems established 5.2 Forests and non-forest lands under good management practices	GEFTF	1747488	4128000
(select) SFM/REDD-2	2.1: Enhanced institutional capacity to account for GHG emission reduction and increase in carbon stocks.	2.2 National forest carbon monitoring systems in place (number).	GEFTF	249017	4500000
(select) SFM/REDD-2	2.2: New revenue for SFM created through engaging in the carbon market.	2.3 Innovative financing mechanisms established (number). 2.4 Carbon credits generated (number)	GEFTF	1498471	2297059
(select) (select)			(select)		
(select) (select)			(select)		
(select) (select)			(select)		
(select) (select)			(select)		
(select) (select)			(select)		

<sup>1</sup> It is very important to consult the PIF preparation guidelines when completing this template.

<sup>2</sup> Project ID number will be assigned by GEFSEC.

<sup>3</sup> Refer to the reference attached on the [Focal Area Results Framework](#) when filling up the table in item A.

(select)	(select)	Others		(select)		
Sub-Total					6989952	27905700
Project Management Cost <sup>4</sup>				GEFTF	<b>349498</b>	1467400
<b>Total Project Cost</b>					7339450	29373100

## B. PROJECT FRAMEWORK

<b>Project Objective: to improve management effectiveness and sustainable financing for HKK-TY WHS and incentivise local community stewardship.</b>						
<b>Project Component</b>	<b>Grant Type</b>	<b>Expected Outcomes</b>	<b>Expected Outputs</b>	<b>Trust Fund</b>	<b>Indicative Grant Amount (\$)</b>	<b>Indicative Cofinancing (\$)</b>
1. Strengthening On-ground Conservation Actions and Wildlife Protection  (from GEF BD-1: 3,108,772, CCM-5: 558,772, SFM/REDD-2: 850,000)	Inv	1.1. Develop best practice for management of wildlife sanctuary, including patrolling, monitoring and information management, such that there is comprehensive protection of the WHS (622,000 ha) 1.2 Institutional and technical capacity strengthening 1.3 Tiger and prey populations stabilized or increased 1.4 Monitoring data used in adaptive management	1.1 Infrastructure, equipment and training procured for SMART Patrolling 1.2 Vehicles and equipment purchased and training undertaken for three Wildlife Crime Units and volunteers, to reduce illegal wildlife trade around the WHS 1.3 Comprehensive tiger and prey monitoring in HKK extended into TY-E and TY-W Sanctuaries 1.4 Regional Tiger Conservation and Research Centre established, and training/lesson sharing conducted with other Thai TCLs and Tiger Range Countries 1.5 Needs Assessment conducted on staff structure and benefits to staff in biodiversity conservation in Thailand	GEFTF	4489952	21620700
2. Developing and Promoting Incentives and Sustainable Financing for Wildlife Conservation and Forest Protection  (from GEF BD-1: 200,000, CCM-5: 995,614, SFM/REDD-2: 804,386)	Inv	2.1 Wildlife-based ecotourism products designed 2.2. Incentives and other benefits to community are directly linked to wildlife recovery and forest protection 2.3 Incentives to the community and improved fire management systems yields decreased forest loss/degradation 2.4 Incentives to the community yields	2.1 Three to four wildlife-based ecotourism products developed and in pilot/operational stage 2.2 Performance based incentives (agricultural support, alternative livelihoods, direct payments to village funds) provided to local villages, linking incentives directly to increased forest protection and wildlife numbers 2.3 Analysis of REDD+ and Wildlife Premium potential for a wildlife reserve is completed and forest and	GEFTF	2000000	4800000

<sup>4</sup> GEF will finance management cost that is solely linked to GEF financing of the project.

		stabilization or increase of tiger and prey populations	wildlife protection and monitoring is conducted 2.4 Sustainable financing plan based on ecotourism and REDD pilots developed 2.5 Fire management system in place in all three wildlife sanctuaries 2.6 Carbon monitoring system in place for CCM/SFM pilot site (likely Thung Yai East)			
3. Capacity building and Knowledge Sharing  (from GEF BD-1: 200,000, CCM-5: 200,000, SFM/REDD-2: 100,000)	Inv	3.1 Knowledge and experience of REDD linked to wildlife conservation pilot and related activities, and best practice protected area management, show-cased and disseminated 3.2 Public awareness at and around WHS site	3.1 Dissemination of best practice methods, and of REDD models to other protected area managers and staff in Thailand and regionally 3.2 Awareness raising products, such as stickers, posters, events, school outreach, Greening the Villages CCM campaign, wildlife compliance certification for restaurants, improved WHS website	GEFTF	500000	1485000
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
			Sub-Total		6989952	27905700
			Project Management Cost <sup>5</sup>	(select)	349498	1467400
			<b>Total Project Costs</b>		<b>7339450</b>	<b>29373100</b>

**C. INDICATIVE CO-FINANCING FOR THE PROJECT BY SOURCE AND BY NAME IF AVAILABLE, (\$)**

Sources of Cofinancing	Name of Cofinancier	Type of Cofinancing	Amount (\$)
GEF Agency	Forest Carbon Partnership Facility	Grant	3,600,000
CSO	WCS	In-kind	500,000
National Government	Government of Thailand	In-kind	24,273,100
Foundation	Seub Nakasathien Foundation	Grant	1,000,000
(select)		(select)	
(select)		(select)	
(select)		(select)	
(select)		(select)	
(select)		(select)	
(select)		(select)	
<b>Total Cofinancing</b>			<b>29,373,100</b>

**D. GEF/LDCF/SCCF RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY<sup>1</sup>**

<sup>5</sup> Same as footnote #3.

<b>GEF Agency</b>	<b>Type of Trust Fund</b>	<b>Focal Area</b>	<b>Country Name/Global</b>	<b>Grant Amount (a)</b>	<b>Agency Fee (b)<sup>2</sup></b>	<b>Total c=a+b</b>
WB	GEF TF	Biodiversity	Thailand	3669725	330275	4000000
WB	GEF TF	Climate Change	Thailand	1834862	165138	2000000
WB	GEF TF	Multi-focal Areas	Thailand	1834863	165137	2000000
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
<b>Total Grant Resources</b>				7339450	660550	8000000

<sup>1</sup> In case of a single focal area, single country, single GEF Agency project, and single trust fund project, no need to provide information for this table

<sup>2</sup> Please indicate fees related to this project.

## **PART II: PROJECT JUSTIFICATION**

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

#### **A.1.1 the GEF focal area/LDCF/SCCF strategies:**

The proposed project will support on-ground conservation actions in wildlife protection, and promoting incentives to reduce pressures on forest cover and wildlife populations. The project is in accordance with the GEF focal area objectives in biodiversity and climate change mitigation.

The project is aligned with **Biodiversity Objective 1** (BD1), to (i) improve management of existing protected areas and to (ii) increase revenue for protected areas. The project will ensure effective management of one of Thailand's key biodiversity areas, the Huai Kha Khaeng-Thung Yai World Heritage Site (HKK-TY WHS), comprised of three contiguous nature reserves (Thung Yai West, Thung Yai East and Huai Kha Khaeng), making up an area of 622,200 ha in the Western Forest Complex (see Annex 1 for map). This will result in best practice management of critical wildlife and their habitats, including Indochinese Tiger and prey, at this key tiger source site of south-east Asia. The project aims to increase revenue for the site, by piloting a REDD plus Wildlife Premium Pilot, and wildlife-based ecotourism, such that incentives protect both forest carbon stock and key wildlife species, and sustainable revenue is generated.

Through improvements in the capacity of protected area management and incentives to the community through ecotourism and REDD+ benefit sharing, the project will improve the effectiveness of wildlife protection. The project will strengthen anti-poaching and wildlife trade efforts through scaling up SMART patrol methodology across the whole World Heritage site, replication of Wildlife Crime Units and associated volunteers to all four involved provinces, and registering and tracking captive tigers nationally to prevent their entry into trade.

The project is consistent with the **Climate Change Mitigation Objective 5**, to avoid GHG emissions and sequester carbon. The project will address existing emissions within the World Heritage Site from shifting/rotational cultivation (cutting forest and using fire to clear for agriculture), wildfire (fire management is currently reactive, using back burns) and seasonal fire in bamboo forests to encourage regrowth. The project will contribute to CCM objectives by both directly reducing GHG emissions by reducing this forest burning from villages and wildfire, and by enhanced forest protection to increase carbon sequestered. Activities proposed for CCM funding include financial incentives, alternative livelihoods, awareness raising and agricultural support towards a reduction in villager reliance on forest clearance and fire, and to incentivise community-based forest protection; and improved fire management systems (such as fire breaks) in the Wildlife Sanctuaries to reduce the impact of wildlifes and reactive back burning, which may be causing a shrinkage of the forest and expansion of grassland. The project will also develop localized capacity to do carbon monitoring, and will coordinate with FCPF regarding national carbon monitoring.

The project meets the **Sustainable Forest Management/REDD Objective 2**, which seeks to reduce pressures on forest resources and generate sustainable flows of forest

ecosystem services. A pilot on REDD+ linked to wildlife conservation will be developed. In the World Heritage Site, the forest is dense, high canopy cover tropical forest, which is ideal for REDD projects, as it is high in carbon density. Initial study suggests that the Thung Yai East Wildlife Sanctuary, which is an area of 157,066 ha within the WHS, may be viable for REDD+ projects under the SFM funding. Very initial analysis suggests that there has been some forest loss/degradation in Thung Yai East Wildlife Sanctuary. Land use changes in this period show decreasing area of mixed deciduous forest, secondary grow forest and dry evergreen forest in TY-E while other areas (e.g. agricultural and grassland) have been increasing. Initial analysis suggests that the cause of forest loss/degradation at this site is from: (a) conversion for agriculture, often using rotational/shifting cultivation, and mainly related to the seven villages within the WS; (b) low burns every dry season in the bamboo forest to encourage shoot regrowth; and (c) wildlifes every dry/hot season (March/April). Linking with the CCM objective and activities, under the SFM/REDD funding, this project will: (a) conduct a study to confirm this initial analysis, generate a carbon baseline, determine drivers of emissions; (b) implement mitigation activities, as noted under CCM, such as alternative livelihoods and agricultural support to villages to incentivise forest protection and reduce forest loss/degradation; and (c) monitor project effectiveness. Linking to BD-1, SFM/REDD funding will contribute to scaling up SMART patrols to enforce regulations on forest protection. Wildlife population recovery (monitored by yearly camera trapping and prey density transect lines), and community benefits, will be verified through standards, either through the existing Community and Climate Biodiversity Standards (CCBS), or the Wildlife Standards that will be developed by the World Bank. As well as potentially generating revenue from carbon credits (if feasible), a Wildlife Premium could provide additional revenue if wildlife recovery targets are met. This revenue can be used for monitoring, law enforcement, and management of wildlife and community incentives to reduce threats to wildlife. The REDD and Wildlife Premium revenues allows contribution towards long-term sustainable financing for managing a protected area, though it will not cover all costs. This will be the first pilot of a REDD+ linked to wildlife conservation in Thailand, and one of the first in Asia.

**A.1.2. For projects funded from LDCF/SCCF: the LDCF/SCCF eligibility criteria and priorities:**

**A.2. national strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NAPAS, NAPs, NBSAPs, national communications, TNAs, NIPs, PRSPs, NPFE, etc.:**

The project will contribute to international and national strategies and conventions for strengthening nature conservation, improving wildlife monitoring and protection, and climate change mitigation and adaptation. Thailand is a signatory to the Convention on Biological Diversity (CBD), the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), Convention Concerning the Protection of World Cultural and Natural Heritage, ASEAN Agreement on Conservation of Nature and Natural Resources, Framework Convention on Climate Change (UNFCCC). The project is consistent with Thailand's GEF strategy of providing support to the implementation of the 10th National Economic and Social Development Plan (NESDP2007-2011), which includes focus on holistic development within the framework of sustainable development, including sustainable natural resources and environmental management. The project is in line with the direction of the upcoming NESDP

2012-2017, which aims to ‘create socio- economic security through strengthening production of goods and services based on knowledge, creativity and environmental friendliness, improving social protection for better coverage, and ensuring food and energy security.’ The Plan’s Development Strategy 6, in particular, gives emphasis to managing natural resources and environment towards sustainability. The project is in full conformity with Thailand’s National Policy, Strategies and Action Plan on the Conservation and Sustainable Use of Biodiversity (NBSAP 2008-2012), especially with Strategy 2: Encouraging the Sustainable Use of Biodiversity, including the action plan on sustainable use of biodiversity. The project assists Thailand to action national plans, such as Thailand’s third NBSAP, which focuses on protecting ecosystem species and reducing the impacts of climate change. The GEF project is fully consistent with Thailand’s Second National Communication to FCCC, which states that increasing carbon sinks from forest areas is one of the priority mitigation activities. Thailand is a partner to the Global Tiger Recovery Plan. On November 16, 2010, the cabinet approved the Tiger Action Plan (TAP) , Global Tiger Recovery Plan (GTRP), and National Tiger Recovery Plan (NTRP). This cabinet resolution provided full support to implement the Tiger Action Plan, which included the establishment and running the Regional Tiger Conservation and Research Center at Huai Kha Khaeng Wildlife Sanctuary. On January 4, 2011, the cabinet acknowledged the St. Petersburg Declaration and the report of the International Forum on Tiger Conservation (Tiger Summit), which was held on November 21-24, 2010, in St. Petersburg, Russia Federal. This cabinet resolution also provided full support to implement the St. Petersburg Declaration. This project will support implementation of Thailand’s National Tiger Recovery Program (NTRP), which reflects the goals of the Global Tiger Recovery Program (GTRP). The long-term goals of this effort are to enhance capacity for monitoring and enforcement, and to scale up well established systems for safeguarding and recovering wild tigers in existing and potential tiger landscapes in Thailand and neighboring countries. The project also supports aims of the Tiger Action Plan from 2004. This project will allow Thailand to play a larger global role in tiger conservation, by addressing constraints of limited government budget and technical support. The project will directly support and closely contribute to National Activities in the GTRP Implementation Priorities 2011 including: i) establish and run the Regional Tiger Conservation and Research Center at Huai Kha Khaeng Wildlife Sanctuary; ii) Develop a full-size project proposal for funding from the donor; and iii) Develop full REDD+ funding strategy for the Dawna Tenasserim landscape. The REDD+ pilot also links into the Thailand national Forest Carbon Partnership Facility (FCPF) process, providing the first such pilot for Thailand. The two projects (FCPF and Pilot) will work in parallel to develop strategies for methodologies and mechanisms for benefit sharing. The project aligns to Thailand’s GEF National Portfolio Formulation Document (MoNRE 2011). On climate change, Thailand gives high priority to carbon sink enhancement and synergy among climate change, biodiversity and land degradation. On biodiversity, Thailand gives high priority to balancing conservation and sustainable utilization of biodiversity, rehabilitation of biodiversity and genetic resources and enhancement of capacity to implement the obligations to the Convention and Protocols (MoNRE, 2011). The project proposed in this PIF is noted as project 10 in Table 1, Proposed Projects, of the Thailand NFPD (MoNRE, 2011).

## **B. PROJECT OVERVIEW:**

### **B.1. Describe the baseline project and the problem that it seeks to address:**

Asia’s forest landscapes are home to some of the most important wildlife species in the world. Large mammals, such as tigers and elephants, depend for their survival on the existence of large, biologically rich, and undisturbed forest habitats. However, recent and growing pressures of economic development, including degradation and fragmentation of natural habitats, depletion of prey animals, and poaching, have pushed endangered wildlife and their habitats to the brink of extinction.

In Thailand, and for south-east Asia, the key tiger conservation site is the Huai Kha Khaeng-Thung Yai World Heritage Site. This site consists of three contiguous Wildlife Sanctuaries (the highest legal protection status for forests in Thailand) and is estimated to hold around 100 tiger individuals (based on 2010 data, p 55 of Thailand-Tiger Action Plan, TTAP). The baseline tiger numbers at the site is around 60 tigers in HKK WS and 40 in TY E&W WS, at an estimated density of 2.5 tigers/100 km<sup>2</sup> in Huai Kha Khaeng WS, 0.7 tiger/100 km<sup>2</sup> in Thung Yai East WS, and 1 tiger/100 km<sup>2</sup> in Thung Yai West WS (based on 2010 data, p 55 of TTAP). If threats to tigers and prey were completely eliminated from this site, the potential would be for up to 10 tigers/100 km<sup>2</sup>. The Government of Thailand aims to increase the tiger population by 50% by 2022 (TTAP 2010-2022). Given the large range of tigers, and their consumption need of at least one large prey per week, tigers are an umbrella species, such that increasing the tiger population will have flow on benefits of protection of other species. Other IUCN Red Listed species at the HKK-TY WHS that will benefit from increased protection include Asian Elephant (Endangered), Banteng (Endangered), otter species (Vulnerable), Tapir (Endangered), Green Peafowl (Endangered), Rufous Necked Hornbill (Vulnerable).

The current baseline scenario is one of a moderate to high level of threats to species and habitat in the WHS, and strong protection measure by Government of Thailand in partnership with WCS Thailand in Huay Kha Khaeng, but not in Thung Yai East or Thung Yai West. The current threat to tigers at the site is a lack of prey base, and the driver of loss of prey abundance is illegal poaching and sale of prey for the wild meat and also trophy market. The number one perceived threat to wildlife at the site is poaching, mainly by the 33 villages outside the HKK WS buffer zone, and the 14 villages inside TY E&W WS, and by outsiders from across the national border. Ungulates (key prey for tigers) and primates are particularly targeted (WCS Thailand, 2005). Other key threats are habitat loss to farmland in TY E&W WS and in the Huai Kha Khaeng buffer zone, NTFP collection (especially mushrooms) in all three WS; and livestock roaming in the sanctuaries. Wildlife poaching is not taken as a serious crime by police and judiciary in the provinces. Nationally, there is concern that captive tiger facilities may be implicated in tiger trade, and the current national captive tiger database is limited to identifying tigers only by stripes, which does not provide as water tight evidence as DNA identifiers.

The current baseline with regards to climate change mitigation objectives is distinct in each of the three Wildlife Sanctuaries. There has been minimal levels of forest loss/degradation inside Huay Kha Khaeng, while there has been extensive forest loss and impacts from fire in the area immediately outside the WS boundary in the buffer zone where 33 villages are located in a 15km radius from the WS edge. Initial analysis also showed that Thung Yai West WS has minimal internal forest loss/degradation. However, Thung Yai East WS is characterized by shifting cultivation (including cut and burn of forest and fallow) in the middle of the WS where 7 villages are located. Additionally, Thung Yai East is being impacted by current anthropogenic fire regimes. In the village area, there is seasonal burning of bamboo forests to encourage bamboo shoot growth. It is not known whether the carbon emissions from this yearly burning is significant, or whether this is affecting the fire-sensitive forest surrounding bamboo forest. In the north-east of the WS, wildfire is entering the WS forest every year. These wildfires originate from extensive shifting cultivation which creates out-of-control wildfires from another area, adjacent and north of the TYE WS. Initial analysis suggests this may be favoring the existing natural grassland at the expense of the forest ecosystem. Currently, there is no budget for fire management (e.g. for fire breaks or surveillance), and the staff do reactive back burning every year when wildlife enters the reserve. The shifting cultivation, low burns every year in bamboo forest, and the wildfire and lack of proactive fire management is posing threat to deforestation/degradation in Thung Yai East WS, and is contributing to GHG emissions from direct burning.

Baseline for site management is rigorous patrolling with best practice techniques (Smart



Patrolling and MIST) by teams at 19 substations plus HQ in HKK WS, however, full funding is not long-term secured, and there is a lack of incentives for park staff commitment. In TY-W WS patrols operate from 15 substations plus HQ and in TY-E WS patrols operate from 6 substations plus HQ. The number of substations and patrols need to be scaled up, especially in TY-E&W. One Wildlife Crime Unit operates out of Regional Office #12 in Nakornsawan Province, coordinating with a volunteer network, to tackle wildlife trade in markets and restaurants outside the HKK WS. There is a gap in such efforts in the other two wildlife sanctuaries, with no such Unit at the two associated Regional Offices. Additionally, wildlife poaching is not taken as a serious crime by police and judiciary in the provinces. As such, the current baseline is that poaching and trade are not always detected, and, if detected, are not always dealt with by the legal system at the appropriate level. No incentives currently exist to encourage the local community to protect, rather than poach, the wildlife; only disincentives through law enforcement operate. In the current baseline of site management at TYE WS, there is a need to scale up the currently minimal assistance to the enclave villages to incentivise community based forest protection and reduce shifting cultivation and fire use in the forest. At TYE WS the current baseline is reactive back burning when wildfire enters the WS (usually yearly), and there is a need for increased fire prevention activities, such as fire breaks, surveillance and other methods.

The baseline project, through government, Seub Nakhasathien Foundation and WCS funding, will continue to address wildlife poaching, conduct some wildlife monitoring and raise awareness of communities on wildlife conservation. Specifically, the baseline project will conduct SMART Patrols and tiger monitoring by camera trapping and ground surveys across Huay Kha Kaheng, and in limited areas in TY-E and TY-W. However, due to resource gaps, the government, Seub Nakhasathien Foundation and WCS budget does not cover in full the requirements for site management in the WHS. There is a need for increased coverage in TY-E and TY-W by SMART patrols and for tiger monitoring, and due to budget gaps, there has been no monitoring of tiger prey for many years. There is a need to reduce forest loss to conversion for agriculture, to tackle the illegal wildlife trade in areas surrounding the WHS, and there is a need to incentivize the local communities in participating in conservation of the wildlife and habitat in the WHS. These are the gaps to be filled by this GEF FSP.

**B. 2. incremental /Additional cost reasoning: describe the incremental (GEF Trust Fund) or additional (LDCF/SCCF) activities requested for GEF/LDCF/SCCF financing and the associated global environmental benefits (GEF Trust Fund) or associated adaptation benefits (LDCF/SCCF) to be delivered by the project:**

The incremental GEF financing will provide the resources for meeting the capacity gaps that prevent effective conservation actions in the WHS. Under this GEF project activities are proposed to deal with the major threats to tigers and other key species, and the drivers of forest loss. The target landscape is the Huai Kha Khaeng-Thung Yai World Heritage Site (HKK-TY WHS), consisting of three wildlife sanctuaries. HKK-TY WHS is a key tiger and biodiversity conservation site.

The GEF funding will provide incremental activities to **address these key gaps, with a focus on tiger conservation**, based on the priorities of the Thailand Tiger Action Plan (TTAP, 2010) and the National Tiger Recovery Plan (NTRP, 2010). Incremental activities will include: **scale up patrolling** in Thung Yai E&W WS; **establish Wildlife Crimes Units** in each of the two other Regional Offices associated with the site; and build a constituency with regional police and judiciary to **treat wildlife crimes more seriously**, all of which will prevent poaching of tigers and prey, and other wildlife species. The project will also **incentivize local communities to protect rather than poach wildlife, and to engage in climate change mitigation and sustainable forest management**, by benefit sharing from ecotourism and REDD+ revenues. The National **data base on captive tigers will be made more accurate** by blood sample DNA

analysis of all captive tigers in Thailand, to ensure any detected tiger trade in Thailand and neighboring countries can be cross checked with the data base. **Best practice in key management practices** such as ecotourism, tiger monitoring, tiger and prey recovery will be shared amongst the 13 tiger range states, by **establishing a Regional Centre for Tiger Conservation and Research**, and by key staff of the HKK-TY WHS visiting comparable PAs. The project will initiate regional level transboundary discussions, and policy development regarding incentivizing parks staff. **Sustainable financing mechanisms** will be piloted through wildlife based ecotourism at HKK WS, and by generating revenue from carbon credits linked with wildlife conservation at TY-E WS, where there has been forest loss to agriculture. Future revenues generated from CDM projects will flow back to the project area and activities.

This GEF FSP project will comprehensively address the gaps in wildlife protection and sustainable revenue generation, resulting in effective wildlife conservation at HKK-TY WHS, through three interrelated components:

### ***Component 1: Strengthening On-Ground Conservation Actions and Wildlife Protection***

This first component will focus on addressing capacity gaps and promoting institutional capacity strengthening for protected area management. The goal of this component is to strengthen and scale up existing conservation actions by providing training and equipment, supporting knowledge and information sharing, and improving wildlife and prey monitoring capabilities. The main outcomes expected from these actions are the improved effectiveness of wildlife sanctuary management, enhanced use of data and information for management decisions, and stronger regional cooperation in wildlife conservation. Specific activities under this component include the following:

**1.1 Best practice management and enforcement** for forest and wildlife populations at the World Heritage Site by reducing forest loss/degradation, wildlife poaching, and wildlife trade in the surrounding areas. Key actions: scaling up SMART Patrolling training and resources at all three Wildlife Sanctuaries, and build capacity for understanding and using the data for adaptive management decisions at the site and also in the control centre in BKK; improved fire management at all three Wildlife Sanctuaries to decrease issues of forest degradation from fire; a study tour to a comparable site to learn about best practice for recovering key wildlife populations; reactivate and replicate the previously existing Regional Office #12 Wildlife Crimes Unit and associated volunteer network to all six involved provinces, to control the illegal wildlife trade in the area, particularly in markets and restaurants; and provide training for provincial and district judiciary and police in the five provinces of the World Heritage Site area on wildlife law enforcement, such that wildlife crimes are taken seriously.

**1.2 Resource monitoring and data collection:** monitoring tiger and prey population yearly at all three Wildlife Sanctuaries, by yearly camera trapping to monitor tigers, and yearly transect lines to monitor prey, data analysis and feed back into management decision making; updating the national database of captive tigers to be more accurate by collecting blood samples of all captive tigers in Thailand (~1,200) and analyzing the DNA as individual identifier in the Wildlife Conservation Office's Wildlife Forensic Analysis laboratory, such that all captive tigers are registered, to avoid trafficking of captive tigers.

**1.3 Institutional and technical capacity strengthening:** establish the Regional Tiger Conservation and Research Centre (RTCRC), which will, for the first time, facilitate training and best practice sharing amongst all 13 tiger range countries; establish the first platform for knowledge sharing of SMART methodology to other PA managers in tiger range countries; explore potential collaboration with the adjacent nature reserve in Myanmar, Tanintayi NR staff, to discuss transboundary forest and wildlife protection and wildlife poaching issues; and conduct needs assessment on staffing structures and benefits afforded to sanctuary staff and park rangers as incentives for career commitment.

### ***Component 2: Developing and Promoting Incentives and Sustainable Financing for Wildlife***

### ***Conservation and Forest Protection***

This second component will be aimed at promoting incentives for wildlife conservation through ecotourism development and the implementation of REDD+ activities, which will create sustainable financing for the wildlife sanctuaries and local communities. This component will address the missing incentives for wildlife conservation by linking ecotourism success with local community wildlife protection support, and by linking REDD+ and wildlife conservation to attain either a Wildlife Premium or a higher carbon credit price. The expected outcomes from this component are: REDD+ linked to wildlife protection pilot developed; development of a small number of ecotourism products that directly link incentives to wildlife conservation; revenues from carbon credits, the wildlife premium, and ecotourism by the final year of the GEF; and knowledge dissemination on the REDD+ with wildlife conservation methodology, and on wildlife based ecotourism (via the RTCRC in Component 1). The following activities may be included under this component:

**2.1 Establish wildlife-based ecotourism with direct links to community incentives for wildlife conservation.** Develop and pilot two to three ecotourism products in HKK WS buffer zone area, by first conducting a study to identify which villages are having most impact on the wildlife sanctuaries and buffer zone, such that they can be target villages for ecotourism; analysis of demand and demographics for ecotourism, financial feasibility, and potential products; consultation with HKK WS staff, local communities, civil society, academics and other key stakeholders regarding selection of products; and analysis of successful ventures in the region. Based on this analysis, establish ecotourism products, which will likely require: developing an ecotourism trek and mini guide-book based on an already existing 9km trail in the buffer zone; training local villagers to facilitate village home-stays outside HKK WS boundary; improving the existing camping at visitor centre (e.g. for school groups); training villagers to be nature trail tour guides; English language training; bird observation in buffer zone; renovate the existing information/education centre; equipment (e.g. binoculars, bird ID books); linking to the ecotourism market and marketing products. All ecotourism will be limited to designated areas in buffer zone and near visitor centre, to avoid impacts in the sanctuary, and an Environment Assessment and Environmental Management Plan will be developed to assess and mitigate potential impacts from ecotourism. Effort will be made to develop direct linkage between incentives received by villagers and wildlife protection; for example on wildlife treks, an additional fee can be paid by the tourist if wildlife is sighted, and that added fee is transferred to villages, to create a direct link between increased wildlife observations and payments to villages.

**2.2 Prepare for REDD+ implementation in a Wildlife Reserve,** including: (i) carbon project development; such as further analysis to confirm initial data on potential emission reductions and root causes of emissions, a carbon baseline, documentation of the drivers of deforestation, analysis of Wildlife Premium Market concept and the Wildlife Standard and the already established Community and Climate Biodiversity Standard, analysis of buyer willingness to pay for a premium product (by international and national TA or a company); (ii) mitigation activities, including increased outreach/awareness raising in TY-E enclave and surrounding villages regarding the importance of forest and the impacts of anthropogenic fire regimes, agricultural extension services to stabilize agriculture and increase crop yields to avoid shifting cultivation and encroachment in the sanctuary, performance based incentives (possibly direct payments into village development funds) to target villages, linked to agreements on forest and wildlife protection, improved fire management systems to be used by the WS Management (e.g. fire breaks, surveillance and other strategies to avoid wildfires impact in the WS), and, as already included under Component 1 scaling up law enforcement and monitoring efforts through SMART Patrols; and (iii) ongoing monitoring and verification of the project's effectiveness. If feasible, carbon credits will be generated for the carbon market, and if any revenue is generated, all reflows will be re-invested into the project area and activities, particularly to cover the ongoing costs for mitigation, monitoring, verification. Carbon flux monitoring, likely once in the GEF lifespan, will be implemented. The project will coordinate

with the World Bank Forest Carbon Partnership Facility (also under implementation by DNP) for example in discussions on carbon credit ownership and sale, potential market, monitoring and verification, and reflows that involve benefit sharing including the the local community and the wildlife sanctuary.

If feasible, wildlife population recovery (monitored by yearly camera trapping and prey density transect lines under Component 1), and community benefits, will be verified through standards, either through the existing Community and Climate Biodiversity Standards (CCBS), or the Wildlife Standards that will be developed by the World Bank. Through a Wildlife Premium, additional revenue may be paid out to the wildlife sanctuary and local communities if wildlife recovery targets are met. This revenue can be used for monitoring, law enforcement, and management of wildlife and community incentives to reduce threats to wildlife. REDD+ or REDD and Wildlife Premium revenues allows contribution towards long-term sustainable financing for managing a protected area, though it will not cover all costs. This will be the first pilot of a REDD+ linked to wildlife conservation in Thailand, and one of the first in Asia.

A very initial analysis (not field verified) suggests that annual carbon reductions from mitigation activities are anticipated at 90,850 tCO<sub>2</sub>e, totaling to 1,817,004 tCO<sub>2</sub>e over the project lifetime of 20 years. This figure is for an area of 134,827 hectares in Thung Yai East Wildlife Sanctuary, calculated for the area that is dry evergreen forest, mixed deciduous forest and dry dipterocarp forest<sup>6</sup>. The general estimation was based on linear growth of project efficacy from year 2 to year 11 (10% to 50%) given that the introduced activities might not generate a full response from all stakeholders from the very beginning of the project. A gradual increase in efficacy was foreseen. As a result of the initial estimation, the carbon benefits over the 20-year project lifetime would yield the project internal rate of return (IRR) at 11.1%, given the price of carbon reduction at USD5/tCO<sub>2</sub>e.

### ***Component 3: Capacity Building and Knowledge Sharing***

The third component will include activities to support the implementation of the two components described above. This component will be aimed at disseminating information on wildlife conservation near the site, to complement the incentives to villagers and law enforcement work. This could include mobile conservation education units and school activities, local outreach activities and materials, a Greening the Villages campaign to do awareness raising on climate change mitigation. Under this component there will be some regional activities, for instance a Wildlife Compliance Certification for restaurants that do not sell wildlife, and national outreach, such as updating the WHS website. The project will disseminate more widely to protected area staff and other concerned sectors in Thailand and the region the findings from the REDD+ wildlife conservation concept activities and ecotourism pilot described in Component 2.

The project management unit (PMU) will be established at the DNP to supervise, implement and monitor the implementation of the proposed activities.

The global environmental benefits will be improved protection of key species, such as tigers, leopards, guar, banteng and elephants; recovery of tiger and prey populations; and improved management of a World Heritage Site for nature conservation. This assists the Government of

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<sup>6</sup> The carbon factors were calculated based on historical data of forest loss from 2000 and 2008 imagery and for three forest types. This is an initial calculation and has not been ground verified. TY-E has a total area of 157,066 ha. The carbon accounting area (134,827 ha) only includes three forest types (dry evergreen forest, mixed deciduous forest, dry dipterocarp forest) in the TY-E for which AGB content are available. Vegetation types for which AGB content were not available (Bamboo, grassland, swamp, totaling approximately an additional 20,000 ha) have been excluded from this initial analysis. The feasibility study will further investigate the deforestation rate in these three forest types and AGB for the other vegetation types (swamp, secondary forest).

Thailand towards meeting their obligations and objectives under the National Tiger Recovery Plan, NBSAP, and the CBD. Further, it is envisioned that the models created and disseminated on REDD linked to wildlife conservation, and ecotourism linked to direct incentives for community conservation of wildlife will be replicated elsewhere in Thai protected areas.

**B.3. Describe the socioeconomic benefits to be delivered by the Project at the national and local levels, including consideration of gender dimensions, and how these will support the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCF/SCCF). As a background information, read [Mainstreaming Gender at the GEF.](#)":**

The baseline project provides some jobs to the local community for patrolling. The GEF grant will provide socioeconomic benefits for enclave and neighboring communities, as revenue and/or livelihood support, both directly, through job provision, and as incentives, for forest and wildlife protection, though the components on wildlife-based eco-tourism and livelihood support and benefit sharing from REDD+ revenues. REDD, wildlife premium, and ecotourism revenues will be dispersed to cover project implementation costs (ie sustainable financing for the protected area) and to villagers as incentive to conserve forest and wildlife, and as an alternative to shifting cultivation and hunting. Revenue sharing mechanisms will be developed during project implementation by government, with technical assistance, and will be closely linked to similar developments under the FCPF for benefit sharing. Gender dimensions will be considered by enhancing both men's and women's involvement in, and benefit from, the project, and this will be taken into account during project design, implementation, and in monitoring and evaluation.

**B.4 Indicate risks, including climate change 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:**

The main risks include (i) potential difficulty in finding buyers for carbon credit and wildlife premium; (ii) continued dominance of the illegal wildlife trade if the measures to strengthen enforcement are not effective; (iii) risk that the REDD and WPM and ecotourism are not continued after project close; (iv) potential difficulty to find alternatives for villages practicing shifting cultivation or conversion of forest to agriculture; (v) risk that ecotourism activities will increase GHG emissions such that overall the project will increase carbon emissions but not decrease them.

Mitigation for these risks is included in the project component activities, and includes: (i) provision through the project of capacity building and technical assistance for the REDD pilot, and linking the FCPF closely to the pilot; (ii) application from government to the World Bank Bio Carbon Fund for pre-agreed purchase of carbon credits, to provide a level of security in carbon credit sales; (iii) project executing agency to combine incentives/livelihood alternatives and awareness raising with law enforcement as measures to eliminate illegal wildlife trade, rather than relying on only one strategy; (iv) project executing agency, and WCS to maintain government and local community buy-in to the REDD and ecotourism pilots, and ensure that there is some revenue flow by year 4 and 5 of the project, so that the results and benefits are visible before project close, to increase likelihood of continuation; and (vi) project partners to work in collaboration with other existing projects in the area to build on their experience in successful livelihood alternatives to shifting cultivation, and use incentives from REDD, Wildlife Premium, and ecotourism towards a move away from encroachment of the sanctuaries and buffer zone; and (vii) project executing agency to conduct Environment Assessment to assess potential impacts from ecotourism related activities, including climate change impact/GHG emission aspect, and prepare and implement an Environmental Management Plan

(EMP) to ensure that the impacts identified are effectively managed and the increased GHG emissions (if any) are minimized.

**B.5. Identify key stakeholders involved in the project including the private sector, civil society organizations, local and indigenous communities, and their respective roles, as applicable:**

Key stakeholders are the Department of National Parks, Wildlife and Plant Conservation, who play a leading role in the implementation of wildlife conservation programs and actions to address the trade in illegal wildlife products, such as the establishment of patrols, public awareness programs, and monitoring of wildlife prey and populations. International civil society organisation, the Wildlife Conservation Society-Thailand, has been contributing to conservation efforts at the WHS and will be supporting this project. Local communities, inside Thung Yai E and Thung Yai W and at the edge of the buffer zone of Huay Kha Kaeng will be key stakeholders, as will local government agencies in the three provinces in which the WHS is located. Other stakeholders which have been identified in the NTRP include the Smithsonian Conservation Biology Institute, which will be a key player in the capacity building aspects of the project, the German Technical Cooperation (GTZ), the UNDP, and the private sector (zoos, media, and conservation foundations).

**B.6. Outline the coordination with other related initiatives:**

The project activities will be linked with other conservation initiatives, including the FCPF, potential transactions under the Bio-Carbon Fund, and the Global Tiger Initiative (GTI). Under the FCPF, Thailand is undertaking the technical work and capacity building in preparation for REDD+ activities. The preparatory activities will include the development of sustainable financing mechanisms for conserving tiger landscapes. The GTI support activities in tiger-range countries, including Thailand, where ten tiger conservation landscapes have been identified.

This GEF FSP is submitted under the GEF GMS Forests and Biodiversity Program. This proposed national project on protected area management, wildlife conservation and climate change mitigation linked with sustainable forest management fits well to the overall objectives of the Regional Program. The project activities contribute upwards to the GMS Forests and Biodiversity Program, by assisting achieving the aim of "enhancing the management effectiveness of high priority forest biodiversity conservation landscapes including protected area systems of the Greater Mekong Subregion (GMS)." Particularly, this FSP will achieve outcomes of the Regional Program, including support for national Tiger Recovery Action Plans; tiger and other targeted wildlife populations stabilized or increased; ecotourism piloted; livelihood support programs for communities in protected areas; development and application of forest carbon measurement, reporting and verification mechanisms; development and dissemination of good practices and model examples of landscape conservation; and development of conservation financing mechanism.

**C. DESCRIBE THE GEF AGENCY'S COMPARATIVE ADVANTAGE TO IMPLEMENT THIS PROJECT:**

**C.1 Indicate the co-financing amount the GEF agency is bringing to the project:**

The World Bank is bringing co-financing to the project through the Forest Carbon Finance Partnership (FCPF). Already 230,000 has been granted and it is expected that within two years and additional 3.4 million UDS will be dispersed to Thailand, to develop strategies and protocols for REDD implementation, which will both feed into and derive lessons from this national FSP REDD pilot.

**C.2 How does the project fit into the GEF agency's program (reflected in documents such as UNDAF, CAS, etc.) and staff capacity in the country to follow up project implementation:**

The World Bank is a leading international financial institution at the global scale in a number of


sectors. The World Bank has strong experience in investment lending focusing on institution building, infrastructure development and policy reform, across all focal areas of the GEF. World Bank has been an important financier of GEF projects, with more than \$3 billion in co-financing for GEF projects since the inception of the GEF. The Bank has been an important player in efforts to combat the illegal trade in wildlife parts, and has invested in several projects to improve the effectiveness of protected area management in several countries. Drawing on its operational experience in Thailand and other developing countries, the Bank will be able to mobilize the technical knowledge and leverage relevant partnerships for implementing this project. The Country Development Partnership for Environment (CDP-E) sets out the strategy for the World Bank's support to Thailand's efforts in environmental management. The project's objectives are well-aligned with the focus of the CDP-E, which identifies institutional capacity building as one of the key issues to be addressed. The Thailand country office has a number of staff with experience in natural resource management, environmental management and operations, and in CDM projects (which lend lessons to REDD).

**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\(s\)](#) with this template. For SGP, use this [OFP endorsement letter](#)).

NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)
Mr. Chote Trachoo	Permanent Secretary	MINISTRY OF NATURAL RESOURCES AND ENVIRONMENT	

- B. GEF AGENCY(IES) CERTIFICATION**

<b>This request has been prepared in accordance with GEF/LDCF/SCCF policies and procedures and meets the GEF/LDCF/SCCF criteria for project identification and preparation.</b>					
Agency Coordinator, Agency name	Signature	DATE (MM/dd/yyyy)	Project Contact Person	Telephone	Email Address
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# Annex 1: Map of HKK-TY World Heritage Site in Western Thailand

