PROJECT IDENTIFICATION FORM (PIF).

PROJECT TYPE: FULL SIZED PROJECT
TYPE OF TRUST FUND: GEF TRUST FUND

PART I: PROJECT INFORMATION

Project Title:	Ridge to Reef: Integrated Protected Area Land and Seascape Management in Tanintharyi		
Country(ies):	Myanmar	GEF Project ID:[1]	6992
GEF Agency(ies):	UNDP	GEF Agency Project ID:	5427
Other Executing Partner(s):	Lead national ministry: Ministry of Environmental Conservation and Forestry Other partners: Tanintharyi Regional Government, Smithsonian Institution (SI), Green Economy Green Growth (GEGG)-Myanmar Association, Fauna and Flora International (FFI)	Submission Date: Resubmission Date: 2nd Resubmission Date:	October 20, 2014 February 21, 2015 March 9, 2015
GEF Focal Area(s):	Biodiversity, Land Degradation Sustainable Forest Management	Project Duration (Months)	72
Integrated Approach Pilot	IAP-Cities ☐ IAP-Commodities ☐ IAP-Food Security ☐		Corporate Program: SGP ☐
Name of parent program:	n/a	Agency Fee ($)	$ 498,750

A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES[2]:

Objectives/Programs (Focal Areas, Integrated Approach Pilot, Corporate Programs)	**Trust Fund**	**(in $)**	
		GEF Project Financing	**Co-financing**
BD-1 Programme 2	GEFTF	3,000,000	8,000,000
LD-3 Programme 4	GEFTF	500,000	2,000,000
SFM-1	GEFTF	1,750,000	6,000,000
Total Project Cost		**5,250,000**	**16,000,000**

B. INDICATIVE PROJECT DESCRIPTION SUMMARY

Project Objectives: Securing long-term protection of Key Biodiversity Areas through integrated planning and management of the protected area land/seascape in Tanintharyi

Project Component	**Financing Type[3]**	**Project Outcomes**	**Project Outputs**	**Trust Fund**	**(in $)**	
					GEF Project Financing	**Co-financing**
1. Integrated land/seascape planning and management in Tanintharyi	TA	At least 2,000,000 ha of Tanintharyi Region covering 4,334,330 ha employing integrated landscape management approach in the land use decision-making and forest and coastal landscape management, indicated by: (i) establishment of cross-sector joint planning and coordination mechanisms within the regional governance system; and (ii) existence and use of a range of	1.1 Inter-sectoral coordination and joint landscape and seascape planning mechanisms established adopting the HCVF approach, within the regional governance structure for integrated management of ecosystem services (e.g. watershed services, carbon sequestration etc). This will be assisted by a range of supporting tools and systems for biodiversity mainstreaming and sustainable land management: including, inter	GEFTF BD LD SFM	1,500,000	6,000,000

[1] Project ID number will be assigned by GEFSEC and to be entered by Agency in subsequent document submissions.
[2] When completing Table A, refer to the GEF Website, *Focal Area Results Framework* which is an *Excerpt from GEF-6 Programming Directions*.
[3] Financing type can be either investment or technical assistance.

		support tools providing enabling environment for sustainable forest management and spatial and sectoral integration of PAs and associated threat reduction. Ecosystem services maintained, indicated by (i) the area of High Conservation Value Forests (HCVF) secured; (ii) decreased rates of loss of terrestrial forests and mangrove coastal habitats, avoiding emissions from deforestation of 15,560,667 tC owing to gazettal of at least 300,000 ha of new HCVFs/High Carbon Stock Forests (HCSFs) Tanintharyi PA System expanded from current 195,402 ha to 500,000 ha, with functioning corridors, covering identified Key Biodiversity Areas (KBAs) in both marine and terrestrial landscapes and high conservation value forests (HCVFs). Improvements in financial sustainability scorecard for the Tanintharyi PA system *Baselines and indicator targets will be established during the PPG*.	alia, overlay maps, biodiversity and sector oriented ecosystem valuation tools, strategic environmental assessment, stringent EIA procedures and enforcement for compliance. Integrated land/seascape planning approach will be fed into implementation process of the national land use policy. 1.2 Sector-specific standards, safeguards and incentives to protect KBAs and HVCFs/High Carbon Stock Forests (HCSFs) developed and operationalized, including establishing regulatory standards for production sectors such as palm oil, rubber, extractive activities, fisheries and hydropower industries Stakeholder dialogue for Roundtable for Sustainable Palm Oil (RSPO) strengthened 1.3 An integrated land-use plan developed and implemented in at least one district in Tanintharyi, involving community based natural resource and sustainable land management measures 1.4 Tanintharyi protected area system expanded through proclamation of the proposed PAs and key mangrove areas on the mainland coast and providing adequate protection to the KBAs 1.5 Tanintharyi regional financing plan for the expanded PA system developed and implementation supported, including establishment of staffing structure, development and operationalization of a regional tourism plan, and establishment of new financing mechanisms.			
2. Strengthened management and threat reduction in the target PAs and buffer zones.	TA	Improved management effectiveness of individual existing and new PAs of global significance, covering over 500,000 ha, indicated by the percentage increase using the Management Effectiveness Tracking Tool (METT). Application of integrated natural resource management (INRM) practices in the selected targeted landscapes of over 200,000 ha, resulting in reduction in the rate of loss in HCVFs and their improved status, reduction of threats at the landscape level indicated by quantifying poaching threats, agriculture/plantation expansion,	2.1 Management plans for the existing and new PAs developed and operationalized with full participation of stakeholders including local communities, local governments and business sectors. Plans will include a PA-based financing plan, management budgets and plans for meeting the budget needs. 2.2 PA site operations strengthened to address existing threats to biodiversity through: (i) establishment of the management structure through on-the-ground presence in new PAs; (ii) development and operationalization of habitat and biological monitoring systems for key ecosystems and	GEFTF BD SFM	2,300,000	6,000,000

		local/regional trade and trafficking, law enforcement interdictions, and other measures, as appropriate. Status for selected indicator species in the region will be maintained or improved, as indicated by monitoring protocols that will be developed and implemented during Phase 1 (Years 1-3) and conducted at regular intervals during subsequent implementation phases. Improved maintenance of the integrity and functioning of coral reef ecosystems, indicated by area of coral reef ecosystems, number of coral species and abundance in selected areas. *Baselines and indicator targets will be established during the PPG.*	threatened species; (iii) clear park boundary demarcation for reducing encroachment and issuing of resource extraction quotas overlapping with PAs; (iv) increased human capacity to manage PAs through establishing clear protocol for ecosystem and biodiversity monitoring, training in SMART patrolling and enforcement techniques and developing strategies for community engagement; (v) management infrastructure consolidation (signage, patrol camps, equipment etc.); (vi) piloting of co-management system for community participation in PA management in target PA sites. 2.3 Capacity of communities developed within the KBAs, HCVFs, buffer zones and corridors, for integrated landscape and sustainable forest management practices and community-based natural resource management. This will include: development of innovative local incentive mechanisms to avoid loss of HCVF and promote sustainable land use, participatory landscape level land-use planning using the HCVF approach; training; improvement of agricultural land management by communities, establishment of resource monitoring and management system and a range of livelihood support tailor made for particular location and conditions.			
3. Emplacement of the National Biodiversity Survey (NBS) framework	TA	Capacity building strategy for biodiversity knowledge generation and application integrated in the regional and national development framework and institutionalised in the government's human resource management strategy. Increased institutional capacity to collect and analyse biodiversity information/data, and apply them to the conservation and management of PAs and KBAs, and land use planning, as indicated by the UNDP capacity development scorecard. Increased capacity building targets will be assessed against baseline metrics at different levels' (project, programme, policy levels) *Baselines and indicator targets will be established during the PPG.*	3.1 National Biodiversity Survey (NBS) framework established at the national level, comprising (i) replicable, systematic biological assessment protocols and standards for selected critical species, habitats, and human communities to be deployed across diverse marine and terrestrial landscapes; (ii) baseline data documenting species richness and distribution; (iii) national biodiversity data repository and web portal "Encyclopedia of Myanmar Life" linked to geospatial tools that will improve knowledge sharing among diverse stakeholders; (iv) geospatial tools for stakeholders and decision makers to inform and improve protected area management, land use planning, and conservation of biodiversity and ecosystems; and (v) a framework for establishing and evaluating long-term conservation	GEFTF BD	1,200,000	3,000,000

			project outcomes. 3.2. National and regional structure and capacity building system developed for maintenance and effective use of the NBS system, including, establishment of a multi-agency cooperation mechanism for constant generation and management of data and information; establishment of core staffing; and development and institutionalised training programme.			
Subtotal					5,000,000	15,000,000
Project Management Cost (PMC)[4]				GEFTF	250,000	1,000,000
Total Project Cost					**5,250,000**	**16,000,000**

If Multi-Trust Fund project :PMC in this table should be the total and enter trust fund PMC breakdown here (n/a)

C. INDICATIVE SOURCES OF CO-FINANCING FOR THE PROJECT BY NAME AND BY TYPE, IF AVAILABLE

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

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount ($)
Recipient Government	Ministry of Environmental Conservation and Forestry	In-kind	3,000,000
Recipient Government	Tanintharyi Regional Government	In-kind	3,000,000
GEF Agency	UNDP	Grant	500,000
CSO	Smithsonian Institution	Grant	1,500,000
CSO	Fauna and Flora International, Green Economy Green Growth Myanmar Association	Grant	6,000,000
Private Sector	To be determined	Grant	2,000,000
Total Co-financing			**16,000,000**

D. INDICATIVE TRUST FUND RESOURCES REQUESTED BY AGENCY(IES), COUNTRY(IES) AND THE PROGRAMMING OF FUNDS [a)]

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	(in $)		
					GEF Project Financing (a)	Agency Fee (b)[b)]	Total (c)=a+b
UNDP	GEFTF	Myanmar	Biodiversity	n/a	3,000,000	285,000	3,285,000
UNDP	GEFTF	Myanmar	Land Degradation	n/a	500,000	47,500	547,500
UNDP	GEFTF	Myanmar	Multi-Focal Areas	SFM	1,750,000	166,250	1,916,250
Total GEF Resources					5,250,000	498,750	5,748,750

a) No need to fill this table if it is a single Agency, single Trust Fund, single focal area and single country project.
b) Refer to the Fee Policy for GEF Partner Agencies.

[4] For GEF Project Financing up to $2 million, PMC could be up to10% of the subtotal; above $2 million, PMC could be up to 5% of the subtotal. PMC should be charged proportionately to focal areas based on focal area project financing amount in Table D below.

E. PROJECT PREPARATION GRANT (PPG)[5]

Is Project Preparation Grant requested? Yes X No ☐ If no, skip item E.

PPG AMOUNT REQUESTED BY AGENCY(IES), TRUST FUND, COUNTRY(IES) AND THE PROGRAMMING OF FUNDS

GEF Agency	Trust Fund	Country/ Regional/Global	Focal Area	Programming of Funds	(in $)		
					PPG (a)	Agency Fee[6] (b)	Total c = a + b
UNDP	GEFTF	Myanmar	Biodiversity	n/a	150,000	14,250	164,250
Total PPG Amount					150,000	14,250	264,250

F. PROJECT'S TARGET CONTRIBUTIONS TO GLOBAL ENVIRONMENTAL BENEFITS[7]

Provide the expected project targets as appropriate.

Corporate Results	Replenishment Targets	Project Targets
1. Maintain globally significant biodiversity and the ecosystem goods and services that it provides to society	Improved management of landscapes and seascapes covering 300 million hectares	*2,000,000 hectares*
2. Sustainable land management in production systems (agriculture, rangelands, and forest landscapes)	120 million hectares under sustainable land management	*200,000 hectares*
3. Promotion of collective management of transboundary water systems and implementation of the full range of policy, legal, and institutional reforms and investments contributing to sustainable use and maintenance of ecosystem services	Water-food-ecosystems security and conjunctive management of surface and groundwater in at least 10 freshwater basins;	n/a
	20% of globally over-exploited fisheries (by volume) moved to more sustainable levels	n/a
4. Support to transformational shifts towards a low-emission and resilient development path	750 million tons of CO_{2e} mitigated (include both direct and indirect)	*Over a 10-year period, avoided GHG emissions of 15,560,667 tons of CO_{2e}*
5. Increase in phase-out, disposal and reduction of releases of POPs, ODS, mercury and other chemicals of global concern	Disposal of 80,000 tons of POPs (PCB, obsolete pesticides)	n/a
	Reduction of 1000 tons of Mercury	n/a
	Phase-out of 303.44 tons of ODP (HCFC)	n/a
6. Enhance capacity of countries to implement MEAs (multilateral environmental agreements) and mainstream into national and sub-national policy, planning financial and legal frameworks	Development and sectoral planning frameworks integrate measurable targets drawn from the MEAs in at least 10 countries	n/a
	Functional environmental information systems are established to support decision-making in at least 10 countries	n/a

[5] PPG requested amount is determined by the size of the GEF Project Financing (PF) as follows: Up to $50k for PF upto $1 mil; $100k for PF up to $3 mil; $150k for PF up to $6 mil; $200k for PF up to $10 mil; and $300k for PF above $10m. On an exceptional basis, PPG amount may differ upon detailed discussion and justification with the GEFSEC.

[6] PPG fee percentage follows the percentage of the Agency fee over the GEF Project Financing amount requested.

[7] Provide those indicator values in this table to the extent applicable to your proposed project. Progress in programming against these targets for the projects per the *Corporate Results Framework* in the *GEF-6 Programming Directions*, will be aggregated and reported during mid-term and at the conclusion of the replenishment period.

PART II: PROJECT JUSTIFICATION

Project Overview

A.1. Project Description. Briefly describe: 1) the global environmental problems, root causes and barriers that need to be addressed; 2) the baseline scenario or any associated baseline projects, 3) the proposed alternative scenario, with a brief description of expected outcomes and components of the project, 4) incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and co-financing; 5) global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF); and 6) innovativeness, sustainability and potential for scaling up.

Biodiversity Significance and Project Context: Myanmar is the jewel in the crown of Asia's biodiversity. Intersecting three biogeographic regions, it is recognized for its exceptionally high endemism and its importance as a global biodiversity hotspot. Myanmar is the largest country in mainland South-East Asia, with a land area of 676,553 km² and a coastline of 2,832 km. It is the most forested country in South-East Asia, enjoying nearly 50% forest cover, and it possesses some of the most pristine marine ecosystems on Earth. The country includes all or part of fourteen Global Eco-regions defined by WWF, with 9 Global 200 Eco-regions including, Kayah-Karen/Tenasserim Moist Forests and the Andaman Sea. Due to wide variations in latitude, altitude and climate within the country, Myanmar supports a high diversity of habitats, and is extremely rich in plant species. Furthermore, the country is located at the convergence of 4 major floristic regions: the Indian, Malaysian (Sundaic), Sino-Himalayan and Indochinese. Myanmar supports at least 251 mammal species, although a number of these species have not been confirmed to occur in recent years, with seven mammal species thought to be endemic. The country supports at least 1,090 bird species, a greater diversity than any other country in mainland South-East Asia. Myanmar's avifauna contains six endemic species and numerous endemic subspecies, several of which may warrant full species status. Myanmar also supports at least 19 other restricted-range bird species (species with a global breeding range of less than 50,000 km^2). The fresh water fish fauna of Myanmar is one of the least known in South-East Asia. The number of coral species in Myanmar is estimated by some experts to be as many as 350 species although most of them are yet to be scientifically described.

Tanintharyi Region: The country's southern-most Tanintharyi Region is a relatively undeveloped area with high biodiversity and endemism that provides invaluable ecosystem services. Approximately 20% of Myanmar's Key Biodiversity Areas (KBAs) are located in Tanintharyi. The whole Tanintharyi region, as well as a small part of the Mon and Kayin States, fall under the Sundaic Subregion Priority Corridor. The corridor includes the largest areas of lowland wet evergreen forest remaining in the Indo-Myanmar (Indo-Burma) Hotspot. The Priority Corridor also includes a significant portion of coastline, a large number of offshore islands and significant areas of key wetland habitats, including mangrove and intertidal mudflats. It includes the Moscos Islands and the Myeik Archipelago which consists of over 800 islands in the Andaman Sea Marine Ecoregion. Although the Priority Corridor has received little recent biological study, there are indications that it supports rich lowland evergreen forest communities and globally threatened wildlife, such as Asian tapir (*Tapirus indicus*) and plain-pouched hornbill (both are Vulnerable). Coastal habitats support Mangrove Terrapin (Critically Endangered) and are thought to be important for migratory water birds. Of greatest significance, the Priority Corridor supports the bulk of the world population of Gurney's pitta (Critically Endangered), a species endemic to the Tanintharyi Region and a small part of peninsular Thailand (Anon. 2003, Eames et al. 2005). Moreover, the Priority Corridor is thought to support a relatively large population (approximately 50 individuals) of tiger (Endangered). The potential of the Sundaic Sub-region for the long-term conservation of landscape species, such as Asian elephant, tiger and plain-pouched hornbill, is enhanced by the existence of significant areas of contiguous natural habitat in western and peninsular Thailand, including significant portions which are already protected and managed.

Threats to Biodiversity: The outstanding biodiversity of the Tanintharyi region is under increasingly severe threats. The lowland forests in the Tanintharyi Range Corridor that support significant populations of globally threatened species, such as the endemic Gurney's pitta, are under immediate threats from land conversion to oil palm and rubber plantations. There are already around 50 plantation licences being issued in the region. The Dawei Development Corridor Project, with associated infrastructure development such as a deep sea port and road links to Thailand, is likely to lead to significant habitat degradation and conversion. These initiatives do not only threaten the habitat but endanger the functioning of the Tanintharyi River watersheds, which discharge into the Andaman Sea. Any erosion in the watershed could lead to sedimentation and pollution impacting marine ecosystems in the Myeik Archipelago. Unsustainable and/or illegal logging and illegal wildlife trade also pose major threats. Forest products are over exploited particularly through resource extraction quotas sold to local businesses that often overlap with PA boundaries and can be politically sensitive to enforce. Fishing rights are also sold using similar auction methods and often promote commercial over-harvesting while at the same time excluding the subsistence needs of local communities. Both terrestrial and marine pollution threats are on a

sharp increase from extractive industries (e.g. gas, oil, copper, gold, zinc etc.), aquaculture (e.g. shrimp farming) and construction in coastal areas such as seaport development. Moreover, the decline of fishery resources is a major concern for the government, as fishermen are reporting drastic reductions in their catches. This has led to a recent decision by the government to halve the off-shore fishing season from 90 to 45 days. Illegal fishing by foreign vessels with modern equipment is regularly reported. Furthermore, temperature rise and an increase in the frequency of extreme weather events associated with climate change are expected to pose emerging threats to both terrestrial (e.g. wildfires, floods) and marine biodiversity (e.g. adverse impacts on coral). Root causes of the threats include population increase, poverty, undervaluation of natural resources, and environmental externalities not being integrated in the planning and operation of economic sectors. Refugees returning from Thailand and internally displaced persons could cause additional pressure, if they resort to unsustainable practices and their livelihoods remain precarious.[8]

Baseline Activities: In the country's democratisation process, the government has been striving to achieve both a green economy and green growth in the country – a growth pattern that learns from mistakes made by other countries in the region when faced with similar conditions of rapid growth and transition, generally characterized by economic growth that results in wealth disparity among populations at the expense of ecosystem degradation and biodiversity loss. Since 2011, the Myanmar government with the support of Green Economy Green Growth (GEGG) Association of Myanmar, has been engaged in high level discussions with eminent thinkers and practitioners from both public and private sectors around the world, to explore ways and mechanisms to achieve a sustainable path for Myanmar's development. The Green Economy Green Growth Forum will continue to be held with an annual budget of approximately $ 100,000 with over $ 300,000 in-kind contributions from international and national speakers, providing a major platform that influences the course of the nation's development.

In the specific field of biodiversity and ecosystem services management, in order to protect the country's outstanding biodiversity, the Myanmar government has designed a network of 43 PAs. Thirty-six of these have been officially gazetted under the Protection of Wildlife and Protected Areas Law, while 7 remain proposed. The 36 PAs cover 5.6% of the total land area of the country, and the addition of the 7 proposed protected areas would increase this to 6.7%.

In 2001, the government approved a 30-year Forest Master Plan mandating the increase of the Permanent Forest Estate (constituted by reserved forests and public protected forests) to 30% and an increase of PAs to 10% of the total country area. Furthermore, the Forest Master Plan encourages the registration of unclassified forests into community or private forests. The Government of Myanmar invests approximately US$ 750,000 in PA management annually. Myanmar is a partner of the Global Tiger Initiative and was represented at the Global Tiger Summit in St. Petersburg in September 2010 by the then Minister of Forestry. It submitted a National Tiger Recovery Plan (NTRP), as part of the Global Tiger Recovery Plan in June 2010.

Myanmar is in the process of devolving power from the national government to regional and local governments. In 2013, the Region or State Parliament Law was promulgated. It is envisaged that an increasing level of authority and responsibility will be decentralized to the regional and state governments, including natural resource management. The government is also in the process of developing the National Land Use Policy. Related to this, MOECAF has started an initiative called One Map Myanmar Programme to harmonize the spatial planning data required for land use planning at the national and regional levels. Tanintharyi has been selected as a pilot region under the programme.

In the Tanintharyi Range Corridor, there are 3 existing PAs covering 195,402 ha and 2 proposed areas covering 523,159 ha. In 2014, two new marine protected areas in the biodiversity-rich Myeik archipelago were proposed based on the scientific surveys conducted with support from FFI and SI. However much of the important areas remain unprotected. With US$ 3 million support from the International Tropical Timber Organisation (ITTO), MOECAF is working on the 4-year "Capacity Building for Strengthening Transboundary Biodiversity Conservation of the Tanintharyi Range in Myanmar" (2013-2016). The project provides targeted capacity building support for improving transboundary biodiversity conservation between Myanmar and Thailand with particular focus on the work in the Tanintharyi Range. The project aims to establish institutional mechanisms for the trans-boundary biodiversity conservation between the two countries, and supports trans-boundary research and joint actions. It also supports targeted research and work to engage community participation and livelihood support in the proposed Tanintharyi National Park area. With this project, MOECAF in addition provides a MSc fellowship in biodiversity organization and a range of training courses are organised

[8] UNHCR estimates a total of about 400,000 individuals were still internally displaced in the rural areas of 36 townships in South-East Myanmar in Kayin, Kayah, South and East Shan and Mon States, and Bago and Tanintharyi Regions. (2008-2012, South East Myanmar: A Report on Village Profiles 2008-2012)

at the national level, as well as some support for procurement of equipment necessary for research facilities at the national level.

In the country's effort for safeguarding biodiversity and ecosystem services, one of the most pressing issues that has been identified is highly limited information availability and human resources and capacity for generating and applying the information. In response to this, Project partner agencies have been working closely with the MOECAF in support of the 10-year Strategic framework for "Building the Foundation for Natural Resource Stewardship, for Sustainable, Inclusive and Equitable Development" for 2015-2025. The 10-Year Strategy aims to accelerate capacity development for better stewardship of natural resources, directly implementing the capacity development needs identified under the National Biodiversity Strategy and Action Plan (NBSAP). The 10-year strategy aims to promote sustainable, inclusive and equitable economic development, reduce poverty and conserve the rich natural heritage of the county for present and future generations. The Framework, which was presented and approved in principle by the Minister of MOECAF in November 2013, will focus its initial support for building of the necessary scientific foundation and trial application of scientific knowledge for biodiversity stewardship in the coming decade in close collaboration with the Smithsonian Institution, FFI, GEGG, UNDP and other partners. The necessary financial resources for implementation of the programmatic framework are estimated to be $128,500,000, including plans for establishing a $100 million trust fund. The proposed project is anchored on this programmatic framework.

A number of other governmental and civil society organisations have also provided capacity development support to the country. Scientists from the Smithsonian Institution have been studying the biodiversity and ecology of Myanmar over the last 20 years, and since 1993, Smithsonian has trained more than 300 MOECAF staff, completed 50 research projects, 150 science publications, aiding in the discovery of over 70 species new to science, and has located and identified hundreds of critical species. Fauna and Flora International (FFI) supports a range of biodiversity conservation programmes in Myanmar, including community forest programmes and collaborative PA management initiatives in Kachin, which led to the discovery of the snub-nosed monkey. In addition, the Wildlife Conservation Society (WCS) supports strengthening the country's capacity for conducting biological surveys, monitoring populations of key wildlife species, supporting establishment of protected area and management actions. WCS supported the Tanintharyi Forest Department in development of the regional forestry plan, and has supported Tanintharyi Nature Reserve development and management by developing the park management plan and introducing the SMART patrol system. WCS is also the CSO implementing partner for the GEF-5 PA strengthening project which will start implementation in late 2014, with focus on the northern tiger landscape. Furthermore, World Wildlife Fund (WWF) established its Myanmar Office in 2014 with a new Myanmar country programme. The programme includes support for Tanintharyi region, in particular integration of green economy principles and development of a capital strategy with focus on the Dawei Development Corridor in northern Tanintharyi. IUCN is currently conducting an in-depth situation analysis of the Myeik Archipelago as part of the GEFFAO supported Bay of Bengal Large Marine Ecosystem Project (BOBLME).

Through the 2013-2015 programme, UNDP support extends to three areas: (i) Effective local governance for sustainable, inclusive community development; (ii) Climate change, environment and disaster risk reduction and (iii) Democratic governance. UNDP supported initiatives include community-based reforestation and sustainable forest management, watershed management, development of community-based resource- and land-use planning systems, sustainable agricultural and livelihood development programmes and local conservation programmes. In addition, in November 2011, Myanmar became a UN-REDD Programme partner country and has developed the Myanmar REDD+ Readiness Roadmap. Based on the roadmap, with US$4,788,250 funding, UN-REDD programme is providing targeted support for 4 years from 2015 to engage stakeholders and develop capacity to implement effective a participatory governance arrangement for REDD+. UNDP/UNEP joint programme Poverty and Environment Initiative (PEI) support the government in improving the quality of foreign direct investment in natural resource sectors by managing the social and environmental impacts. The current programme budget is US$700,000 for 2014-2017.

Although the baseline activities are significant, the threats to the globally significant biodiversity of Myanmar are on the increase and biodiversity is in decline. The support to the countries in the field of biodiversity conservation and ecosystem management has been small scale and rather fragmented, focused on addressing specific threats and issues. A more comprehensive approach that combines work to improve response to systemic issues at the national, provincial levels, and interventions on the ground level to apply systemic improvement is warranted in this newly opened country.

Long-term vision and barriers to achieving it: The long-term vision of the project is for Myanmar to achieve sustainable, inclusive and equitable development through sustainable management of the country's natural capital and safeguarding its globally significant biodiversity and ecosystems. This will be achieved through emplacement of systemic and institutional capacity to generate, maintain and apply essential information and knowledge about its magnificent and

valuable biodiversity and ecosystems. The country will integrate PA management and finance into broader state and national level development and sector planning. It will employ integrated planning and management of the protected area land/seascapes, with integrated ridge to reef planning and management as principles, expanding the PA system andincreasing connectivity of protected areas to conserve valuable biodiversity as stipulated in the 10-Year Strategic Framework and the NBSAP. Specifically, this project will rapidly establish a foundation of biodiversity knowledge for the terrestrial and marine ecosystems of the Tanintharyi Region, which can be directly applied to manage and secure the globally significant biodiversity of the Sundaic Subregion and Andaman Sea. However, there are a number of significant barriers to achieving this goal.

Barriers	Elaboration
1. Under-representation of important habitats in the PA system and insufficient systemic capacity for integrated protected area land / seascape planning and management	The Sundaic Lowland Forest in the Tanintharyi Range Biodiversity Priority Corridor is not yet represented in the national PA system. Some KBAs in the Tanintharyi Region have been proposed as PAs (e.g. Proposed Lenya National Park and Extension comprised of the Lenya Reserved Forest, Ngawun Reserved Forest/ Ngawun extension), but have yet to be gazetted. Similarly, marine ecosystems are seriously under-represented in the PA network, accounting for only 0.31% of the total territorial water. The Myeik Archipelago and associated coastal ecosystems along the central Tanintharyi coast (Tanintharyi Marine Corridor) are highly threatened by unsustainable fishing practices, but provide Myanmar's best opportunities to protect marine biodiversity as well as the whole range of marine ecosystems, including coral reefs, sea grass areas, mudflats, and mangroves. Despite this, current development planning is done without consideration of KBA locations, distribution of endangered species, or taking into account the current or potential value of biodiversity and ecosystem services. There is no systemic capacity in terms of law and regulations, an absence of development planning and operationalization processes, and no ability to integrate biodiversity and ecosystem valuations into regional development planning. Furthermore, the integrated approach to land and seascape planning as a connecting unit is non-existent in the country despite the globally significant terrestrial and marine biodiversity it harbours
2. Weak institutional and individual capacity for management of PAs and buffer zones	There are four existing PAs in the Tanintharyi Range; however, site and buffer zone management is extremely weak and ad-hoc. Only 2 of the PAs, Lampi Island and Tanintharyi Nature Reserve, have field staff presence on the site and limited park management infrastructure. These are the only PAs that have a management plan. Staff skills are also insufficient, particularly when it comes to law enforcement, habitat condition, species monitoring, park-neighbour relations, and landscape/seascape management. Conservation planning and management is generally perfunctory. There is no clear strategy for reducing threats coming in from outside PAs—be it encroachment or illegal activities within the PAs. In addition, there is a clear disconnect between PAs and local-level economic development and land use planning, resulting in increased pressure on biodiversity within the PAs and buffers, and increased degradation of natural habitats in the conservation priority corridors and around KBAs. Hundreds of thousands of refugee returnees, internally displaced persons, and poverty also exacerbate the threats to the biodiversity of the Tanintharyi Range, causing deforestation and increasing soil run-off and sedimentation. This in turn affects coral reefs, as well as soil fertility and productivity.
3. Insufficient capacity for generating and applying biodiversity information and knowledge	Although Myanmar already had a participatory process for identifying biodiversity priorities, which is articulated in the National Biodiversity Strategy and Action Plan (NBSAP, 2011), the NBSAP lacks critical baseline data on the extent, location, condition and threats for many important species and ecosystems, including coral reef and species. There is an urgent need for a strategy for acquiring and distributing data, and building the institutional, technical, human, and infrastructure capacity needed to support on-going biodiversity monitoring and decision-making. With the recent opening of the country and the democratisation process, the pressure on land, forest and extractive resources has increased dramatically. With this particular background, it is not surprising that the country's knowledge base on biodiversity and natural resources and capacity for stewardship are particularly weak, even compared with other neighbouring least-developed countries. The baseline scenario in terms of human resource base in the country is alarming. Human resource base in biodiversity related disciplines is highly limited. The capacity gap is particularly acute in botany, herpetology, entomology and marine biology. For example, there are only two qualified herpetologists, and the first marine diver in the entire country was only trained and certified in 2013. Without urgent and substantial international support in this field, many unique animal and plant species in the country will be lost without notice, resulting in a huge

	biodiversity loss for the country and for the world. This is not just critical for implementing the strategy, but also for strengthening the PA landscape/seascape management in the priority biodiversity corridors and KBAs. A systematic assessment of the Tanintharyi ecosystems and their biodiversity is urgently needed to better inform PA expansion and management, and to integrate conservation strategies into development and sector planning

Proposed Alternative Scenario: The **objective** of the proposed project is to secure long-term protection of Key Biodiversity Areas through integrated planning and management of the protected area land/seascape in Tanintharyi. The project will systematically remove the above mentioned barriers through 3 integrated components.

Protected areas represent the frontline for conservation of natural resources and biodiversity, yet many have not been systematically assessed. As mentioned above, it is also clear that many important ecosystems such as lowland forest, mangrove and marine ecosystems are heavily under-represented in the Tanintharyi's PA system. Timely, accurate, and scientifically sound information on biodiversity and ecosystem services is needed to prevent the loss of Myanmar's natural capital.

Component 1: Integrated land/seascape planning and management in Tanintharyi

Component 1 will support the expansion of Tanintharyi's PA system, covering identified KBAs in both marine and terrestrial landscapes, and the gazetting of up to 3 proposed PAs and KBAs. This component will also support development of systematic and institutional capacity to enable integrated land and seascape planning and management, which will ensure that development and land use practices in Tanintharyi will support conservation objectives rather than exerting undesirable pressures on high conservation value forests and KBAs. This will directly feed into the on-going Land Use Plan finalization and the One Map Myanmar Initiative.

Expected outcomes for Component 1 are:

- At least 2,000,000 ha of Tanintharyi Region covering 4,334,330 ha employing integrated landscape management approach in the land use decision-making and forest and coastal landscape management, indicated by: (i) establishment of cross-sector joint planning and coordination mechanisms within the regional governance system; and (ii) existence and use of a range of support tools providing enabling environment for sustainable forest management and spatial and sectoral integration of PAs and associated threat reduction.
- Ecosystem services maintained, indicated by (i) the area of High Conservation Value Forests (HCVF) secured; (ii) decreased rates of loss of terrestrial forests and mangrove coastal habitats, avoiding emissions from deforestation of 15,560,667 tC owing to gazettal of at least 300,000 ha of new HCVFs/High Carbon Stock Forests (HCSFs)
- Tanintharyi PA System expanded from its current 195,402 ha to 500,000 ha, covering identified KBAs in both marine and terrestrial landscapes and HCVFs, directly contributing to implementation of the National Biodiversity Strategy and Action Plan in terms of PA coverage increase, Ramsar site development and community-based approach to conservation.
- Improved maintenance of the integrity and functioning of coral reef ecosystems, indicated by increased area of coral reef ecosystem, number of coral species and abundance in selected areas.

The project will introduce landscape/seascape and HCV approach to forest area planning. It will support establishment of a mechanism within the regional governance system for multi-sectoral and multi-stakeholder landscape planning involving both public and private sectors to inform decision-making on integrated management of ecosystem services. It will also provide support for capacity building of the Tanintharyi government to enable integration of value of ecosystem services (including carbon sequestration) and biodiversity (e.g. HVC forests) in regional and local land use and development planning. These actions will inform implementation of National Land Use Policy which is under development and will mainstream KBA and HCVs in implementation of the policy. The project will be directly linked to the One Map Myanmar initiative, and will in turn contribute to sustainable forest management at the national level. In addition to the range of tools for biodiversity data and information generation and geospatial analysis that are supported under Component 3 (below), this component will support development of mechanisms and tools for mainstreaming. These include: (i) maps (overlay of HVC forest, KBAs, carbon density, land use patterns, regional forest and deforestation analysis); (ii) biodiversity and ecosystem valuations (including TSA - targeted scenario analysis as appropriate), as well as socio-economic and cultural reference data for specific sites; (iii) strengthening of EIA procedures and enforcement for

compliance incorporating HCV approach; (iv) Strategic Environmental Assessment focusing on sector development impacts on biodiversity incorporating HCV approach; and (v) development and operationalization of sector-specific standards and safeguards to protect KBAs from biodiversity-threatening sector practices, including progress on establishing regulatory standards for palm oil, extractive activities, fisheries and hydropower industries. FFI, through the co-financing project Biodiversity Corridor Project in Tanintharyi Region, will support stakeholder dialogue for Roundtable for Sustainable Palm Oil (RSPO) and support a self-assessment of 3 plantations and undertake HCVF assessment in one pilot palm oil plantation that is committed to RSPO certification.

An integrated land-use plan will be developed and implementation supported in at least one district in Tanintharyi. Implementation support will include support for local communities in target landscapes for capacity development for community based natural resource management and practicing improved land management and agricultural practices including natural forest regeneration, establishment of community woodlots on degraded lands, community forestry, agroforestry, rubber gardens, integrated pest management and silvicultural management.

Towards gazetting new PAs, the project will provide targeted support to fill identified critical gaps in co-financed efforts supported by FFI and SI to generate baseline data and conduct assessment of KBAs (both terrestrial and marine). This will facilitate boundary determination and zoning, biological corridor design, and habitat management.

Furthermore, Tanintharyi's expanded PA system financing plan will be developed and implementation will be supported. The support could include (i) establishment/strengthening of management structure, with permanent staff, for new and existing PAs; (ii) development and operationalization of a regional tourism plan; (iii) establishment of PES and offset mechanisms (e.g. watershed services, carbon sequestration etc.) to realise payments by ecosystem service users and biodiversity impacting private sector companies (e.g. hydropower, oil and gas, plantation). Replicable, systematic biological assessment protocols and standards for selected critical species, habitats, and human communities will be deployed across diverse marine and terrestrial landscapes.

Effective management of PAs cannot be accomplished solely through enforcement; it must reach beyond the boundaries and involve community engagement and participation. Systematic biological assessments provide the objective data necessary for informed decision-making and the establishment of sound public policy. The establishment of long-term core monitoring sites can serve as the backbone for deploying resources across diverse landscapes, building capacity among government and civil society organizations, communicating the value of functioning ecosystems for human society, integrating conservation into development practice, and building sustainable livelihoods for Myanmar's citizens.

Component 2: Strengthened management and threat reduction in the target PAs and buffer zones

This component will focus on strengthening PA management effectiveness on the ground, by increasing on-site management capacity and by reducing threats to biodiversity and high conservation value forests in the target PA land/seascapes.

Expected outcomes of Component 2 are:

- Improved management effectiveness of individual existing and new PAs of global significance, covering over 500,000 ha indicated by the percentage increase using the Management Effectiveness Tracking Tool (METT).
- Application of integrated natural resources management practices in target landscapes of over 200,000 ha, resulting in reduction of threats at the landscape level indicated by quantifying change in poaching threats, agriculture/plantation expansion, local/regional trade and trafficking, law enforcement interdictions.
- Status for selected indicator species in the region will be maintained or improved, as indicated by monitoring protocols that will be developed and implemented during Phase 1 (Years 1-3) and conducted at regular intervals during subsequent implementation phases.
- Improved maintenance of the integrity and functioning of coral reef ecosystems, number of coral species and abundance in selected areas.

From the 4 gazetted PAs and 4 proposed/potential PAs, up to 3 target sites will be selected during the project preparation phase, with particular focus on interventions, species conservation, and threat reduction targets.

EXISTING AND PROPOSED PAS IN TANINTHARYI

Protected Area	(Ha)	Gazettal	Biodiversity and Ecosystem Features
1. Lampi Island Marine National	20,484	1996	Rocky coast with sandy beaches, bays, and inlets. Evergreen forest is the major forest type, with some mangrove and dune forests. Coral reefs surround the islands and

Park			some sea grass beds are found, particularly on the east side of the island. Habitats are still in relatively good condition, and with effective management plans many of the important species and ecosystems can be protected. The park is an ASEAN heritage site and an IBA.
2. Moscos Island Wildlife Sanctuary	4,919	1927	Three-fourths of the islands are composed of evergreen forest; the others are rocky. Though it is one of the few marine protected areas, most of this sanctuary comprises the terrestrial part of the islands. This small and remote sanctuary has no field office or staff and visits are not allowed without permits from the Navy. The islands would be impacted by the Dawei deep sea port project. Main threats are from fishing and collecting bird nests.
3. Tanintharyi Nature Reserve	169,999	2005	Over 70% evergreen forest (giant and riverine); the remainder is mixed deciduous forest (bamboo) grassland. The site hosts endangered Gurney's pitta and almost 70 species of mammals, many of which are globally threatened.
4. Lenya National Park and Extension	176,119 and 139,859	Proposed in 2002/2004	The Sundaic evergreen forest in the area is at risk from oil palm plantations and human settlements inside the park boundaries. The area has not been gazette, so there is neither staff nor a PA management plan. The evergreen forest harbours Gurney's pitta, tapir, elephant, sambar and barking deer, bear, pangolin, Hoolock gibbon, wildcat, civet etc. The extension area is a stronghold of Gurney's pitta, critical for the species' long-term survival.
5. Tanintharyi National Park	207,181	Proposed in 2002	Evergreen Forest, Hill Forest, Mangrove Forest. Key species include Sambar deer, elephant barking deer, serow, red goral, leopard etc.
6. Thayawthatangyi Islands	8,000	Proposed in 2014	A diverse coral community with over 64% coral cover on average for all sites around the islands. The reefs have a high diversity and cover of *Acropora* with patches of *bommies* (Porites) with diverse corals covering them. The reefs also include two endangered species, *Acropora roseni* and *A. rudis*. Important mangrove forests also surround the islands.
7. Langann Islands	4,000	Proposed in 2014	The islands are surrounded by diverse and complex fringing reefs. The reefs are dominated by shallow *Acropor*a thickets, exposed at spring low, with *Porites bommies* and other corals to approximately 3-5 m providing a structurally diverse ecosystem for reef fish species and invertebrates. The island group also includes several rock/island pinnacles with high cover of filter feeders, whip corals and fans and a high cover of encrusting corals in the shallows. Average coral cover within the group is 50.1% with up to 86% cover on some of the reefs. The reefs are also home to two endangered corals *Acropora roseni* and *A. rudis*.
Total Hectares	**718,327**		

For the newly gazetted PAs, support will be provided for establishing the management structure through on-the-ground presence, and park management and business plans

Component 2 will support development and operationalization of management plans for the target PAs, including new PAs and their buffer areas, making use of the biodiversity knowledge and assessment and mapping tools developed under Component 1. The management plans will be developed with full participation of stakeholders, including local communities, local governments and business sectors. Plans will include a PA-based financing plan, management budgets and plans for meeting the budget needs. PA site operation will be strengthened to address existing threats to biodiversity through: (i) establishment of the management structure through on-the-ground presence in new PAs; (ii) development and operationalization of habitat and biological monitoring systems for key ecosystems and threatened species; (iii) clear park boundary demarcation for reducing encroachment and implementing resource extraction quotas in areas overlapping PAs; (iv) increased human capacity to manage PAs through establishing clear protocols for ecosystem and biodiversity monitoring, training in SMART patrolling and enforcement techniques, and developing strategies for community engagement; (v) management infrastructure consolidation (signage, patrol camps, equipment etc.); (vi) co-management system pilots for community participation in PA management at the 4 PA sites, including rights-based fisheries management, establishing and enforcing no-take zones in the marine PAs and ecosystem-based adaptation strategies in coastal communities. The project work will build directly on baseline and co-financed activities at the site level, e.g., FFI's Biodiversity Corridor Project. The co-financing project supports free prior informed consent (FPIC) consultation process for new protected areas to be established, training and piloting of collaborative patrol units to mitigate forest crime, and buffer zone development and management including natural resource mapping and land use planning by villagers in and around PAs.

In close collaboration with the related GEF funded projects such as the Western Complex Project of Thailand and GEF-ADB Greater Mekong Greater Mekong Sub-region Forests and Biodiversity Program, the project will also support the strengthening of transboundary cooperation between the park authorities in Myanmar and Thailand. Furthermore, capacity

building of communities within the KBAs, buffer zones, and corridors, will be built to improve biodiversity resource management. Based on the thorough on-the-ground investigation, including threat and social analysis, capacity development measures that include livelihood support will be designed. The target communities could include ex-refugees, ex-soldiers and internal displaced people in the region. Management oriented research projects (e.g. human-elephant conflict, aquaculture, agriculture, poaching, and PA encroachment) will be designed, with co-financing, to address conservation challenges specific to the PAs and will be implemented in partnership with PA staff and community members. Project experience provides an opportunity for on-the-job training and mentoring.

Component 3: Emplacement of the National Biodiversity Survey (NBS) framework

This component focuses on removing the aforementioned third barrier and targets systemic and institutional capacity development for generation and application of biodiversity knowledge at both national and local levels. The National Biodiversity Survey (NBS) framework will be established at the national level as the umbrella for the systematic biodiversity information management system. In building national and local capacity, a wide range of programmes and tools developed by the Smithsonian Institution will be utilised, including establishing regional monitoring stations, Marine GEO, Forest GEO, BMAP, Geospatial Initiative, Encyclopedia of Myanmar Life, and a range of training programs.

Expected outcomes are:

- Capacity building strategy for biodiversity knowledge generation and application integrated in the regional and national development framework and institutionalised in the government's human resource management strategy.
- Increased institutional capacity to collect and analyse biodiversity information/data, and apply them to the conservation and management of PAs and KBAs, and land use planning, as indicated by the UNDP capacity development scorecard.

Biodiversity information and data will be consolidated through establishment of the NBS framework focusing initially on the Tanintharyi Range Corridor, coastal wetlands (mangrove and mudflats) and Myeik Archipelago. The NBS will comprise: (i) replicable, systematic biological assessment protocols and standards for selected critical species, habitats, and human communities to be deployed across diverse marine and terrestrial landscapes; (ii) baseline data documenting species richness and distribution (mapping current diversity at the species and genomic levels for key taxonomic groups); (iii) national biodiversity data repository and web portal—Encyclopedia of Myanmar Life—linked to geospatial tools that will improve knowledge sharing among diverse stakeholders; (iv) geospatial tools for stakeholders and decision makers to inform and improve PA management, land use planning, and conservation of biodiversity and ecosystems; and (v) a framework for establishing and evaluating long-term conservation project outcomes.

Working from detailed capacity needs assessments, the capacity of MOECAF, national and local research institutions and NGOs will be strengthened for implementation of Convention of Biological Diversity (CBD) in particular in the areas of biodiversity assessment, biodiversity planning and management for development and poverty alleviation, and utilization of open standard methods and tools to design, implement and evaluate projects. Training programmes will be established and institutionalised. These will be linked to human resource management and appropriate incentives for conservation personnel in Myanmar for biodiversity assessment, management and ridge to reef PA landscape management and management-oriented research, in collaboration with the Smithsonian Institution and other global training institute of excellence. Training programmes for the NBS will focus on select MOECAF officials (e.g. GIS technicians, taxonomic specialists, field rangers, etc.), co-management partners and academic institutes in Myanmar and other stakeholders. Core Learning Programme modules will be developed and implemented. These could include: (i) smart green infrastructure planning; (ii) management and leadership; (ii) habitat management; (iv) managing landscapes for wildlife; (v) community engagement; (vi) resolving human-wildlife conflict; (vii) anti-poaching systems (SMART patrolling); (viii) tracking management effectiveness through management information systems; and (ix) science-based habitat and wildlife population monitoring. Modules will be adaptable for different PAs regionally, but also nationally, as appropriate. Up to 30 candidates will be identified for long-term hands-on training for conducting biodiversity assessments, and utilizing open standard methods and tools to design, implement and evaluate conservation projects. Under this component, SI's co-financing project with funding from Helmsley Charitable Trust, will bolster the scientific and technical capacity needed to support on-going scientific/technical monitoring of PA biodiversity and patterns of change over time.

Summary comparison of baseline and alternative scenarios and global environmental benefits

The primary global benefits that will be delivered include adoption of sustainable land management (SLM) and sustainable forest management (SFM) practices that will reduce land degradation and secure ecosystem services and mainstream

biodiversity conservation over a landscape of 2,000,000 ha of globally significant terrestrial, coastal and marine ecosystems, and test SFM approaches in at least 200,000 ha, as follows:

Baseline practices	Alternative to be put in place by the project	Selected environmental benefit
Land and Seascape Planning and Management		
Land use planning does not account for ecosystem values and biodiversity, leading to continued forest degradation, loss of HVCFs/HCSFs and loss of ecosystem functions Sectoral approach prevails in terms of land use decision-making; forest planning does not incorporate HVCF and HCSF approach, ridge to reef considerations nor SFM tools. National policies do not support land use optimization to sustain resource resilience nor do they allow operationalization of the HCVF and HCSF concept Weak enforcement capacities to ensure compliance with ecological standards in land use, and high levels of trespassing in use of forests	Mainstreaming SLM/SFM principles into region and district land use planning and development planning, compliance monitoring and enforcement: - All land in target districts is classified with the principle of retaining highest carrying capacity of land and forest resources for ecosystem service maintenance, and the compliance is monitored and enforced. - The approach of HCVFs and HCSFs is operationalized in Tanintharyi Region with a suite of incentives established to avoid the loss of HCVFs/HCSFs and providing direct contribution to the national REDD + Strategy development process. - Biodiversity and ecosystem values are fully recognised and provisions are made in regional and district land use plans for their maintenance and enhancement. - Local and business communities and foreign investors are engaged in forest area and land use planning and use, and providing direct support for conservation and sustainable forest and land management actions. - Local communities are empowered for community based natural resource management and practicing improved land management and agricultural practices including natural forest regeneration, establishment of community woodlots on degraded lands, community forestry, agroforestry, rubber gardens, integrated pest management and silvicultural management. - Protected area system is expanded to incorporate all the key HCVFs, HCF, and KBAs with management structure and staff emplaced.	**SFM benefits:** Pressures on forest landscapes reduced in 2,000,0000 ha: - Avoidance of emissions from deforestation of 15,560,667 tC through gazettal of at least 300,000 ha of new HCVF/HCSF - Improved functioning ecosystem services (such as carbon sequestration, watershed functions, forest/marine product provisions, maintenance/ enhancement of tourism assets) - Improved production sector practices (e.g. plantation and agriculture, extractives etc.) integrating ecosystem services values and biodiversity concerns in its management - Forest reserves, production forests and plantation areas integrate the concept of HVCFs and HCSFs in their management plans. - Concessions and infrastructure development are allocated in such areas to minimize disturbance to the connectivity of forest complexes ensuring the full value of forest ecosystems are maintained. **LD benefits:** At least 2 million ha of Tanintharyi Region covering 4,334,330 ha employing integrated landscape management approach in the land use decision-making and forest and coastal landscape management, under enhanced cross-sector enabling environment for integrated landscape management, and with a range of support tools and mechanisms for cross sector integration. Integrated landscape management practices adopted by local communities in the Tanintharyi Range corridor. **BD benefits:** Expansion of the Tanintharyi PA system from current 195,402 ha to 500,000 ha securing KBAs in both marine and terrestrial landscapes and HCVFs.
Protected Area Management		
Protected areas will continue to be under-resourced, with no management structure on the ground for some PAs, resulting in suboptimal management effectiveness. Protected areas remain as islands and threats from surrounding landscapes continue to increase, undermining PA objectives. Proclamation of new protected areas will come too	Existing and new PAs are actively managed based on management plans and with participation of stakeholders including local communities, local governments, and businesses. PA boundaries are clearly demarcated, and basic park management infrastructure and equipment supporting PA management. PA managers are fully aware of costs for basic and optimal management of PAs, and will be able to request and encourage appropriate funding from the central government. Local level habitat and biological monitoring systems for key ecosystem and threatened species	**BD Benefits:** Improved management effectiveness in the existing and new PAs in the Sundaic Subregion Priority Conservation Corridor with an array of threatened/ endangered species including species that are not yet described in science as well as pristine HVCFs/HCSFs. The area is part of the most important trans-boundary tiger landscape bordering Thailand. Effective management of new marine PAs with globally significant coral areas of the Myeik Archipelago in the Andaman Sea, harbouring 65 described coral species in 31 genera, with many more not yet described

late after heavy degradation of the habitats and there are insufficient resouces and capacity for properly managing the areas even after proclaimation.	are in place, with established protocol for monitoring based on the SMART patrolling and enforcement techniques. Incentives for communities to reduce unsustainable forest use created through application of various incentive and support systems, including co-management, training, alternative livelihood support schemes such as conservation job creation and high value non-wood forest product development and marketing.	species. Increase or stable numbers of tiger, takin, musk deer, blue sheep and other selected species Reduction of threats to biodiversity from incompatible land use practices in PA landscapes/seascapes. **SFM Benefits:** Emplacement of system for identification, management and monitoring of HCVFs, with participation of local communities for management and monitoring.
Capacity for Application of Biodiversity Knowledge		
Gravely low capacity for ecological surveys in relation to the country's size, abundance of biodiversity and intense development pressure will lead to massive loss of biodiversity resources, compromising sustainable development. Scientific knowledge on biodiversity and ecosystems will be confined to an extremely small number of individuals and some foreign scientists, with no systematic application at policy level and on the ground.	Accelerated establishment of foundation for biodiversity stewardship: - National Biodiversity Survey (NBS) framework is established at national and local levels, providing duplicable systematic biological assessment protocols and standards. - National biodiversity data repository is established, resulting in improved knowledge sharing. - Geospatial tools for stakeholders and decision makers is available to inform and improve land use planning. - Capacity development system for maintenance and effective use of the NBS system is in place.	**BD Benefit:** Effective management of the above mentioned globally significant biodiversity and habitats in the Tanintharyi region. Accelerated emplacement of the framework and capacity which is also applied to increase effective management of the target PAs, landscapes/seascapes.

Innovativeness, sustainability and potential for scaling up: The project establishes, for the first time, integrated land and seascape planning and management in Myanmar, in the area that harbours one of the last biodiversity strongholds in Asia and where new development pressures are some of the greatest in the region. Support for the integrated approach is combined with emphasis on capacity development actions and focused on the generation and application of biodiversity knowledge – the most essential and fundamental capacity needs – with institutional and technical backing of the Smithsonian Institution.

Project has sustainability and future scale-up actions built in its design. The project, although primarily regional in nature, incorporates a number of aspects that contribute directly to national level work, increasing sustainability and scalability.

Under the aforementioned 10-year strategy's programmatic framework (2015-2025), aiming to build the necessary scientific foundation, the project will support emplacement of systemic and institutional capacity at the national and local levels with trial application of scientific knowledge for biodiversity stewardship in the country. For example, through Component 3, the project will establish the National Biodiversity Survey system at the national level, and include its by-products, e.g. a data repository and web portal integrated with geospatial tools. This work will start primarily at the national level, addressing the critical gap of NBSAP implementation and essential foundation for improved biodiversity stewardship and PA management, with initial data population and application work under the NBS focused on Tanintharyi.. This aspect of the work will also have regional and local level components in terms of capacity building and demonstration of applying the framework and tools in decision-making for land use planning and management at the regional and local levels. This is particularly timely as the government is expected to finalise the National Land Use Policy soon.

The project contributes directly to PA system-wide work, again providing good upscaling potential. Under Component 1, the project will establish integration of key biodiversity areas and HCVFs/HCVFs in the regional PA system and land use planning and management, which is highly replicable in other regions. It will also introduce ridge to reef approach, which will be critical in coastal regions such as Taninathryi and Rakhine. By applying this approach at sub-national levels, the project will help inform development and implementation of national land use policies, which in turn contribute to sustainable forest management framework at the national level. This directly implements part of the national vision for

establishing the 8 priority corridors, and demonstrates tools and approaches for corridor implementation in the country. The project also takes a systematic approach to tackling threats to key biodiversity areas and improving management effectiveness of PAs and landscapes, focusing on the Tanintharyi PA system, with a significant portion of Components 1 and 2 providing systemic level interventions. The 10-year programmatic framework includes a component for scaling up regional experiences to at least three more regions, and the NBS framework will enable these future replications and scale up activities.

A.2. Stakeholders. Will project design include the participation of relevant stakeholders from civil society and indigenous people? (yes X/no☐) If yes, identify key stakeholders and briefly describe how they will be engaged in project design/preparation:

The table below summarizes the key stakeholders and their roles in project preparation and implementation. Overall, the project will seek to ensure the fair and equitable involvement of stakeholders, and proactively engage vulnerable social groups including women and ethnic minorities in its community participation activities through an inclusive approach. National Park designation, boundary delineation and zonation will be done through a full stakeholder consultation process based on FPIC principles. The list is non-exhaustive and will be completed during the formulation of the fully-fledged Project Document.

Stakeholders	Mandate and relevant roles in the project
Ministry of Environmental Conservation and Forestry	Responsible for biodiversity conservation, protected area and wildlife management, as well as forest management. It is the lead national partner of the project, through its Forest Department, at national level and at local levels through its subsidiary agencies. It will be the lead ministry for project preparation and implementation.
Department of Fisheries	Under the Ministry of Livestock, Fisheries and Rural Development, the Department is responsible for regulating both marine and freshwater fisheries to achieve sustainable development of the sector. It is s responsible for not only fishery resource management but also fish diversity conservation in both fresh water and marine environments, thus a key stakeholder for marine protected areas planning and management.
Tanintharyi Regional Government	In the long-term decentralization process, State and Region Governments will play important roles in development planning, land use planning and resource management planning in their respective States and Regions. Therefore, the project preparation process will be conducted in full consultation with the Tanintharyi Regional Government and its relevant departments, as well as district and township authorities, thus increasing awareness of the needs and benefits of green growth and sound biodiversity and ecosystem management and its integration in development and sector planning.
United Nations Development Programme (UNDP)	UNDP is the GEF Agency for this project and will lead the project preparation and implementation activities. UNDP has been providing development assistance in Myanmar since the 1950s. It has a large country programme in the field of climate change, environment, energy, disaster risk reduction, democratic governance, and sustainable and inclusive community development.
Green Economy Green Growth Myanmar (GEGG) Association	GEGG Association is a non-profit organisation based in Myanmar and is an implementing partner for this project. It will play a catalytic role in project preparation, providing technical inputs, acting as a liaison between and among government agencies and other stakeholders, and facilitating inter-ministerial institutional support. In addition, GEGG Association provides support for resource mobilisation for co-financing during the project preparation, as well as working towards establishing a natural resource stewardship trust fund for Myanmar.
Smithsonian Institution (SI)	SI is an implementing partner for this project and will have active roles in project preparation by providing technical expertise and inputs in the field of biodiversity information generation and management. Founded in 1846, US based quasi-government organisation SI is the world's largest museum and research complex consisting of 19 museums and galleries, the National Zoological Park and 9 research institutions. Smithsonian scientists have 20-years of experience studying the biodiversity and ecology of Myanmar, and the organization has a long-term partnership with the MOECAF. It is expected to provide capacity building support in generating biodiversity information and application tools, and to be a co-financier for the project.
Fauna and Flora International (FFI)	FFI, through its Myanmar office, is an implementing partner for this project and will have an active role in project preparation, providing technical expertise based on its work in Myanmar, in particularly in Kachin and Chin states, and more recently in Tanintharyi region. Founded over a century ago, the UK-based FFI has been working closely with MOECAF, supporting biodiversity management, protected area and forest management. It is expected to provide technical support for protected area planning/management and integrated land/ seascape management, as well as act as a co-financier through the on-going and future projects in Tanintharyi financed by EU and other donors.
Ministries responsible for economic industries	Other ministries will be fully consulted during the project preparation as key stakeholders. In particular, the following ministries will be involved in consultations: Ministries of National Planning and Economic Development, Finance, Agriculture, Science and Technology, Tourism and Hotels, Construction, Mining,

	Industry, as well as Department of Fisheries. Navy and coast guards will also be important stakeholders for coastal and marine biodiversity management.
Local Authorities	Sub-regional governments will also be fully consulted during the project preparation, in particular in the target protected area landscape and seascape. They will be critical in developing biodiversity mainstreamed land use planning, supporting co-management, livelihood activities, as well as creating payment for ecosystem services mechanisms. Karen National Union (KNU) will also be a key stakeholder at the site level.
Academic Institutions	Academic institutions such as the Forest Research Institute, Dawei University and Myeik University are potential collaborators for the project capacity building. They will actively participate in the project preparation process.
Local communities	Most important target group to achieve sustainable natural resource use at the grassroots level given their dependence on forest and marine resources Women and men in local communities are key users and beneficiaries of forest and marine biodiversity and active participants in community forestry, LMMA and livelihood development initiatives, and key stakeholders in land use planning and protected area gazettement decision-making. They are the affected parties of human-wildlife conflict in some places, and play a major role in local habitat conservation, control of poaching, and natural resource management. Community groups will be widely consulted during the project preparation phase. In the Taninthary Forest Corridor, the majority of the people is indigenous Karen, with less than 10 percent Burman populations. In the areas of the Thayawthatangyi and Langann island group in the Myeik Archipelago, main ethnicities are Karen and Moken indigenous people and Burman. The Moken are also known as sea nomads who are traditionally seafaring people who travelled great distances in small boats to access a range of marine resources. They have been living in the Myeik Archipelago since at least 18th Century. In the past 20 years, they have become more settled with most living at least part of the year in permanent villages. The vast majority of people primarily live on fishing, with a smaller percentage of people living on small scale agriculture and other livelihoods. Target communities will be fully engaged during the project preparation, with thorough socioeconomic assessment and community involvement strategy development. A full environmental and social screening will be conducted during the PPG phase and local level beneficiaries of the project will also be defined. All these preparation activities related to community stakeholders will take full account of the recent political and land tenure issues in the country, including impacts of the National Land Use Policy finalization and implementation, customary and statutory land tenure systems, resettlement of returning refugees and increasing land disputes and land grabbing incidents.
International NGOs	In addition to FFI, international NGOs namely the Wildlife Conservation Society (WCS), World Wildlife Fund (WWF) and OIKOS are important stakeholders. WCS has been working with the MOECAF since 1993 in the northern tiger landscape corridor as well as in Tanintharyi, in particular supporting the management of Tanintharyi Nature Reserve. WWF has recently established an office in Yangon and has designed a programme to promote a green economy that sustains natural capital under its Greater Mekong Regional Strategic Plan. Tanintharyi development corridor is a target area under the country programme. OIKOS has been working in the Lampi Marine Park, providing technical support to improve PA management and local community livelihoods. These international NGOs are potential collaborators and co-financiers of the project.
Local NGOs and CBOs	Myanmar NGOs and CBOs based in Tanintharyi will participate in project development. These include Dawei Research Association, Biodiversity and Nature Conservation Association (BANCA), Dawei Development Association, Myanmar Marine Science Association (MMSA), and the Mangroves and Environmental Rehabilitation-Conservation Network (MERN). They are also potential implementers of site level activities that focus on community-based activities and participation.
Inter-Governmental Organisation	IUCN supports the Forest Department in strategic planning and NBSAP update. It also supports the MERN through providing a small grant. In Tanintharyi, IUCN is carrying out an in-depth situation analysis of the Myeik Archipelago. It also support projects in Tanintharyi as part of the Mangrove for Future Programme.
Industry Association	Industry associations will be important stakeholders to the project and will be widely consulted for their possible participation in the project activities and financial contributions. Target associations include the Myanmar Fisheries Association, Oil Palm Business Association, Rubber Business Association, and Mining Business Association.
Private businesses	Comprising the oil palm, rubber companies and natural resource extraction sector (oil, gas, mining, timber, fisheries), industrial investors, hydropower, tourism companies etc. active or interested in Tanintharyi Region. The private sector is likely to have the largest single impact on the biodiversity values of Tanintharyi Region, but experience suggests workable compromises can direct private sector financial and logistical resources to assist conservation. The private sector is likely to have the largest single impact on the biodiversity values of Tanintharyi Region. Workable compromises can direct private sector financial and logistical resources to assist conservation.
Asian Development Bank	ADB coordinates Greater Mekong Sub-region Forests and Biodiversity Program (GMS FBP) which is part of the GMS Core Environmental Progarmme., One of the 7 priority transboundary landscapes of the GMS FBP is the Tenasserim Mountain Transboundary Biodiversity Landscape, which covers parts of Tanintharyi. ADB and through these programmes will be a key stakeholder and collaborator in development and implementation of the project.

A.3. Gender Considerations. Are gender considerations taken into account? (yes X /no☐). If yes, briefly describe how gender considerations will be mainstreamed into project preparation, taken into account the differences, needs, roles and priorities of men and women.

UNDP systematically integrates gender equality and a social inclusion perspective in programme/project planning and implementation. This is to ensure equal participation of both women and men and people from different economic and social backgrounds in project planning and decision-making, in order to make certain that no group are disadvantaged by the proejct activities and that all will have e equitable access to benefits of project activities. In order to achieve gender mainstreaming in this project, PPG will conduct thorough gender and social analysis as part of the baseline survey, and ensure equal participation of men and women in consultations among the key stakeholders, including the national and local governments, local communities and others as relevant, so as to fully take into account the different perspectives, priorities and socio-economic realities that women and men face. Project design pertaining to institutional strengthening and capcity building will ensure target trainees will include both sexes, and that institutional development will mainstream gender in the institutonal system and decision -making mechanisms. At the site level, the project will examine local livelihoods and the main factors affecting the livelihoods of women and men in the selected target PA land/seascapes. Gender disaggretated target and baseline will also be established where appropriate as part of the project monitoring plan.

A.4 Risk. Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the project design (table format acceptable):

Risks	Rating	Mitigation Measures
Political tension between ethnic minority groups and the central government and resultant refugee and internal displaced persons camps along the Thai border may limit ability to implement project activities effectively.	M-H	The national government and the Karen National Union (KNU) signed a peace agreement in 2012. Some of the biodiversity rich areas in Tanintharyi are under the control of ethnic military groups. However, FFI and Forest Department staff have been able to operate in KNU controlled areas. There has also been an in-principle agreement with the KNU mapping department to collaborate on customary land mapping to avoid overlaps with the proposed parks and facilitate FPIC for park gazettement. Through the PPG phase, the project will develop relationships with local ethnic leaders and ethnic associations such as the KNU through the KNU liaison office to increase awareness, build trust and encourage participation in project activities and limit tension as much as possible. In some areas, the project might support ex-combatants in developing biodiversity friendly livelihoods, including professional engagement in local conservation work. Local PA managers and conservation officers will be trained in conflict resolution and will conduct patrols unarmed to avoid any conflicts in KNU controlled areas.
Relevant government agencies at national and regional levels may be reluctant to promote conservation-oriented land-use for a fear of losing other development revenues from the overwhelmingly large business and investment interests by foreign companies, compounded by corruption.	M	Working closely with relevant government agencies, the project aims to influence the national development and fiscal development planning process, through mainstreaming biodiversity and PA system objectives. Participatory land use planning at state, region and local levels through this project will serve as a platform for development plans that integrate conservation priorities. It will also be critical to capture the potential of ecosystem markets in support of the PA system management. The project will develop necessary capacity and tools for mainstreaming work. The international presence created by the UNDP/GEF supported project will support greater transparency in decision-making for land allocation and concession and business interest management.
The private and business sector associations may be reluctant to collaborate with conservation initiatives, fearing loss of business and revenue expansion opportunities.	M	The project will work towards developing capacity of local government officials and stakeholders in different sectors, integrating biodiversity and ecosystem services into local land-use and development planning. The emphasis will be that the interventions will be essential for achieving long-term sustainable, inclusive and equitable development, and therefore make business sense. The project will support development and application of a range of tools, including maps (overlay of HVCF, KBAs, carbon density, land use patterns, regional forest and deforestation analysis) and targeted biodiversity and ecosystem valuation work including targeted scenario analysis as appropriate. The process will be done with full participation of the stakeholders in government, non-government and the private sector, including women, fostering understanding of the need for and benefit from striking the right balance between development and safeguarding of biodiversity. An effective communication strategy and stakeholder involvement plan will also be developed and implemented, for stakeholder support.

Opening of the Dawei Seaport and development corridor will cause negative impact on biodiversity management.	M	Opening of the Dawei seaport is likely to have indirect impacts on a large tract of landscapes/seascapes due to rapid economic development and improved accessibility through a new road linking Dawei and Thailand. However, direct impact will mainly on the Moscos Island Marine Protected Area (due to its proximity to the port, with possible impacts from increased sea traffic and pollution) and Tanintharyi Nature Reserve (through increased pressure on land conversion for plantation and crop production, and possible increase in encroachment and poaching.) Much of the project's site level support will focus on the southern part of Tanintharyi, which will not be directly affected by the sea port construction and economic corridor development. The project will explore ways to capitalize on the infrastructure development and existence of large businesses in the region. The project will seek to develop partnerships with the private sector companies to draw in their support for conservation, such as establishment of offset mechanisms. The project will closely collaborate with WWF Myanmar, which provides targeted support for green infrastructure development over the corridor to minimize the ecological barriers and fragmentation. The project approach to integrate natural capital values and biodiversity conservation in land use planning and management is a direct response to management of this risk.
Major private sector stakeholders continue business as usual rather than adopting RSPO principles for sustainable plantation development.	M	FFI has already established a positive dialogue with key government agencies and leading oil palm estates and facilitated their participation in the global RSPO conference and established a stakeholder RSPO learning group. All key decision makers have expressed their commitment to support the improvement of plantation practices towards achieving RSPO certification. The Ministry of Environmental Conservation and Forestry has just cancelled plantation licences that overlap with the proposed protected areas. Therefore both government and private sector commitments are high and the risks are considered low. The project will support an active stakeholder dialogue to change behaviour and mitigate risks.
Climate change may undermine the conservation objectives of the project in both terrestrial and marine ecosystems	M	The project will work to address the anticipated negative impacts of climate change by increasing resilience through improving PA management and landscape linkages, and the expansion and rationalisation of the PA system. Through this, the project will contribute to the maintenance of ecosystem resilience under differing climate change conditions, so as to secure a continued sustainable flow of ecosystem services. In particular for marine ecosystem resilience, the project will support measures to strengthen coral reef monitoring, including climate induced bleaching and other impacts, as well as capacity to minimise and respond to those impacts. These will include improved MPA spatial planning and connectivity development to increase coral reef resilience.

A.5. Coordination. Outline the coordination with other relevant GEF-financed and other initiatives:

UNDP will ensure close collaboration and synergetic impact with a number of UNDP-led initiatives in the country. The project will be fully integrated in the UNDP's Country Programme in particular with the environment Programme and the community development and livelihood Programme, to make sure that the project and Programmes are mutually supportive. The project will work closely with the UN-REDD Programme implemented jointly by UNDP, FAO and UNEP. Based on the Myanmar REDD+ Readiness Roadmap developed in 2013, UN-REDD Programme is providing targeted support for 4 years from 2015 to engage stakeholders and develop capacity to implement effective and participatory governance arrangements for REDD+. The support will include development of the National Forest Monitoring System (NFMS) and preliminary forest RELs/RLs and development of the National REDD+ Strategy. The project will contribute directly to the REDD+ strategy development and implementation process, by operationalising the HCVF/HCSF approach in land use planning and management in Tanintharyi Region with a suite of incentives established to avoid the loss of HCVFs and HCSF. In addition the project will directly benefit from the UN-REDD programme which will be able to provide technical support in ther RELs/RLs setting, MRV, benefit distribution system establishment and stakeholder engagement including the free prior informed consent (FPIC) process. Specific collaboration and joint working modality will be developed during the PPG phase. Furthermore, the project will be complementary to the GEF/UNDP Strengthening Sustainability of Protected Area Management in Myanmar project. While the GEF-5 project will support strengthening of systemic, institutional and financial frameworks for PA expansion and Management focusing on the northern Tiger Conservation Landscape (TCL), this proposed project will have a spatial focus on another biodiversity priority corridor in the southern TCL. The proposed project will benefit from improved institutional capacity of the MOECAF for the PA system planning and management, including enhanced capacity for PA system financing planning and resulting increased funding available for PA planning and management. The proposed project will also strengthen the country's capacity for

integrated Ridge to Reef planning and management, as well as fast tracking the capacity development for managing and applying biodiversity information. Some of the two project implementation periods will coincide, and this will enable the two projects to cross fertilise to generate larger and coordinated impacts. The MOECAF has a steering committee that will oversee both projects to ensure joint planning and collaboration between the two projects. Furthermore, the Project will coordinate with the Global Tiger Initiative, through directly contributing to the National Tiger Action Plan. The project will promote the objectives and recommendations of the NTRP and will work in Myanmar's southern Tiger Conservation Landscape. Furthermore, coordination with the Thailand's Western Forest Complex Project will be assured for the transboundary collaboration components of the project under component 2. This will be based on the framework for regular consultation to support trans-boundary conservation between Myanmar and Thailand which has already been established with support from ITTO. The project will further collaborate with the GEF-ADB Greater Mekong Sub-region Forests and Biodiversity Program (GMS FBP), given that much of the terrestrial area that is supported by this project fall under Tenasserim Mountain Transboundary Biodiversity Landscape, which is one of the 7 priority transboundary landscapes of GMS FBP will provide conducive regional framework for transboundary collaboration, while the proposed project will be able to provide on the ground support at the site level for transboundary collaboration particularly in law enforcement and species monitoring. GMS FBP and broader GMS Core Environmental Programme support includes tourism development with particular focus on Thanintharyi Nature Reserve for pilot, which is expected to directly contribute to output 2.3 by providing workable examples of community participation in the tourism sector activities, including community based tourism establishment. WWF Greater Mekong supports tiger restoration and recovery work in the Tenasserium Lansdascape. WWF implements an innovative conservation approach which is complementary to the propsoed project. It combines community engagement and behaviorial change with strong law enforcement and robust scientific monitoring of tiger and tiger prey communities. This approach will be essential in order to ensure an intact tiger landscape with protected and connected habitats and safeguarded ecosystem values for local communities and the Thai and Myanmar nations. The project will ensure regular contact with GMS FBP and GMS related sub-projects, and contribution to GMS work through joint planning of relevant activities and sharing of outputs. The Project will further coordinate with other on-going and emerging support in Tanintharyi by a range of partners including FFI, WCS, IUCN and WWF, through operationalization of a joint output and impact monitoring programmatic framework which has already been drafted. Further work to finalise the programmatic results framework will be carried out during the PPG.

DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

B.1 Is the project consistent with the National strategies and plans or reports and assessements under relevant conventions? (yes X /no☐). If yes, which ones and how: NAPAs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, etc.:

The project will directly support the 2012 Myanmar National Biodiversity Strategy and Action Plan (MNBSAP). More specifically, it directly supports implementation of three Strategic Directions in the MNBSAP.

- *Direction 1: Strengthen conservation of Priority Sites* including four priorities for intervention: Intervention 1.1 Review and support the expansion of the national protected area system to address gaps in coverage of globally threatened species and Key Biodiversity Areas; Intervention 1.2 Strengthen protected area management at Priority Sites; Intervention 1.3 Pilot alternative approaches to formal protected area management at Priority Sites; and Intervention 1.4 Support strengthening of the legal framework for protected area management and species conservation.
- *Direction 2: Mainstream biodiversity into other policy sectors* including three priorities for intervention: Intervention 2.1 Integrate biodiversity into decision-making processes for land-use and development interventions in the Priority Corridors, Intervention 2.4 Forge partnerships between biodiversity conservation and rural development initiatives, maximize synergies and mitigate risks; and Intervention 2.5. Cooperate with other concerned departments to raise awareness of the trade-off between biodiversity conservation and sustainable development;
- *Direction 3: Implement focused conservation actions for priority species,* in particular Priority Intervention 3.2. Take range-wide conservation actions for certain widely dispersed priority species, and 3.3 Conduct status surveys of priority species and 3.4 conduct biodiversity surveys for freshwater taxa and apply results to conservation planning.
- *Direction 4: Support local NGOs and academic institutions to engage in biodiversity conservation* including Intervention 4.3 Support the development of conservation curricula at local academic institutions.

The project target landscape is recognised under MNBSAP as a top priority corridor containing 12 identified KBAs. In addition, the high priority conservation corridor identified for the project overlaps with one of the country's Tiger Conservation Landscapes (TCL). Project activities will also address all components of the *Myanmar National Tiger Recovery Plan* as submitted to the Global Tiger Initiative in June 2010. These activities include:

- Landscapes with appropriate extensions and corridors legally protected;
- Improved management especially concerning law enforcement in source landscapes;
- Monitoring on-going tiger population source landscapes; and
- Improved national and trans-boundary cooperation

In addition, the project will contribute to achievement of the Aichi Targets, in particular under the strategic goal B: Reduce the direct pressures on biodiversity and promote sustainable use, Target 5: the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced; Target 8: reduction of pollution to levels that are not detrimental to ecosystem functions and biodiversity; Target 11: increasing the coverage and connectivity of the PA system in important regions with high biodiversity importance and significant ecosystem services and by increasing management effectiveness of the PA system in a way that is integrated into the wider landscapes; Target 12: preventing extinction of known threatened species; Target 14: restoring and safeguarding essential ecosystem services for securing health, livelihoods and well-being of people; Target 15: enhancing ecosystem resilience and contribution of biodiversity to carbon stocks through conservation and restoration.

Furthermore, the country's National Action Programme (NAP) for UNCCD (2005) identifies deforestation as one of the primary causes of land degradation in Myanmar. Thus it includes a number of actions related to sustainable forest management and integrated land use planning. The project in particular contributes directly to Action Programme for Key Issue 6.2 calling for undertaking of an ecological survey, socioeconomic survey and consumption survey in order to have ecological and socioeconomic data relating to land degradation processes, and the establishment of an information management system. The project also contributes to implementation of Action Programme for Key Issue 6.3 Institutional Framework which includes institutional capacity development planning and development of training curricula for forestry including specialised fields of forest economy, ecological, social, and wildlife and biological management to enhance capacity. Furthermore, the project provides direct support for the NAP programme: Integration of Environment and Development into decision making under NAP, aims to integrate environment and development in the national development and planning process, and to strengthen institutional and legal structures, and participation in international programmes

Part III: approval/endorsement by gef operational focal point(s) and GEF agency(ies)

A. Record of Endorsement[9] 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 SGP OFP endorsement letter).

NAME	POSITION	MINISTRY	DATE *(MM/dd/yyyy)*
Mr. Hla Maung Thein	Deputy Director General, Environmental Conservation Department	Ministry of Environmental Conservation and Forestry	10/17 /2014

B. GEF Agency(ies) Certification

This request has been prepared in accordance with GEF policies[10] and procedures and meets the GEF criteria for project identification and preparation under GEF-6.

Agency Coordinator, Agency name	Signature	Date *(MM/dd/yyyy)*	Project Contact Person	Telephone	Email
Adriana Dinu GEF Executive Coordinator UNDP		March 9, 2015	Midori Paxton Regional Technical Advisor – EBD UNDP	+66 98 824 7330	midori.paxton@undp.org

[9] For regional and/or global projects in which participating countries are identified, OFP endorsement letters from these countries are required even though there may not be a STAR allocation associated with the project.
[10] GEF policies encompass all managed trust funds, namely: GEFTF, LDCF, and SCCF

Annex 1: Carbon Calculations

Avoided emission figure used as an outcome indicator for component 1 was further investigated using the FAO's x-Ante Carbon Balance Tool (EX-ACT) Tier 1 edition (See the EX-ACT report page below). As no official reference scenario exists in Myanmar, we made use of the estimated deforestation rate of Myanmar – 1.35% per year (Venter et. al. 2009, Harnessing Carbon Payments to Protect Biodiversity, p.10).

For the 300,000 ha HVCFs that the project will support gazetting, avoided GHG emissions was calculated as 15,560,667 tCO2-eq over a 10 year period

Establishment of HVCF will change regime from economic use to protection and this will reduce halt the deforestation in these areas. Myanmar has a deforestation rate of 1.35% (see Venter et. al. 2009 p.10). As a result of the project, 4,050 ha of deforestation will be prevented annually. Over a 10 year period this translates to 40,500 ha of deforestation prevented. The Ex-Ante Carbon-balance Toll (EX-ACT) Tier ONE Edition, developed by FAO was used for the calculations. The forest type selected for the calculations is Tropical Wet Forests. For Harvested Wood Products (HWP), the above-ground biomass for Tropical Wet Forests is provided in Table 4.7 of IPCC 2006 Volume 4 (http://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/4_Volume4/V4_04_Ch4_Forest_Land.pdf) as 280 (120 – 400) tonnes dry matter/ha. A conservative figure of 200 tonnes dry matter/ha was used for this calculation. The HWP was therefore estimated as 6 tonnes dry matter/ha based on the advice "The resulting HWP fractions (of total biomass) were 10% for the developed world and 3% for the developing world" in Searle, S and Malins, C. 2011. Estimates of carbon storage in wood products following land clearing. ICCT http://www.theicct.org/sites/default/files/publications/ICCT_carbon_storage_in_wood_products_August_2011.pdf (Myanmar falling within the developing world - 3%). The GHG emissions for preventing the clearing of forest are 25,760,592 tCO2eq over a 10 year period. However, after clearing, the land would have converted to either annual crops of perennial/tree crop. In the calculation, perennial tree crops were used and the carbon sequestrated by the trees was calculated as 9,850,950 tCO2eq over a 10 year period. The avoided GHG emission for the protection of 300,000 ha over a ten year period is therefore 15,560,667 tCO2-eq.

This preliminary calculation will be further investigated during the PPG stage.

EX-ACT — The EX-Ante Carbon-balance Tool (EX-ACT) - Tier ONE Edition

Start | Description | Land Use Change | Crop production | Grassland Livestock | Land degradation | Inputs Investments | Detailed Results

Official (1st period 2008-2012): CO_2 1; CH_4 21; N_2O 310

Name of the project	Ridge to Reef: Tanintl	Climate	Tropical (Wet)	Duration (yr)	10
Continent	Asia (Continental)	Soil	LAC Soils	Total area (ha)	300000

Component of the project	Gross fluxes Without	With	Balance	Share per GHG of the Balance Result per GHG CO_2 Biomass	Soil	Other	N_2O	CH_4	Results per year without	with	Balance	Production t of product Without	With	Emission Intensity tCO_2eq per t of product Without	With
	All GHG in tCO_2eq Positive = source / negative = sink														
Land Use Changes															
Deforestation	25,411,617	0	-25,411,617	-25,411,617	0		0	0	2,541,162	0	-2,541,162				
Afforestation	0	0	0	0	0		0	0	0	0	0				
Other	0	0	0	0	0		0	0	0	0	0				
Agriculture															
Annual	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0.00
Perennial	-9,850,950	0	9,850,950	9,652,500	198,450		0	0	-985,095	0	985,095	0	0	0.00	0.00
Rice	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0.00
Grassland & Livestocks															
Grassland	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0.00
Livestock	0	0	0				0	0	0	0	0	0	0	0.00	0.00
Degradation	0	0	0	0	0		0	0	0	0	0				
Inputs & Investments	0	0	0			0	0		0	0	0				
Total	15,560,667	0	**-15,560,667**	-15,759,117	198,450	0	0	0	1,556,067	0	-1,556,067	0	0	0.00	0.00
Per hectare	52	0	-52	-52.5	0.7	0.0	0.0	0.0				0.0	0.0		
Per hectare per year	5.2	0.0	-5.2	-5.3	0.1	0.0	0.0	0.0	5.2	0.0	-5.2	0.0	0.0		

Annex 2: Map of PAs System in Tanintharyi