



PROJECT IDENTIFICATION FORM (PIF) ¹

PROJECT TYPE: Full-sized Project

TYPE OF TRUST FUND: GEF Trust Fund

PART I: PROJECT IDENTIFICATION

Project Title:	Strengthening national biodiversity and forest carbon stock conservation through landscape-based collaborative management of Cambodia's Protected Area System as demonstrated in the Mondulkiri Conservation Landscape (CAMPAS project)		
Country(ies):	Cambodia	GEF Project ID: ²	4905
GEF Agency(ies):	UNEP	GEF Agency Project ID:	00722
Other Executing Partner(s):	Lead: Ministry of Environment, Cambodia , with MAFF (Forest Administration & Fisheries Administration), other national line agencies, and provincial governments With national partners: WCS, WWF, LL-EE and others	Submission Date: Resubmission Date: Resubmission Date:	23 March 2012 18 September 2012 19 September 2012
GEF Focal Area (s):	Multi-focal Areas	Project Duration (Months)	60
Name of parent program (if applicable): 1. <input type="checkbox"/> For SFM/REDD+ <input checked="" type="checkbox"/>		Agency Fee (\$):	471,818

A. FOCAL AREA STRATEGY FRAMEWORK³:

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Co-financing (\$)
BD-1	1.1 Improved management effectiveness of existing and new protected areas	1.1.1 Improved management effectiveness of 4.5 million ha PAs through strengthened, national management system, including national law enforcement & species monitoring (including of 1,254,121 ha in 6 PAs of the Mondulkiri Conservation Landscape specifically under Comp 2)	GEFTF	1,774,864	4,400,000
BD-2	2.1 Increase in sustainably managed landscapes and seascapes that integrate biodiversity conservation	2.1.1 Sub-national land-use plans at provincial and district levels for Mondulkir Conservation Landscape incorporating conservation and enhancement of biodiversity (& ecosystem services valuation)	GEFTF	1,500,000	4,254,046
CCM-5	5.1 Good management practices in LULUCF adopted both within the	5.1.1 Carbon stock monitoring system established	GEFTF	180,000	200,000

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

² Project ID number will be assigned by GEFSEC.

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

	forest land and in the wider landscape				
	5.2 Restoration and enhancement of carbon stocks in forests and non-forest lands, including peatlands	5.2.1 Forests and non-forest lands under good management practices in Mondulkiri Conservation Landscape (including reduced deforestation inside PAs of 46,486ha (15,363,689 tCO ₂ e) & 1,595ha in the landscape corridor outside PAs (527,081 tCO ₂ e) 5.2.2 Artificial and natural forest rehabilitation & agro-forests on a minimum of 2,000 hectares (sequestration of 236,717 tCO ₂ e as against baseline) .		230,954	2,000,000
SFM/REDD-1	1.2 Good management practices applied in existing forests	1.2.1 At least 150,000 ha forested landscape under sustainable management in demonstration area - including forest rehabilitation, separated by forest type and forest status	GEFTF	796,454	2,800,000
Sub-Total				4,482,272	13,654,046
Project Management Cost ⁴			GEFTF	235,910	500,500
Total Project Cost				4,718,182	14,154,546

B. PROJECT FRAMEWORK

Project Objective: To enhance Cambodia's PAS management effectiveness and secure forest carbon through improving inter-sectoral collaboration, landscape connectivity and sustainable forest management						
Project Component	Grant Type	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Cofinancing (\$)
1. Strengthen National Vision and Support for Landscape-based Protected Area and Forest Management	TA	1.1 Coherent and informed inter-sectoral governance and management of the national Protected Area System (PAS), focusing on delivering national BD & PAS strategic goals	1.1.1 National PA Committee leading the confidence & consensus building for effective intersectoral coordination mechanism , incl. strengthened governance, conflict resolution on land allocations, joint resource mobilization, and information exchange on PAs 1.1.2 Gap analysis and review of national PAS, including on need for strengthened landscape corridors & forest conservation , ecosystem & species representation, conflict resolution and reduced development pressure, and improved PA management effectiveness under MoE, FA and FiA	GEFTF	1,882,272 BD 1,685,818 CC 80,000 SFM 116,454	4,174,046

⁴ GEF will finance management cost that is solely linked to GEF financing of the project. **PMC should be charged proportionately to focal areas based on focal area project grant amount.**

		<p>1.2 Improved national compliance with PAS management goals - particularly wildlife conservation and maintaining forest connectivity across large landscapes</p>	<p>1.1.3 National PAS Vision & 5 Year Action Plan addressing weaknesses and gaps in the PA network, resource mobilization, regional/landscape protected area connectivity, harmonization with economic development plans, and measures for strengthened national & sub-national governance and coordination - led by the National PA Committee.</p> <p>1.1.4 Institutional support and human capacity development program in line with needs of the Strategic Plan, sustainable financing, national communications, as well as need for enhanced PA governance, and monitoring and evaluation (including project M&E)</p> <p>1.2.1 National unified wildlife & forest Law Enforcement Monitoring (LEM) and PA METT Systems operational including a national coordination center, human resources development, use of RS & GIS capacities as well as regular 'status of wildlife, landscape connectivity & BD conservation' reporting to the National PA Committee (on all PAs under MoE, FA and FiA jurisdiction) in line with National PAS Action Plan, the SDS (2.1.3) and project M&E requirements.</p> <p>1.2.2 Pilot compliance monitoring through national LEM and METT Systems in the demonstration landscape as well as other selected PAs with significant forests and wildlife</p> <p>1.2.3 Program and staff harmonization of Cambodian national LEM with regional law enforcement initiatives (e.g. ADB GSM BCI&BCC, projects using MIST, TRAFFIC, PATROL, etc) and capacity building for related enforcement agencies (customs, police, border liaison offices' guards, etc)</p> <p>1.2.4 Transboundary forest & species conservation programs through arrangements with neighboring countries and ADB-GMS regional program, as a source of technical and financial support, participation in regional response to external pressures (e.g. on logging, illegal wildlife & log trade), as well as to exchange of lessons</p>			
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		<p>1.3 Improved national support and monitoring of BD conservation, PAS and forested landscape connectivity in achievement of national sustainable development goals</p>	<p>1.3.1 Communications Campaign Plan designed , operational & impacts measured, in support of the ES & BD objectives of National PAS Action Plan & SDS - forested landscape connectivity (2.1.3) - based on 'social-marketing techniques' to achieve unified vision and paths towards change with policy and decision makers at national & sub-national level, journalists, the judicial system and law enforcement agencies</p> <p>1.3.2 Institutional support for MoE's Dep. of Information, Education and Communication to implement the National Campaign, support information dissemination on the national PAS system during and beyond the project, including hosting project website</p> <p>1.3.3 National collaborative biodiversity monitoring program established – linked to national targets, international commitments and conservation-sector budgeting, through broad partnership, with data regularly updated and accessible through development of an online meta-database, with related capacity building and technical support.</p> <p>1.3.4 Production of strategic information & publications to inform policy & planning, guide donor investment, and respond to key threats and drivers of biodiversity loss including: e.g. (i) strengthening landscape connectivity and PAS, (ii) 'SFM & community-based reforestation guidebook', (iii) bi-annual "state of Cambodia biodiversity" reports (including on LEM, BD indicators) as part of the national environmental performance assessment system, (vi) business planning for sustainable financing of the PA system</p>			
<p>2. Integrated Landscape Management for Safeguarding Forests, Biodiversity and Carbon Stocks in the Mondulkiri Conservation</p>	TA	<p>2.1 Enhanced biodiversity security, forest connectivity and reduced LULUCF-based emissions in >350,000 ha through harmonizing economic</p>	<p>2.1.1 Broad stakeholder consultation & conflict management platform established and agreement reached on the demo area (approx. 350,000 ha, including 150,000ha PA corridors/buffers zones. Baseline set, focused on Economic Land Concessions, Community Protected Areas (CPA), Community Forests (CF) and potential for alternative development scenarios, ranking of biodiversity & forest carbon</p>	GEFTF	<p>2,600,000</p> <p>BD 1,589,046 CC 330,954 SFM 680,000</p>	9,480,000

<p>Landscape)</p>	<p>development plans with forest and biodiversity conservation <i>(est. 15.9 million tCO₂e reduced deforestation emissions - 20YR)</i></p> <p>2.2 Carbon stock and forest monitoring capacity strengthened and institutionalized in Mondulkiri province</p> <p>2.3 More resources available for enhanced management effectiveness of</p>	<p>values, and habitat connectivity needs within the PAS & ADB/BCI regional corridor</p> <p>2.1.2 Key stakeholder groups empowered (trained, aware & organized) and participatory planning mechanism established – based on unified vision for PA and forest protection: e.g. (i) community-based forest protection & rehabilitation, including ES values; (ii) natural resource-based community development, (iii) PA network development & sustainable finance, (vi) enhancing forested landscape connectivity, (v) Forest conservation & maximizing forest carbon stock under the upcoming National REDD Strategy, and (vi) mainstreaming BD & SFM in regional economic development (measured GEF capacity scorecard);</p> <p>2.1.3 Sustainable Development & Forest Conservation Strategy (SDS) & Spatial Plan endorsed & capacity built with > 150 government, CSO & community members on its implementation</p> <p>2.1.4 Finance and resource mobilization strategy based on ‘reconnaissance-level’ economic valuation of selected ecosystems and services (including forest carbon and multiple benefits) in support of implementing the SDS & Spatial Plan</p> <p>2.2.1 Sub-national REL/RL through RS-based spatial analysis of land cover, deforestation rates, carbon stocks & fluxes through coordination with National MRV Team, collaboration with ADB BCI / BCC, and collaborative programs on REDD pilots.</p> <p>2.2.2 Participatory forest monitoring established / enhanced for community managed areas to measure Carbon stock, REDD+ co-benefits including socio-economic and ecological contributions, linked to national REDD program</p> <p>2.3.1 Three PA model management/business plans harmonized with regional economic development processes & demarcation of management zones for one PA to demonstrate application of PA Law</p>			
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	PAS in Mondulkiri Conservation Landscape	procedures, forest landscape connectivity, and integration with development			
	2.4 Carbon sequestration enhanced and forest cover improved in 2,000 ha pilots through increased community resource and livelihood security (<i>est. 236,717 tCO2e sequestered – 20YR, against baseline</i>)	<p>2.3.2 Three PA sustainable financing pilots implemented by the three PA agencies and policy recommendations set for upscaling to national level based on lessons - incl. market feasibility assessments, agreement with key stakeholders, and linkages to REDD+ & SFM practices</p> <p>2.4.1 Community-based forest management and rehabilitation in PA buffer zones, corridors, CPAs and CFs, including village forest carbon pool, tree plantations, agro-forests (500 ha), others, in collaboration with national REDD team, sustainable livelihoods program of ADB, and UNEP AF project</p> <p>2.4.2 Increase resource and livelihood security for communities in CPAs / CFs through boundary demarcation, clarification of land tenure and resource access rights, with related community conservation agreements supporting livelihood assistance programs and sustainable land use coordinated with ADB BCC and UNEP AF projects.</p> <p>2.4.3 Landscape PA connectivity strengthened through government-led and community-based assisted natural & artificial forest regeneration (min. 1,500 ha) and forest protection, focusing on, wildlife corridors, ES protection, & transboundary landscapes in close collaboration with ADB BCI / BCC and UNEP/AF project.</p>			
Sub-Total				4,482,272	13,654,046
Project Management Cost ⁵			GEFTF	235,910	500,500
Total Project Costs				4,718,182	14,154,546

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

Sources of Cofinancing	Name of Cofinancier	Type of Cofinancing	Amount (\$)
National Government	Min of Environment, Min of Agriculture, Forestry & Fisheries	In-kind	1,750,000
National Government	UN-REDD program	Unknown at this stage	1,110,000
Other Multilateral Agency (ies)	ADB	Unknown at this stage	5,900,000
GEF Agency	UNEP	Mainly in-kind	1,257,000
CSO	BirdLife International	Grant & in-kind	662,000

⁵ Same as footnote #3.

„	WWF	„ „	1,630,000
„	WCS	„ „	935,000
„	LL-EE	„ „	500,000
National Government	USAID – MoE program	Unknown at this stage	410,546
Total Cofinancing			14,154,546

D. GEF/LDCF/SCCF/NPIF RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY

GEF Agency	Type of Trust Fund	Focal Area	Country Name/Global	Grant Amount (a)	Agency Fee (b)	Total c=a+b
UNEP	GEF TF	Biodiversity	Cambodia	3,440,000	344,000	3,784,000
UNEP	GEF TF	Climate Change	Cambodia	434,545	43,455	478,000
UNEP	GEF TF	Multi-focal Areas	Cambodia (SFM)	843,636	84,364	928,000
Total Grant Resources				4,718,181	471,819	5,190,000

PART II: PROJECT JUSTIFICATION

A. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

A.1.1 The [GEF focal area/LDCF/SCCF](#) strategies/[NPIF](#) Initiative:

This project will directly address **Biodiversity Focal Area Objective 1: *Improve the sustainability of Protected Area System-*** improving management effectiveness of over 4.5 million hectares of PAs by first of all by establishing a national law enforcement system, as well as developing and demonstrating coordinated planning, information management, institutional and financial arrangements around a unified vision for Cambodia's protected area system (PAS), which is currently administered by three agencies with limited coordination and information-sharing. The majority of the project interventions and investment will contribute to **Biodiversity Objective 2: *Mainstream biodiversity conservation and sustainable use into production landscapes, seascapes and sectors*** through a significant component in the Mondulkiri Conservation Landscape (Eastern Plains) integrated with ADB's regional GMS Biodiversity Conservation Corridors Initiative (BCI), demonstrating how protected areas can be mainstreamed into landscape level planning & economic development to reduce levels of encroachment and other external pressures and to support community-based natural resource management. **Climate Change Mitigation Objective 5: *Promote conservation and enhancement of carbon stocks through sustainable management of land use change and forestry - 'good management practices of LULUCF in the wider landscape'*** will be addressed in two ways: Firstly, through the demonstration component (Comp 2) establishing provincial & district spatial plans and promoting improved forest protection, rehabilitation of degraded forest areas & community forestry practices in and around protected areas to strengthen ecological networks, and Secondly through the improved management effectiveness in the national PAS, and upscaling of SMF practices in and around PAs. These activities will also contribute to meeting the **Sustainable Forest Management Objective 1: *Reduce pressures on forest resources and generate sustainable flows of forest ecosystem services. – 'good management practices applied in existing forests'***. The CCM Objective 5 and SFM Objective 1 are expected to bring a minimum of 500,000 ha of forests under improved management, rehabilitation and carbon stock conservation.

The Cambodia CAMPAS project is designed to compliment and support a set of baseline projects, filling thematic and spatial gaps to:

- (i) Build Protected Area (PA) management capacities, stakeholder collaboration, and sustainable financing mechanisms, addressing prioritized PA biodiversity and conservation corridor threats;
- (ii) Significantly strengthen intersectoral collaboration, reach agreement on unified vision for national PA network, forested landscape connectivity & BD conservation;
- (iii) Need for a national-scale monitoring system to inform national and sub-national decision making and awareness programs regarding wildlife conservation, (forest)habitat connectivity and law enforcement;
- (iv) Integrate PA & forest corridor conservation and restoration in sub-national economic development, to ensure GHG benefits and the sustainable provision of local, regional, and transboundary forest ecosystem services in the 350,000 ha demo area in the Mondulkiri Conservation Landscape are maintained;

- (v) Increase resource and livelihood security of communities in Community Protected Areas & Communal Forests, including a.o conservation agreements, village carbon pools, linkages to ongoing REDD, SFM and livelihood program,;
- (vi) Mitigate climate change by producing CO2 benefits, including restored and enhanced carbon stocks in 2000 ha reforestation & agro-forests plots (236,717 tCO2e) as well as avoided deforestation in the six PAs/Forests of Mondulkiri Conservation Landscape – total working area of 1,254,121 ha (emission reduction of 15,363,689 tCO2e) and targeted 150,000 ha forested corridors of Mondulkiri Conservation Landscape (emission reduction 527,081 tCO2e);
- (vii) Advance sub- of national reference emission levels & reference levels (REL/RL) as part of the upcoming national carbon stock monitoring (MRV) system in the demo landscape of Mondulkiri, with linkage developed to national REDD+ strategy and MRV/REL development.

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

Not Applicable

A.1.3 For projects funded from NPIF, relevant eligibility criteria and priorities of the Fund:

Not Applicable

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 design is based on the key priorities identified during the national GEF V consultations conducted over one year and the resulting ‘GEF V: PA and Biodiversity Program Framework’ (endorsed 16 March 2011, Minister of Environment). This was a process equivalent to a NPFE.

The project directly addresses at least nine strategic objectives listed for the Protected Areas theme in the NBSAP (2002), including: management plans, PAS extension, increased public awareness, sharing information and technology, preventing illegal resource extraction, strengthened cross sectoral communication and coordination, enhanced capacity of MoE’s GDANCP, sustainable financing and a national PA monitoring system. The project will contribute to priorities for CBD implementation indicated in the 4th National Report (2010), including: awareness raising on implementation of conservation legislation, the importance of biodiversity, building capacity for government and institutional management regarding biodiversity; increasing stakeholders’ awareness of CBD by integrating biodiversity conservation in national, ministerial, and local plans including regional biodiversity planning; increasing regional cooperation and strengthening funding. The project will strengthen implementation of the Ramsar Convention, including extending the Ramsar Site network, improving inter-sectoral coordination, increasing awareness levels, and enhancing the knowledge base on Cambodian wetlands.

The project is consistent with the National Capacity Action Plan for the three UN Conventions (UNCBD, UNFCCC, and UNCCD) over the period 2007-2016, and the CBD Program of Work on Protected Areas. The project will contribute towards Cambodia MDG 7, Target 9 - Integrate principles of sustainable development into country policies and programmes and reverse the loss of environmental resources, through maintaining 60% forest cover; and 3.3 million ha under protected areas (plus a further 1.35 million ha under protection forest and 580,800 ha of fish sanctuaries by 2015).

Cambodia’s Initial National Communication under UNFCCC (2002) noted that the main source of CO2 emissions was the land use change and forest sector (97%), although this sector’s capacity to uptake CO2 exceeds emissions by 43%, potentially offsetting all other GHG emissions. This project will reduce GHG emissions through forest protection and reforestation including improved law enforcement. Increased security of the protected area system and integrated landscape management will also contribute towards Cambodia’s National REDD Programme and ecosystem-based adaptation in line with Cambodia’s NAPA (2006).

The project will provide key support towards the implementation of the Protected Areas Law (2008) governing the PAS under MoE’s jurisdiction, and related aspects of the National Forestry Programme (2010)

– 2029) and the Strategic Planning Framework for Fisheries (2010-2019) under MAFF. These are framed in the context of the country's National Strategic Development Plan (2006-2013), Government Rectangular Strategy (2009-2013), the Strategic Framework on Decentralization and Deconcentration (2005) and Organic Law (2008) on sub-national administration which delegates government functions to the lowest most effective levels, including natural resource management. The project will also aim to mainstream biodiversity conservation for the demonstration area in production landscapes in line with the Three-Year Implementation Plan 2011 – 2013 (IP3) of the National Program on Sub-national Democratic Development under the Ministry of Interior, which focuses on the establishment, governance, functioning and oversight of Sub-national Administration (Provinces, Districts, Municipalities and Communes/Sangkats) and the completion and further development of the overall policy and regulatory framework.

Cambodia is also a party to CITES, WHC, UNCCD, the CMS IOSEA agreement on marine turtles, International Tropical Timber Agreement, East Asian-Australasian Flyway Partnership (migratory waterbird conservation), Agreement on Cooperation for the Sustainable Development of the Mekong River Basin (Mekong River Commission), ASEAN cooperation on the environment, and Prime Ministerial agreements on curbing illegal activities in cross border trade in timber and endangered wildlife (with Lao PDR, Thailand and Vietnam). The significant investments and targets set by the project on Law Enforcement and Monitoring, as well as its focus on the landscape connectivity and transboundary PAs (with particularly Vietnam) in the Monduliri Conservation Landscape will fully contribute to these.

B. PROJECT OVERVIEW:

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

Background:

Despite Cambodia's abundance of natural resources and their significance for biodiversity conservation and dependent local communities, these are being significantly and rapidly eroded by a variety of, often very strong, drivers. Cambodia has one of the highest levels of forest cover in Southeast Asia, with approximately 10.7 million hectares of forest in 2006, which makes it the 13th most forested country by percentage of land area. But Cambodia's forests have decreased significantly in terms of both area and quality over the last few decades. The 2005 FAO assessment indicates it has lost more than a quarter of its remaining primary forest since 2000 – with 45% of the forest loss occurring in and around PAs. The UN-REDD+ programme document notes that land use change in Cambodia is considered relatively high, with 379,485 hectares of forest cleared between 2002 and 2005/6, equivalent to a deforestation rate of 0.5% per year. As a consequence Cambodia can be considered to be a 'high forest cover, high deforestation' country.

The National Forestry Programme (NFP, 2010) sets out a plan for long-term management of Cambodia's forestry estate. Targets set under the NFP include: 2 million ha of Community Forests (up from c.400,000 ha); 3 million ha of Protection Forests (up from c.1.5 million ha), 2.6 million ha of Production Forests under SFM; 3 million ha of PAs managed by GDANCP/MoE. It also includes expanding and optimising the national forest inventory, including e.g. in PAs. If realized, these NFP targets would represent a significant shift in forestry management practices, resulting in >3 million hectares of production forests, which are currently unmanaged, being re-gazetted either for community management or protection of ecosystem services. This would provide very significant climate change benefits through emissions reductions, and is critical if Cambodia is to achieve REDD+ goals. As such the NFP should provide significant gains for BD conservation as well as CCM if its targets are realized. **However**, implementation is only starting, funding very restricted, and consequently the impact of the reforms outlined in the NFP cannot be assessed yet. Additionally the following two issues have been identified with regards the NFP and its relevance to the GEF intervention: (1) The GEF project will facilitate implementation of the NFP, especially through strengthening inter-sectoral coordination in respect of forests that are not under direct FA jurisdiction (i.e. the 3 million ha of PAs under MoE). Given the different jurisdictions of MoE and FA, the NFP is very much seen as the basis for FA work – therefore there is very much a need for strengthened inter-agency coordination for forested PAs, especially those under MoE (as will

be addressed by component 1 of the project); and (2) The NFP has not resolved the issue with ELCs encroaching into forested PAs (at least in the short term), so the GEF project's efforts in this regard will also be important in reducing planned deforestation as well as the incidental deforestation (due to migrant workers, related roads, etc) that accompany it.

National biodiversity and PAs:

Cambodia is recognized as one of the world's top priority countries for biodiversity conservation, with four global ecoregions represented: the Lower Mekong Dry Forests, the Mekong River (includes the Tonle Sap floodplain), Cardamom Mountains Moist Forests, and the Gulf of Thailand. The country hosts 13 Critically Endangered, 12 Endangered, 44 Vulnerable and 41 Near-threatened animal species. Existing large forested landscapes are of outstanding importance for large mammals and rare birds, freshwater wetlands support astonishing fish diversity (850-1200 species) as well as regionally significant waterbird colonies, river dolphins and threatened turtle populations, and coastal and marine habitats include major areas of seagrass beds and coral reefs in good condition supporting marine fish nurseries and turtles.

According to Cambodia's 4th National Report to CBD (2010), Cambodia's PAS includes 7 national parks (742,250 ha), 10 wildlife sanctuaries (2,030,000 ha), 3 protected landscapes (97,000 ha), 3 multiple use areas (403,950 ha), 6 protection forests (1,350,000 ha), and 8 fish sanctuaries (23,544 ha). The combined total of approx. 4.5 million hectares covers 25% of Cambodia's land area. There are also three Ramsar Sites. Despite this large area, the PAS does not cover the full range of ecosystems and biodiversity and the needs of freshwater fish, marine corals and seagrass are under-represented. Limited capacity and relaxed enforcement at the local level means that most protected areas are effectively multiple-use areas. At present, many PAs lack management plans, objectives and zonation and many have not been demarcated, all of which are mandated by the new 2008 Protected Areas Law. The three responsible agencies for the PAS (MoE, FA and FiA), lack the institutional and financial resources at national and provincial levels to manage such a vast territory effectively, and do not always coordinate or collaborate adequately. Most PAs in Cambodia are in remote regions with little surrounding commercial development and few livelihood options. Over 87% of the communities living in and around PAs have a "medium" or "high" poverty rating. The average income of rural communities living in and around PAs is derived from NTFPs, crop farming and raising animals. Increasing cooperation between protected area managers, local communities and other partners and improved communication between protected area staff and national authorities provide some cause for optimism although underlying drivers of change also need to be addressed.

Forests carbon stock and accounting :

Cambodia has forest carbon data from various historical forest inventories and more recently collected by REDD+ pilot projects. The Cambodia Greenhouse Gas Inventory Report of 2000 found that the biggest contributor to emissions in 2000 was land-use change and forestry (49 percent), followed by agriculture (44 percent), energy (7 percent) and waste (less than 1 percent). Additionally, a UNEP/WCMC study in 2010 concluded that about one third of Cambodia's terrestrial carbon stock (0.95 Gt) is found in Protected Areas and Protected Forests, 0.75 Gt in Forest Concessions and the remainder 1.27 Gt in other terrestrial systems. Importantly, 78% of areas high in carbon as well as important to biodiversity conservation (assessed as Important Bird Area – Birdlife International) are located in Protected Areas and Protected Forests – highlighting the link as well as potential of mutual global environmental benefits from REDD+, conservation as well as SFM programs.

Some modest forest carbon pilots have been set up such as for the Oddar Meanchey Community-based REDD Project Investment Opportunity in NW Cambodia. Terra Global Capital, on behalf of the Royal Government of Cambodia, is initiating the sale of dually validated VCS/CCB carbon credits from the Oddar Meanchey REDD project. It involves 13 Community Forestry Groups, encompassing 58 villages in North West Cambodia, which protect 64,318 hectares of forest through the implementation of project actions designed to mitigate a variety of deforestation drivers. The project started in 2008 and is expected to sequester approximately 8.3 million metric tons of CO₂ over 30 years, demonstrating how communities can mobilize to protect their forests, generate sustainable income from carbon markets and positively impact climate change.

The project is completing its dual VCS / CCB validation and will verify the 2008 to 2011 vintages in Q1 2012. These vintages will produce an estimated 360,000 verified tons net of non-permanence risk buffer.

As part of the analysis on Cambodia's 'readiness, both the R_PP (FCPF) as well as the UN National REDD+ Programme Document indicate that reference emission levels (REL/RL) as well as a national system MRV have yet to be developed. FAO started recently acquiring specialist staff on MRV under the national UN-REDD program (Aug 2012). According to the R-PP for Cambodia (2011), almost all forests in Cambodia are state public property (except for forests under indigenous land title and private forests), therefore most forest carbon is owned by the state. The FA, GDANCP and FiA - the state authorities entrusted with forest management, do not have the right to sell, lease, transfer or otherwise dispose of these state properties without permission from the RGC, unless given specific delegation of authority. A roadmap towards establishing these has been agreed in 2011, which started work in 2012 on its National REDD+ Strategy as well as related national governance system such as National REDD Committee, as well as the National MRV Technical Team. The National MRV system will adopt a land-based approach which allows for monitoring land-units such as community-forests or conservation areas – which is of relevance to CAMPAS. Partners such as FCFP, UN-REDD, FAO, JICA and Gov of Japan have already committed funding to develop the MRV system. The system will benefit from the extensive experience gained over the past 10 years through mainly NGO-driven and site based monitoring systems in Cambodia. However these are primarily catering for measuring biodiversity, socio-economic and environmental quality data, whilst excluding Carbon monitoring, and most have adopted the MIST data management system introduced by the WB in 2004. As such Cambodia does not have any national or sub-national MRV system running. It is not foreseen that the CAMPAS project be directly involved in formal MRV development. However, a different situation exists with regards the agreed mechanisms on establishing REL/RL, which in addition to its national scale, will include sub-national reference levels, specifically for those provinces such as Monduliri where various pilot forest carbon programs have been running through e.g. NGO support. Although, substantial information exists on forest land uses and land use changes, and individual site forest carbon stocks that could be adapted for REDD+ reporting under the UNFCCC, much more work is needed the coming years to establish an accurate Tier 3 REL/RL, based on border-to-border remote sensing time series analysis, establishing agreed forest vegetation classification, and setting sample sites, including in the extensive swamp forests. The open crown of typical dryland forests in Eastern Cambodia is an additional challenge for RS assessments. It is anticipated that CAMPAS establishes collaboration with specifically the FA as well as National MRV Technical Team, during the PPG to agree on project-sponsored modalities of a sub-national REL/RL node in Monduliri Province. This would be ideal and feasible given CAMPAS' partnership network and support to e.g. WCS, WWF and others - already running forest inventory systems in the said area, towards the RS-based national Law Enforcement Monitoring system (LEM).

Monduliri Conservation Landscape (demo area):

The project demonstration area in the Eastern Plains Dry-forests of Monduliri province, is one of the largest and most sparsely populated provinces; nevertheless, it has experienced rapid population growth, from 32,400 in 1998 to 49,612 in late 2005. The local economy relies almost entirely on agriculture and forest products. In recent years, improved road access has increased the intensity of both agriculture and forest harvesting with matched increases in deforestation. Higher rates of deforestation are also driven by growing land pressure from migrants mainly small-scale illegal forest losses, as well as due to government policies of allocating forest areas for long-term agro-industrial concessions (ELC see below) in Monduliri.

The Monduliri Conservation Landscape (1,254,121 ha), representing 92.6% of the province forested in 2002/2003 is interspersed with open grassland areas, permanent rivers, water sources and many mineral licks. This mosaic of forest and other habitat types contributes to the high species richness in the area. More than 40 species on the IUCN Red List are present, including at least four Critically Endangered bird species. The area has four wildlife sanctuaries – Snoul (61,900ha), Phnom Prich (222,500 ha) and Phnom Nam Lyr (47,500 ha) (all managed by the Ministry of Environment, MoE), the Lomphat WS (251,400ha), as well as two protected forests, the Seima Protected Forest (292,600 ha) and the Monduliri Protected Forest (429,400 ha) - managed by the Forestry Administration, and these are flanked by two National Parks in Vietnam along its eastern

border (Yok Don NP & Bu Gia Map NP), illustrating the importance of transboundary cooperation. The Mondulkiri Protected Forest links Lomphat, Phnom Prich and Phnom Nam Lyr with the Yok Don complex in Viet Nam. Transboundary coordination for landscape conservation and control of wildlife trade will help to secure the integrity of this forest landscape, which supports many large and wide-ranging species, especially the large mammals characteristic of the dry forests of Indochina, also threatened waterbirds, vultures and flagship aquatic species in the river systems. Add specifics on Mondilkiri Carbon stock and trends:

Average Carbon stock values and deforestation rates of the dominant forests types in the demonstration landscape have been calculated in **Annex I**. Given that the majority of the forests concern open Dryland/Deciduous forest (>60% of the area) the average carbon stock has been calculated at 330.54 tCO₂e/ha. Based on an average deforestation rate of 0.73% annually inside the six PA & Protected Forests of Mondulkiri Conservation Landscape, as well as 1% annually for the forests in the landscape corridors outside the PAs, a total baseline emission of over 54.7 million tCO₂e was estimated in the targeted areas (see Annex I – table 5).

Baseline analysis

Cambodia is facing huge challenges to harmonize economic development with forest and biodiversity conservation goals. According to the 4th NR to CBD (2010), “there are substantial challenges and bottlenecks affecting NBSAP implementation. These include ambiguous and overlapping mandates and responsibilities by sectoral agencies. An improvement in both intra- and inter-agency information sharing and transparency is needed if an informed plan is to be developed, particularly with regard to land and other resource allocations. A more systematic and coordinated approach should be adopted by relevant national and provincial agencies to promote synergy and long lasting impacts from sectoral interventions”. It also advises that “Livelihood strategy should form part of the landscape approach to addressing biodiversity conservation.”

Deforestation and habitat fragmentation associated with Economic Land Concessions (ELC - for mining and agri-business like rubber and cash crops) has become a significant threat to maintaining the national PAS, especially due to weak consideration of conservation values and sustainable development principles. The objectives of ELC schemes are to: “increase employment in rural areas, generate state revenue and develop Cambodia’s agricultural sector”. At present, there have been 85 contracted and validated companies with total land area of 956,690 ha located in 16 provinces (although informal reports indicate an area over 2 million hectares). Of particular importance is that until zonation of PAs has been undertaken, any area within the boundary can be designated as an ELC as stipulated by the PA Law. This is considered as potentially the most important current driver of biodiversity loss in Cambodia through whole or partial degazettement of protected forests and some PAs, the loss of conservation investments made to date, as well as being in conflict with Cambodia’s commitments under MEAs like the CBD, RAMSAR convention, etc. However, once an area has been declared a community protected area (CPA), it cannot be granted under a ELC due to an agreement signed between the CPA Committee and the MoE.

Bilateral donors and CSOs continue to invest significantly in biodiversity conservation and protected area management in Cambodia, mainly stand-alone investments in individual PAs. Cambodia has a vibrant and professional CSO sector providing assistance on biodiversity conservation, with some 450 registered local NGOs and 316 registered international NGOs. Most of the protection forests, several protected areas, and some unprotected forest areas are supported by long-term Government-NGO collaborations covering nearly 3 million hectares of Cambodia’s forest estate (over 25%), including in Mondulkiri for example: FA/WWF: Mondulkiri Protected Forest; FA/WCS: Seima Protected Forest; and GDANCP/WWF: Phnom Prich Wildlife Sanctuary. These long-term collaborations have generally been successful at reducing the drivers of deforestation and forest degradation, including agricultural expansion inside the PAs, through local improvements in forest law enforcement and governance and community programmes, however they are reportedly less successful in redirecting ELC or to national uptake and upscaling of ‘best practices’ and capacity, such as with the MoE and FA conservation programs.

Some key lessons learned from past projects in Cambodia on protected area management, landscape conservation and climate change can be summarized as follows:

- Building capacity for biodiversity conservation takes significant time, with best results in areas receiving sustained international financing. It therefore makes sense to build on existing government and CSO programmes and to allow enough time for self-sustaining strategies to gain traction.
- Failure to address significant external threats to individual PAs or their underlying causes, resulting in severe impacts to some individual sites and continuing system-level risks.
- Community-based conservation initiatives - such as patrolling and wildlife monitoring, require national level support. While there are quite a number of promising community based conservation initiatives, facilitated by various NGOs and bi- & multi-lateral funded programmes, they are vulnerable to shifting national planning, investment and development priorities, and need the vital national institutions, capacity and funding support to sustain basic conservation services.
- Lack of sustainable financing for protected area management to sustain project outcomes. The persistent reliance on external donors to fund what should be government-supported programmes and actions remains a generic problem for ODA programmes in Cambodia, certainly for biodiversity conservation. At the current time, there is no obvious end to this ODA dependency and donors such as GEF and its IAs, as well as INGOs continue to play a critical role. Projects can seek to mitigate this dependency inter alia through promoting local level self-sufficiency (e.g. sustainable livelihoods), testing sustainable financing approaches, ensuring project design is consistent with national priorities, as well as integrated with other national and regional programmes as far as possible.
- Biodiversity conservation requires integrated and coordinated approaches. An outstanding challenge identified by all sources during a UNDP country programme outcome evaluation was the need to move towards more integrated approaches to conservation. It noted that national level vision and coordinated leadership was lacking. It also identified the need for landscape level approaches to address wide ranging species and the maintenance of ecosystem services.
- Several midterm and terminal evaluations including some on GEF projects show that the continued investments at 'field-level' perpetuate the "parallel project syndrome" that largely focus on contracting out activities due to the institutional capacity and policy barriers that prevent MoE and other national agencies from delivering at the needed levels. Many conservation projects have worked through individual external agencies, rather than by involving staff of GoC, and/or not attempted to bring them together for a more coordinated and holistic approach. Urgently, investments in continued field PA activities (important to defend priority biodiversity sites from unregulated development threats) needs to be supported by improved policy, technical and financial capacity at national and sub-national levels.

Examples of these issues can be found in the following projects:

World Bank / GEF (#621) - Biodiversity and Protected Area Management Pilot Project for the Virachey National Park (1999-2007). This project focused on Virachey NP, making good progress in capacity development, but was eventually impacted by mining concessions. The current project goes well beyond what was achieved under this WB project by aiming to provide critical national level support for implementation of the Protected Areas Law and coordinated national systems for improving management effectiveness and law enforcement monitoring across the PA system.

UNDP/GEF (#1086) Developing an Integrated Protected Area System for the Cardamom Mountains (2002-2007) implemented through two sub-projects: 1. The Central Cardamom Protected Forest (CCPF) project (2001-2004), implemented by CI and MAFF; and 2. The Cardamom Mountain Wildlife Sanctuaries (CMWS) project in Phnom Aural and Phnom Samkos Wildlife Sanctuaries, implemented by FFI and MoE (2003 to 2007). Lessons learned through these projects included a disjunction between PA management objectives and national and local planning priorities and the related need to integrate protected area management into regional development processes in order to control external threats; and the need for clear government ownership of governance arrangements for PAs. The project was also impacted by the larger issues of institutional coordination, establishing firm national conservation priorities and realizing sustainable financing.

UNDP/GEF (#1183) Tonle Sap Conservation Project (Completed). Lessons learned concerning the need for

stronger institutionalization of project management, stronger attention to institutional capacity development, mechanisms for effective inter-agency collaborative management, and sustainable financing to support project outcomes have been noted in the development of this proposal.

In summary, despite collaborative work with CSOs and development partner agencies with some good results, the very existence as well as ecological integrity of the PAS is being seriously compromised by a range of factors including ELCs, encroachment, illegal logging, hunting and illegal trade in wildlife and forest resources, fragmentation by roads, hydrological interventions, etc. Only concerted action by the three PAS agencies, together with other key agencies such as public works, economic affairs and land administration can balance economic development with maintaining Cambodia's PAS.

As a result of the analysis of the above baseline situation this project responds to the following issues that have been recognized as significant constraints for biodiversity conservation and the national protected area system (PAS), including its role in Carbon stock and sequestration:

1. **Lack of Inter-sectoral Coordination and Capacity including lack of unified vision and harmonized approaches, inefficient use of resources and reduced influence.** This is also reflected in the Lack of Effective PAS Governance and Law Enforcement related to the split between three government agencies with ambiguous and overlapping mandates and responsibilities. In addition, the PAS under MoE currently lacks a strategic plan, clear and transparent governance processes, central coordination capacity, and sustainable financial resources. Component 1 of the project will support inter-sectoral coordination, enhanced law enforcement monitoring, agreement on a strategic plan for the national PAS, conduct capacity building within MoE, and greatly enhance governance processes.
2. **Lack of Integrating the Value of PAs, Forest & Biodiversity, and Carbon sequestration in development processes,** manifested as weak political support for the long term legal security of the national PA system and forest corridors, as well as some gaps in PA coverage. As a result, significant challenges are now being faced in recognizing and integrating the values of biodiversity and ecosystem services into the planning and decision-making processes for Economic Land Concessions with major negative impacts. It is also lacking assurance of access and benefits to local communities. All three project components address this fundamental issue, especially the targeted awareness campaign under Component 1 as well as Component 2 on demonstrating this approach at the landscape level, in coordination with ADB's Regional GMS Biodiversity Corridors Initiative Phase II and CSO programmes.
3. **Lack of Monitoring of Wildlife, Habitat Connectivity and other Biodiversity-related aspects** (CBD Aichi targets) to inform subnational, national and regional (GMS) decision-making processes and awareness programmes. Component 1 has elements to address this issue by enhancing collaborative biodiversity monitoring, law enforcement, and information management.
4. **Lack of Financial Mechanisms for Effective PAS Management (in- & ex-situ), including on sustaining forest habitat connectivity, protection of carbon stocks, and environment-friendly local economic development,** as well as towards need for community participation and related support. NR4 states that resource mobilization is the main problem in implementing the CBD strategic plan, compounded by weak human and institutional capacity. This has been compounded by increasing priority given to commercial interests such as Economic Land Concessions. Component 2 responds to the need for sustainable financing for Cambodia's PA system in an integrated landscape-wide approach.

Baseline projects - Cambodia PAS & SFM support:

Cambodia desperately needs policy and institutional reform on PA management, as well as significantly increased capacity of its key agencies. For instance many GEF and other foreign donor projects have failed to sustainably increase institutional capacity, and the results of well-intentioned NGO-driven projects also have low prospects of sustainability for the same reason. Developments regarding the issuance of Economic Land Concessions, some in direct conflict with PA objectives and legislation, need to be factored in towards building national consensus and support for the PAS.

The primary baseline for the project consists of MoE protected areas administration & LEM; FA NFP including on SFM, forest protection, wildlife conservation & LEM; the jointly administered UN REDD+ National Programme; and FiA programmes on fisheries conservation. The Ministry of Environment's annual budget for Protected Areas is only \$500,000 for 2012 and 2013, which is modest in GEF terms, yet also showing the significant need for financial support given the 3.3 million hectares of PA under their jurisdiction. As noted in a 2003 review of Cambodia's PA system, "the MOE's budget barely covers staff salaries and basic administration. Cambodia's expenditure for PAs is very low when compared to other countries in the region. Given the commitment of more than 21% of the country to this form of land use and its contribution to development in many key sectors, investment priorities need to be reviewed". This is supported by significant additional funding from various development organizations and programs (see below), which is likely to total well in excess of \$10 million annually. The Environmental Endowment Fund was established under the Law on Environmental Protection and Natural Resource Management (1996), but is too small and without a focus on biodiversity.

The Technical Working Group on Forests and the Environment (led by FA) developed the National Forest Programme (NFP) including coordination and planning. Financial cost estimates for the first 10 year phase of the National Forestry Programme total \$45.1 million, including: \$10 million for national forest resources management (of which \$2 million for biodiversity conservation in Protected Forests and \$2 million for conservation of genetic resources); \$2 million for forest law enforcement and governance; \$9 million for community forestry; \$13 million for capacity development and research; \$1 million for conflict management; and \$1 million for monitoring and reporting (inter alia). Under the NFP, the area of protection forest is targeted to increase to 3 million ha, community forestry 2 million ha, reclassified forest concessions for protection and production forest 0.3 million ha and production forest 2.5 million ha. The main income sources are identified as: government (\$15 million), national forestry (\$1.7 million), private sector (\$1 million), donors to NFP over 4 year period \$27.1 million, and "innovative sources" (\$2 million). The inland fisheries sector is also of major importance, employing some 6 million people and contributing some 12% of GDP. The Fisheries Administration (FiA) budget for fish conservation including fish sanctuaries is \$14 million under Goal 3 of the Strategic Planning Framework for Fisheries for the period 2010-2019.

Significant REDD+ funding has been committed recently in support of Cambodia's REDD+ Roadmap implementation mainly through the Forest Administration (FA), with \$4.2 million approved for a two-year UN REDD Programme from May 2011 (including through UNEP). This will complement and coordinate with ¥900,000,000 support from the Government of Japan for both the REDD+ Monitoring System and implementation of the NFP, expected to be disbursed from 2012. JICA has also committed support for NFP implementation, National REDD+ Readiness and REDD+ demonstration projects. Cambodia is expected to receive a \$20-30 million grant for climate change adaptation under the WB Pilot Programme for Climate Resilience, focusing on climate resilient investment and building on the NAPA. Cambodia has also applied for a \$3.6 million grant from the WB Forest Carbon Partnership Facility (FCPF) to support implementation of the REDD+ Roadmap. The EC has approved several project grants to NGOs to support REDD+ and PES site-based demonstration activities in Cambodia. The USAID Cambodia HARVEST (Helping Address Rural Vulnerabilities and Ecosystem Stability) programme includes support for development of the policy framework as well as for national REDD+ readiness and demonstration around the Tonle Sap Great Lake and the Mekong floodplain. The USAID Regional Development Mission Asia (RDMA) Asia Regional Sustainable Landscapes Program will support REDD+ projects, training and capacity-building and national strategy development for six countries in Asia including Cambodia for \$20 million. The ADB's Core Environment Program (CEP) designed and agreed Phase 2 of the Biodiversity Corridor's Initiative (BCI), which will focus on the Eastern Plains and Cardamom Mountains corridors in Cambodia. The CEP also has funding for TA work on REDD+ and PES at the national level and in the three biodiversity corridors: Eastern Plains, Cardamom Mountains and the Northern Plains. WCS is implementing a REDD+ pilot project in 180,000 ha of the Seima Biodiversity Conservation Area in the Mondulkiri Conservation Landcape - Eastern Plains.

While the sources are diverse, the annual budgets of the larger INGO programmes in Cambodia (WCS, WWF,

FFI, CI, BirdLife International, Live & Learn Environmental Education, etc) are in the order of several million US\$, contributing very significant technical support to the government. The project aims to capitalize on this collective investment by harnessing the information arising from these diverse efforts through a national biodiversity, PAS and LEM monitoring and information system and strengthening collaboration. Several of these organizations have major programmes in the Eastern Plains, including WWF (supported by WWF-US, WWF-Germany, WWF-Switzerland, WWF-Sweden, USFWS, ADB BCC and other donors), WCS (8 programmes supported by DANIDA, DFID, NZAID, USFWS, MacArthur Foundation, private donors, etc, including the REDD+ pilot project in Seima); and BirdLife International (e.g. USFWS support for conservation in Lomphat WS). At the local level, the 4th NR to CBD states that there are 751 communities participating in NRM as a collective force with the government agencies and NGOs to conserve and use natural resources in a sustainable manner.

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

The proposed GEF intervention will address the key issues identified above, building on related baseline initiatives. Overall, the project aims to **enhance the management effectiveness of Cambodia's national protected area system through national and sub-national programs, as well as secure forest carbon through demonstrating improved inter-sectoral collaboration, landscape connectivity and sustainable forest management & rehabilitation in the Mondulhiri Conservation Landscape**. The national CBD fourth national report identifies that a unified approach is currently lacking and is recognized as a key constraint for the delivery of the NBSAP as a whole, and for the protected area system in particular (which is currently split between three agencies, with little external government support). Additionally, the lack of a unified approach is also recognized as a key constraint for maintaining regional ecosystem connectivity, addressing forest land degradation, filling gaps in capacity required for sustainable forest management, supporting climate mitigation, habitat restoration, and biodiversity protection within and outside Protected Areas (PAs). These were also highlighted as being key problems, during the stakeholder consultations conducted during both the formulation of the national GEF NPFE as well as drafting of the PIF in Cambodia which included conservation and education NGOs, national government line agencies, as well as donor institutions such as ADB, AF and UNEP staff.

The present project differs - from the baseline projects, in explicitly aiming to address the system level issues, including (i) establishing the necessary 'enabling and change provoking' environment at national level by investing in communications & awareness, strengthened PA governance involving inter-agency cooperation, as well as demonstrating sustainable financing options; and (ii) a sub-regional planning approach for the demonstration landscape integrating protected areas and biodiversity conservation into sustainable development. The project's subregional approach is informed by the UNDP/GEF CALM Project – Establishing Conservation Areas Landscape Management in the Northern Plains (led by WCS), which received a favourable mid term review, in view of its effective capacity building for local authorities and communities for a range of innovative conservation actions, including local financing opportunities and incentives resulting in tangible conservation benefits. The present project puts stronger emphasis on integrating forest conservation with ongoing and planned sub-regional economic development planning – such as e.g. ongoing program of Economic Land Concessions which often ignore or impact on conservation including established PAs, as well as integration with landscape level programmes such as ADB GMS FBP, BCI and BCC.

Additionally, whilst the legislative framework has advanced significantly and is now relatively well developed in Cambodia, capacity for improved governance, implementation and enforcement remain key issues which this project will address.

Component 1 of the project aims to **Strengthen National Vision and Support for Landscape-based Protected Area and Forest Management**, through three main outcomes:

1.1 Coherent and informed inter-sectoral governance and management of the national PAS - focusing on delivering national biodiversity and PAS strategic planning goals

This outcome directly addresses the need to support the development of a sustainable and effective platform for inter-sectoral collaboration on biodiversity conservation and protected areas, including the development of National PAS Vision with an umbrella 5-year Action Plan for the combined PAS consistent with existing policies and plans for each agency (MoE, FA and FiA) based on a gap analysis, consensus building and joint resource mobilization. This is a significant *departure from the baseline*, under which the current fragmented and inefficient governance of the PAS is likely to persist, exposing its vulnerability to external threats. Institutional support and human resources development will be provided beyond the baseline fragmented and uncoordinated capacity building efforts largely focused on individual PAs, to build capacity for PAS governance at local, provincial and central levels to enable the delivery of strategic planning goals in line with the Law on Protected Areas and related legislation and policies such as on REDD+. This support will also take account of sustainable financing needs and approaches demonstrated in Component 2.

1.2 Improved national compliance with PAS management goals particularly wildlife conservation & maintaining forest connectivity across large landscapes.

While there is a significant amount of baseline activity in the area of wildlife law enforcement monitoring (LEM) and PA management, these have yet to be integrated and coordinated at a national government level. *Without the project* these efforts will remain pilots, lack national support mechanisms and sustained financing within the three PA agencies, as well as lack the need for integration within wider landscape, forest conservation and transboundary cooperative programs – all with the effect that species & habitat monitoring will be unable to contain the rise in illegal trade, land clearing and encroachment into high BD habitats. GEF investment under this outcome will focus on the development of unified national wildlife and forest law enforcement monitoring (LEM) and PA management effectiveness tracking tool (METT) systems, including national coordination, human resources development, application of RS and GIS technology in order to protect forest ecosystems and key species. These systems will be field tested at a variety of PAs across Cambodia, and reporting procedures developed in support of management feedback, MEA reporting and awareness raising goals. This outcome builds on various projects contributing towards the development and implementation of the MIST management information system, aiming to support application of the next generation of the free access software (SMART) through technical assistance by CSO partners, capacity building for government agencies, and linkage with international LEM programmes for more effective control of transboundary wildlife trade. The LEM system will be harmonized with regional law enforcement initiatives (e.g. TRAFFIC and PATROL) including capacity building for related agencies (customs, police, border guards, and judiciary). Transboundary conservation programmes will be developed through arrangements with neighbouring Vietnam and collaboration with regional programmes including ADB-GMS FBP, BCI and BCC to coordinate actions, obtain technical and financial support and exchange information.

The project will also support the systematic deployment of rapid assessment technology for detecting changes in land use in relation to protected areas, allowing rapid response to encroachment and land clearance. These developments would go substantially beyond the scale of any interventions to date and significantly enhance government institutional capacity to respond to threats.

Outcome 1.3 Improved national recognition and support for the role and monitoring of BD conservation, PAS, and forested landscape connectivity in the achievement of national sustainable development goals

Activities under *Outcome 1.3 Improved national recognition and support for the role and monitoring of BD conservation, PAS, and forested landscape connectivity in the achievement of national sustainable development goals* have a key role in Cambodia to *improve the baseline situation* of lack of national unity, ongoing conflicting interests and lack of vision with regards the PA Network goals and how to integrate Economic Land Concessions in regional landuse decisions whilst maintaining the functionality of the PA network in the Mondulkiri Conservation Landscape and elsewhere, as well as the suboptimal use of existing conservation partnerships and information on ‘best practice biodiversity conservation’ in the country. Without the project several of the formally established PAs will be lost due to land and forest conversions. It will provide an alternative strategy through a combination of communications and information management

activities targeting outputs such as enhancing the national BD & PAS strategic unity, conducting collaborative monitoring of BD targets, as well as support for integrating BD conservation in national economic development. While there is a considerable amount of CSO activity on building awareness, this is not specifically targeting the overall PA system, nor the national unity and institutional collaboration needed. Additionally, MoE's Dept of Information, Education and Communication lacks the resources and technical capacity to do this under current baseline conditions. Similarly, there is an abundance of information on biodiversity resources and good PA management practices in Cambodia, but it is largely unsystematic and held by different organizations or programs. As a result, it is not easily available for policy, planning and replication of best practices on conservation management, and systems are not in place for information management and exchange.

Lack of recognition of the importance and economic value of biodiversity and ecosystem services is a key driver of environmental degradation, especially in the context of expanding rural populations, widespread rural poverty, rapid economic development fuelled by strong regional demand for natural resources, and limited institutional capacity for effective governance. Therefore, this is an important outcome with significant investment in support of implementing the National PAS Action Plan and the regional SDP, recognizing that improved awareness of the values of biodiversity and ecosystem services, and the role of the PAS are critical for the accomplishment of biodiversity conservation as well as sustainable development goals. It will also support the outcomes 1.1. and 1.2 under Component 1 by creating a unified national vision as well as partnership building with various PA management-related agencies. The approach will be informed by detailed stakeholder analysis, setting key messages, as well as sharply targeted strategy based on social marketing techniques to achieve understanding and willingness towards change with policy and decision makers at national & sub-national levels, journalists, the judicial system and law enforcement agencies. Capacity building will be provided for MoE in the field of communications, education and awareness to implement the communications campaign and support information dissemination on the national PAS system.

A national biodiversity monitoring system will be developed and agreed with a broad stakeholder forum including operational linkages to national biodiversity policy, budgeting, and government programs affecting PAS (multiple sectors) under 1.1. & 1.2. The collaborative biodiversity monitoring programme will be coordinated through a broad partnership involving government and CSOs, regularly updated and accessible through development of an online meta-database. Training, capacity building, inter-organizational coordination and outsourced technical support will be provided for operationalisation of the Information Management System and field biodiversity monitoring & reporting. The information products of this process will include the production of strategic information & publications, including bi-annual "state of Cambodia biodiversity" reports as part of the national environmental performance assessment system, to inform policy development, planning processes, guide donor investment, and respond to key threats and drivers of biodiversity loss. Overall, this will bring together dispersed information from a range of stakeholders through a unified approach for sharing biodiversity information. The information will allow human and financial resources to be targeted more effectively at knowledge gaps and conservation priorities for the PAS and wider conservation efforts including ecological research and monitoring. Monitoring will provide results-based Environmental Performance Assessment for biodiversity conservation efforts within and beyond the PAS, including the definition of national indicators, monitoring programme and outputs related to national management.

Component 2 aims to demonstrate **Integrated Landscape Management for Safeguarding Forests, Biodiversity, and Carbon Stocks, in the Mondulkiri Conservation Landscape**, supported by and feeding back into the national components. This is a major component, representing more than 60% of the total GEF investment. Given the relatively strong baseline for this area, the project's strategy is to integrate this component with investments from the ADB GMS BCI Phase II and the related BCC project, as well as the ADB/GEF Forest and Biodiversity Programme, UNEP Adaptation Fund project, build on the existing CSO programmes for increased impact and sustainability. *Without the GEF intervention* the major threats imposed by existing and planned Economic Land Concessions (ELC) to Mondulkiri Conservation Landscape - including its seven PA and forests, its unique biodiversity and economic important ecosystem services, will

continue and affect the achievement of Cambodia's national conservation goals, the balanced incorporation of local communities' objectives in the country's economic development programs, as well as maintaining the extensive forest carbon stocks of the Mondulhiri Conservation Landscapes. *Not having the GEF project* would also weaken the prospects for maintaining the forested corridor between Cambodia and Vietnam, an area of increasing illegal activities such as log and wildlife smuggling, deforestation, as well as social tension. The suggested transboundary mechanisms for law enforcement (LEM), monitoring, and conservation programs under the GEF project, are the first necessary steps towards a regional response.

Overall, this component will integrate PA management planning, sustained financing, and forested landscape-connectivity with regional planning and programmes in line with national initiatives for enhanced sub-national governance, solicit multi-stakeholder buy in, support social and economic development goals and reduce external pressures on the PAs. It also targets to enhance forest carbon stock through community- and government conservation and reforestation programs. This integrated approach seeking to harmonize biodiversity conservation and climate change mitigation goals with subnational development planning and community based forest management goes beyond the existing baseline programmes, and also demonstrates the application of the other components on inter-sectoral governance arrangements, inter-organizational collaboration on information management, systematic LEM and PA management effectiveness, and targeted communications at a subnational level. There are four main outcomes:

2.1 Enhanced biodiversity security, forest connectivity and reduced LULUCF-based emissions in 350,000 ha through harmonizing economic development plans with forest and biodiversity conservation.

This outcome will develop and demonstrate a collaborative integrated approach to landscape management that will support protected areas, forests and biodiversity conservation in this region of exceptional global importance for biodiversity. The process will involve a series of steps, first establishing an adequately broad and representative stakeholder consultation and conflict management platform. This platform will necessarily include agencies from both the primary productions sectors such as forestry and agriculture, as well as conservation agencies, NGOs and local community groups and government agencies, but foremost those most involved with the planning, design and decision making on the contentious Economic Land Concessions such as the Ministry of Economy and Finance, Ministry of Interior, Ministry of Land Management Urban Planning and Construction, Ministry of Planning, and Ministry of Rural Development, as well as related corporate investors. Given the Forest Administration (MAFF) has to provide approval for any changes in forest status and utilization, it is key they get the lead on this process, guided by the National PA Committee established under Comp 1. Subsequently, this platform will decide on the working area for the demonstration landscape through stakeholder consultations, identify the key targeted PAs including community managed areas. Subsequently the baseline such technical assessment of landscape characteristics and values will be established, including how best to build/collaborate with the ADB/GMS BCI and BCC, NGO programs, as well as the recently approved UNEP/AF project. Key stakeholder groups would then be empowered and a participatory planning mechanism conducted based on the national PAS vision and approach, and existing work with local communities in REDD+ pilots, etc. Capacity building in economic valuation of key ecosystems and services in the landscape will provide important arguments for recognition of these values in economic development planning processes, based on the ongoing work by TEEB. Given ELC's large land holdings (up to 10,000ha) and the potential scale of impacts on the sustainability of the PAS and associated forested corridors, the project will work with national and local governments to resolve some of the pending conflicts in resource allocations in Mondulhiri Conservation Landscape demo area. This will be achieved through a sustainable development strategy and spatial plan (SDS) for the demonstration landscape (in close coordination with ADB BCI/BCC and related CSO programmes), including forest protection, rehabilitation and maximizing carbon stocks; ecological connectivity & PA network development, protected area management zoning, natural resource-based community development, and mainstreaming BD & SFM in regional economic development. Spatial analysis including land cover, carbon stocks and deforestation rates will support spatial planning including on transboundary connectivity with Vietnam, building on existing work under ADB BCI/BCC and related CSOs, providing information for REDD programme development including carbon reference levels (2.2). The SDS and spatial plan will be supported by a finance and resource mobilization strategy including potential short, medium and long term investments from forest carbon

financing, returns from ecosystem services and ecotourism development, as well as revenue flows from economic development projects and programmes. The final stages involve capacity building on the ground to ensure effective linkage between PA management and sustainable land use in surrounding areas, including mainstreaming forest protection and rehabilitation in ecological corridors and buffer zones.

2.2 Carbon stock and forest monitoring capacity strengthened and institutionalized in Mondulkiri province

This is in direct follow up to the adopted national plus sub-national approach on MVR/REL under the upcoming national REDD Strategy. Given the various REDD and forest carbon pilot initiatives in the Mondulkiri Conservation Landscape, as well as the GEF project support for RS and GIS-based LEM under Comp 1, the project can start with a good baseline, yet develop the integrated GIS-based system needed for Tier 2 or 3 on a sub-national REL. It will support the spatial analysis of land cover, deforestation rates, and carbon stocks & fluxes for the demonstration landscape through coordination with National MRV Team, collaboration with ADB BCI / BCC, and collaborative programs on REDD pilots. Additionally, a system of participatory Forest Monitoring will be established / enhanced for community co-managed areas to measure forest rehabilitation efforts, carbon stocks, REDD+ co-benefits including socio-economic and ecological contributions, linked to the national REDD program. Without GEF support it would continue to be impossible to make the measurable case as well as establish strong linkages between landscape and PA forest conservation, in meeting national and international Carbon emission goals.

2.3 More resources available for enhanced management effectiveness of PAS in Mondulkiri Conservation Landscape.

The *baseline analysis* showed that inadequate funding is generated at national government level for the costs of the PA network, that local initiatives lack mechanisms for up scaling and replication, and that PA (financing) is not adequately used and integrated within regional development. This demonstration outcome will test sustainable financing mechanisms linked to PA management improvements, to inform national PA Network strategy and planning as well as regional development planning, in coordination with ADB BCI/BCC. PA Model Management/Business Plans will be harmonized with regional economic development and planning processes, including demarcation of management zones for one PA to demonstrate application of PA Law procedures, landscape connectivity, and integration with development. The Business Plans (2.3.1) will be based on analysis of investment & operational costs of the model management plans, as well as additional levels and types of fundraising mechanisms needed. Cost-cutting ways will be determined of e.g. conducting LEM and other conservation surveillance and monitoring needs, through partnership with community- and business groups, outsourcing to NGOs, community-based reforestation plots (combined with secured resource assess rights) and others. Additional sources could include raising visitor fees, the legal steps needed to allow for commercial concessions in bufferzones for e.g. eco-tourism, and many possible related funding mechanisms, to top up the thin government resources for park management.

In addition, three pilot PA sustainable financing models (2.3.2) will be adopted and tested and policy recommendations set for upscaling to national level based on lessons - incl. market feasibility assessments, agreement with key stakeholders, and linkages to REDD+ and SFM practices. Cambodia's tourism sector will almost certainly continue to grow rapidly. Tourism offers one prime opportunity where partnerships between operators and biodiversity conservation managers can deliver win-win solutions. The project will enable partnerships, test feasibility of small-scale business models and built capacity on eco-tourism development in and around the targeted PAs. Ideally, these will be established early to allow conservation costs and benefits to be integrated within business models (2.3.1 & 2.3.2). This builds upon some ongoing small-scale NGO work, as well as the recently approved WWF eco-tourism project with Danish funding. The GEF project will link into this through establishing a regional plan and facilitate enhanced government support through the regional economic development plans and associated investment portfolio, as well as the clear spatial allocation of tourism development in PA bufferzones, ELCs - where appropriate, and other formal government plans. The project will support national upscaling to other PAs through national guidelines on (FPIC) benefit sharing mechanisms involving MoE, FA as well as FiA as part of the information and monitoring activities (1.3.2 and 1.3.4).. Other sustainable finance options – such as e.g. PWS (payment for water services), will have to be chosen based on their pre-feasibility assessment during PPG, given that Cambodia is not yet ready with supporting policy, legislation and capacity. The project will review experience

and minimum elements needed to successfully start PES schemes through other related programs such as REDD, ADB-GMS and others.

2.4 Carbon sequestration enhanced and forest cover improved for 2,000 ha pilot areas through increased resource and livelihood security of participating communities. This outcome focuses on building local capacity and support for implementation of pilot activities aligned with the SDS for the demonstration landscape. It centres on Community-based Forest Management and Rehabilitation in PA buffer zones, corridors, CPAs and CFs, and will include village forest carbon pools, tree plantations, agro-forestry, and related activities in collaboration with the national REDD programme and sustainable livelihoods programs under ADB BCC and the UNEP AF projects (total 500 ha forests). In particular, it aims to Increase Forest Resource and Livelihood Security for Communities in CPAs / CFs through boundary demarcation, clarification of land tenure and resource access rights, with related community conservation agreements supporting livelihood assistance programmes and sustainable land, based on existing CSO experience. Finally, government-led and community-based Assisted Natural & Artificial Forest Regeneration (min.1,500 ha) and Forest Protection will be conducted to strengthen landscape PA connectivity, focusing on key vulnerabilities in forest mosaic networks, wildlife corridors, ES protection & transboundary landscapes in close collaboration with ADB BCI / BCC and UNEP AF.

GEB: The global environmental benefits (GEB) of this GEF intervention are expected to include an overall increase in the ecological security of Cambodia's protected area system covering some 4.5 million ha and related biodiversity resources, through reduced incidence of encroachment, land conversion, illegal hunting and trade in wildlife and forest resources; and improved awareness of the value of biodiversity and ecosystem services at the higher political levels, integration of biodiversity conservation with economic planning processes, and strengthened conservation planning and management processes based around a unified vision.

Specifically it will:

- Improve the management effectiveness of 6 protected areas in the Mondulkiri Conservation Landscape, covering a total area of 1,254,121 ha, through strengthening landscape corridors, LEM, agreement on a sustainable economic development strategy, and forest conservation strategy (including spatial plan), conflict resolution with regards ELCs, establishment of business plans for model PA management, three sustainable financing plans implemented, as well as significantly stronger community support and benefit generation.
- The targeted PAs, including an estimated additional working area of 150,000 ha in forested buffer zones and BD corridors of the Mondulkiri Conservation Landscape, provide habitat for a large number of endemic and critically endangered species. The project will strengthen conservation of these species and habitats through better recognition of forests and related habitats, their connectivity needs, the valuation and integration in development plans of forest ES such as water supply, rehabilitation of forest corridors and key conservation sites, as well as transboundary forest- and species conservation programs with neighbouring Vietnam.
- The intervention in the Mondulkiri Conservation Landscape (part of Lower Mekong Dry Forests ecoregion) will support the integrity of high conservation value forest and related ecosystems, which supports many large and wide-ranging species, especially the large mammals characteristic of the dry forests of Indochina, such as the Asian Elephant, Tiger, Banteng, Gaur, Wild Water Buffalo and Eld's Deer. Arboreal species include Leopard, Clouded Leopard, Black-shanked Douc and Yellow-cheeked Crested Gibbon. The trapeangs (watering holes) throughout the Eastern Plains provide breeding and feeding habitats for threatened water birds including the Eastern Sarus Crane, White-winged Duck, critically endangered Giant and White-shouldered Ibis as well as Lesser and possibly Greater Adjutant. Three critically endangered vulture species maintain breeding populations: Slender-billed, White-rumped, and Red-headed Vulture. The critically endangered Siamese Crocodile is present in small numbers in the Srepok River system. Large individuals of several fish species are still caught in the Srepok River including rare species like seven-striped barb or giant carp, and freshwater sting rays may also be present. A small population of Irrawaddy Dolphins occurs in the Mekong mainstream.

Improved LULUCF management practices across the demonstration landscape will be achieved through improved provincial & district spatial planning, forest conservation and Carbon stock protection inside PAs in an total working area of 350,000 ha., rehabilitation of degraded forest areas in an estimated 1,500 ha, as well as community forestry practices such as 500 ha of agro-forestry in and around protected areas to strengthen ecological networks. Improved management effectiveness in the national PAS, and upscaling of SFM practices in and around PAs will also contribute at a wider scale. Project inputs relating to climate change mitigation and SFM are expected to bring a minimum of 150,000 ha of forests under improved management, rehabilitation and carbon stock conservation. Preliminary estimates on Carbon fluxes in the demonstration area indicate emissions' avoidance through improved management and security of PAs (of 15.4 million tCO₂e over 20 years period) and SFM activities outside PAs (527,081 tCO₂e over 20 years), and additional carbon sequestered through an estimated 2000 ha of forest rehabilitation and agro-forests (236,717 tCO₂e over 20 years).

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/NPIF) or adaptation benefits (LDCF/SCCF). As a background information, read [Mainstreaming Gender at the GEF](#).

Overall, the project will improve the security of natural resources in the national protected area system and in surrounding landscapes. Given that some 5 million people live in and around protected areas in Cambodia of which 90% are poor and are dependent to a large degree on these natural resources, the project will definitely contribute towards their livelihood security, the security of supporting economically important ecosystem services, as well as resilience to climate change through ecosystem-based adaptation. In general, the project will adopt an inclusive and participatory approach seeking to ensure that local communities both benefit from protected areas and support their conservation objectives through Community Protected Areas, Community Forests and Community Fisheries, as well as awareness and education programmes and involvement in management-related activities.

The landscape conservation demonstration component (2) will provide tangible support for the development of sustainable livelihoods, rural SMEs and community-based NRM. Importantly, all forest protection, sustainable forest management and forest rehabilitation goals would be linked to community work and based on a prior benefit analysis as well as FPIC procedure. The project would seek to institutionalize this approach through commune and district planning processes under Cambodia's decentralized administration policy, using tools such as Community Conservation Agreements, sustainable finance mechanisms involving communities, and community benefits related to more secure access and land titles on land and forests in CPAs, CFs and around PAs. Actual assistance provided would include development assistance linked to environmental improvements, training and roles in PA management, and support for small businesses. Experienced local CSOs such as WWF and WCS would play a key role in implementation. The socio-economic feasibility of such sustainable livelihood interventions will be assessed during the PPG.

Collaboration with ADB's Biodiversity Conservation Corridors Project (*Outputs 2 & 3*) will contribute towards community based forest protection and rehabilitation and establishing related alternative income base and increased capacity of local communities. Collaboration with ADB's CEP BCI Phase II *Component 2: Management of transboundary biodiversity conservation landscapes and local livelihoods improved* will support the project's sustainable development strategy and forest rehabilitation, etc. Collaboration with UNEP's AF project will provide substantial support to activities supporting communities around Community Protected Areas (5 CPAs including one in Mondulkiri are included in the AF project), aiming to support local governance and empowerment of community groups and CPA committees, income generating activities, investments in reforestation and habitat rehabilitation (training, tree nurseries, etc).

The project will address gender considerations by aiming to integrate social equity and gender issues into policies, programmes and plans for protected area management and biodiversity conservation. All activities involving local communities will have to comply with FPIC – based on e.g. the guidelines developed by the

UN REDD program (with UNEP). Stakeholder analysis and baseline surveys for landscape conservation demonstration will collect disaggregated information on gender, and affirmative action will be taken with respect to involving women and youth in project activities, workshops and training. In particular, community-level actions will seek to ensure participation and benefits to women such as reduced daily workloads through improved technology and technical assistance.

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 to the success of the project intervention include:

- **Challenges of inter-agency collaboration on biodiversity conservation and protected area management:** Governmental responsibility for biodiversity conservation and protected areas management in Cambodia is shared mainly between MoE and the FA and FiA under MAFF, and MOWRAM (for Tonle Sap), based on legislation such as the Law on Environmental Protection and Natural Resource Management, Protected Area Law, and the Forestry Law. Existing inter-agency committees have experienced constraints in their functionality, due to perceptions of inequity in the relationships or lack of ownership, and in other cases lack of functional coordination mechanisms has led to a breakdown in collaborative resource management. Accordingly, there is a risk that attempts to improve collaboration could fail. In line with the NBSAP's strategic objective for the protected areas system to "promote and strengthen cross-sectoral communication and coordination based on the existing mechanisms to solve any conflicts of interest", the current project aims to address this issue directly through a transparent systematic approach aiming to build trust and reduce competition and conflict, and by building working relationships through collaborative action towards specific objectives under a shared vision. Detailed stakeholder analysis will inform awareness and conflict resolution programmes, together with the development of inter-agency platforms for dialogue and collaboration, acknowledging that such processes take time to achieve sustainable and productive relationships.
- **Lack of mainstreamed financing to sustain project outcomes:** A number of past project investments in Cambodia have achieved good results during implementation, only to have activities come to a stop at project completion due to lack of sustainable financing and human capacity. The Fourth National Report to CBD (2010) states that "there are issues with the limited human and financial capacity that leaves large sections of planned activities unimplemented. With limited skills and professionals to perform tasks as well as poor and ad-hoc coordination, there are few incentives to seek long lasting solutions. This is also compounded by increasing priority given to commercial interests". This is a difficult issue to deal with in the Cambodian context, where the Government is still heavily dependent on income from overseas aid as it still recovers from the civil war, government budgets are low and staff are poorly paid. There is little prospect of the central government agreeing to increased budget or additional human resources for e.g. MoE. Therefore financing needs to be found through other mechanisms which will be reviewed through the sustainable financing outputs of this project. In particular, mechanisms will be investigated for increasing revenue flows from economic development in and around protected areas to support sustainable environmental management – e.g. through REDD+, and from appropriate environmental services that do not impact poverty reduction efforts. Investment in sustainable livelihoods and SMEs in conservation landscapes with the assistance of external donors (e.g. through co-financed activities by the ADB CEP –BCI program) will demonstrate financial support to community-based natural resource management with the aim of reducing external pressures on protected areas and biodiversity.
- **Climate change impacts:** Climate change adaptation is being addressed through significant investments in other projects and programmes in Cambodia and is not a major component of this project (although collaboration with the UNEP AF project is described in B6, especially for the demonstration landscape component), although LULUCF is being addressed. Adaptive management

will be factored into the strategic plan for the protected area system, integrated landscape management planning, and management planning for individual protected areas. Biodiversity monitoring and information systems will take account of the potential impacts of climate change on key species and ecosystems.

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:

The Ministry of Environment (MoE) as NEA for the project has jurisdiction over the protected areas covered by the Law on Protected Areas and is also National Focal Point for GEF, CBD, Ramsar Convention and UNFCCC in Cambodia. The General Department for the Administration of Nature Conservation and Protection (GDANCP) led a consultation process involving related government agencies and CSOs towards developing a national framework on protected areas and biodiversity, which provided the basis for the present proposal. The MoE will provide national coordination for the project. Two agencies under the Ministry of Agriculture, Forestry and Fisheries (MAFF) - the Forestry Administration (FA) and the Fisheries Administration (FiA) will be key partners in project implementation. The FA manages the Permanent Forest Estate (PFE) and plays a significant role in wildlife protection. It is responsible for sustainable forest management, managing protection forests (a significant part of the protected areas system) and community forestry *inter alia*. MoE and MAFF play a key role in leading the national REDD+ programme. Coastal and marine protected areas, mangroves, inundated forests (around Tonle Sap for example) and freshwater habitats are generally managed by the FiA, which has primary responsibility for fisheries and other aquatic and marine species conservation.

Other related government agencies such as the Ministry of Economy and Finance, Ministry of Interior, Ministry of Education Youth and Sports, Ministry of Land Management Urban Planning and Construction, Ministry of Planning, Ministry of Rural Development, Ministry of Tourism, Ministry of Water Resources and Meteorology, and the Tonle Sap Basin Authority will be engaged through inter-sectoral coordination and capacity building under specifically Component outcomes 2.1 and 2.3 (SDS, ELC, sustainable financing etc). Additionally the project would to engage and invest in partnership with these agencies under Outcome 1.1 as well as the communications program of Outcome 1.3 all in all to broaden the willingness to act along a unified vision, significantly increase the profile of BD conservation in those economic development decisions, as well as to reduce – at least in the demo landscape, the many conflicts related to the ELC program. Agencies concerned with law enforcement such as the Police, Customs and judiciary will also be engaged in Outcome 1.2 to strengthen capacity and collaboration on national and regional illegal wildlife and timber trade issues (LEM system). The CPA Management Committees, responsible for the Community Protected Areas inside the MoE mandated PA, are key partners in the local pilots on PA zonation, local development and surveillance activities (LEM). At provincial level the project would work closely on demonstration landscape activities with the provincial governor's office, provincial offices of MoE, FA, FiA and other stakeholder agencies, district and commune heads, and field offices/representatives of related CSOs.

CSOs will play a significant role in providing technical inputs to project implementation under the overall coordination of MoE, based upon the results of a consultation exercise led by MoE in 2011. This identified the key technical capacity of international and local CSOs in participating in the project, including potential cofinancing contributions totaling a minimum of US\$3 million. While implementation arrangements will be developed during the PPG stage, it is expected that WCS will lead on law enforcement monitoring and biodiversity monitoring TA with input from others such as TRAFFIC, Wildlife Alliance, etc; local NGOs Live and Learn and Mluk Baitong will be involved in awareness and environmental education, as well as in community livelihoods work, respectively; Conservation International may contribute to ecosystem valuation and Community Conservation Agreements; and several CSOs expressed interest in participating in central PAS planning inputs. The demonstration landscape activities in Component 2 will build on existing CSO work in the Eastern Plains such as WCS work on REDD pilot, forest communities rights and biodiversity monitoring in Seima PF; WWF work in Mondulkiri Conservation Landscape (eg in Mondulkiri PF and Phnom Prich WS) including transboundary collaboration under the Lower Mekong Dry Forests Ecoregion

Action Programme; BirdLife International work on large conservation landscapes in the Lower Mekong supported by CEPF, MacArthur Foundation and other donors, etc. More details on CSO partnership is included in B6.

Local and indigenous communities will participate in field demonstration project activities and benefit from planned investments in sustainable livelihoods, SME development and SFM activities at landscape level. Details will be established through stakeholder analysis during definition of demonstration landscape activities during the PPG.

At the regional GMS level, ADB's Core Environment Program is an important stakeholder, providing regional context and co-financing for actions planned in the Mondulhiri forested landscape through this project (see below). Regional stakeholders also include WWF, TRAFFIC, UNODC/UNEP PATROL and other bodies involved in controlling illegal transboundary trade in wildlife and timber products.

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

At the **national level**, this project aims to build on GEF's significant completed and current investments in biodiversity conservation in Cambodia as follows:

UNDP/GEF (#1043) Establishing Conservation Areas Landscape Management (CALM) in the Northern Plains (in progress). Approaches developed for CALM and lessons learned have been used to inform design of the landscape demonstration component through involvement of WCS. There will be a stronger emphasis on mainstreaming biodiversity conservation and ecosystem management into economic development planning at subnational level, with planned coordination and cofinancing inputs from ADB's BCI and potentially other donors. **UNDP/GEF (#3635) Strengthening Sustainable Forest Management and Development of Bio-energy Markets to Promote Environmental Sustainability and to Reduce GHG Emissions in Cambodia** (started May 2011). The SFM project focuses on southern forested catchment areas of the Tonle Sap Watershed. CAMPAS has a different focus centered on protected area management and related forest protection and rehabilitation in the wider landscape of Eastern Plains. Advice would be sought from the SFM project during the design and implementation of the landscape conservation demonstration component. **UNEP/GEF (#3890) Vulnerability Assessment and Adaptation Programme for Climate Change in the Coastal Zone of Cambodia considering livelihood improvement and ecosystems** has been approved for LDCF funding, and coordination with the PIU will be established to avoid overlaps and ensure collaboration on any coastal issues. ADB's planned GEF project on **Watershed management and ecosystem services in the Cardamom Mountains uplands of Prek Thnot River** does not overlap with CAMPAS' main demonstration area, although its aim to restore and maintain forest cover and watershed stability while providing for sustainable livelihoods development, biodiversity conservation, climate change adaptation and ecosystem services, will provide opportunities for exchanging experience in forest and watershed rehabilitation pilots, community involvement and forest rehabilitation monitoring..

The **UN-REDD+ Programme** - a National REDD+ Task Force has been established led by MoE and FA, and significant funds have been made available for REDD+ activities under an initial two year programme. On the advice of MoE and FA, this project will not invest directly in REDD pilot projects or REDD+ readiness activities as these are already supported from other sources. The main relationship will be in assessment of sustainable financing approaches for the PAS including REDD+ based on the experiences of these other initiatives, and expanding successful experience from REDD+ pilot projects on community-based forest management across the demonstration landscape.

The UNEP Adaptation Fund project 'Enhancing Climate Change Resilience of Rural Communities Living in Protected Areas of Cambodia (\$4,954,273) will be executed by MoE. The design of the present proposal has been coordinated with the AF proposal, and collaborative work with a cofinancing value of

c.\$1.032 million has been identified. Synergies include applying AF project approaches in the demonstration landscape, upscaling and publicizing AF lessons, and identifying climate change related vulnerabilities for biodiversity not covered by the AF project. Specific areas of collaboration include activities related to the CPAs in Mondulkiri, working and learning together on supporting local governance and empowerment of community groups, establishing CPA committees, training local communities in forest and habitat rehabilitation (tree nurseries, etc), protection and patrolling systems, demarcation of CPA boundaries, the design, feasibility assessments and microcredit on income generating activities, as well as joined project impact M&E where justified. CAMPAS activities on multiple PAs in Mondulkiri province including various existing or proposed CPAs as well as its national scale activities involving other PAs on law enforcement monitoring (LEM), and sustainable finance models, could benefit the AF reciprocally.

There are too many related **CSO-led programmes and projects** to list here, but the consultation process led by MoE in developing this proposal has identified interests and will contribute towards a mechanism for collaboration and information exchange on biodiversity that will much stronger synergies between the great variety of ongoing initiatives. Specific linkages will be developed relating to demonstration area for this project. Relevant CSO-supported projects include: WWF GMS Programme which includes programmes in the Mondulkiri Conservation Landscape (ongoing since 2003, multiple donors), freshwater and aquatic resource conservation (since 2005) and sustainable rattan harvest and production (since 2009); WCS Mondulkiri landscape conservation (8 programmes with multiple donors, covering species conservation, CBNRM, registering communal lands, and law enforcement support, REDD+ and CBNRM in Seima Protected Forest; WCS Northern Plains and Tonle Sap conservation programmes; WCS initiatives supporting LEM including MIST capacity building and SMART development; Birdlife International's support for GEF and other agencies, Critical Ecosystem Partnership Fund investments in Indochina (Indo Burma hotspot), conservation of large landscapes in the Lower Mekong, Cambodia dry forest vulnerability and adaptation project, integrated conservation support and tiger conservation in Lomphat Wildlife Sanctuary, and Strengthening and Expanding the Ramsar sites Network in Cambodia; FFI CI and Wildlife Alliance on capacity building, LEM and CBNRM in the Cardamom Mountains.

The current proposal has been designed and driven by national priorities under strong national ownership. However, in line with **GMS Working Group on Environment** consultations, it will also contribute significantly to **regional programmatic outcomes** through coordination with ADB's **Greater Mekong Subregion Core Environment Program (GSM-CEP) and Biodiversity Conservation Corridors Initiative Phase II (GMS BCI), the GMS Biodiversity Conservation Corridors Project – GSM-BCC (2010) investment of \$19M in Cambodia (Mondulkiri and Koh Kong provinces), ADB's CEP Forest and Biodiversity Program, ADB/GEF Program #4649 Greater Mekong Subregion Forests and Biodiversity Program (GMS-FBP) (PIF approved 7 Oct 2011), and the related Forests and Biodiversity Regional Support Project** under the GMS-FBP (in preparation).

CAMPAS offers a high degree of synergy with the ADB initiatives. It is envisioned that **CAMPAS and ADB GMS program will collaborate at three levels** – on the ground for the demo landscape with e.g. WCS and WWF involvement; at national level with the ADB PMU, and at GMS level with the ADB EOC. From the outset, CAMPAS has been designed to achieve broad **compatibility and harmonization with the ADB/GEF GMS FBP**, which aims to increase commitment toward protecting, conserving and restoring the integrity of high biodiversity value 'conservation landscapes' within the GMS focusing on issues that can be addressed through regional cooperation. As such, CAMPAS is consistent with all four components of the GMS FBP regional support project (e.g. concerning transboundary landscape management, wildlife and forest law enforcement monitoring, biodiversity monitoring and information management, METT for PAs, etc), which aims to facilitate enhanced regional cooperation and coordinated national actions for the sustainable management and climate resilience of a network of priority conservation landscapes in the GMS, and achieve effective and efficient program management for the GMS FBP.

Additionally, the CAMPAS **focus on the dry forests of the Mondulkiri Conservation Landscape** takes account of its location within one of the BCI Biodiversity Conservation Landscapes (Eastern Plains). The

identified **synergies under a potential co-funding partnership totaling an estimated \$5.15 million with the BCC Project** cover all four BCC outputs. Synergies with *Output 1- Institutions and communities strengthened for biodiversity corridor management* include c.\$750,000 over initial years on CAMPAS Outcome 1.1 on PAS governance, connectivity, etc; Outcome 2.1 on harmonizing regional development plans with BD and forest conservation, and Outcomes 2.2 & 2.3 on community development, PA management and forest rehabilitation. Synergies with *Output 2 - Biodiversity corridors restored, protected, and maintained* include c.\$2,750,000 over 5 years on CAMPAS Outcomes 2.1, 2.2 & 2.3 on community based forest protection and rehabilitation for 1500 ha. Synergies with *Output 3: Livelihoods improved and small-scale infrastructure support provided* include c.\$1,200,000 over 5 years to CAMPAS Outcomes 2.2, 2.3 on establishing alternative income base and capacity of communities – linked to forest rehabilitation & biodiversity conservation. Finally, synergies with *Output 4: Project management and support services operationalized* include c.\$450,000 over 5 years on CAMPAS Outcomes 1.2 & 3.2.1 on LEM and information management and monitoring needs, as well as partly-shared Project Management facilities & services.

Similarly, **synergies with the CEP BCI Phase II** totaling \$750,000 are as follows: Component 1: Environmental planning systems, methods and safeguards improved (estimated \$200,000 co-funding partnership with CAMPAS involving LEM, Sustainable Development Plan, impact M&E); Component 2: Management of transboundary biodiversity conservation landscapes and local livelihoods improved (estimated \$300,000, involving landscape conservation promotion, sustainable development strategy, forest rehabilitation, LEM and impact monitoring); Component 3: Climate resilient investments and low carbon strategies developed (estimated \$75,000 involving forest management and rehabilitation); and Component 4: Institutions and financing for sustainable environmental management strengthened (estimated \$175,000 involving LEM, impact M&E and sustainable financing).

At the global level, the **Global Tiger Recovery Program (GTRP) endorsed by the St Petersburg summit in November 2010** and the **Global Tiger Initiative (supported by IBRD/GEF #3691 on Tiger Futures: Mainstreaming Conservation in Large Landscapes)** (approved May 2008) are relevant through the joint coordinated management of these transboundary landscapes and cooperation to combat poaching and illegal trade in tigers and tiger parts as well as the many other species found in tiger habitat. This is also planned to receive support from the **WB- Adaptive Program Lending for Strengthening regional cooperation for wildlife protection in Asia** (proposed 2012) which aims to assist the participating governments to build or enhance shared capacity, institutions, knowledge and incentives to collaborate in tackling illegal wildlife trade and other select regional conservation threats to habitats in border areas, with a particular focus on the Global Tiger Initiative partnerships.

The project will coordinate with the regional **UNEP/GEF project #3957 Removing Barriers to Invasive Species Management in Production and Protection Forests in SE Asia** specifically on species selection for reforestation activities, and management effectiveness of PAs in demonstration sites. The carbon measurement models and tools developed under the **UNEP/GEF 'SFM Carbon Benefits Project (CBP): Modeling, Measurement and Monitoring (ID #3449)** will be of particular use to the project in Cambodia, which is gearing up and receiving increased investments in REDD+. Potential synergies exist with the GEF-supported project **Institutionalizing Payments for Ecosystem Services ID # 2589**, which aims at providing information tools at a global scale and at establishing regional networks for payment-based schemes. The proposed Cambodia project is complementary as it aims to mainstream ecosystem service concerns into sub-national planning and investments to the benefit of PA systems, achieving SFM, as well as enhancing the income base of local communities.

Additionally, UNEP has a number of ongoing non-GEF funded programs which would provide both linkages and in some cases co-financing inputs to the GEF project, these are given in section C (see below). Whenever feasible, the project will build upon and utilize policy-relevant outputs through UNEP from international fora and platforms such as GLOBE, while also aiming at providing relevant national lessons learned and good practice to ongoing and emerging international consortia working on ecosystem services and payment schemes, including the International Payment for Ecosystem Services (IPES) initiative, efforts to reduce

emissions from deforestation and forest degradation (e.g. UN REDD Program), or The Economics of Ecosystems and Biodiversity (TEEB) review.

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

While this project includes technical assistance in the field of improving management effectiveness of the national PAS, its key approach concerns strengthening and applying scientific and technical analysis – through dialogue, ‘packaged’ information services, science-to-policy mainstreaming & field testing, in the context of: landscape connectivity in PAS networks, enabling sustainable financing for PA and sustainable development (based on BD & ES), development and demonstration of tools and methods like law enforcement, setting BD-indicators and conducting wildlife monitoring, and establishing policy frameworks such as transboundary cooperation. These are all fields UNEP has proven expertise and experience with. Additionally its approach of social marketing for integrating BD&PAS in regional economic development are a strength of UNEP and integral part of the project towards building a broadly agreed and supported ‘national PAS & BD Conservation Vision’ and operational plan.

UNEP's ‘neutrality’ is important to build the willingness for collaboration, vision and on the ground support in Cambodia where various interests have clashed to the detriment of PA and BD conservation objectives. The project will also assist Cambodia applying SFM practices & forest ES/carbon finance to strengthen ecological connectivity of PAs, community support, and integration of BD & PA concerns in the economic land concessions. The UNEP has a long track record in the valuation, integration in national policies and piloting new financing for natural resources, ES, and biodiversity conservation mechanisms including through Millennium Ecosystem Assessment, TEEB, the Green Economy Initiative (incl. e.g. in the forest and water sectors), as well as voluntary forest certification. UNEP also has a comparative advantage in this mixed-type of project where combinations of national policy support, strengthening transboundary conservation, control and law enforcement of illegal wildlife trade in the GSM, are to be combined with human & institutional capacity building, awareness raising, as well as introducing sturdy national monitoring and information systems.

UNEP has extensive experience, expertise and a track-record in planning for and setting up PA networks, supporting PA management effectiveness, and monitoring BD indicators and targets of PA networks. It has a portfolio of at least 34 ongoing and completed projects in these fields over the last 8 years, and its staff team available includes experienced resource economists, conservation specialists, field ecologists, social sciences and ABS staff, applied science & monitoring specialists, public communications staff, law enforcement and governance experts, and specialist on institutional development, many with over 20 years professional experience in these fields. UNEP/GEF projects, including on national and regional PA management programs benefit from its extensive partnership network through agencies such as WCMC, IUCN, WWF, WCS, universities, ASEAN Center for Biodiversity, CIFOR, CABI, Interpol, TRAFFIC, UNODC, and many other CBD Partners delivering on the Programme of Work on Protected Areas (PoWPA), and the Lifeweb Initiative. Some strongly related programs in UNEPs ongoing program of Work include:

- **Spain UNEP - Life Web Initiative** (in support of the LifeWeb initiative, BD conservation in PAS & economic development; awareness & best practices; policy approaches to implement the CBD PoWPA, and providing on the ground support to PA management and improvements in PA management effectiveness);
- **Global Network of Ecological Corridors** (e.g. Clearing House, provision of tools, and technical support to countries on establishing ecological corridors nationally or transboundary; equity, safeguards and sustaining corridors)
- **World Database of Protected Areas** (www.protectedplanet.net, bringing together information on the national protected areas and their management as a foundation dataset for conservation decision making, supporting analysis and decision making at national, regional and global scales)
- **GRASP – Great Apes Survival Partnership** (a.o applying economics/green economy approach to

forest protection and species conservation; poverty reduction and strengthening PA management, on the ground support PA management)

- **Specially Protected Areas and Wildlife** (a.o PAS optimization; regional coordination and information services; on the ground support PAs)
- **PATROL - Partnership Against Transnational-crime through Regional Organized Law-enforcement** (to prevent the incidence of transborder environmental crime in Asia Pacific, including on illegal wildlife and log trade through building the capacity of Customs Border Liaison Officers; 48 Cambodian and 33 Vietnamese foresters, police and border agents already graduated through UNEP training).
- **UN REDD program.** UNEP is fully involved in Indonesia, Vietnam and Cambodia, mainly related to awareness building, social and environmental safeguards, monitoring and institutions building. Several of pilot sites for REDD concern protected areas and involve local communities and governments.
- Additionally UNEP has **at least 22 GEF funded projects targeting national PAs, regional network systems and management effectiveness** including successful highlights like the Siberian Crane Wetland Project; ECONET; Dryland Livestock Wildlife Environment Interface project; Building a Sustainable National Marine Protected Area Network at The Bahamas; Sound Tourism Development in Biosphere Reserves in Central and Eastern Europe; and recently started projects like Forest IAS project SE Asia, Expanding FSC Certification at Landscape-level through incorporating additional eco-system services ; Phoenix Islands Protected Area; or The Micronesia Challenge: Sustainable Finance Systems for Island Protected Area Management.

Cambodia is one of UNEPs focus countries in SE Asia (with Indonesia, India, and China), coordinated through its Regional Office Asia Pacific in Bangkok (ROAP). UNEP has a growing presence, portfolio and investment in Cambodia. ROAP coordinates programs with Cambodia such as the PATROL, the LDCF coastal adaption project Cambodia, the recently developed Adaptation Fund project Cambodia, its participation in the Cambodian Multi-donor Trust Fund on Adaptation, and the Regional Climate Change Adaptation Knowledge Platform in Asia. The Division of Environmental Policy Implementation (DEPI) will directly support the projects through its branches such as DEPI Terrestrial Ecosystems Unit (TEU- Nairobi), its multi-divisional Forest team (with staff in Nairobi, Paris, Geneva and Bangkok – e.g. REDD+), the UNEP/GEF biodiversity & land degradation unit, the DEPI Ecosystem Services Economics unit (ESE, Nairobi), and the Biodiversity Unit (BdU, Nairobi), as well as the Ecosystem-based Adaptation unit (EbA, Nairobi). The project will be managed from ist ROAP-Bangkok office.

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

UNEP's projects depend on its potential for leveraging co-financing through establishing a robust partnership, confirmed during its PPG design phase. At this PIF stage, UNEP already secure co-financing commitment of \$14,154,546 from the national government (three agencies), a wide range of NGO partners, as well as ADB's core environment program in the GSM, specifically its BCI Phase II and BCC investments in the landscape corridor of Mondulkiri. Some of the UNEP led initiatives providing co-funding support to the GEF project include:

1. **PATROL - Partnership Against Transnational-crime through Regional Organized Law-enforcement.** The project, will provide operational tools through e.g its ongoing program with border liaison offices in Cambodia, including possibly establishing additional nodes along the border with Vietnam, organizing law enforcement agencies, as well as training input to the national LEM – with total estimated in-kind value of US\$65,000 over 5 years.
2. **Spain-UNEP Life Web Initiative.** This program will provide support to the Cambodia project with lessons learned on management effectiveness and through regional support to the Cambodia PAS. Additionally, the 2nd phase of the multi-country Spain-UNEP LifeWeb Initiative is being developed for 2012 onwards with a possible element of direct support to improving management effectiveness of PAS in SE Asia, including Cambodia. Such overall support has a total estimated value of approximately \$50,000 over 3 years.
3. **Global Network of Ecological Corridors** - e.g. support to Cambodia's Clearing House, provision of tools, and technical support on establishing and managing ecological corridors as part of an integrated

- landscape – worth approximately \$25,000
4. **UN REDD+ program**, such as direct input to the project on REDD approaches for the sustainable finance strategy planned – worth \$10,000 (in addition to the \$1,110,000 from UN REDD through the GoC task team).
 5. Collaboration with the **UNEP AF project** in Cambodia will generate a approximate co-funding value of \$1,032,000 (see Section B6 for details)
 6. **Other related in-kind technical inputs** from the various UNEP units mentioned above – worth approximately US\$ 50,000
 7. **UNEP/ROAP support to the Cambodia project** – e.g. through its participation Cambodian Multi-donor Trust Fund on Adaptation, and the Regional Climate Change Adaptation Knowledge Platform in Asia – worth \$25,000

The cumulative estimated in-kind contributions through UNEP would amount at least US\$ 1,257,000 (to be further assessed during PPG).

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:

This project, using an ecosystem approach to PA management and landscape connectivity, is aligned with one of the six program priorities of UNEP’s Medium Term Strategy 2010-2013: “countries utilize the ecosystem approach to enhance human well-being.”

Functionally, the project is aligned with the following outputs as described in UNEP’s Programme of Work 2010-2011 (codes 311 etc) & PoW 2012-2013 (codes A-1 etc):

Ecosystem Management Program:

- (311) Tools for ecosystem assessment and management for sustainability of water regulation and purification services are developed and demonstrated in water-stressed countries (watershed function of the forests of Mondulkiri Conservation Landscape; Mekong river & Tonle Sap lake systems, coastal zone protection of mangroves)
- (312) Pilot projects for the restoration of terrestrial ecosystems are implemented to balance food provisioning, carbon sequestration and timber and fuelwood services in severely degraded ecosystems (SFM and forest rehabilitation in the wider landscape of Mondulkiri)
- (321) National-level capacity for assessing biodiversity critical to ecosystem functioning and resilience is developed (gap analysis and expansion of national PAS, connectivity enhanced, and transboundary approaches & wildlife monitoring established)
- (331) Tools and methodologies for valuing ecosystem services are developed, pilot tested and incorporated into national systems for accounting, planning, and management (TEEB valuation, PES and other sustainable finance work to support the Cambodia PAS; integration of economic aspects in PA management, as well as integration of PAS & BD values in regional economic development –Comp 2)
- (A-1) Global, regional and national awareness and understanding of the importance of biodiversity and ecosystem services for sustainable development (Comp 1 social marketing to reach a national unified Vision on PA & BD conservation, increase government support, and integration of PAS & BD values in regional economic development & poverty alleviation)
- (C-1) Technical support provided to member states to use science to inform policy in management of biodiversity and ecosystem services for sustainable development (landscape connectivity & Cambodian PAS, national LEM system for linking into regional wildlife monitoring and law enforcement, application of TEEB to National PA Action Plans, etc)

Climate Change Mitigation & Adaptation Program:

Expected Accomplishment 4: Increased carbon sequestration occurs through improved land use, reduced deforestation and reduced land degradation, e.g. through Outputs:

- (141) Mapping and assessment of land-use change, biodiversity, forest loss and carbon stocks, and associated capacity-building, are undertaken to provide the knowledge base for reducing emissions from deforestation (linked to project activities and targets on SFM, forest rehabilitation and forest protection for carbon stock and sequestration)
- (A-1) Ecosystem-based Adaptation (EbA). Countries supported to maintain and/or restore the functioning of targeted ecosystems to provide adaptation services by undertaking ecosystem based adaptation pilots and by upscaling of these through United Nations and other partnerships, and to strengthen in-country capacity to implement adaptation actions, including ecosystem based adaptation approaches. and these approaches up-scaled through United Nations and other partnerships (UNEP EbA program will benefit the project in Cambodia through provision of advisory services, tools, and possibly training in the field of how forests, landscape connectivity benefit both CC adaptation goals as well as BD conservation, and as such strengthen the case for government support for the Cambodian PAS)

Additionally though its Beijing-based International Ecosystem Management Partnership (IEMP) UNEP has secured start-up funding for the “Regional GMS initiative: ecosystems-based assessment, scenario analysis and capacity building for CC adaptation” to be conducted with the Stockholm Environment Institute, ICRAF and others. The project will establish a strong science-based and ecosystem services approach to climate change adaptation in the drylands and wetlands of the Mekong Region including Cambodia. The proposed GEF project will build upon this as follows:

- Incorporating the findings of baseline assessments, scenarios analysis of different climate change impacts and different development strategies, in this case specifically those pertaining to dryland forests in (north) east Cambodia, and their impacts on local livelihoods,
- Study, revise and adopt field methods generated by the Mekong project to reduce climate risks in specific ecosystems included in the PAS – downscaling to the local level;
- Build upon the Cambodia specific economic valuation of different ecosystem services and trade-offs.

Similar with the Mekong project, this GEF initiative would link to provincial and national policies by engaging decision makers throughout the process and by effective communications (see Comp 1). This project could possibly also take advantage of the Regional Climate Change Adaptation Knowledge Platform in Asia, hosted by UNEP.

The Results Framework of the Cambodia UNDAF 2011-2015, has as relevant outcomes:

- Outcome 1.2: Environment and Sustainable Development: ‘National and local authorities and private sector institutions are better able to ensure the sustainable use of natural resources (fisheries, forestry, mangrove, land, and protected areas), cleaner technologies and responsive to climate change’ - specifically its outputs:
 - Biodiversity conservation and community based natural resource management for the enhancement of livelihoods mainstreamed into national and local development plans to promote poverty - environment linkages
 - Capacity of public and private sectors strengthened to promote clean and environmentally friendly technologies and interventions for the reduction of GHG emissions, and improvement of resource productivity (e.g. SFM)

The project closely aligns with these by targeting the enhanced management effectiveness of both national PAS as well as national biodiversity conservation program, the mainstreaming of the values of biodiversity and PAs in the sub-national economic development plans, to support poverty alleviation in and around Pas, as well as by enhancing landscape connectivity through the SFM practices. The latter also contributes to conserving forest carbon stock and carbon sequestrations in line with the UNDAF output..

In responding to country demand for accessing GEF projects and providing requested services, UNEP has been successful in establishment of broad-based effective partnerships at community, national, regional and global level. As a GEF Agency for this project, UNEP will provide a platform for a collaborative partnership

among several national and international organizations, which will bring the best available expertise in science and practical experience from the scientific and development communities in both social and natural sciences.


UNEP has no national office in Cambodia, this is and has never been a problem in managing and supervising its portfolio of over 400 GEF projects to date. Strong team and partnership building, as well prior agreement with project EA on the necessary ‘check and balances’ are key to that. The project in Cambodia has a full time task manager available based at the regional office in Bangkok, backed by several technical and administrative staff in both Bangkok as well as its Headquarters in Nairobi. The project has the technical backup of a large UNEP staff team in Nairobi and elsewhere, which is consisting of at least 5 staff based in the Bangkok office, and 25 PAS, species conservation, ES, resource economics, forest adaptation & mitigation, information services & knowledge-base, and ABS staff based in Nairobi. Most are part of DEPI – Division of Environmental Policy Implementation, the same division overseeing the GEF biodiversity, LD and adaptation portfolio, securing short lines of communications and oversight.

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)
Dr. Lonh Heal	Technical Director General	Ministry of Environment	5 September 2011

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF/LDCF/SCCF/NPIF policies and procedures and meets the GEF/LDCF/SCCF/NPIF criteria for project identification and preparation.					
Agency Coordinator, Agency name	Signature	DATE (MM/dd/yyyy)	Project Contact Person	Telephone	Email Address
Maryam Niamir-Fuller, Director, UNEP GEF Coordination Office		09/19/2012	Max Zieren	+66-2-288-2101	max.zieren@unep.org

Annex I: Current carbon stock (under ‘business as usual’ scenario) and projected carbon stocks (via project interventions).

I. Introduction: Deforestation – history and projection, in the Cambodia project area.

Cambodia has one of the highest levels of forest cover in Southeast Asia, with approximately 10.7 million hectares of forest in 2006 or 59% of Cambodia’s land area⁶. Based on the FAO 2005 Forest Resources Assessment, Cambodia has the 30th largest area of tropical forest in the world, but is the 13th most forested country by percentage of land area⁷. Cambodia also has a relatively high rate of land-use change with Forestry Administration statistics showing that 379,485 hectares of forest were lost between 2002 and 2005/6, a deforestation rate of 0.5% per year. However locally much higher deforestation rates have been recorded such as in Oddar Meanchey Province, with a annual deforestation of 2.1% for the period 2002-2006.

The project will target two main intervention areas: (i) the formally protected areas and forests in Mondulkiri Conservation Landscape, and (ii) the forested and non-forested landscape connecting these protected reserves and forests of Mondulkiri province.

1.1 Mondulkiri Conservation Landscape:

The target area of the Mondulkiri Conservation Landscape in the Eastern Plains in Cambodia contains six contiguous protected areas with a total area of **1,254,121 ha**, including Snoul Wildlife Sanctuary (61,900 ha), Phnom Prich Wildlife Sanctuary (PPWS, 222,100 hectares), Mondulkiri Protected Forest along the border with Vietnam (MPF, 372,971 hectares) Seima Biodiversity Conservation Area (298,250 hectares, SBCA) to the south, Lomphat Wildlife Sanctuary (251,400 ha), as well as the smaller Phnom Nam Lyr Wildlife Sanctuary (47,500 ha) along the border with Vietnam. The project would target to reduce the average deforestation rate inside these protected areas with 30% (see Section III).

Analysis of RS data from two – the Mondulkiri Protected Forest and Phnom Prich Wildlife Sanctuary (that have a combined area of 594,698ha) gives an average annual deforestation of 0.65% within these protected areas (unpublished informal data - WWF). See Table 1 for more details.

A study in 2008 by Winrock on carbon stock and deforestation in the Seima Biodiversity Conservation Area (298,250 ha) however estimated a much higher annual deforestation rate of 1.26% - see Table 2.

Given that these two studies represent over 70% of the total area of PA and forests in the study area, as well as the average national deforestation rate published by FAO of 0.5% annually, **we set the average historic deforestation rate in Mondulkiri Conservation Landscape at a conservative 0.73% annually** (up to 2011), which is well within the annual deforestation quoted in another Winrock study (2008) ranging between 0.42% for Phnom Prich Wildlife Reserve and 0.85% for Mondulkiri Protected Forest.

As a consequence Cambodia has been classified as a ‘high forest cover, high deforestation’ country for the purposes of REDD⁸.

⁶ Forestry Administration, 2007. Forest Cover Changes in Cambodia, 2002-2006. Paper prepared for the Cambodia Development Cooperation Forum. Forestry Administration, Phnom Penh.

⁷ FAO 2005 Forest Resources Assessment. FAO, Rome.

⁸ Griscom, B., Shoch, D., Stanley, B., Cortez, R. and Virgilio, N. 2009. Sensitivity of amounts and distribution of tropical forest carbon credits depending on baseline rules. Environmental Science and Policy 12: 897-911.

Table 1: Mapped deforestation in Mondulkiri Protected Forest and Phnom Prich Wildlife Sanctuary (unpublished informal data)

Forest type	Ha (1994)	Ha (2010)	Change Ha (1994 - 2010)	Change % (1994 - 2010)	Average annual deforestation (ha)
Evergreen Forest	38,656	37,845	-810	-2.10	135.17
Mixed Deciduous Forest	122,280	121,093	-1,188	-0.97	197.83
Deciduous Forest	342,051	327,654	-14,397	-4.21	2,399.50
Riparian Forest	55,011	52,341	-2,671	-4.85	445.00
Woodland	17,078	14,227	-2,851	-16.69	475.17
Bamboo Forest	5,333	4,455	-878	-16.46	146.33
Sub-total	575,076	553,160	21,916	Average annual change	Total annual lost
Average annual deforestation (woodland & forest)				0.65%	3,799 ha
Non-Forest	14,290	37,083	22,793	159.50	
Total	594,698	594,698			

Table 2: Mapped deforestation in Seima Biodiversity Conservation Area (Winrock, 2008)

Forest type	Ha (2000)	Ha (2006)	Change Ha (2000 - 2006)	Change % (2000 - 2006)	Average annual deforestation (ha)
Forest	268,668	253,095		-2.10	135.17
Woodland & natural grassland	14,600	8,728		-16.69	475.17
Total forest area	283,268	261,823	21,445	Average annual change	Total annual lost
Average annual deforestation (woodland & forest)				1.26%	3574 ha

1.2 Forested Landscape/corridors:

In addition to the targeted work in the protected areas of Mondulkiri Conservation Landscape, the project is expected to improve the overall forest status, forest cover, and carbon sequestration in an estimated targeted area of 150,000 ha, through actions such as SFM, improved planning and implementation for forest protection and rehabilitation through the project-sponsored SDS, establishment of PA bufferzones and corridors, and community-based forest conservation. Given the much higher population density, economic activities and ongoing and planned Economic Land Concessions

of this area, we apply a higher average deforestation rate of 1% annually (range FAO 0.85% to Winrock 1.2%). Additionally, due to the much higher rate of disturbance and former logging activities, land reclamation and other development, we assume an average remaining forest cover of 60% of those found inside the PA/Protected Forest of the landscape.

II. Project PIF Carbon Stock Methodology

A Winrock study (2008) assessed carbon content of (i) evergreen and semi-evergreen forests and (ii) deciduous forests in Seima BCA which is a part of the Mondulkiri Conservation landscape using two data sources: WCS data from nine 0.5 hectare plots in Evergreen and Semi-evergreen Forest where all trees > 20cm diameter were been measured. Secondly, Tani (2007) measured nine plots in the SBCA between 2003 and 2006, again in evergreen and semi-evergreen forest, as part of a Master's project. Grasslands and open woodlands were excluded from the analysis due to their lower carbon stock values. These forests types predominate across the Eastern Plains and so can be considered as representative for the whole landscape.

Using IPCC conversion factors the WCS inventory gave biomass numbers of 243 t/ha for evergreen/semi-evergreen forest and a figure of 120 t/ha of biomass for deciduous (note that carbon stock is equal to biomass multiplied by 0.5).

The forests were split into 3 biomass classes: Unlogged evergreen / semi-evergreen forest; deciduous forest; and logged evergreen / semi-evergreen forests. A conservative arbitrary deduction of 2/3 was made to give biomass estimates for logged forest from unlogged figures. Including root mass (using the IPCC default root-shoot ratio for moist-deciduous tropical rainforest and converting to carbon dioxide equivalents), the carbon stock was estimated to be as given in Table 3

Table 3: Carbon stock in main forest types and as average for Mondulkiri Conservation Landscape

Evergreen / Semi-Evergreen (unlogged)	553 t CO ₂ e/ha
Evergreen / Semi-Evergreen (logged)	184 t CO ₂ e/ha
Deciduous & mixed-forest	273 t CO ₂ e/ha
Fallow land/heavily deforested	
→ Area weighted for the Mondulkiri CL	330.5 t CO ₂ e/ha (see Table 3a)

Table 3a: Average Carbon stock (tCO₂e/ha) weighted based on average occurrence of main forest types in Mondulkiri Conservation Landscape

Forest type/Mondulkiri PAs	Seima	MPF	PPWS	LWS	Total ha	Carbon stock t CO ₂ e/ha	Weight factor	Weighted carbon stock t CO ₂ e/ha eq
Evergreen forest	96,400	4,295	11,592	145,722	258,009	553	25	138.25
Logged Evergreen/Semi-evergreen	43,798	31,941	50,381	15,521	141,641	184	14	25.76
Dry/Deciduous forest	123,131	307,515	152,318	65,929	648,893	273	61	166.53
	263,329	343,751	214,291	251,459	1,072,830			
PA data: WWF Cambodia/GoC, Carbon stock (Winrock 2008)								Average weighted stock/ha: 330.54

Average carbon stock value for the Mondulkiri Conservation Landscape (six Protected Areas and Forests) was derived by area-weighting the carbon stock values of these three forest types according to their occurrence mapped for Seima Protected Area (Winrock study) and Mondulkiri Protected Forest and Phnom Prich Wildlife Sanctuary (see data WWF Table 1). These three PAs are considered representative for the total area. **This gives an estimated forest habitat weighted carbon stock of 330.5 t CO₂e/ha:**

III. Avoided deforestation in the Mondulkiri Conservation landscape.

The Project's targeted six protected areas and forests have a total area of **1,254,121 ha**. In the PIF stage, we assume:

- Different data sets on forests types have been clustered, yet in reality different PAs have different composition of the dominant forest types such as e.g. evergreen, deciduous, mixed-deciduous, riparian, woodland etc.
- The currently known and averaged annual deforestation rate of PA network in Mondulkiri is 0.73% as applied to the entire area.
- Given the much higher rate of disturbance and former logging activities, land reclamation for agriculture and other development, we establish the average forest cover of the landscape corridors (the targeted 150,00 ha, *see section 1.2*) to be just 50% of those found inside the PA/Protected Forest of the landscape. Related to this is that we set the average annual deforestation rate in this landscape at 1%.
- A full and detailed baseline assessment, differentiating between PA and key forest types will be conducted during the inception of the project.

The projected forest loss and degradation in the Mondulkiri Conservation landscape, over 20 years, has been calculated in Table 4 and indicates a total loss of 154,954 ha Protected forests by 2031, assuming a ‘business as usual’ scenario. This equates over 48.6 million lost tonnes of CO2 over a 20 year period (*see Table 5, below*).

Additionally, the projected forest loss and degradation in the 150,000 ha targeted forest corridors and bufferzones (part of Mondulkiri Conservation landscape), over 20 years, has been calculated in Table 4b and indicates a total loss of 10,632 ha forests by 2031, assuming a ‘business as usual’ scenario.

Table 4. Projected deforestation and degradation in six Protected Areas and Forests (Mondulkiri) 2012-2031 @ deforestation rate of 0.73%/year.

A. Protected forest loss, 1-10 years (ha)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Est. loss over 10 years, ha
Area deforested	Baseline	9155	9088	9022	8956	8891	8826	8761	8697	8634	
Remaining forest area in core zone	1,254,121	1,244,966	1,235,878	1,226,856	1,217,900	1,209,009	1,200,183	1,191,422	1,182,725	1,174,091	

B. protected forest loss, 10-20 years (ha)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Est. loss over 20 years, ha
Area deforested	est 2021	8571	8508	8446	8385	8323	8263	8202	8142	8083	
Remaining forest area in core zone	1,174,091	1,165,520	1,157,012	1,148,565	1,140,181	1,131,857	1,123,595	1,115,393	1,107,250	1,099,167	

Table 4a. Projected deforestation and degradation in the 150,000 ha of forested landscape corridor & bufferzones (apart of Mondulkiri Conservation Landscape) 2012-2031, 60% remains forested, @ deforestation rate of 1%/year.

Projected forest losses in Mondulkiri forested landscape corridor & bufferzones

A. Protected forest loss, 1-10 years (ha)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Est. loss over 10 years, ha	
Area deforested	Baseline (60% of 150,00 ha remain forested)											
Remaining forest area in core zone	90,000	89,100	88,450	87,804	87,163	86,527	85,895	85,268	84,645	84,028		5,972

B. Protected forest loss, 10-20 years (ha)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Est. loss over 20 years, ha	
Area deforested	est 2021	513	507	504	500	496	493	489	486	482		
Remaining forest area in core zone	70,214	69,512	69,004	68,501	68,001	67,504	67,011	66,522	66,037	65,555		10,632

Recap of Benefit: Assuming the Project might be able to reduce the current deforestation rate inside PAs by a targeted 30%, **the project would avoid emissions of ca. 15.4 million CO2e tonnes (A).** See Table 5 below. In addition, assuming the Project would reduce the current deforestation rate in the forested landscape corridor & bufferzones surrounding these PAs by 15%, **the project would avoid emissions of ca. 527,081 CO2e tonnes (B).** In addition, retained protected forests of ca. 1,099,167 ha plus 65,555 ha, respectively, would continue to sequester carbon, however, these rates for forest type have not yet been assessed and will be estimated during project preparation.

→ The total estimated avoided deforestation would be (A + B): **15.9 million CO2e tonnes**

Table 5. Avoided deforestation in (A) 6 PA & Protected Forests in Mondulkiri Conservation Landscape & (B) the landscape corridor/bufferzones, 2012-2031

Protected Areas & Forests				Landscape corridor & bufferzones			
With and without project situation	Area (ha)	Average t CO2e/ha	CO2 emissions (t CO2e)	With and without project situation	Area (ha)	Average t CO2e/ha	CO2 emissions (t CO2e)
GHG emissions from deforestation in PAs (BAU)	154,954	330.5	51,212,297	GHG emissions from deforestation in PAs (BAU)	10,632	330.5	3,513,876
GHG emissions with Project Impact (assuming 30% reduction in deforestation rate/20 years)	108,468	330.5	35,848,608	GHG emissions with Project Impact (assuming 15% reduction in deforestation rate/20 years)	9,037	330.5	2,986,795
<u>Avoided emissions over 20 years</u>			<u>15,363,689 (A)</u>	<u>Avoided emissions over 20 years</u>			<u>527,081 (B)</u>

IV. Reforestation, agro-forestry and Carbon Stock restoration – both within PAs, bufferzones and corridors (targeted 2000 ha)

The project is targeting the reforestation, assisted natural regeneration, as well as establishment of community agro-forestry plots over a total of 2000 ha. The following assumptions have been applied during this PIF concept design:

- A total of 500 ha of agro-forestry will be established through community programs. It is assumed that these concern former barren land or agricultural land in high HCVF areas. The area is typical dryland with medium growth potential (we use as data source the “USAID Forest Carbon Calculator” - Table 6 below. Carbon sequestration is calculated over a 20 year time period.
- Additionally, a total of 1,500 ha of land will be reforested through multispecies plantations and/or assisted natural regeneration. This mimics the conversion from heavily degraded forest/ fallow lands (average 129 tCO₂e/ha) to medium quality dryland deciduous forest (273 tCO₂e/ha)

Agroforestry: The project will work with local communities living in the vicinity of PA, their buffer zones, as well those high BD corridors in need of better forest cover and connectivity. It is assumed those targeted plots are former or present agriculture land, fallow land, or heavily degraded dryland deciduous forests under community title. As baseline Carbon stock the same value is adopted as for logged over dryland deciduous forest (Winrock study Seima PA, 2008). The USAID Forest Carbon Calculator: Data and Equations for the Agroforestry Tool, indicate the various growth and carbon sequestration curves for Dryland as well as Humid climate zones, segregated per agro-forest growth type. For our demo plots the Dryland medium growth type has been selected, which has a potential Carbon stock of 170.43 tCO₂e/ha. As such the project is expected to generate an **added Carbon stock of 20,717 tCO₂e in the 500 ha of agro forest plots.**

Table 6. Carbon sequestration / stock enhancement for different Aro-forestry dryland systems

<i>Dryland agroforest growth type (species, site & magement dependent)</i>	Stock after 20 Years (tC/ha)	Stock after 20 Years (tCO ₂ e/ha)	Stock on 500 ha
Fallow land/ logged over dryland forest (<i>baseline</i>)		129	64,500
High	66.22	243.03	
Medium	46.44	170.43	85,217
Low	26.48	97.18	
		Sequestration (tCO₂e)	20,717

Source: USAID Forest Carbon Calculator: Data and Equations for the Agroforestry Tool

Reforestation: Assuming that Project efforts in targeted rehabilitation plots and corridors will begin work on an average of ‘bare land/heavily degraded dryland forest’ and that within a 10-20 year period it has been able to achieve at least ‘rehabilitated medium/dryland deciduous forest’ the Project **would have a CO₂e sequestration of an additional 216,000 tonnes.** See Table 7, below:

Table 7. Carbon Stock Enhanced within 1,500 of forest rehabilitation plots/corridors

	Stock (tCO ₂ e/ha)	Stock 1.500 ha (YR 20)
Fallow land / logged over dryland forest (<i>baseline</i>)	129	193,500
Rehabilitated Medium forest/Dryland deciduous (<i>project</i>)	273	409,500
Sequestration (20YR) - tCO₂e		216,000

Summary carbon benefits from reforestation & agroforests – YR 20: the project will generate an added sequestration of 236,717 tCO₂e as against the baseline.

Both the community agro-forest plots as well as government assisted natural and artificial forest rehabilitation work will also benefit biodiversity knowledge of government and staff, and enhance natural forest landscape connectivity supporting species management and action plans.

Sources used:

- Pearson, TRH, Petrova, S, Harris, NL and S Brown. 2008. Assessing the potential for generating carbon offsets in the Seima Biodiversity Conservation Area, Cambodia. Report submitted to WCS
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