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United Nations Development Programme Country: Indonesia PROJECT DOCUMENT

Project Title: Transforming effectiveness of biodiversity conservation in priority Sumatran landscapes

UNPDF Outcome (s): Outcome 5: Strengthened climate change mitigation and adaptation and environmental sustainability measures in targeted vulnerable provinces, sectors and communities.

UNDP Strategic Plan Outputs:

1.3 Solutions developed at national and sub-national levels for sustainable management of natural resources, ecosystem services, chemicals and waste.

2.5. Legal and regulatory frameworks, policies and institutions enabled to ensure the conservation, sustainable use, and access and benefit sharing of natural resources, biodiversity and ecosystems, in line with international conventions and national legislation.

Expected CP Outcome(s): 2.1 Responsible national institutions and relevant stakeholders are more effective in managing environmental resources and addressing environmental pollution

Expected CPAP Output (s): 2.1.1 Government, private sector and CBO partners have coherent and effective policy frameworks, action plans, implementing arrangement and funding arrangement to sustainably manage terrestrial ecosystems.

Implementing Agency: United Nations Development Programme (UNDP)

Implementing Partner: Ministry of Environment and Forestry (MoEF)

Other Leading Partners: Sumatran Tiger Conservation Forum (known as HarimauKita), Wildlife Conservation Society (WCS), Fauna & Flora International (FFI) and Zoological Society of London (ZSL)

Brief Description

Sumatra is the sixth largest island in the world, characterized by the Bukit Barisan mountain range and globally significant tropical montane, sub montane, lowland, fresh water and peat swamp forests as well as mangroves and rivers. The island's fauna includes 201 mammal and 580 bird species, with endemic and critically endangered species such as the Sumatran orangutan and Sumatran rhinoceros, and subspecies such as the Sumatran elephant. The Sumatran tiger *Panthera tigris sumatrae* is Indonesia's last remaining tiger subspecies with an estimated population of 400-500 adults. Its conservation areas include 13 Important Bird Areas, two Ramsar sites (Berbak and Sembilang National Parks) and the UNESCO WHC Tropical Rainforest Heritage of Sumatra sites (the National Parks of Gunung Leuser, Kerinci Seblat and Bukit Barisan Selatan). The current project will cover all five of these globally significant sites and surrounding landscapes. Across Sumatra, the principal threat to biodiversity is habitat loss and forest degradation, with forest cover shrinking from 25.3m hectares in 1985 to 12.8m hectares in 2009, with clearance driven by commercial oil palm and timber fibre plantations, followed by subsistence agriculture, while the main driver of forest degradation has been commercial logging. In addition, the wildlife trade is a significant pressure on species, with an estimated fifty Sumatran tigers poached annually between 1998 and 2002. The main barriers to achieving this vision are weak natural resource governance and limited protected area management capacity, poor inter-agency coordination for wildlife and forest conservation outside of the PAs, and inadequate financial planning and management for protected areas. The long-term solution offered by the project for securing Sumatra's forests, wildlife and ecosystem services lies in consolidating a network of effectively managed and adequately funded protected areas (PAs) that are supported by complementary actions in the adjacent forests and with multiple stakeholders to achieve sustainably managed landscapes. This will require both multi-agency partnerships across multiple provinces and sufficient incentives for communities to reduce forest encroachment and illegal hunting of protected species. The objective of the project is to enhance biodiversity conservation in priority landscapes in Sumatra through adoption of good management practices in protected areas and adjacent production landscapes, using tiger recovery as a key indicator of success. This will be accomplished through supporting implementation of the National Tiger Recovery Plan, which sets out the key elements to protect forests and wildlife in Sumatra. Overall, the project design is fully consistent with Indonesia's national biodiversity conservation strategy. The project aims to address a range of institutional, governance and financial issues that prevent the project objective from being achieved. In doing so, it will create a model biodiversity management system that is operational across the target landscapes, can be scaled-up across Sumatra, and strengthen the national PA system. The Ministry of Environment and Forestry will lead project implementation in partnership with UNDP, FFI, WCS, ZSL and Forum Harimau Kita.

Country Programme Period	: 2011-2015
Strategic Plan Outputs (2014-2017)	: Output 1.3 & 2.5
Atlas Award ID	: 00085001
Project ID	: 00092762
PIMS #	: 5363
Start date	: 2015
End Date	: 2021
PAC Meeting Date	: TBC
Management Arrangements	: NIM

Total resources required	: USD 62,450,000
Year 1:	USD 495,169
Year 2:	USD 1,980,800
Year 3:	USD 1,705,265
Year 4:	USD 2,004,700
Year 5:	USD 1,451,650
Year 6:	USD 1,362,416
Total allocated resources (UNDP Managed funds)	: USD 9,150,000
• Regular (TRAC)	: USD 150,000
• Donor (GEF)	: USD 9,000,000
Other (Partner managed resources):	: USD 53,300,000
• Government of Indonesia	: USD 44,100,000
• NGOs	: USD 5,700,000
• Private sector – APRIL	: USD 3,500,000

Agreed by Implementing Partner:

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Table of Contents

SECTION I: Elaboration of the Narrative	8
PART I: Situation Analysis	8
Introduction.....	8
Context and global significance.....	9
Threats, Root causes and Impacts.....	22
Long-term solution and barriers to achieving the solution.....	26
Introduction to Project site interventions.....	33
Stakeholder analysis.....	38
Baseline analysis.....	39
PART II: Strategy	43
Project Rationale and Policy Conformity.....	43
Project Goal, Objective, Outcomes and Outputs/activities.....	46
Project Indicators.....	74
Risks and Assumptions.....	82
Incremental reasoning and expected global, national and local benefits.....	89
Cost-effectiveness.....	95
Project consistency with national priorities/plans:.....	97
Country Ownership: Country Eligibility and Country Drivenness.....	101
Sustainability and Replicability.....	103
PART III: Management Arrangements	106
Implementation Arrangements.....	106
Project Management.....	110
PART IV: Monitoring and Evaluation Plan and Budget	112
Monitoring and reporting.....	112
PART V: Legal Context	116
SECTION II: STRATEGIC RESULTS FRAMEWORK (SRF) AND GEF INCREMENT	118
PART I: Strategic Results Framework, SRF (formerly GEF Logical Framework) Analysis	118
Indicator framework as part of the SRF.....	118
PART II: Incremental Cost Analysis	138
SECTION III: Total Budget and Workplan	144
SECTION IV: ADDITIONAL INFORMATION	159
PART I: Other agreements	159
Co-financing Letters.....	159
PART II: Organigram of Project	160
PART III: Terms of Reference for key project staff	160
NATIONAL PROJECT DIRECTOR	160
NATIONAL PROJECT MANAGER	160
PART IV: Stakeholder Involvement Plan	162
Project Annexes	176
Annex 1. Profiles for Target Protected Area Landscapes	176
Annex 2. BD-1 Tracking Tool (METT)	176
Annex 2A. Financial Sustainability Scorecard (Section III of BD1 Tracking Tool)	176
Annex 3. Capacity Development Scorecards for Target National Park Agencies	176
Annex 4. Stakeholder Consultation Meeting Reports	176
Annex 5. Environmental and Social Screening Procedure Summary	176
Annex 6. Project Sustainability Plan / Exit Strategy	176
Annex 7. Profiles of CSO Partners	176
Annex 8. Letter of Agreement for UNDP Direct Project Services	176
Annex 9. Annual Work Plan	176

Annex 10. Work plan matrix indicating lead responsibilities, supporting partner/s and direct beneficiaries	177
Annex 11. Terms of Reference for CSO Subcontracts.....	177
Annex 12: Supplemental Provisions to the Project Document.....	177

List of Tables, Figures and Boxes

Table 1. Human population estimates for the eight mainland Sumatran provinces.....	11
Table 2. Human Development Indices (HDI) and components for the eight mainland Sumatran provinces and Indonesia national average in the year 2011	12
Table 3. Comparative analysis of economic activity in Indonesia’s main regions	12
Table 4. Composition of management zones inside the five target national parks	14
Figure 1. Organisational Structure of the Directorate General of Forest Protection and Nature Conservation, PHKA	17
Figure 2. Over two decades of natural forest loss on Sumatra.....	23
Table 5. Summary of government funding trends for the five target national parks (NPs).....	32
Table 6. Size of target landscape components	34
Figure 3. Location of five project target landscapes with their respective national park/s and core area.....	35
Table 7. Summary information on the National Parks (NPs) targeted for project support.....	36
Table 8: Summary stakeholder analysis indicating main roles and responsibilities	38
Figure 4. Estimated Sumatran tiger occupancy in seven landscapes.	43
Table 9. Elaboration of Project Indicators (M&E Matrix).....	76
Box 1. Risk Assessment Guiding Matrix.....	83
Table 10. Project Risk Log	84
Table 11: National priority actions programme	100
Table 12. Distribution of demonstration PAs among different administrative areas.....	111
Table 13. M&E Activities, Responsibilities, Budget and Time Frame.....	115
Table 14. Incremental Cost Matrix	141
Table 15. Preliminary list of key stakeholders of the project for government, private sector, NGOs and communities.....	165
Table 16. Coordination and collaboration with related GEF financed initiatives.....	171

Acronyms

<i>AMDAL</i>	<i>Analisis Dampak Lingkungan</i> (Environmental Impact Assessment)
<i>APBN</i>	<i>Anggaran Pendapatan dan Belanja Negara</i> (State budget)
<i>APP</i>	Asia Pulp and Paper
<i>APR/PIR</i>	Annual Project Review/ Project Implementation Reports
<i>APRIL</i>	Asia Pacific Resources International Limited
<i>BAPPEDA</i>	<i>Badan Perencana Pembangunan Daerah</i> (Regional Body for Planning and Development)
<i>BAPPENAS</i>	<i>Badan Perencanaan Pembangunan Nasional</i> (Body for National Development Planning)
<i>BBTN</i>	<i>Balai Besar Taman Nasional</i> (Grand National Park Agency)
<i>BKSDA</i>	Natural Resources Conservation Agency
<i>BMZ</i>	German Ministry of Economic Cooperation and Development
<i>BPDAS</i>	Watershed Management Agency
<i>BTN</i>	<i>Balai Taman Nasional</i> (National Park Agency)
<i>CBD</i>	Convention on Biological Diversity
<i>CCB</i>	Climate, Community and Biodiversity
<i>CHM</i>	CBD Clearing House Mechanism
<i>CITES</i>	Convention on International Trade in Endangered Species
<i>CSO</i>	Civil Society Organization – used interchangeably with local NGO
<i>DisBudPar</i>	<i>Dinas Budaya dan Pariwisata</i> (Tourism and Culture Agency)
<i>Dishut</i>	<i>Dinas Kehutanan</i> (Forestry Agency)
<i>DNS</i>	Debt for Nature Swaps
<i>EIA</i>	Environmental Impact Assessment
<i>EOP</i>	End of Project
<i>ERC</i>	Evaluation Resource Center (of UNDP Evaluation Office)
<i>E-PASS</i>	UNDP/GEF project - Enhancing the Protected Area System in Sulawesi
<i>ESSP</i>	UNDP Environmental and Social Screening Procedure
<i>FFI</i>	Fauna & Flora International
<i>FPIC</i>	Free Prior and Informed Consent
<i>FSC</i>	Forest Stewardship Council
<i>GAR</i>	Golden Agri-Resources
<i>GDP</i>	Gross Domestic Product
<i>GEF</i>	Global Environment Facility
<i>GP</i>	Green Prosperity
<i>GRP</i>	Gross Regional Product
<i>GTI</i>	Global Tiger Initiative
<i>Ha</i>	Hectare
<i>HarimauKita</i>	Sumatran Tiger Conservation Forum
<i>HCV</i>	High Conservation Value
<i>HDI</i>	Human Development Indices
<i>IAS</i>	Invasive Alien Species
<i>IBA</i>	Important Bird Area
<i>IBSAP</i>	Indonesian Biodiversity Strategy and Action Plan
<i>ICCWC</i>	International Consortium on Combatting Wildlife Crime
<i>IDR</i>	Indonesian Rupiah
<i>INGO</i>	International Non Governmental Organization

ITTA	International Tropical Timber Agreement
IUCN	International Union for Conservation of Nature
IP	Implementing Partner
IW	(Project) Inception Workshop
JICA	Japanese International Cooperation Agency
KfW	German Development Bank
KPK	<i>Komisi Pemberantasan Korupsi</i> (Corruption Eradication Commission)
LIPI	Indonesian Institute of Science
LULUCF	Land Use, Land-Use Change and Forestry
M&E	Monitoring and Evaluation
MCAI	Millennium Challenge Account Indonesia
MCC	Millennium Challenge Corporation
METT	Management Effectiveness Tracking Tool
MoEF	Ministry of Environment and Forestry
MoHA	Ministry of Home Affairs
MoU	Memorandum of Understanding
MRV	Measurement, Reporting and Verification
NGO	Non-Governmental Organization (used interchangeably with CSO)
NP	National Park
NTFP	Non Timber Forest Products
NTRP	National Tiger Recovery Plan
PA	Protected Area
PHKA	Forest Protection and Nature Conservation (under MoEF)
PIF	Project Identification Form (for GEF)
PIMS	Project Information Management System
PMU	Project Management Unit
POPP	Programme and Operation Policies and Procedures
PoWPA	Programme of Work on Protected Areas (of CBD)
PPATK	<i>Pusat Pelaporan dan Analisis Transaksi Keuangan</i> (Indonesian Financial Transaction Reports and Analysis Centre)
PPG	Project Preparation Grant (for GEF)
PPH	<i>Penyidikan dan Pengamanan Hutan</i> (Forest Security and Investigation)
PPNS	<i>Penyidik Pegawai Negeri Sipil</i> (Civil Service Investigator)
PPR	Project Progress Report
<i>PusDikLat</i>	<i>Pusat Pendidikan dan Pelatihan</i> (Training and Education Centre)
RAMSAR	Ramsar Convention on Wetlands of International Importance
RBM	Resort Based Management
RCU	(UNDP-GEF) Regional Coordinating Unit
REDD+	Reducing Emissions from Deforestation and Forest Degradation
RER	<i>Restorasi Ekosistem Riau</i>
RIMBA	UNEP/GEF Central Sumatra RIMBA Corridor Project: Strengthening forest and ecosystem connectivity in the RIMBA landscape through investing in natural capital, biodiversity and GHG emissions reduction
RKTP	Provincial work plan
RKTK	Regional work plan
RPFMDes	Village Medium-term Management Plans
RPJMD	Local Medium-term Management Plans
RPJMN	National Medium-term Management Plans
RSPO	Round table for Sustainable Palm Oil
RTA	Regional Technical Advisor (of UNDP)
SEA	Strategic Environmental Assessment

<i>SPORC</i>	<i>Satuan Polhut Reaksi Cepat</i> (Rapid Response Forest Police Unit)
SRF	Strategic Results Framework
TFCA	Tropical Forest Conservation Action
UN	United Nations
UN-REDD	United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Programme
UNDP-CO	UNDP Country Office
UNDP EEG	UNDP Environment and Energy Group
UNFCC	United Nations Framework Convention on Climate Change
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
<i>UPT</i>	<i>Unit Pelaksanaan Teknis</i> (Technical Implementation Unit)
US\$	United States Dollar
VCS	Verified Carbon Standard
WHC	World Heritage Convention
WWF	World Wide Fund for Nature
WCS	Wildlife Conservation Society
YABI	<i>Yayasan Badak Indonesia</i> (Rhino Foundation of Indonesia)
ZSL	Zoological Society of London

SECTION I: Elaboration of the Narrative

PART I: Situation Analysis

INTRODUCTION

1. The MoEF has established a wide-ranging protected area network system for Sumatra that covers 4.52 million ha. This includes some of Asia's largest protected areas, such as Kerinci Seblat National Park (1.39 million ha) and Gunung Leuser National Park (1.01 million ha), which have been shown to significantly lower deforestation rates against comparable areas outside of the network¹. Nevertheless, deforestation still occurs inside all Sumatran protected areas indicating that they are not entirely secure. From 1985 to 2009, Sumatra lost approximately half (12.8 million ha) of its entire forest estate² and from 2000 to 2012 lost 1.5 million ha of primary wetland forest and 1.2 million ha of primary lowland forest³. The deforestation was primarily caused by large-scale agricultural plantation expansion.
2. Across Sumatra a range of barriers undermine efforts to conserve forest and biodiversity. These include poor governance, poor institutional coordination, insufficient resource allocation (both human and financial) and limited monitoring, together with the economic pressures associated with rural poverty and agribusiness growth. Historically, corruption has been an important contributor, but with economic progression and a series of political reforms by the national government, notably the establishment of the Corruption Eradication Commission, intervention focus has shifted onto improving organizational efficiency and effectiveness.
3. Past efforts to strengthen protected area management in Sumatra have included well-funded but poorly planned or implemented projects, such as the Kerinci Seblat National Park Integrated Conservation and Development Project (1997-2002, US\$46 million), which have tended not to achieve significant lasting outcomes. These types of large-scale projects have generally failed because their design and/or implementation did not adequately address the underlying problems of forest and biodiversity loss, placed too much reliance on incentivizing forest-edge communities to conserve natural resources, did not prioritize protected area institutions' core activities, especially law enforcement, and had poor inter-agency coordination, especially in the surrounding landscape. Further, within the MoEF there has been a recent shift to a bottom-up approach through Resort Based Management (RBM) that enables protected areas to be collectively managed through smaller administrative units. This is intended to increase accountability and field presence of protected area personnel, but has yet to be fully implemented.

¹ Gaveau, D.L.A., Epting, J., Lyne, O., Linkie, M., Kumara, I., Kanninen, M. and Leader-Williams, N. 2009. Evaluating whether protected areas reduce tropical deforestation in Sumatra. *Journal of Biogeography*, 36:2165-2175.

² Uryu, Y., Putrastuti, E., Laumonier, Y., Sunarto, Setiabudi., Budiman, A., Yulianto, K., Sudibyoy, A., Hadian, O., Kosasih, D.A., Stuwe, M. 2010. Sumatra's Forests, their Wildlife and the Climate – Windows in Time: 1985, 1990, 2000 and 2009. Jakarta, WWF-Indonesia Report.

³ Margono, B.A., Potapov, P.V., Turubanova, S., Stolle, F. and Hansen, M.C. 2014. Primary forest cover loss in Indonesia over 2000–2012. *Nature Climate Change* 4:730-735.

4. To support efforts in securing forests located outside protected area boundaries, the MoEF is implementing a Village Forest (*Hutan Desa*) programme, centred on community-based forest management. A laudable target of establishing 2.5 million ha of *Hutan Desa* by 2015 has been set but is unlikely to be achieved with only 0.5 million ha having been established since the programme's inception in 2009. Other opportunities to secure protected area borders exist in partnering with production forest concessionaires through their setting aside of HCV Forest and establishing Ecosystem Restoration Concessions, a recent MoEF initiative for sustainable forest management in former production forests.
5. The Government of Indonesia is developing a national REDD+ strategy, which forms part of an agreement with the Government of Norway that has allocated US\$1 billion for performance-based greenhouse gas emissions reductions. A REDD+ national level coordinating agency known as *SatGas* REDD+ has been established to oversee the development and implementation of this strategy. Within Sumatra, the five provinces of Aceh, Riau, West Sumatra, Jambi and South Sumatra have been chosen by the agency to become REDD+ pilot sites that demonstrate how sustainable forest management, greenhouse gas emission reduction and rural community development goals can be simultaneously achieved. Despite this, annual haze events largely caused by the burning of peatland and its forests in the eastern Sumatran provinces of Riau, Jambi and South Sumatra provide a sobering reminder of the challenges still involved in realizing these multiple REDD+ benefits.
6. The GEF project seeks to consolidate a range of successful site-specific strategies that have been developed and enhanced by the MoEF and its NGO partners (namely, Fauna & Flora International (FFI), Wildlife Conservation Society (WCS), Zoological Society of London (ZSL) and Forum Harimaukita (FHK)) in Sumatran protected area landscapes through the realization of a fully operational partnership. The project will focus on three levels: i) individual protected areas will receive training and support to strengthen institutional management (technical, administrative and financial) and to prioritise their core activities; ii) landscape sites will be targeted to increase coordination and cooperation between multiple government and civil society organisations to collectively tackle natural resource violations, especially illegal wildlife trade, outside of the project protected areas; and, iii) national support will be provided to effectively coordinate project implementation between multiple landscapes to provide island-wide coverage.

CONTEXT AND GLOBAL SIGNIFICANCE

Environmental and biodiversity context

7. Sumatra is the sixth largest island in the world spanning 480,848 km². It is characterized by the 1800 km long Bukit Barisan mountain range that runs the length of the island and gives rise to the 3805 m asl Mount Kerinci, the highest point on Sumatra. Rainfall on the island is strongly influenced by this rugged topography and ranges from >6000 mm/yr in lowland areas west of the Barisan mountain chain to <1500 mm/yr in the coastal areas of Riau and North Sumatra province. The climate

- on Sumatra is described as being ‘tropical wet equatorial’ that is shaped by a northeasterly monsoon from December to March, with most rain falling during the transition to the southwesterly monsoon from May to September⁴. Air temperatures average at 27.5°C throughout the year and humidity is generally >90%.
8. Sumatra contains 335 watersheds, of which 112 are termed as being of national strategic importance and 85 span more than one province and therefore fall between the jurisdictions of different regional management authorities⁵. Sumatra’s longest river (~800 km) is the Batang Hari which originates in the West Sumatran highlands and flows to the east coast of Jambi providing water to millions of households. Despite its importance, the river is classified as being in a bad condition, a consequence of it receiving industrial waste, runoff from agricultural fertilizer and pesticides, sand mining and gold extraction runoffs from mining activities.
 9. The main forest types of Sumatra include lowland (0-300m asl), hill (300-800m), submontane (800-1400m), montane (>1400m) and peat swamp (0-50m) and, in part, give rise to the island’s rich and varied biodiversity that is recognized through several international conventions and designations. Sumatra contains 13 Important Bird Areas, two Ramsar sites (the wetlands of Berbak and Sembilang national parks) and the UNESCO World Heritage Site’s Tropical Rainforest Heritage of Sumatra sites (covering the national parks of Gunung Leuser, Kerinci Seblat and Bukit Barisan Selatan).
 10. Sumatra forms part of the Sundaland region, which consists of the Indonesian islands of Borneo, Sumatra, Java, Bali and Malay Peninsula, a so-called ‘biodiversity hotspot’⁶. The flora of Sumatra is one of the most species-rich on earth, with 202 out of the 395 known families of seed plant⁷ and >10,000 types of vascular plant species, of which 12% are endemic⁸. The island’s fauna includes, for example, 201 mammal species and 580 bird species. This includes Southeast Asia’s only migratory terrestrial mammal, the bearded pig (*Sus barbatus*), and several endemic and Critically Endangered species (such as the Sumatran ground cuckoo and Sumatran orangutan) and subspecies (such as the Sumatran tiger and Sumatran elephant).
 11. The Sumatran tiger (*Panthera tigris sumatrae*) is Indonesia’s last remaining tiger subspecies, since the extinction of its unique subspecies from the island of Bali (*P. t. balica*) in the 1940s and Java (*P. t. sondaica*) in the 1980s. The most commonly used present day estimate for the number of Sumatran tigers is 400-500 adult individuals, even though this figure originates from a 1994 Sumatran Tiger Action Plan⁹. Despite

⁴ Whitten, A.J., Damanik, S.J., Anwar, J. and Hisyam, N. 1984. The Ecology of Sumatra. Gadjah Mada University Press, Yogyakarta.

⁵ Processed from the Minister of Public Works (MoPW) Regulation No. 11 A/PRT/M/2006, in SoER, Indonesia 2007

⁶ Myers, N., Mittermeier, R.A., Mittermeier, C.G., da Fonseca, G.A.B. and Kent, J. 2000. Biodiversity hotspots for conservation priorities. *Nature* 403:853-858.

⁷ Williams, P.H., Gaston, K.J. and Humphries, C.J. 1997. Mapping biodiversity value world-wide: combining higher-taxon richness from different groups. *Proceedings of the Royal Society of London Series B-Biological Sciences* 264: 141-148.

⁸ Whitten, A.J., Damanik, S.J., Anwar, J. and Hisyam, N. 1984. The Ecology of Sumatra. Gadjah Mada University Press, Yogyakarta.

⁹ Tilson, R.L., Soemarna, K., Ramono, W., Lusli, S., Traylor-Holzer, K. and Seal, U.S. 1994. Sumatran Tiger Population and Habitat Viability Analysis Report. Indonesian Directorate of Forest Protection and Nature Conservation and IUCN/SSC Conservation Breeding Specialist Group, Apple Valley, Minnesota

being outdated, this estimate only considered tiger populations in seven protected areas and was therefore conservative. A more recent and reliable estimate does not exist and updating the tiger population size estimate remains a government priority. Nevertheless, recent assessments of Sumatran tiger status have revealed its widespread distribution, being present in 29 of 38 available forest habitat patches that cover 97% of the 144,160 km² available forest¹⁰. Following on from this, a more detailed island-wide survey was completed in 2009, covered 59% of the available habitat and revealed a high (72%) tiger occupancy here¹¹.

Socio-economic context

12. Sumatra consists of eight mainland provinces (Aceh, North Sumatra, Riau, West Sumatra, Jambi, Bengkulu, Lampung and South Sumatra) and two adjacent island cluster provinces (Riau Islands and Bangka Belitung Islands). The mainland human population was estimated at 47.7 million people in 2010, representing an average annual increase of 1.1% since 2000 (**Table 1**).

Table 1. Human population estimates for the eight mainland Sumatran provinces

Province	Population size per year						% living in cities (2010)
	1971	1980	1990	1995	2000	2010	
Aceh	2,008,595	2,611,271	3,416,156	3,847,583	3,930,905	4,494,410	23.6
North Sumatra	6,621,831	8,360,894	10,256,027	11,114,667	11,649,655	12,982,204	42.4
West Sumatra	2,793,196	3,406,816	4,000,207	4,323,170	4,248,931	4,846,909	29.0
Riau	1,641,545	2,168,535	3,303,976	3,900,534	4,957,627	5,538,367	43.7
Jambi	1,006,084	1,445,994	2,020,568	2,369,959	2,413,846	3,092,265	28.3
South Sumatra	3,440,573	4,629,801	6,313,074	7,207,545	6,899,675	7,450,394	34.4
Bengkulu	519,316	768,064	1,179,122	1,409,117	1,567,432	1,715,518	29.4
Lampung	2,777,008	4,624,785	6,017,573	6,657,759	6,741,439	7,608,405	21.0
Total	20,808,148	28,016,160	36,506,703	40,830,334	42,409,510	47,728,472	

Source, BPS¹²

13. Comparing a range of human development indices shows that the Sumatran mainland provinces score either close to the Indonesian national average or slightly higher (**Table 2**). However, a great disparity exists between provinces when measured by gross regional product (GRP) per capita, which is the province level counterpart of the national gross domestic product (GDP). Riau and North Sumatra provinces may stand out for their much higher economic activity, but the associated income distribution is not considered to proportionally benefit the poorer people if judged by Indonesia's widening income distribution inequality¹³. This in itself implies that social risks, especially between rural and urban populations, exist and may be worsening.

¹⁰ Wibisono, H.T. and Pusparini, W. 2010. Sumatran tiger (*Panthera tigris sumatrae*): A review of conservation status. Integrative Zoology, 5:313-323.

¹¹ Wibisono, H.T. and 41 others. 2011. Population status of a cryptic top predator: An island-wide assessment of tigers in Sumatran rainforests. PLoS ONE, 11 e25931

¹² http://www.bps.go.id/tab_sub/view.php?kat=1&tabel=1&daftar=1&id_subyek=12¬ab=1

¹³ Indonesia's Gini ratio, the coefficient that measures inequality among income distribution, has risen from 0.37 in 2012 to 0.41 in 2013 (a coefficient of zero expresses perfect equality, while one implies maximal inequality).

Table 2. Human Development Indices (HDI) and components for the eight mainland Sumatran provinces and Indonesia national average in the year 2011

Province	HDI	Life expectancy	Literacy rate	Mean years schooling	GRDP in millions of US\$
Aceh	72.51	68.94	96.99	8.93	8,906
North Sumatra	75.13	69.81	97.51	9.07	32,729
West Sumatra	74.70	70.02	97.23	8.60	10,302
Riau	76.90	71.69	98.45	8.64	43,063
Jambi	73.78	69.44	96.20	8.20	6,594
South Sumatra	73.99	70.05	97.50	7.99	18,938
Bengkulu	73.93	70.39	95.69	8.48	2,208
Lampung	72.45	70.05	95.13	7.87	13,375
Indonesia	73.29	69.87	93.25	8.08	

Source: BPS¹⁴

14. Manufacturing, agriculture and services are the three main economic sectors in Sumatra. The main industries are oil palm processing and manufacturing, pulp and paper processing and manufacturing, raw rubber production, petroleum and natural gas, light manufacturing and mining (coal and gold). The island's primary agricultural products include palm oil, rubber, coffee, cocoa and rice. Despite being rich in culture, natural resources and areas of outstanding natural beauty, tourism in Sumatra remains an undeveloped sector. Overall, Sumatra contributes to nearly one fifth of Indonesia's national economic output (**Table 3**).

Table 3. Comparative analysis of economic activity in Indonesia's main regions

Region	GRDP in millions of US\$	Contribution (%) to national output
Indonesia GDP	773,646	-
Java GDRP	361,510	46.7
Sumatra GDRP	147,625	19.1
Kalimantan GDRP	56,177	7.3
Sulawesi GDRP	31,969	4.1

Source: BPS¹⁵

15. A majority of people in Sumatra are Muslims (87%), followed by Christians (10%), Buddhist (2%) and Hindu (1%). The island is inhabited by several native ethnic groups, such as the Minang, Acehnese, Gayo, Batak and Melayu, as well as Javanese and Sundanese which settled from the neighbouring island of Java. While *Bahasa Indonesia* is the official language, each ethnic group has its own distinct dialect that is often used in daily conversation. The Kerinci and Minang people still hold strong spiritual beliefs towards the tiger; in one form the tiger embodies the soul of their ancestors and in another form it acts as a village guardian and judge that punishes those who transgress customary law¹⁶. Protecting Sumatran tigers is therefore more

¹⁴ <http://www.bps.go.id/eng/ipm.php>

¹⁵ "Perkembangan Beberapa Indikator Utama Sosial-Ekonomi Indonesia Oktober 2009" (in Indonesian). Jakarta: Badan Pusat Statistik. p. 134

¹⁶ Bakels, J. 1996. The Tiger and the Crocodile in Indonesia: Man, Man-Eaters, and Wilderness. IIAS Newsletter 8.

than a conservation imperative it also ensures that a centuries-old way of life under customary law is maintained.

16. Major natural disasters are a regular occurrence in Sumatra and affect human life, livelihoods and well-being. The most recent disasters with major loss of human life include the 2010 Mentawai earthquake and tsunami (440 dead and 20,000 evacuees), 2009 Padang earthquake (capital of West Sumatra, 1,115 dead), 2005 Nias earthquake (North Sumatra, 1,300 dead), 2004 Aceh and Nias tsunami (170,000 dead) and the 2000 Bengkulu earthquake (>100 dead and >10,000 houses seriously damaged). Two recent volcanic eruptions of Mount Sinabung in North Sumatra led to mass evacuations and damage to property and agrarian livelihoods. The 2014 eruption killed 16 people, with >30,000 evacuees, and the 2010 eruption killed one person, with >30,000 evacuees. Human health and economic productivity in Sumatra are also affected by major infectious diseases, for which bacterial diarrhoea, dengue fever and malaria are a high risk.

Protected Areas: current status and coverage

17. In Sumatra, as elsewhere in Indonesia, all forest is state-owned, but categorized by national and regional planning agencies and managed by a diverse group of actors. The Forestry Law (No 41/1999) divides forests into three categories based on their function: Conservation Forests, Protection Forests and Production Forests.
18. Protection Forest (*Hutan Lindung*) is designated for protecting life support systems, such as hydrological systems, flood prevention, erosion control, seawater intrusion and soil fertility. It is managed by either Provincial or District government forestry agencies (*Dinas Kehutanan*), primarily to safeguard watershed forests. The species inside this forest types falls under the jurisdiction of the Natural Resources Conservation Agency (*Balai Konservasi Sumber Daya Alam, BKSDA*) as part of a wider remit that reports to the Directorate General of Forest Protection and Nature Conservation (*Direktorat Jenderal Perlindungan Hutan dan Konservasi Alam – PHKA*) within the MoEF in Jakarta.
19. Conservation forest is designated for protecting and conserving ecosystems and their biodiversity¹⁷. This category includes nature reserves area (Nature Reserve and Wildlife Sanctuary) and Nature Conservation Area (National Park, Nature Recreation Park and Grand Forest Park) and game hunting park that are under *PHKA* and either managed through a national park authority or a regional *BKSDA* agency. The *Taman Hutan Raya* are under provincial or district forestry agency management.
20. In addition to these three forest types, there is Non Forestland (*Areal Penggunaan Lain*) Land outside forestland which designated for non-forestry purposes. Though this is not a forestland, community forest, forests occur on this land. Other government agencies, from the Police to the Department of Public Works, also have an influence on the successful conservation and management of biodiversity outside of conservation areas.

¹⁷ UU No. 5 Tahun 1990 Tentang Konservasi Sumber Daya Alam Hayati dan Ekosistem; UU No. 41 Tahun 1999 Tentang Kehutanan

21. For national parks, the P.56/Menhut-II/2006 regulation provides instructions on the seven permitted management zones, of which core and wilderness are the dominant types (**Table 4**):

- Core (*zona inti*) - often located in the centre of the national park, is assigned for strict protection of biodiversity as an inviolable area, in part because it has not been disturbed by humans and should therefore be kept in its natural state. No activities are allowed, except for research and educational granted under special permission. No infrastructure is allowed, except for watch towers and security posts.
- Wilderness (*zona rimba*) - typically buffers the core zone and is designated because of its importance for biodiversity.
- Utilisation (*zona pemanfaatan*) - allows for legal access and exploitation of natural resources, as well as for recreation, such as camping, nature-based tourism and research.
- Traditional utilisation (*zona tradisional*) - for use by those people who had historically used certain areas of the national park, such as for food, fuelwood collection, and timber, before its gazettement.
- Rehabilitation (*zona rehabilitasi*) – is part of the national park that has been damaged, e.g. from fire or illegal logging, and should receive attention to enable the recovery of biological communities and ecosystems.
- Social-historical and religious (*zona religi, budaya dan sejarah*) - are part of the national park in which there are religious sites, relics or historical and cultural heritage that are used for religious activities, protection of cultural values or history.
- Special (*zona khusus*) - is designated as such because of an unavoidable condition where community groups or dependents were already living in the area before the national park's creation. These zones are also assigned for development related to when telecommunication, transport facilities and electricity.

Table 4. Composition of management zones inside the five target national parks

Zone	Kerinci Seblat	Gunung Leuser	Bukit Barisan Selatan	Berbak	Sembilang
Core	53%	78%	45%	56%	41%
Wilderness	35%	6%	31%	31%	47%
Utilisation	2%	1%	2%	2%	2%
Traditional utilization	1%	1%	1%	0%	3%
Rehabilitation	8%	13%	21%	10%	6%
Social-historical and religious	0%	0%	0%	0%	0%
Special	1%	0%	0%	0%	1%

22. Currently there is varying institutional capacity at the protected area level and this lessens management effectiveness in Sumatra. Yet, at the same time, systems to routinely monitor and assess the performance of protected area staff and of protected areas as a whole need to be greatly strengthened. There is therefore no reliable way of knowing how the protected area system is performing and also whether Indonesia is meeting its biodiversity conservation targets, or not.

23. Production forests are designated primarily for production of wood, fibre, bio-energy and/or non-wood forest products to generate revenue. Production forest concessions are allocated by regional governments, in coordination with the national government. They are managed by commercial or state owned companies that hold the concession license subject to regular management plan approvals by government. However, there is little monitoring of environmental performance by concessionaires or accountability by the government agencies that oversee these concessions for execution of management plans. For example, the two largest pulp and paper

companies, Asia Pacific Resources International Limited (APRIL) and Asia Pulp and Paper (APP) have voluntarily developed their own sustainable forest management schemes, including setting aside High Conservation Value Forest (APRIL) and implementing a no-deforestation policy (APP). A standardized system of monitoring and reporting is required.

24. The project will focus on the national parks of Bukit Barisan Selatan (0.36 million ha), Kerinci Seblat (1.39 million ha), Gunung Leuser (1.10 million ha), Berbak (0.14 million ha) and Sembilang (0.20 million ha). Several of these national parks connect to other biodiversity-rich conservation areas; Batang Hari Protection Forest (0.33 million ha) adjoining Kerinci Seblat, and the Ulu Masen ecosystem (0.75 million ha) connecting to the wider Leuser ecosystem (1.25 million ha; which encircles Gunung Leuser National Park). The project will also include a sample of the forest concessions surrounding these national parks, primarily consisting of production forest. Most of these areas will be selected based on an assessment in the project preparation phase. The Kampar-Kerumutan landscape (0.98 million ha) has already been identified as being strategically important because a portion of suitable tiger habitat in Kampar is being transferred from production forest to Ecosystem Restoration Concessions and this would offer an opportunity to manage this area as a tiger source population for the wider landscape and as a pilot for enabling a positive change in its status. Besides conserving wildlife, the project aims to enhance the protection all of the main Sumatran forest types, namely dryland forest types on mineral soils¹⁸: Lowland Forest (0-300 m asl); Hill Forest (300-800 m asl); Submontane Forest (800-1400 m asl); and Montane Forest (>1400 m asl); Freshwater Swamp Forest, Mangrove, and Peat Swamp Forest. See the Landscape Profiles in **Annex 1** for further information on the habitat types represented in each project landscape.
25. A gap in the conservation efforts, thus far, has been the lack of widespread engagement of provincial and district governments, especially in sustainably managing forests and wildlife outside of protected areas. This is clearly important because, for example, the Government of Riau continues to expedite its economic development plan that prioritises the conversion of forest estates to oil palm and pulp/paper wood plantations. Over the past 25 years, 65% of Riau's forest has been converted. Also, on several occasions the district governments in Bengkulu and Jambi provinces have submitted road construction proposals, and allocated a budget, that would bisect three of Kerinci Seblat National Park's core tiger areas. In contrast, the Government of Aceh had developed constructive partnerships with NGOs and from this initiated several pro-conservation projects, such as a logging moratorium and REDD+ projects that were based around a sustainable economic development strategy. However, this has since changed with the last change in provincial Governor for Aceh and clearly there is a need to re-engage and support the development of an environmental strategy for the province.

Institutional Context

¹⁸ See Laumonier, Y. 1994. The vegetation and tree flora of Kerinci-Seblat National Park, Sumatera. *Tropical Biodiversity* 2: 232-251.

Ministry of Environment and Forestry

26. The *PHKA* is responsible for planning and implementation of policy related to forest protection and nature conservation, including forest protection, forest fire control, protected area management, biodiversity conservation, nature recreation, environment and ecosystem services. As such, it will act as the Implementing Partner for this project, working in partnership with four NGOs that have substantial experience in biodiversity conservation and the project's target landscapes. The following elements of *PHKA*'s institutional structure are directly relevant to the project:

- The Directorate for Conservation Areas and Management of Protected Forests develops norms, standards, criteria and procedures for protected areas. It has responsibility for protected area management, wetland monitoring and development of buffer zones surrounding national parks.
- The Directorate of Biodiversity Conservation is charged with safeguarding biodiversity. The Directorate also develop norms, standards, criteria and procedure for implementing biodiversity conservation actions.
- The Directorate of Investigation and Forest Protection is charged with law enforcement and forest crime prevention. The Directorate collates reports on illegal logging, poaching, forest arson, encroachment and illegal mining cases, provides training for forest rangers and manuals for wildlife identification.
- The Directorate of Forest Fire Control is charged with controlling forest fires, particularly within conservation areas. The Directorate develops norms, standards, criteria and procedures for fire management for National Parks and Natural Resources Conservation Agencies. To control forest fires, the Directorate emphasizes prevention, suppression and post-fire activities and has established fire brigades.
- The Directorate of Utilization of Environmental Services from Conservation Areas and Protection Forest is charged with development of norms, standards and criteria in evaluating environmental services, marketing and promoting nature conservation, as well as planning and implementing policy related to ecotourism in protected areas.

27. The Secretariat of *PHKA* is charged with supporting all the Directorates as well as Natural Resources Conservation Agencies and National Parks (**Figure 1**). This division is responsible for administration, including budgeting, human resources, monitoring and evaluation and regulation. All technical implementation units, including this project's target demonstration sites, work closely with the Secretariat, which manages their budgets and human resources.

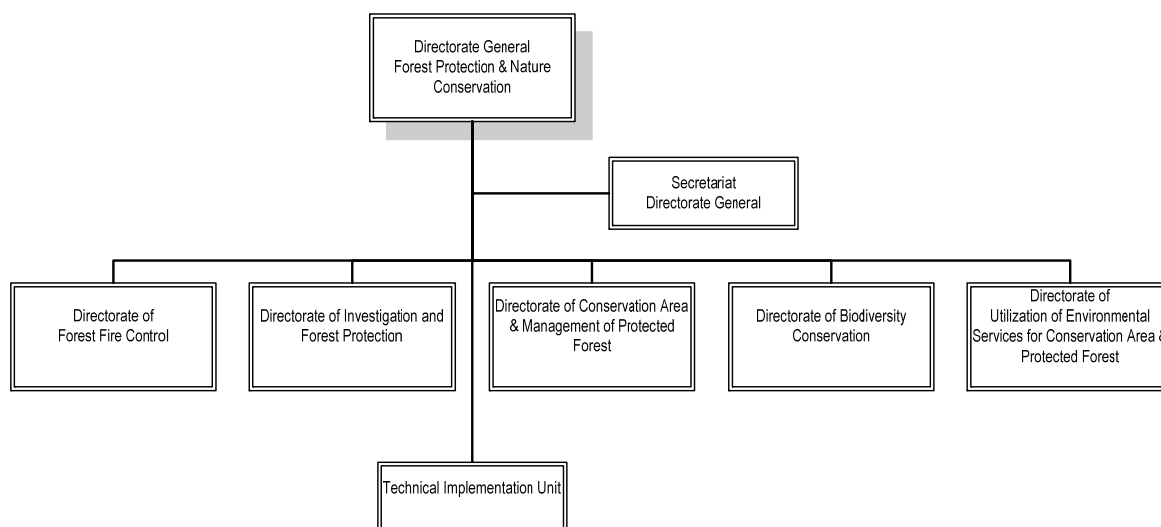


Figure 1. Organisational Structure of the Directorate General of Forest Protection and Nature Conservation, PHKA¹⁹

28. For Sumatra, as elsewhere in Indonesia, each national park is managed by its own management agency that reports directly to the Director General of PHKA in Jakarta. Several agencies (*KKBHL*, *KKH*, *PHKKHL*, *PKH* and *PPH*) provide technical supervision for the *UPT*. There are two types of national park management agency: i) National Park Grand Agency (*Balai Besar Taman Nasional - BBTN*) headed by a Director (echelon II); and, ii) National Park Agency (*Balai Taman Nasional – BTN*) headed by an Agency Head (echelon III). For this project, Kerinci Seblat, Gunung Leuser and Bukit Barisan Selatan are classed as *BBTN*, whereas Berbak and Sembilang are classed as *BTN*. There are various management, human resources and budgeting implications associated with the different types. Other types of protected areas, namely nature reserves, wildlife sanctuaries and hunting parks, are managed by the provincial-level Natural Resources Conservation Agency (*BKSDA*), which is a branch of PHKA. Its main responsibilities are the management of wildlife, nature and game reserves, and threatened species located in the broader landscape.

29.

Other key government agencies

30. The Forestry Agency (*Dinas Kehutanan*) - Under Government Regulation 22/1999 (on Regional Governance and Government Regulation), 34/2002 (on Forest Administration and the Formulation of Plans for Forest Management, Forest Utilization, and the Use of the Forest Estate) and 23/2014 (on Implementation of forest protection in protected forests, and forest production). Significant authority has been devolved from the central government to provincial and district governments, and to a lesser extent to the municipalities. This process of decentralisation resulted in the provincial Forestry Service (*Dinas Kehutanan Provinsi*), under the provincial Governor, taking on the lead responsibility for forest management outside of protection forests. This included formulating long-term (20 year) and medium-term (5 year) forest management plans, still requiring MoEF approval, and greater

¹⁹ Ref: Ministerial Decree P.40/Menhut-II/2010 & P.33/Menhut-II/2012 and <http://www.dephut.go.id/index.php/structure/>

involvement in producing spatial plans and regional development strategies based around forest use.

31. Public Works (*Pekerjaan Umum*) and the Regional Body for Planning and Development (*Badan Perencana Pembangunan Daerah, BAPPEDA*) are important stakeholders. Infrastructure development and spatial planning fall under these two institutions, with whom most of the NGOs are already partnering through their support to spatial planning. The project preparation phase focused on coordinating these existing relationships into an overall network of project stakeholders.

NGOs and civil society groups

32. To enable more effective management of its protected areas, the MoEF has held long-standing partnership agreements with WCS and FFI and developed a relatively new partnership with ZSL. These collaborative approaches are described below.
33. The MoEF has held an MoU with WCS since 1997. This enabled WCS to begin its work on Sumatran tiger conservation in Bukit Barisan Selatan National Park, which continues today. In 2007, the MoEF expanded its tiger conservation partnership with WCS through collaborating in the Gunung Leuser National Park. Its jointly implemented projects have achieved significant outputs, such as time-series population monitoring data sets on tiger and their prey, the establishment of eight human-tiger conflict mitigation units and three anti-tiger poaching and trafficking units. The partnership has expanded further to bring in local communities to monitor and mitigate human-tiger conflicts in those villages most prone to such problems. Since 2010, 52 conflict hotspots were identified for intensive monitoring and 33 incidents were effectively addressed, typically by introducing tiger-proof enclosures to secure livestock and taking care of injured tigers. Outside the protected areas, WCS works closely with other government agencies (police, customs and excise, and quarantine agents) to reduce wildlife poaching and trafficking throughout Sumatra. Since 2003, 25 tiger trade cases have proceeded to court and 30 traders, hunters and unauthorized owners have been sentenced to between 7 months and 3.5 years. A total of nine live tigers, 13 skins, and up to 220 tiger parts have been confiscated, along with 6,600 live and parts of up to 30 other protected species.
34. The MoEF has held an MoU with FFI since 1996. This was to initially set up a camera trapping programme in Kerinci Seblat National Park, which continues today under the national park's budget. The Ministry then worked with FFI to establish Tiger Protection and Conservation Units for the national park which have grown from two units in 2000 to six units today. The combined successes of these units have led to the prosecution of 38 individuals for tiger poaching/trading and the destruction of 216 tiger snare traps and 5386 deer snare traps. For the nearby Batang Hari Protection Forest, *BKSDA* and FFI are trying to reconnect it with Kerinci Seblat National Park. In Aceh province, *BKSDA* and FFI have been working since 1998 to build the capacity of forest-edge communities and government (provincial and district) partners to jointly resolve human-wildlife conflicts and threats to wildlife. This recently led to the establishment of a multi-stakeholder network to tackle illegal logging that resulted in 86 law enforcement operations (2008-2009) which confiscated 251 m³ of illegal timber, 26 vehicles, 17 chainsaws and two industrial saws, closed three sawmills, and

- arrested 138 illegal loggers. Of 45 cases monitored until a known outcome, most (29 cases) proceeded to court and, of these, approximately half (48.3%) of the defendants received a prison sentence ranging from 4 months to 4.5 years, with the remainder receiving a verbal warning (41.4%) for a first offence or awaiting a final verdict (10.3%).
35. The MoEF has held an MoU with ZSL since 2011 to enable collaborative efforts within Berbak National Park that include sustainable financing and biodiversity conservation, with the Sumatran tiger as the focal species. Activities include scientific tiger and prey species population surveys and establishing and coordinating the National Park's first wildlife conflict and crime unit, which also collaborates with various other governmental stakeholders. The Ministry's partnership with ZSL was recently expanded to encompass Sembilang National Park. Here, activities are focused on assessing tiger, prey and threat status and using this information to develop and implement appropriate protection measures through the establishment of an enforcement team. Outside the protected areas, ZSL has helped to establish a public-private management forum for each national park to increase stakeholder involvement, focusing on corporate social responsibility and best management practices linked to certification schemes such as Forest Stewardship Council (FSC) and the Round table for Sustainable Palm Oil (RSPO).
 36. In addition to their work with the MoEF, FFI, WCS and ZSL are individually partnering at various levels of government (national, provincial and district) to support innovative sustainable financing projects. FFI and partners are developing Community Carbon Pool/Village Forest (*Hutan Desa*) schemes that border Kerinci Seblat National Park and the Ulu Masen ecosystem in Aceh. WCS, Bukit Barisan Selatan National Park management authority and other partners are developing innovative financing options to raise non-tax revenue for the national park. ZSL, the Berbak National Park management authority and other provincial stakeholders are developing a REDD+ project that has since become an official national REDD+ demonstration site for peatlands in protected areas.
 37. An important development for Sumatran tiger conservation has been the establishment of *HarimauKita* (the Sumatran Tiger Forum) in 2008, which is the only independent civil society group in Indonesia dedicated to saving the last remaining tigers on Sumatra. *HarimauKita* has acted as an effective communication and advisory channel for the multiple NGOs to support national government in a coordinated manner, especially in its work with the GTI, Sumatra-wide tiger survey, development of the MoEF's National Tiger Recovery Plan (NTRP) and facilitating various technical training workshops, including SMART²⁰ patrolling. *HarimauKita* currently has three full time staff and a member network of 120 people from 20 different organisations and individuals. There are numerous local environmental

²⁰ The Spatial Monitoring and Reporting Tool (SMART) patrol system has been developed by a global conservation partnership to allow rangers on field patrol to use handheld GPS devices to record geospatial and metadata information about encounters with poachers, snares, and other types of disturbance and encroachment in the protected area. Rangers also collect information about sightings or signs of key species they encounter. The field data is subsequently downloaded from the GPS device to a central computer where it is aggregated as a local and/or national level dataset. This compiled data gives protected-area managers and other conservation stakeholders an unparalleled 'big picture' view of where resources are most needed and where they can most effectively be deployed. See smartconservationsoftware.org

NGOs working in the five landscapes. For example, the AKAR network is a coalition of 13 local NGOs, each working at a district or provincial level, that in combination provide wide coverage for monitoring and reporting threats around Kerinci Seblat National Park and Batang Hari Protection Forest.

Private sector

38. The private sector plays a significant role in managing land and natural resources in production forests. In Sumatra there are several agribusinesses that are likely to be important stakeholders in the project.
39. Asia Pacific Resources International Holdings Limited (APRIL), is Asia's second largest developer of fibre plantations and the owner of one of the world's largest pulp and paper mills with operations mainly located in Riau. APRIL is owned by the Royal Golden Eagle holding company that also has activities ranging from paper, palm oil, construction, and energy business sectors, and owns the large palm oil firm Asian Agri. APRIL's main pulp subsidiary is Riau Andalan Pulp & Paper. In 2014, APRIL announced its 'Sustainable Forest Management Policy' that sets out a vision and targets for ensuring benefits to communities and the environment in all of its operations, and those of its suppliers, and to no longer source mixed wood timber by 2019, thereby becoming wholly dependent on plantation-produced timber. In the project, APRIL will be engaged through its Ecosystem Restoration Concession project in the Kampar Peninsula. Its projects aims to restore degraded peat swamp forest over 60 years through a comprehensive work plan that has been developed in line with the Climate, Community and Biodiversity (CCB) Standards²¹.
40. Asia Pulp & Paper (APP) is the largest pulp and paper company in Asia. It is part of the Sinar Mas Group, one of Indonesia's largest conglomerates with business in sectors such as real estate, financial services and telecommunications. In 2012, APP launched its 'Sustainability Roadmap Vision 2020' in which the company pledged by 2015 to be wholly reliant on raw materials from plantations, have all of its suppliers operating by High Conservation Value Forest standards and its Indonesian mills certified for timber legality. In 2013, APP announced its 'Forest Conservation Policy' that included an immediate halt to natural forest clearance across its entire supply chain and a promise to support the protection and restoration of one million hectares of tropical rainforest in Indonesia.
41. Golden Agri-Resources (GAR), also part of the Sinar Mas Group, is one of the largest global oil palm plantation companies. Since 2011, following a campaign against GAR's unsustainable practices by Greenpeace, GAR has sought to strengthen its environmental credentials. It became an RSPO member in 2011 (and aims to become fully RSPO-certified by 2015) and launched its Forest Conservation Policy that included a commitment to zero deforestation in all of its plantations²². GAR also played a leading role in developing the High Carbon Stock concept for the palm oil industry. It is active within the RSPO and on several Task Forces and Working Groups and currently chairs the Indonesian HCV Task Force. GAR has developed an

²¹ <http://www.climate-standards.org/ccb-standards/>

²² http://www.goldenagri.com.sg/pdfs/sustain_policies/Forest_Conservation_Policy_10092014.pdf

innovative online reporting system, known as the GAR Sustainability Dashboard²³ to track progress of its sustainability developments.

42. Musim Mas, an Indonesian company with its headquarters in Singapore, is one of the world's largest palm oil producers. It was the first company from Indonesia to join the RSPO (in 2004), the first to be RSPO-certified (in 2009) and the first major company to be 100% certified for all of its plantations and mills (in 2012). An integral part of Musim Mas's approach to sustainable agricultural practice and conservation is the High Conservation Value (HCV) concept. It is a member of the RSPO's Biodiversity and HCV Working Group and a member of a group of stakeholders that have committed to the Sustainable Palm Oil Manifesto that sets new and higher industrial standards towards social and environmental issues.
43. ConocoPhillips, an American multinational energy corporation and the world's largest independent exploration and production company, has had a presence in Indonesia for more than 40 years. ConocoPhillips Indonesia is a leading partner in the development of Indonesia's oil and gas reserves, currently operating five 'Production Sharing Contracts' in the country, two of which are located in South Sumatra province. The company has made a commitment towards safeguarding the environmental integrity of the landscapes where it works, which is under its Corporate Social Responsibility scheme.

Policy & Legislative Context

44. The proposed project is fully consistent with the Government of Indonesia's policy on wildlife, forest and environmental protection. Commitments under the UN Convention on Biological Diversity (enacted through Law 5/1999), as expanded in the Indonesian Biodiversity Strategy and Action Plan (IBSAP) 2003-2020 (BAPPENAS 2003), have been made. Indonesia is a signatory to the Convention on International Trade in Endangered Species (CITES; enacted through Presidential Decision 43/1978), the United Nations Framework Convention on Climate Change (UNFCCC; enacted through Law 6/1994), the International Tropical Timber Agreement (ITTA), the Ramsar Convention (The Convention on Wetlands of International Importance (LAW) and the Convention for the Protection of the World's Cultural and Natural Heritage (enacted through Presidential Decision 26/1989), in particular the Action Plan for protection of the Tropical Rainforest Heritage of Sumatra Natural World Heritage Site.
45. Wildlife management objectives and activities pertinent to this project have been ratified through species-specific national strategies and action plans for Sumatran tiger, rhino, orangutan and Asian elephant (MoEF: P42/Menhut-II/2007, P44/Menhut-II/2007, P43/Menhut-II/2007, P53/Menhut-II/2007), as well as for human-wildlife conflict mitigation (P48/Menhut-II/2008). The Government of Indonesia signed the St. Petersburg Declaration on Tiger Conservation as adopted by the range states at the Global Tiger Summit in November 2010. This complements the MoEF's own NTRP, part of the Global Tiger Recovery Program for which the GEF has a stated financial supporting role. The Indonesian NTRP was in turn informed by

²³ http://www.goldenagri.com.sg/sustainable_dashboard.php

the Indonesian Sumatran Tiger Action Plan, both of which were developed by the Indonesian government and *HarimauKita* which represents all agencies working on tiger conservation in Indonesia. The NTRP states four priority actions: i) Replicate specialized law enforcement and conflict mitigation units to secure the tiger and its prey; ii) Create a Sumatra-wide adaptive management system based on robust monitoring of tigers, their prey and effective management interventions; iii) Create a legal basis to protect tigers outside protected areas and implement it within and between the priority landscapes; and, iv) Explore and mobilize domestic and international funds to ensure the long-term protection of tiger populations in priority landscapes.

46. The intention to develop and implement a Sumatra-wide spatial plan to balance ecological functions and economic development for the people of Sumatra was announced at the 2008 IUCN World Conservation Congress when all ten Sumatran provincial governors signed a non-legally binding commitment²⁴. With political support from the Indonesian Ministries of Interior, Forestry, Environment and Public Works, this commitment has translated into limited on-the-ground change. Maintaining this initiative's momentum will be challenging because most of the signatory governors have since been replaced, subsequently produced provincial spatial plans have taken little or no account of this commitment, and deforestation rates remain unchanged. The main change since this commitment has been the formation of National Strategic Areas (*Kawasan Strategis Nasional*).

THREATS, ROOT CAUSES AND IMPACTS

47. Across Sumatra, the principal threat to biodiversity, which is ubiquitous across Indonesia, is forest habitat loss and degradation. Additional threats facing several threatened wildlife species, especially the tiger and its prey, are poaching for domestic consumption (such as sambar deer meat) and trade (such as tiger body parts), as well as retaliatory killings elicited from conflicts with villagers (such as tiger attacks on livestock or people).

Habitat and land use change

48. Over the past two decades, Sumatra has annually lost just over 2% of its entire forest estate. Forest cover, both primary and degraded, has shrunk from 25.3m hectares (in 1985) to 12.8m hectares (in 2009) (see **Figure 2**). For primary forest alone, Sumatra lost 2.9m hectares between 2000 and 2012²⁵. This loss was highest in primary wetland forest (1.5m hectares) and primary lowland forest (1.2m hectares). The principle driver of this forest clearance has been commercial agriculture through the creation of large-scale exotic plantations, mainly for oil palm and timber fibre, followed by subsistence agriculture. Forest clearance for commercial agriculture has disproportionately occurred in the low-lying parts of the eastern lowland provinces of Riau and Jambi. The main driver of forest degradation has been commercial logging,

²⁴ Roadmap toward Rescuing the Ecosystem of Sumatra. Vision of Sumatra for the Year 2020. January 2010.

²⁵ Margono, B.A., Potapov, P.V., Turubanova, S., Stolle, F. and Hansen, M.C. 2014. Primary forest cover loss in Indonesia over 2000–2012. *Nature Climate Change* 4:730-735.

which typically begets illegal clearance for smallholder farmland, as well as that for commercial agriculture as these logged forests are often incorrectly written off as having low biodiversity value.

49. Forest loss markedly differs between Sumatran provinces and is a consequence of the regional governments' differing economic and land use planning strategies. For example, South Sumatra has lost 69% of its forest estate, followed by Riau (63%), Lampung (63%), Jambi (53%), North Sumatra (43%), Bengkulu (41%), West Sumatra (29%) and Aceh (23%).

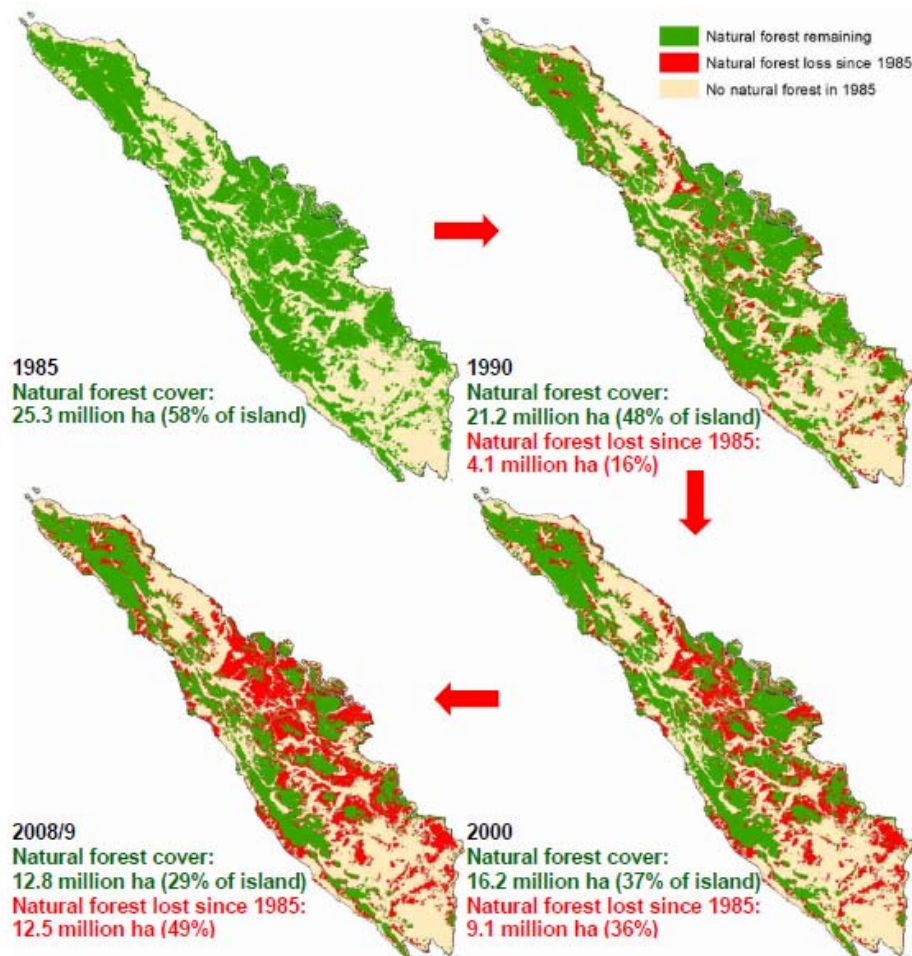


Figure 2. Over two decades of natural forest loss on Sumatra.

Source: Uryu et al., 2010.

50. Most deforestation has occurred in areas that were more accessible and suitable for agriculture (lowland forests) or had fewer local land claims (wetland forests). These are also the most biodiversity-rich and should offer the best quality tiger habitat, being more abundant in their principal ungulate prey. Further, the construction of new roads, such as those accompanying the establishment of plantations, increases access to forest and land, and not only hastens forest loss and facilitates poacher movements, but also fragments forest creating impassable barriers to biodiversity. Large forest blocks are vital for population viability of the wide-ranging Sumatran tiger, for which an adult male may require a home range of up to 300km².

51. Sumatra's seven million hectares of peat soil may store more than 19 gigatons of carbon, while the island's remaining natural forests may store an additional two gigatons²⁶. The widespread use of fire to illegally clear peat land and its forest for agricultural plantations, particularly in Riau, Jambi and South Sumatra, can create fires that burn for weeks or even months and release considerable amounts of carbon into the atmosphere. This poses risks to both forest, wildlife and human health in Sumatra but also has regional impacts. These annual burning events, typically occur during the dry months of June and July, and in 2013, for example, >8000 fire hotspots were recorded on Sumatra. This created a haze so thick that it blanketed Singapore and parts of Peninsular Malaysia with 'hazardous' air pollutant levels for 17 days.
52. Historically, forest degradation was largely caused by the selective removal of high quality timber trees through commercial and illegal logging. Estimates for Sumatra do not exist, but the timber illegally removed from Indonesia's forest has reduced from 73% in 1998 to 40% by 2006²⁷. This undermines revenue generation potential and community livelihoods
53. This threat is compounded when degraded forests are then considered as being less important for conservation and assigned for complete conversion to agriculture. While protected areas represent the long-term approach for wildlife conservation in Sumatra, several are also under threat, e.g. Kerinci Seblat National Park is threatened by new road creation and illegal logging, leading to the official recognition by UNESCO of the *Tropical Rainforest Heritage of Sumatra (Indonesia)* as a World Heritage Site in Danger²⁸.

Overexploitation

54. This includes the illegal and unsustainable exploitation of wildlife, as well as the retaliatory killings of tiger. In general, weak law enforcement against the illegal trade in Sumatra threatens various taxa with local extinction. Species are either traded domestically as pets, such as orangutans, gibbons, and song birds; or internationally, such as pangolin and rhinoceros, for traditional medicine mainly in China and Vietnam. While it is difficult to quantify the magnitude of the trade, some of the volumes seized are staggering. For example, 14 tons of frozen pangolins and 50 kg of scales were confiscated by the police during a single raid at a Palembang port, South Sumatra, in 2008²⁹.
55. In the case of the Sumatran tiger, this species is directly poached for its body parts to supply illegal domestic and international markets. The average seizure of Sumatran tigers has increased from 3.4/year (2000-2009) to 5.5/year (2010-2012)³⁰. According

²⁶ Uryu, Y., Putrastuti, E., Laumonier, Y., Sunarto, Setiabudi., Budiman, A., Yulianto, K., Sudibyo, A., Hadian, O., Kosasih, D.A., Stuwe, M. 2010. Sumatra's Forests, their Wildlife and the Climate – Windows in Time: 1985, 1990, 2000 and 2009. Jakarta, WWF-Indonesia Report.

²⁷ Lawson, S. and MacFaul, L. 2010. Illegal logging and related trade indicators of the global response. Chatham House, London

²⁸ <http://whc.unesco.org/en/list/1167/documents/>

²⁹ TRAFFIC 2008. Efforts to scale-up enforcement to combat the illegal pangolin trade in South-East Asia TRAFFIC Bulletin, 22:13-14.

³⁰ Stoner, S.S. and Pervushina, N. 2013. Reduced to Skin and Bones Revisited: An Updated Analysis of Tiger Seizures from 12 Tiger Range Countries (2000–2012). TRAFFIC, Kuala Lumpur, Malaysia.

to a 2004 TRAFFIC report, at least 50 tigers were estimated to have been annually poached on average from between 1998 and 2002, with approximately 78% for trade and 14% in retaliation to human-tiger conflict incidents³¹. If this statistic is correct, it represents a significantly high offtake for an island-wide population estimated at 500-700 adult individuals.

56. With no standardized or widespread reporting system in place, it is difficult to quantify the threat posed by human-tiger conflict and subsequent retaliatory killings of tigers. Conflicts are recorded from every Sumatran province and conservative estimates of 146 human deaths, 265 tiger deaths and 97 tiger captures have been made for 1978-1997³². A more recent estimate from the MoEF, revealed that 40 humans were killed by tigers from 2000-2004³³.
57. The poaching of ungulates, especially sambar and muntjac for local meat consumption occurs in each Sumatran province, as does the legal hunting of wild boar by sports clubs such as Perbakin. The severity of this threat on species population viability remains unknown, as does its subsequent impact on tigers, and requires evaluating through first compiling accurate data on the situation, rather than relying on best guesses.

Invasive Alien Species (IAS)

58. While IAS represent a potential threat to any island in Indonesia, the seriousness of the threat to agriculture, forestry and biodiversity in Sumatra is under-researched, given other more pressing threats, and is therefore poorly understood. Nevertheless, it does appear that in some cases land rehabilitation patterns are dominated by the spread of alien species rather than endemic or other local species. This may be due in part to the fact that certain alien species are faster growing and therefore more profitable. Several invasive species are believed to threaten project demonstration sites, such as the emperor grass (*Imperator cylindrica*) that changes soil pH and follows encroachment as farmers seek better land, e.g. around Kerinci Seblat National Park. The white lead tree (*Leucaena leucocephala*) is an aggressive colonizer of secondary or disturbed vegetation and has become problematic in North Sumatra. There are also native invasive species that have thrived due to land clearance and threaten target sites such as the rapid spread of morning glory (*Merremia peltata*) in and around Bukit Barisan Selatan National Park.

Pollution

59. Pollution and habitat destruction from mining (such as gold, copper, nickel and iron ore) pose a threat to biodiversity, ecosystem health and human wellbeing. Incidents of illegal gold mining are reported from Batang Hari Protection Forest, West Sumatra, and Ulu Masen, Aceh. These practices involve the use of highly toxic chemicals, such as mercury, to extract the gold. In turn, this contaminates the water that is used by millions of rural people on a daily basis for cooking, drinking and washing. Further,

³¹ Shepherd, C.R. and Magnus, N. 2004. Nowhere to hide: The trade in Sumatran Tiger. TRAFFIC Southeast Asia

³² Nyhus, P.J. and Tilson, R. 2004. Characterizing human-tiger conflict in Sumatra, Indonesia: implications for conservation. *Oryx* 38:68-74.

³³ Ministry of Forestry. 2007. Conservation strategy and action plan for the Sumatran tiger (*Panthera tigris sumatrae*) Indonesia 2007-2017. Unpublished report, Jakarta, Indonesia

some 30% of Batang Gadis National Park, North Sumatra, has been approved for legal open-cast gold mining.

Climate change

60. Climate change may pose a problem to the project through unpredictable weather patterns that increase the likelihood of natural disasters and failed crop cultivation. A recent study indicated that El Niño-Southern Oscillation may strengthen under the future climate change conditions³⁴ and this would lead to increased droughts, disease outbreaks, wildfires and even social unrest in Asia. For Sumatra, drought and the use of fire to clear forest and land for agriculture would be of greatest concern here. Still, the nature of the project means that climate change effects are unlikely to directly impact objectives and activities, although over the long-term climate change may alter habitat structure or species resilience, and may possibly require adjustment of protected area boundaries.

LONG-TERM SOLUTION AND BARRIERS TO ACHIEVING THE SOLUTION

61. The proposed long-term solution for securing Sumatra's forests, wildlife and ecosystem services lies in consolidating a network of effectively managed and adequately funded protected areas that are supported by complementary actions in the adjacent forests and communities to achieve sustainably managed landscapes. The project aims to achieve this through strengthening the management effectiveness and sustainable financing of key national parks and by developing multi-agency partnerships across multiple provinces and providing incentives for communities in key areas to reduce forest encroachment and illegal hunting of protected species. At present, the main barriers to achieving this vision are a combination of weak natural resource governance and protected area management capacity, poor inter-agency coordination, and inadequate financial planning and management for protected areas.

A. Weak natural resource governance and protected area management capacity

62. Current enforcement of protected area borders is insufficient and ineffective in preventing encroachment – protected areas in Sumatra are not fenced and the two large areas of Kerinci Seblat National Park and Gunung Leuser National Park do not have clearly demarcated boundaries. Field visits by national park staff may have raised awareness of boundary locations in several adjacent communities, as well as with some long-established communities living inside, while evictions of new settlers encroaching into protected areas is rare. Several recent attempts at such evictions have failed due to weak enforcement and strong political opposition, which lessens the motivation for subsequent attempts. This situation weakens the ability of protected area institutions to effectively enforce their borders and protect their natural resources. Long term engagement of neighbouring communities through education, awareness and rural development programmes, coupled with improved patrolling and enforcement, should eventually lead to a reduction in encroachment problems, with the support of related local government agencies.

³⁴ KM Cobb, N Westphal, HR Sayani, JT Watson, Lorenzo, ED, Cheng H., Edwards, R. L., Charles, CD. (2013). Highly variable El Niño–Southern Oscillation throughout the Holocene. *Science* 339: 67-70.

63. In addition, the capacity for effective protected area management in Sumatra remains weak in terms of the manpower to cover such huge and remote areas. Management would be strengthened if the number of staff, especially active forest rangers, were increased and spread to provide wider coverage across each national park. The human resources situation in Kerinci Seblat National Park is shared by the other target protected areas, as identified through the site visits conducted during the PPG phase. A lack of suitable candidates to fill key roles was identified as a common constraint facing all the target national parks. For Kerinci Seblat, 35 of the 104 forest rangers are posted to SPORC (*Satuan Polhut Reaksi Cepat*), a rapid response forest police unit, meaning that they are not available for routine forest patrols. Furthermore, forest rangers typically need to be young (<30 years) and fit, but the majority of the Kerinci Seblat rangers are over 45 years old and no longer suited to the high demands of regular forest patrolling. Ranger teams are supplemented through sourcing suitable candidates from nearby communities, which offers additional benefits through access to local informants. However, these community rangers have an honorary status and therefore lack job security, opportunities for promotion and personal safety, especially as they enforce the law in villages and subdistricts where they may be known to offenders.
64. As several national park personnel identified during the PPG consultations, the human resources situation also extends to a lack of available expertise in the form of elite wildlife crime investigators. Working as Civil Service Investigators (*Penyidik Pegawai Negeri Sipil, PPNS*), these personnel are vital for handling law enforcement cases once an arrest and/or confiscation has been made. From the MoEF 2012 data, there were 85 Civil Service Investigators for the five target national parks. However, most of these are assigned to the 77 SPORC members and located far away from their affiliated national park, making them less likely to participate in investigations there. Furthermore, other designated PPNS are not active in wildlife crime investigations, which is due in part to a lack of focus on this issue, as reflected in the PPNS training. There is therefore a need to develop new training modules and syllabus on illegal wildlife crime and allocate a budget to train up *at least* one MoEF PPNS candidate per national park/province, with selection based on merit and interest in tackling wildlife crime.
65. Challenges in enforcing the Gunung Leuser National Park border were highlighted by several senior national park staff during the PPG site stakeholder meeting. The main issues related to a lack of collaboration and cooperation with provincial and district forestry agencies that partially stems from inconsistencies between local government draft spatial plans and the central government's master plan. For Kerinci Seblat National Park, a lack of political will on the part of local government in supporting the national park authority to respond to serious encroachment inside its borders was a constraint. A related issue raised during Berbak National Park consultations was that the national park objectives were not fully understood by local government, especially the planning agencies. Consequently there is a need for the Office for Consolidating Forest Areas (or *Balai Pemantapan Kawasan Hutan*), which is under the Directorate General of Forest Planologi, to resolve boundary issues through its mandate for forest enhancement, evaluation and functional changes in forest status, as well as in compiling and storing forest resource data and information. Further, small

- local level working groups are needed to ensure that relevant government agencies operating outside the protected areas, but with an ability to influence it, are engaged. Access to improved technology, such as conservation drones and poacher camera traps, as well as ensuring that all forest ranger teams have the necessary basic equipment, such as GPS units and compasses would facilitate more effective enforcement of national park borders.
66. Finally, park staff lack training in participatory management approaches and the know-how to address resource use conflicts involving neighbouring communities in a strategic manner. The jurisdiction outside of a protected area falls under local forestry departments, and national park staff should, in theory, be involved where within 500m (if a PA border is clearly demarcated) or 1.5km if not, such as within a PA buffer zone. Yet even here, national park personnel are only able to provide input and advice and formalisation of participatory management. Clarification of boundaries and regulations is needed. Partnerships with CSOs and rural development agencies are important in delivering development benefits to nearby communities in order foster good relations with the national parks (see **barrier B** below).
67. Lack of a standardised and operational adaptive management system lessens protected area effectiveness - A robust law enforcement response underpins the strategy of any well-managed protected area. This almost always employs national park and/or community ranger teams to conduct field-based patrols that directly tackle on-the-ground threats, such as poaching and illegal logging. Recent significant advances have been made in improving these patrol-based strategies through the development of the SMART standards and analytical software³⁵. Not only can SMART be used to motivate rangers, but it provides timely and critically important information to protected area managers on ranger team performance and feedback from past patrols that can be used to plan strategically for future patrols, thereby enhancing their effectiveness. A considerable amount of SMART training has been provided in Sumatra, but the system has yet to be fully incorporated in the target national parks or at national-level through the MoEF, therefore a strategic plan for its introduction and implementation throughout the national PA system is needed.
68. From the stakeholder consultations conducted during the PPG, a recurring constraint identified by the national park agencies was the limited flow of information collected from the forest ranger teams to the senior level technicians. This meant that important data were not always feeding into the management decision-making process. Inadequate data systems (including a centralised and fully operational database), reporting systems and an institutional culture that did not always prioritise adaptive management were considered to underpin this constraint. In order to develop a robust adaptive management system for each national park there is a need for comprehensive training in the different components of SMART, from forest ranger team data collection, to national park technician data analysis, to team leader strategic planning, and the establishment of a SMART database for each park.

³⁵ <http://www.smartconservationsoftware.org/>

69. Lack of a standardized system for monitoring and evaluating protected area management effectiveness - The Management Effectiveness Tracking Tool (METT) is one of the most widely used tools to assess protected area management effectiveness and to report on progress towards Convention on Biological Diversity targets. It uses a rapid assessment based on a scorecard questionnaire which includes the six management elements identified in the IUCN-World Commission on Protected Areas Framework (context, planning, inputs, process, outputs, and outcomes). It provides a mechanism for park managers and donors to monitor progress towards more effective protected area management over time, as well as identifying needs, constraints, and priority actions to improve management effectiveness. Despite being highly applicable, a METT assessment has only ever been conducted once for Sumatra's national parks, making it difficult to evaluate their management. In India, for example, all Tiger Reserves routinely use METT, while in Indonesia the MoEF has conducted METT assessments in 2005 and 2010. Similarly, the UNDP Capacity Development Scorecard for protected areas is a tool for monitoring progress in developing capacities that are critical for environmental sustainability. It is complementary to the METT assessment and can enable protected area institutional capacity to be monitored. It is also not widely used in Indonesia.
70. *PHKA* is promoting RBM as a principal strategy for improving protected area management effectiveness. It will devolve greater power and responsibility to the smallest field operational units ("resorts") based within national parks. This typically includes a ranger and a forest technician, who are directly responsible and therefore accountable for a resort. Activities include field monitoring and law enforcement, amongst others. The ability to effectively assess resort performance depends on having a robust reporting and evaluation system between the resort and the regional and national headquarters in place, which in most cases has not yet been established.
71. Lack of a robust system for monitoring biodiversity and forests to inform resource management - Most protected areas in Sumatra lack biodiversity baseline data, beyond species lists for different taxa. Species monitoring data are even scarcer. Biodiversity surveys tend to be conducted using presence/absence techniques to generate species lists, but their usefulness is limited by not accounting for imperfect detection probability, i.e. species may have been recorded as absent when in fact they were simply missed by the surveyors. No scientifically robust sampling framework exists, or at least is implemented in Sumatran protected areas, to collect and analyse biodiversity data. Outside protected areas the situation is worse and the lack of data means that biodiversity concerns cannot be adequately considered in planning processes, such as environmental impact assessments.
72. In the case of assessing tiger population status, two techniques are commonly used. Camera trap based surveys are employed to assess absolute tiger abundance and density, while indirect sign based surveys are employed to assess tiger occupancy. The merits of both techniques have been clearly demonstrated in Sumatra, but despite this large amount of effort, repeat surveys to monitor tiger population trends are generally lacking.

73. Numerous remotely sensed data sets for forest monitoring are available for Sumatra. This is unsystematic, uncoordinated and creates confusion and/or loss of confidence in the forest cover and deforestation values published. An officially recognized, standardized and robust system would assist in providing data considered reliable for government planning and decision-making purposes.

B. Poor institutional coordination between multiple agencies for wildlife and forest conservation

74. Management and enforcement of natural resource violations is hindered by the lack of coordination between relevant agencies – the distribution of forest and wildlife extend beyond protected area borders and across different Sumatran provinces. Therefore, to strengthen efforts towards collectively tackling the illegal trade in wild fauna and flora in Sumatra, a broader range of partner agencies need to collaborate more closely. This should involve traditional partners such as *BKSDA* and the Forestry Agency. It should also involve non-conservation agencies that share similar high-level goals, such as tackling corruption, especially where the legislative framework already exists. The highly effective Corruption Eradication Commission and the Indonesian Financial Transaction Reports and Analysis Centre have yet to play a prominent role in addressing wildlife crimes, but have had several noteworthy successes in providing irrefutable evidence and novel approaches for prosecuting illegal logging cases, such as on money laundering charges.
75. Taking a multi-agency landscape-level approach is integral to securing wildlife and their habitat beyond protected area borders. This process has already started in the Kerinci Seblat landscape with the development of a cross-agency network that is currently being formalised under an MoU that enables inter-institutional and trans-border law enforcement actions to be conducted by the national park authority, police and wildlife agencies.
76. Civil society participation needs to be strengthened to achieve conservation goals outside protected areas - Experience from several Sumatran landscapes has demonstrated the merits of using carefully cultivated local information networks to more effectively tackle the illegal trade of wildlife and timber. This trade is predominantly conducted through organized criminal networks, which therefore requires an organized multi-agency response. However, additional support is needed for civil society groups to conduct on-the-ground actions, such as anti-poaching information gathering and reporting. In turn, this will enable protected area and/or law enforcement agencies to conduct more successful intelligence-based forest patrols to detect and destroy snare traps and to conduct sting operations to arrest poachers/traders. Further, good coordination between multiple NGOs and the MoEF during the Sumatra-wide tiger survey in 2009, demonstrated the important role that the local organization *HarimauKita* can play as an NGO-government agency facilitator. However, *HarimauKita* will need increased human and financial resources in order to continue and further develop such a coordinating role.
77. Improved coordination and cooperation between the relevant government agencies is needed to collectively manage human-tiger conflicts – The MoEF has developed a

comprehensive human-tiger conflict mitigation protocol, but this lacks adequate funding and skilled personnel to ensure adherence to the management recommendations in swiftly and appropriately responding to conflict incidents (with the consequences of increased damage and tiger mortality). Inadequate responses to conflict reports lowers community confidence in government agency ability, reduces motivation to report future incidents and creates negative attitudes towards wildlife, which often result in communities resorting to solving the problem themselves, and/or local poachers opportunistically taking advantage of the situation, both to the detriment of the problem animal. Socialization of the protocol and improved coordination and cooperation between the relevant government agencies is needed, as is a compensation scheme for those suffering loss. *Dinas Sosial-Bengkulu*, *BKSDA-Bengkulu* and the Kerinci Seblat National Park authority are piloting a compensation scheme that is highly relevant and replicable to other Sumatran tiger provinces and warrants further exploration, which will be included in the project design.

78. Development planning inadequately accounts for biodiversity conservation considerations – this is a critically important issue for forests and wildlife outside the formal protected area system. The two key agencies with the greatest roles are *Bappeda* and Public Works, which are respectively mandated to develop the regional economy and infrastructure. Neither agency has biodiversity conservation objectives high on its agenda, meaning that biodiversity concerns are not fully considered during the planning stages, e.g. new road planning and construction. This can be addressed through enhancing engagement, such as through environmental impact assessment processes, which at present seem more of a perfunctory task than seriously aiming to minimize a project’s impact on biodiversity.
79. Disconnects between national and regional levels of government may also result in projects that negatively impact biodiversity in Sumatra. An illustration of this risk was given recently following the decision of district governments to propose the construction of three new roads in Kerinci Seblat National Park that were in direct contradiction to two Indonesian laws and various national commitments such the Global Tiger Recovery Plan and Sumatran Tiger Strategic Action Plan. The project recognizes that such adverse development impacts arise and will attempt to mitigate them through engaging district and provincial stakeholders in pre-project consultations as well as through stakeholder committees during project implementation. Given the specific and serious concern over road development in protected areas, there is a need to apply ‘Smart Green Infrastructure’ guidelines towards roads and specifically for tiger landscapes, and to incorporate tiger-specific criteria into SEA and EIA procedures.
80. Private sector engagement in sustainable management practices is patchy and weak, providing a lack of security for HCV forests and wildlife in production landscapes - All forest is state-owned, but categorized by national and regional planning agencies and managed by a diverse group of actors. Outside conservation areas, this consists of production forests, highlighting the important role that the private sector, mainly agribusiness, companies need to play through sustainable management practices that allow for the conservation of HCV forest areas and wildlife. Examples of partnerships for sustainable land management already exist in Sumatra with FFI-APRIL on

Ecosystem Restoration Concession development in the Kampar landscape, with ZSL-Musim Mas on buffer zone management around the Dangku Nature Reserve, and recent partnership agreements with ZSL and APP and with ConocoPhillips on wildlife monitoring, human-wildlife conflict mitigation and law enforcement in the Berbak-Sembilang landscape. Here, new sustainable financing mechanisms for forest and biodiversity conservation should be explored, documented and shared for replication elsewhere in Sumatra.

C. Inadequate financial resource planning and management for protected areas

81. Government financing for protected areas is inadequate to support effective operational management. This was revealed during the completion of the Financial Sustainability Scorecard of the GEF Biodiversity Tracking Tool for ten Sumatran national parks (see **Annex 2A**). An overall score of 35% indicates that there are many shortfalls in PA financing, most notably the total annual financing gap of US\$17.1 million for basic management and US\$46.6 million for optimal management. Operational management of the National Parks is most affected with funding gaps of US\$ 13.5 and 36.6 million respectively for basic and optimal management scenarios.
82. The combined annual budget in 2014 for the five target national parks was US\$ 6,694,445 (**Table 5**). This equates to US\$ 2.1/ha in 2014, which is substantially less than the US\$ 10-18/ha recommended at the 2012 ASEAN Protected Areas Congress. Funding adjusted for protected area size reveals that the largest national park of Kerinci Seblat receives less in absolute and proportional terms than the national parks of Gunung Leuser and Bukit Barisan Selatan.
83. For all national parks, core budgets are wholly reliant on central government financial support that from 2013 to 2014 experienced a 19.3% reduction in funding allocation. Given the priority of ensuring sufficient funding for staff salaries and office operations, it is likely that this funding cut primarily affected field activities. Furthermore, core activities such as law enforcement forest patrols and biological monitoring remain under-funded for these national parks. Thus, the connection between budgeting and operational management needs to be strengthened, in order that national parks are able to meet their conservation objectives.

Table 5. Summary of government funding trends for the five target national parks (NPs)³⁶

NP	Size (ha)	PA allocation (US\$)*		Allocation (US\$/ha)	
		2013	2014	2013	2014
Kerinci Seblat	1,389,500	1,905,563	1,611,185	1.4	1.2
Gunung Leuser	1,094,692	2,386,010	1,873,415	2.2	1.7
Bukit Barisan Selatan	355,511	2,167,399	1,645,186	6.1	4.6
Sembilang	202,896	855,516	678,807	4.2	3.3
Berbak	142,750	982,987	885,851	6.9	6.2
Total	3,185,349	8,297,475	6,694,444	2.6	2.1

³⁶ Data taken from MoEF. 2014. Director General of PHKA government accountability performance report for 2013. PHKA, Jakarta (<http://ditjenphka.dephut.go.id/wp-content/uploads/2013/08/LAKIP-PHKA-2013.pdf>) and MoEF unpublished data for 2014.

* Based on 2014 budget and an exchange rate of US\$1 = Rp11,970.

84. Financial management at protected area level is almost completely dependent on government budget allocations to support management, with very little in the way of inputs from other funding streams. In addition, available government funds are not always used most efficiently. Therefore an analysis of financial management practices including potential cost-savings and priorities for operational and development expenditure is needed, supporting a roadmap for each target national park. In addition, there is a need to demonstrate how potential new funding streams can support park management, including the removal of any regulatory barriers.
85. Essential ecosystem services provided by protected areas are undervalued and not considered in local development planning – Along the Barisan mountain chain, three national parks each encompass several nationally important watersheds that provide an unquantified number of benefits to millions of people, mainly through the provision of a clean and regular water supply. As an example, a total economic valuation of well-protected forest and ecosystem services in Aceh estimated these to be worth US\$12.9 billion over 30 years, which was more than under a scenario involving forest conversion to agriculture³⁷. The forests in the five target landscapes, especially those on peatland, have high carbon value and their integrity is linked to the Government of Indonesia’s voluntary pledge to reduce its greenhouse gas emissions by 26% by 2020 and also to the success of its REDD+ strategy. However, such values are often not taken into account during provincial and district level development planning, when the immediate benefits of land conversion for infrastructure and production uses (e.g. in Riau Province) trumps such longer term socio-economic benefits to the nation.

INTRODUCTION TO PROJECT SITE INTERVENTIONS

86. The project aims to address the institutional issues facing biodiversity management in Indonesia by focusing on the island of Sumatra, Indonesia’s largest wholly owned island. The project will cover an area that includes some of the most important forests for biodiversity. Component 1 will focus on strengthening management effectiveness on-the-ground for five protected areas that cover a combined 3.185 million ha (**Tables 6 & 7, Fig 3**). Component 2 will focus on the wider landscapes in which each protected area is located. It aims to develop multi-sectoral partnerships in government and by bringing in the holders of privately-owned concession licenses. With the additional inclusion of production forest landscapes, an additional 5.0 million ha is contributed to the project intervention area from strategically important mosaic forest landscapes that buffer the target protected areas. In combination these landscapes represent some of the largest contiguous areas of forest remaining in Indonesia and all of Indonesia’s priority ‘Tiger Conservation Landscapes’ (see landscape profiles in **Annex 1**).

³⁷ van Beukering, P., Grogan, K., Hansfort, S.L. & Seager, D. (2008). An Economic Valuation of Aceh’s forests: The road towards sustainable development. Technical report for the Government of Aceh. Aceh, Indonesia.

Table 6. Size of target landscape components

Site	Core area³⁸ (ha)	NP (ha)	Landscape (ha)
Kerinci Seblat	82,718	1,389,500	2,579,340
Gunung Leuser	919,369	1,094,692	3,543,826
Bukit Barisan Selatan	87,787	355,511	572,360
Berbak-Sembilang	74,890	345,646	821,619
Kampar ³⁹	377,466	n/a	665,047
Total	1,542,230	3,185,349	8,182,192

³⁸ For the landscapes of Kerinci Seblat, Berbak-Sembilang, Gunung Leuser and Bukit Barisan Selatan, the core area is defined as the same area used in respective Tigers Forever projects, supported by the donor Panthera. Here, a core area must satisfy a number of criteria: 1) evidence of a resident breeding population; 2) potential to maintain an estimated 25 breeding females (alone or combined with other connected source sites in the same landscape); 3) embedded within a larger tiger-suitable landscape with potential to maintain >50 breeding females; 4) potential for a high level of control over the site by government, NGO partners, and/or private individuals or companies; 5) commitment to relocating existing human settlements and activities, limiting human access, and preventing infrastructure development, and 6) a legal framework for and commitment to the prevention of poaching of tigers and their prey.

³⁹ For Kampar, the core area is not strictly defined as core tiger habitat, but core peat swamp forest habitat that falls under the demonstration. This area is partly licensed to APRIL.

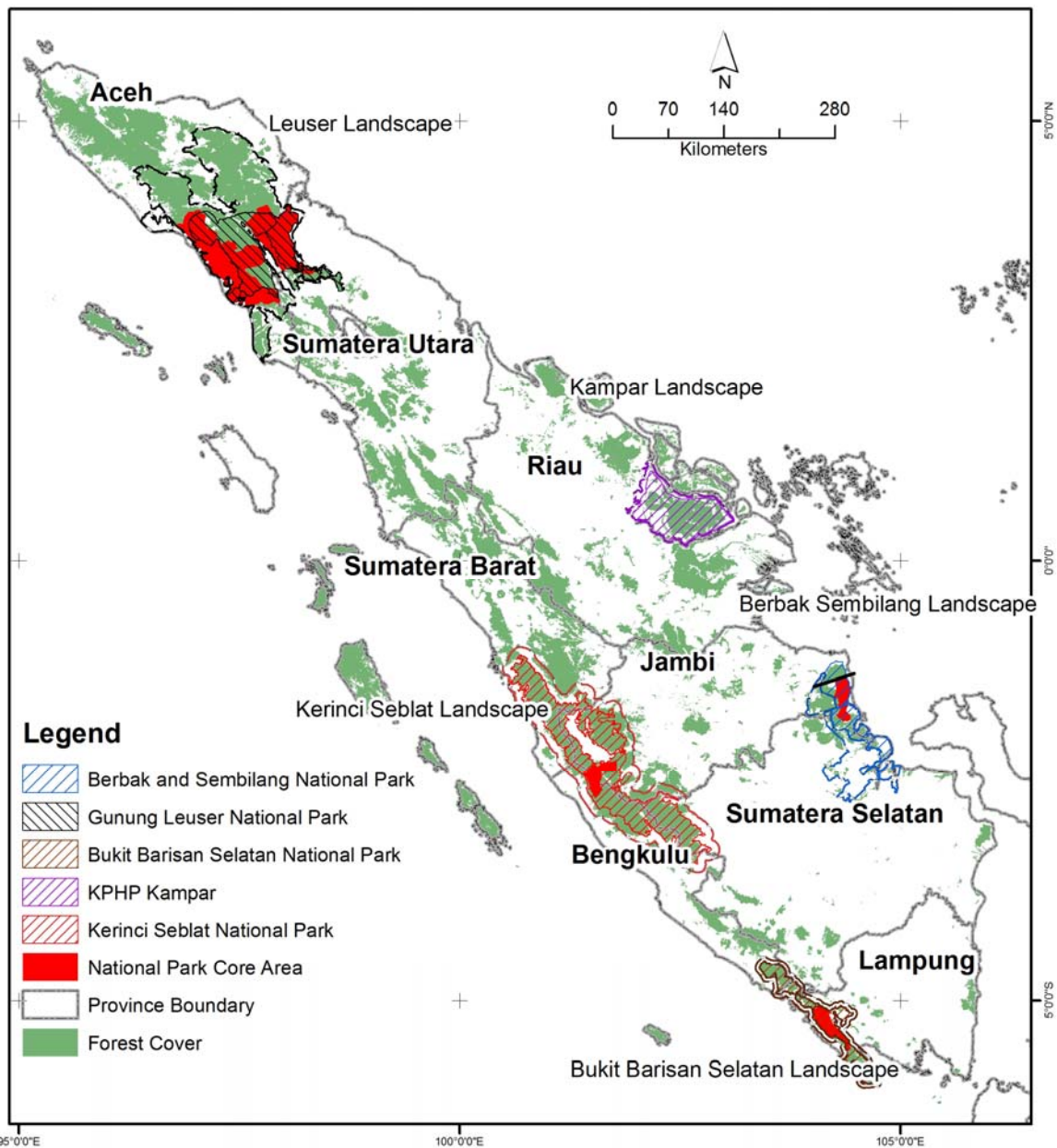


Figure 3. Location of five project target landscapes with their respective national park/s and core area

87. Besides tigers, the project landscapes also support the last viable populations of Sumatran rhinoceros, Sumatran orangutan and Sumatran elephant. They provide vital ecosystem services for local communities (e.g. through water supply regulation; genetic resources with potential commercial application, such as agriculture and bio-products; and, macro-biodiversity with high tourism amenity value), as well as for the international community through climate regulation.

88. The project target areas have been chosen for a combination of reasons. First, some landscapes (e.g. Kerinci Seblat and Gunung Leuser) offer the best long-term survival for tigers and must therefore act as flagship areas for Indonesia. For the smaller protected areas (Bukit Barisan Selatan and Berbak-Sembilang National Parks), there is high potential for tiger populations to recover if effective management systems are

put into place. Secondly, two landscapes (Kampar and Berbak-Sembilang) offer complementary models for achieving effective wildlife management in production areas. Thirdly, the target areas are both international (sites listed under the Ramsar Convention and World Heritage Convention) and MoEF priorities, as stipulated in national policy and each area already has an NGO-MoEF partnership that will enable the proposed project to swiftly move to an implementation phase.

Table 7. Summary information on the National Parks (NPs) targeted for project support

Protected Area (size; year established) representation in provinces (%) and designations	Current situation*	Notable mammal species	Main local threats	Opportunities
<p>Kerinci Seblat NP (1.39m ha and 1982)</p> <p><u>Provinces:</u> Jambi (32%), W. Sumatra (26%), Bengkulu (23%), S. Sumatra (19%)</p> <p><u>Designations:</u> WHC; Global Priority (Level I) Tiger Conservation Landscape; ASEAN Heritage Park</p>	<p>Annual budget: US\$1.61m (US\$1.2/ha)</p> <p># staff: 229</p> <p>FFI support since 1996</p>	<p>Tiger (EN), Asian elephant (EN), Asian tapir (EN), bearded pig (VU)</p>	<p>Wildlife poaching is a major threat as in the other PAs, incl. song birds, helmeted hornbill, tiger and pangolin (trade) and wild boar/deer (sport/meat). From 2000-2013, 32 conflict tigers were killed. While encroachment inside the PA is low, 60% of its buffer zone has been cleared. Proposed roads that would bisect the PA remain a threat. Gold, iron ore mining is also present.</p>	<p>The PA has an excellent law enforcement system (ranger teams, informants and support) in core areas, which offers a replicable model to secure wildlife in the landscape. Forest management activities may be enhanced further through REDD+/World Bank's Forest Carbon Partnership Facility.</p>
<p>Gunung Leuser NP (1.09m ha and 1997)</p> <p><u>Provinces:</u> Aceh (80%) N. Sumatra (20%)</p> <p><u>Designations:</u> WHC; Global Priority (Class I) Tiger Conservation Landscape; Man and Biosphere Reserve; ASEAN Heritage Park</p>	<p>Annual budget: US\$1.88m (US\$1.7/ha)</p> <p># staff: 203</p> <p>WCS support since 2007</p>	<p>Tiger (EN), Asian elephant (EN), Sumatran rhinoceros (CR), Sumatran orang-utan (CR)</p>	<p>The Tigabinaga-Gayo road increases access for poachers and encroachers to the NP; the proposed Ladia-Galaska road network would severely fragment the NP and its surrounding forest. Poaching/retaliatory killing, especially of tiger (20 killed in 2007-10) and elephant (12 killed in 2012), is problematic, as is smallholder farmer encroachment in and around NP border.</p>	<p>Sensible management planning, such as 'Intensive Protection Zones' for rhino, SMART-patrolling, tiger-proof pens and Wildlife Crime Units all offer a solid platform for the project to build on through strengthening current systems and partnerships and expanding more widely around the NP to enable more conservation outputs.</p>
<p>Bukit Barisan Selatan NP (0.36m ha and 1982)</p> <p><u>Provinces:</u> Lampung</p>	<p>Annual budget: US\$1.65m (US\$4.6/ha)</p> <p># staff: 116</p>	<p>Tiger (EN), Asian elephant (EN), Sumatran rhinoceros (CR), Asian</p>	<p>From 1972-2006, 21% of forest cover inside the NP was lost, mostly (80%) from agriculture encroachment,</p>	<p>Southern BBS contains relatively large tracts of primary lowland rainforest, with a high tiger</p>

(82%), Bengkulu (18%) <u>Designations:</u> WHC; a combination of Regional (Class II) and Long-Term (Class III) Priority Tiger Conservation Landscape	WCS support since 1997	tapir (EN)	especially illegal coffee farms. Wildlife poaching and retaliatory killing of pest species is a constant threat.	density (6 tigers / 100km ²) that should enable recovery in the north, with good protection measures in place, which may also help to halt further encroachment.
Berbak NP (0.14m ha and 1992) <u>Province:</u> Jambi (100%) <u>Designations:</u> Ramsar site; Areas of insufficient data - Tiger Conservation Landscape	Annual budget: US\$0.89m (US\$6.2/ha) # staff: 77 ZSL support since 2011	Tiger (EN), Asian tapir (EN), bearded pig (VU)	2008-13, 3 tiger poached (electrocuted), 3 killed in snares set for deer. Stray tigers, displaced by mining, concessions etc attack people (8 killed in 2008-12). Habitat loss and fragmentation, esp in buffer zone, caused by agricultural development and often using fire and digging canals in peatland (degrading further).	Good PA management systems are being set up, e.g. SMART patrols, education/outreach, for project to build on. REDD+ and financial investment support under MCC Green Prosperity offers alternative revenue streams for improved forest management linked to improved livelihoods.
Sembilang NP (0.20m ha and 2003) <u>Province:</u> S. Sumatra (100%) <u>Designations:</u> Ramsar site; Areas of insufficient data - Tiger Conservation Landscape	Annual budget: US\$0.57m (US\$2.8/ha) # staff: 63 ZSL support since 2010	Tiger (EN), Asian tapir (EN), hairy-nosed otter (EN)	Human-tiger conflict potential is high, with stray tigers recorded in oil palm concessions and planned commercial development at PA border. Two large transmigration sites by PA increase local pressures on natural resources inside.	Good PA management systems are being set up, e.g. SMART patrols and camera trapping, for project to build on. APP plantations surround PA and it has a zero deforestation policy. REDD+, GiZ and JICA offer alternative revenue streams for improved forest management linked to improved livelihoods.
Kampar (0.38m ha; not a national park landscape) <u>Province:</u> Riau (100%) <u>Designations:</u> None	FFI support to APRIL since 2013	Tiger (EN, possibly), bearded pig (VU)	Drainage from a canal network threatens landscape integrity, as does illegal forest fires that often burn for days/weeks in the peatland.	Support to activating a Forest Management Unit (est. 1994) and further development of Ecosystem Restoration Concessions would greatly help to secure landscape. A canal management plan to stop leakage and rewet is essential.

* Based on 2014 budget and an exchange rate of US\$1 = Rp11,970.

STAKEHOLDER ANALYSIS

89. During project preparation, a stakeholder analysis was undertaken to identify key stakeholders, assess their interests in the project and define their roles and responsibilities in its implementation. Overall, support for the project and involvement in it was high from a diverse group of stakeholders, whose roles are summarised in **Table 8**. Further information on the roles of key stakeholders is provided in the Management Arrangements section, and a detailed Stakeholder Involvement Plan is provided in **Section IV Part IV**.

Table 8: Summary stakeholder analysis indicating main roles and responsibilities

Stakeholder	Main roles and responsibilities
<i>National level</i>	
Ministry of Environment and Forestry	The Directorate General of Forest Protection and Nature Conservation, in the former Ministry of Forestry and now MoEF, is responsible for planning and implementation of policy related to forest protection and nature conservation, forest protection, forest fire control, protected area management, biodiversity conservation and nature recreation. It will serve as Implementing Partner for project implementation, working in partnership with FFI, WCS, ZSL and Harimaukita. See Institutional Context section above for further details. The Ministry of Environment, now as MoEF is the national government agency responsible for environmental management and for reporting to the Convention on Biological Diversity; hosts the National GEF Secretariat office; and is a key government agency to work with in relation to the GEF/UNEP RIMBA project.
Ministry of National Development Planning (<i>BAPPENAS</i>)	National government agency responsible for national economic and development planning, as well as development of strategies and policies in determining financial allocations for the various sectors of the national economy.
Police	Law enforcement in Indonesia. For forestry and wildlife crime issues works under a national-level MoU between the MoEF and the National Police Headquarters.
Public Works	Government institution providing infrastructure, such as roads and bridges, dams, irrigations, waterways, water supply, public buildings etc., and spatial planning to serve the national and subnational economic activities. A key stakeholder regarding planned road developments within the target landscapes.
REDD+ Taskforce	Nationally managed with provincial working groups that are chaired by the Provincial Governor, with members consisting of provincial government institutions, universities, NGOs, CSOs, the private sector and the provincial level implementing units of the MoEF.
<i>Landscape level</i>	
Provincial and District Governments	According to the decentralisation process in Indonesia, including the natural resource management sector, the 8 mainland Sumatran provincial governments, as well as district governments, in the target landscapes are responsible for local development and land use planning, service provision and natural resource management for all areas outside NPs.
National Park Agencies	Subsidiary units of the MoEF responsible for managing individual national parks.
Natural Resources Conservation Agencies (<i>BKSDA</i>)	Provincial units of the MoEF responsible for managing wildlife and conservation areas, including nature reserves, wildlife sanctuaries, nature recreation parks and hunting parks.
Provincial Forestry Agencies (<i>Dishut</i>)	Agency under the provincial government in charge of planning and management of the production and protection forests.
Provincial agencies for Watershed Management (<i>BPDAS</i>)	Provincial unit of the MoEF responsible for watershed management, including policy formulation, policy implementation, technical guidance and evaluation of the implementation of technical guidance in the areas of forest and land rehabilitation.
Provincial development and planning agencies (<i>Bappeda</i>)	Agency under the provincial government and responsible for provincial development planning, including spatial plan development.

Stakeholder	Main roles and responsibilities
Provincial/District Tourism and Culture Agency (<i>DisBudPar</i>)	Agency under the provincial and responsible for provincial development of government-led tourism initiatives, such as its Destination Management Organization programme.
Local communities and indigenous people	Key users and beneficiaries of natural resources and associated ecosystem services.
CBOs	Currently support a range of activities focused on biodiversity conservation and socio-economic development for communities in target landscapes and are key partners for various government agencies and international NGOs. <i>HarimauKita</i> is an independent civil society group that is unique in that its mission is to conserve Sumatran tigers and it does so by facilitating dialogue and actions between the MoEF and conservation NGOs. Its role will be extended through this project as an implementation partner.
International NGOs (FFI, WCS, ZSL, WWF-Indonesia and Birdlife/Burung Indonesia)	Several NGOs have been significantly supporting protected area, forest and wildlife management in Sumatra for decades in national parks and production forests. Three of these NGOs (FFI, WCS and ZSL) will act as project implementation partners, building on their long experience in specific landscapes and existing cofinanced programmes and working in partnership with the National Park agencies and BKSDA under the MoEF to build capacity, conduct joint patrolling and monitoring operations and other shared activities.
Academic institutions	Several local universities provide training in wildlife and forest management to undergraduate and postgraduate students, of which many graduates now work for local and international environmental NGOs.
Private agribusiness sector - pulp/paper (e.g. APRIL, SinarMas) and oil palm (e.g. PT Whana Sumponjen Indah, Raja Palma)	Plantation and Ecosystem Restoration concessionaires who are already partnering with MoEF and/or NGOs in developing conservation and livelihood activities in their concessions through sustainable forest management, High Conservation Value forest and REDD+.
Private logging sector (e.g. PT Putra Duta Indawood, PT Persona Belantara Persada)	Several companies own licences and manage logging concession in target landscapes.

BASELINE ANALYSIS

90. The MoEF funding trends show that there has been a 19.3% decrease in the annual budget allocation to the five target national parks from 2013 to 2014, directly impacting the baseline for this project. In absolute terms, the protected area funding appears to be relatively high, but not when the large size of the protected areas is taken into account, especially for Kerinci Seblat National Park, which is the largest Sumatran protected area, yet only the fourth highest funded NP here. Furthermore, the largest budget category is designated for staff salary (44.5% of US\$ 6.69mil in 2014) and running costs for the national park head office and field stations. This leaves insufficient budget for technical activities, especially those designed for the direct protection of natural resources. Details of the funds available for PA system management against estimated needs are provided in the GEF Financial Sustainability Scorecard in **Annex 2A**.
91. Partnerships between the national park authorities and international NGOs (FFI, WCS, ZSL and WWF) have helped to fill the gaps left by budget shortfalls in ensuring that core protected area activities, such as forest patrolling and species monitoring, are routinely conducted. The NGOs are reliant on external donor funding and this type of support is inherently unstable, can reduce government ownership

(although this has not been the case in Sumatra so far) and cannot usually be guaranteed beyond a two year funding cycle, which makes it almost impossible to strategically plan with confidence over the long-term, as needed for effective protected area management. Nevertheless, the government-NGO model through dedicated fund raising efforts has yielded long-term (>10 years) partnerships with, for example, US\$1.16 million having been raised in 2014 from FFI, WCS and ZSL.

92. The added value of working with the NGOs is their greater flexibility in project design, which can be species-specific or directly engage partners outside of the formal protected area network. This is illustrated, for example, by the unprecedented achievements in prosecuting tiger poachers and traders operating in the landscapes of Kerinci Seblat and Leuser. The NGOs also have the ability to rapidly respond to changing circumstances in the field that may require reallocating effort (and funds) to respond to emerging biodiversity threats or new opportunities, such as forming strategic partnerships.
93. In 2013, FFI began working with APRIL as its technical partner on an Ecosystem Restoration Concession project in Kampar, which intends to expand its geographical coverage to include neighbouring concessions. ZSL has recently entered into partnership agreements with APP and ConocoPhillips to support wildlife monitoring, human-wildlife conflict mitigation and law enforcement in the Berbak-Sembilang landscape. ZSL also has a partnership agreement with Musim Mas to support buffer zone management around the Dangku Nature Reserve, which lies at the landscape periphery. These partnerships have enabled the mainstreaming of biodiversity conservation objectives directly into production forests located outside protected areas. They have secured new revenue streams for biodiversity conservation through private sector investment that for these two Sumatran sites totalling over US\$10 million. These new business and biodiversity conservation models are highly replicable and offer a new dimension for securing sustainable biodiversity financing through private sector partnerships.
94. A number of baseline activities are planned through several complementary initiatives that have prioritized technical and/or financial support for forest and biodiversity conservation in Sumatra. These include the Government of Indonesia's REDD+ programme and several larger external donor funded projects that are being planned:
 - Multilateral Development Banks support for the Forest Investment Programme; US\$70 million available for all of Indonesia. GEF-UNEP RIMBA; US\$9.43 million with WWF-Indonesia partnering in Sumatra.
 - The Tropical Forest Conservation Action (TFCA-Sumatra, US State Department) Phase 2 focuses on Central Sumatra. The TFCA Oversight Committee approved seven consortia for financial support under Phase II – worth US\$2 million including WWF and others in Tesso Nilo NP, Bukit Tigapuluh NP and Kerinci Seblat NP. The focus of TFCA-Sumatra is biodiversity conservation and therefore its actions will complement the biodiversity interests of the current project as well as the UNEP/GEF RIMBA project.
 - Millennium Challenge Corporation (MCC) / Millennium Challenge Account Indonesia (MCAI) Green Prosperity (GP) Project. Berbak has been selected for potential investment from the MCC/MCAI GP Project in the districts of Muaro Jambi and Tanjung Jabung Timur, with MoUs between MCAI and the district heads signed. The project's main focus is

improving local rural livelihoods through low carbon development, based on an understanding that protection and conservation of the TAHURA and Berbak NP are essential for achieving this goal. The key project areas include renewable energy, improving land use practices and natural resource management and spatial planning.

- Three noteworthy projects have been tendered and are scheduled to begin in 2015:
 - KfW II; has allocated approximately Euro 400,000 for Kerinci Seblat tiger law enforcement over four years;
 - Disney Conservation Fund; US\$2.5 million over ten years awarded to the WCS, working in a consortium with ZSL, WWF, *HarimauKita* and FFI; and,
 - KfW/IUCN tiger conservation grant; Euro 20 million available for nine countries, including Indonesia.
95. The baseline activities already underway for the REDD+ pilot provinces of Sumatra (Aceh, Riau, West Sumatra, Jambi and South Sumatra) are focusing on creating the institutional infrastructure and framework, such as a REDD+ Body, Taskforce and well trained staff, to subsequently support the implementation of a comprehensive REDD+ work plan.
96. The “Indonesia National REDD + Strategy” identifies Sumatra in general and Jambi Province specifically as pilot areas for the development of REDD strategies and activities. In the baseline, this may lead to several initiatives (i) national support through the Indonesia Forest Carbon Alliance, analysis on methodologies and policies for REDD preparation (US\$0.9 million), REDD+ demonstration activities (over US\$100 million), national MRV (over US\$ 5 million), UN-REDD institutional support (US\$1.6 million), FORCLIME and UN-REDD support for benefit distribution systems (over US\$27.2 million); (ii) US\$ one billion was pledged on reducing deforestation of particularly primary forest under the LoI between Norway and Indonesia (26 May 2010); (iii) Three REDD+ pilot projects are listed for Riau province in Kampar Peninsula and Tesso Nilo NP, and two in Jambi (Berkak Carbon Value Initiative and the Sumatra Forest Carbon Partnership). Other closely related national baseline programs of MoEF include: (i) improving production through management of natural forests (national budget about US\$ 32 million); (ii) forest rehabilitation in priority critical watersheds (US\$ 967 million), of which more than ten are located within this project’s target landscapes.
97. Weaknesses in the baseline associated with REDD+ include a lack of linkage between government-sponsored forest rehabilitation programs and REDD+ and Payment for Water Services; REDD+ and related forest conservation and rehabilitation programs are not based on principles of maintaining landscape and ecological connectivity (e.g. in protected area buffer zones and tiger landscapes, maintaining adequate water levels to sustain peat swamp forests); weak collaboration of government agencies with local stewards, such as communities as well as the private sector to protect and rehabilitate forests, to create synergies with local economic development and establish different models of financial incentives to protect forests.
98. The Government of Indonesia is a partner of the Global Tiger Initiative and was represented at the Global Tiger Summit in St Petersburg in September 2010 by the

Minister of Forestry. It submitted a NTRP, as part of the 2010-2022 Global Tiger Recovery Plan. It participated in the Second Stocktaking Conference of the Global Tiger Recovery Program held in Dhaka in September 2014. It is anticipated that the MoEF will continue to implement its NTRP, but that this will continue to be implemented on a piecemeal basis because of the financial and human resource constraints identified above, therefore its conservation management targets will therefore not be met in a timely manner.

99. In terms of provincial government initiatives, in late 2008 the ten Sumatran provincial governors, supported by four national Ministries of Home Affairs (MoHA), Environment and Forestry (MoEF), Coordination of Economic Affairs and Ministry of Public Works as well as the National Economic Planning and Development Board (*BAPPENAS*), announced their joint commitment to save and conserve the ecosystems of Sumatra in order to balance ecological functions and economic development for the people of Sumatra. The concerned governmental agencies signed up to “Roadmap toward Rescuing the Ecosystem of Sumatra – Vision of Sumatra for 2020” (referred to as “Sumatra Vision 2020”), which specifies strategies that include: initiating ecosystem-based land-use planning; restoring critical areas to protect ecosystem services, and protecting areas with high conservation value to protect ecosystem services, biodiversity, and the global climate. The Vision has subsequently been given additional support through a Presidential Decree on Spatial Planning on Sumatra Island (Decree no 13/2012), although awareness, understanding and support for implementation of Sumatra Vision 2020 at provincial level is currently very weak. The UNEP/GEF RIMBA project aims to take the lead in building on this initiative, but its policy directions are also highly relevant to the present project, and offer potential for strengthening biodiversity-friendly landscape management around the target protected areas in cooperation with RIMBA.
100. Under the prevailing business-as-usual situation, multi-agency and multi-landscape collaboration is not happening as the political economy issues driving development at provincial and district levels have not been addressed. This becomes more important when considering the trans-boundary nature of many of the most serious biodiversity conservation issues, such as the illegal wildlife trade, which require close coordination and cooperation between multiple agencies. Despite most of the NGOs working on similar issues, with the same main partner (national park authority) and applying similar approaches, their general *modus operandi* has been to take a site-specific approach to project implementation. Yet, on the few occasions where the government agencies and NGOs have collaborated, the results have been unprecedented and it is proposed that GEF resources will play a catalytic and unifying role to build on this. A recent example is provided by the Sumatra-wide tiger survey where nine NGOs and the MoEF collaborated to conduct the most up-to-date, reliable and comprehensive Sumatran tiger assessment (see **Figure 4**). Indeed, the results identified the priority landscapes that have subsequently guided the development of this project and set a clear baseline for enhancing the status of the Critically Endangered Sumatran tiger and other highly threatened wildlife.

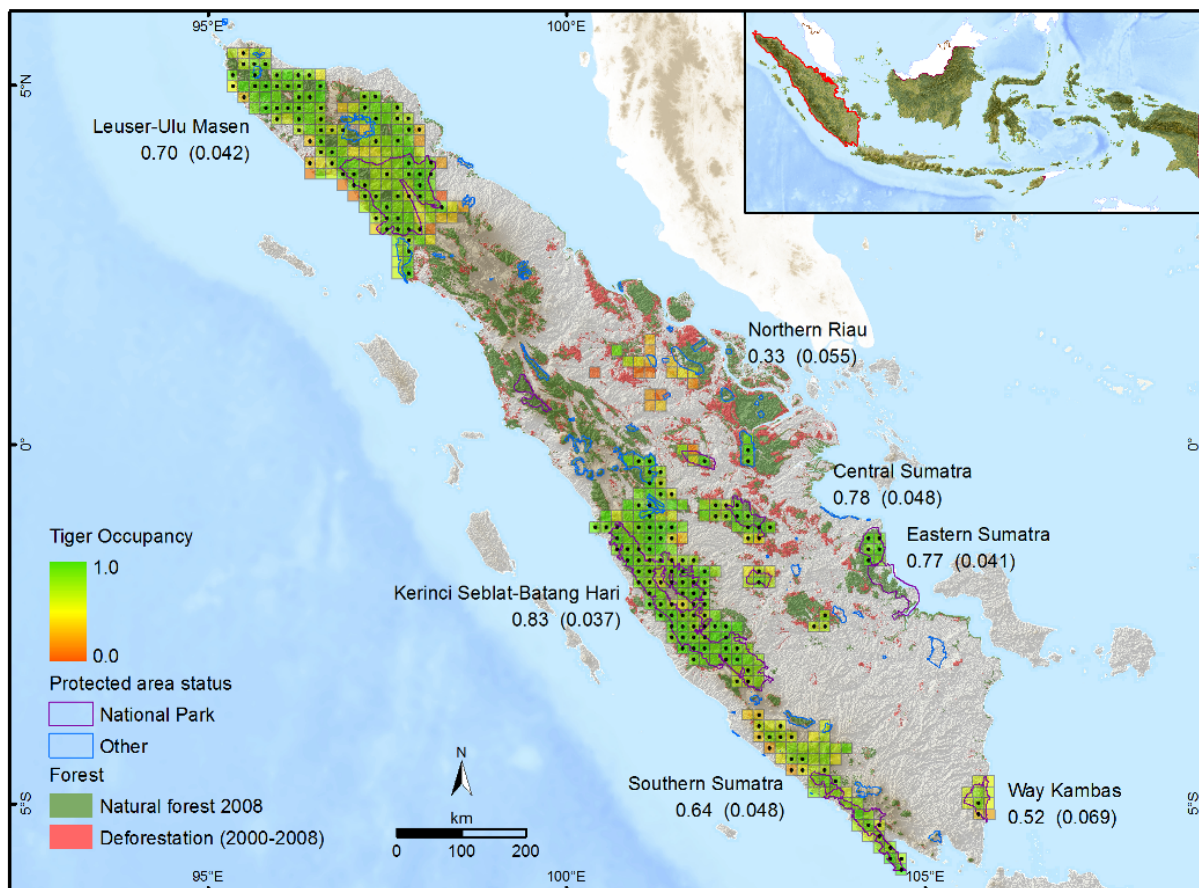


Figure 4. Estimated Sumatran tiger occupancy in seven landscapes.

Data acquired from 2008/2009 indirect sign field surveys, with positive tiger detections indicated by a black dot (taken from Wibisono et al 2011). Tiger occupancy estimates range from 1.0 (a fully occupied grid cell) to 0.0 (an unoccupied grid cell).

101. In light of the weak management capacity, inadequate financing for effective protected area management and low levels of inter-agency cooperation, the project will consolidate the successful strategies described above, enable the reasons for their success to be identified and discussed with the MoEF and other local government partners, and then replicate in the remaining priority Sumatran landscapes.

PART II: Strategy

PROJECT RATIONALE AND POLICY CONFORMITY

Fit with the GEF Focal Area Strategy and Strategic Programme

102. The proposed project is consistent with the goals of GEF Biodiversity Objective 1 "Improve Sustainability of Protected Area Systems" (BD1) and specifically the BD1 Focal area Outcome 1.1 "Improved management effectiveness of existing and new protected areas" and Outcome 1.2 "Increased revenue for protected area systems to meet total expenditures required for management." The project will address all three of the Focal Area Outputs: 1. Existing or new protected areas (the five target National Parks, totaling 3,185,358 ha) and coverage of unprotected ecosystems (an additional

5.0 million ha in target landscapes adjacent to the National Parks); 2. Existing or new protected areas (the five target National Parks – as mentioned) and coverage (8.18 million ha, including the 5 PAs and their surrounding landscapes) of the 5 main sub-populations of the Critically Endangered Sumatran tiger and wider biodiversity; and 3. Sustainable financing plans (5 – covering each of the target National Parks).

103. The PA network in Sumatra, as elsewhere in Indonesia, is characterised by low levels of management effectiveness and financial sustainability. Thus, the project seeks to strengthen PA management for five priority landscapes in Sumatra and reduce threats to biodiversity in the PAs by putting in place measures to ensure that the highly unique and globally important biodiversity of Sumatra will be safeguarded from on-going threats. By strengthening PA management and raising the level of conservation outcomes in Sumatra, the project will serve to increase the overall effectiveness of the national PA system in which Sumatra plays a key part.

104. The project will also directly contribute to the implementation of the CBD's Programme of Work on Protected Areas (PoWPA) as submitted to the CBD secretariat in January 2012, in particular:

- Goal 1.1: To establish and strengthen national and regional systems of protected areas integrated into a global network and to make a contribution to globally agreed goals;
- Goal 1.4: To substantially improve site-based protected area planning and management;
- Goal 2.1: To promote equity and benefit sharing;
- Goal 2.2: To enhance and secure involvement of indigenous and local communities and relevant stakeholders;
- Goal 3.2: To build capacity for the planning, establishment and management of PAs;
- Goal 3.4: To ensure financial sustainability of PAs and national and regional systems of PAs;
- Goal 4.1: To develop and adopt minimum standards and best practices for national and regional PA systems; and
- Goal 4.2: To evaluate and improve the effectiveness of PA management.

105. Finally, the project directly contributes to achievement of the Aichi Targets, in particular under the strategic goal C: To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity. It contributes to Target 11 through increasing management effectiveness of the PA system including its integration with conservation actions across wider landscapes, and Target 12, through improving the conservation status of globally threatened species, with specific focus on the Sumatran tiger.

Rationale and summary of the GEF Alternative

106. **The incremental approach can be summarised as follows:** The Government of Indonesia has identified biodiversity conservation as a priority and has contributed limited available resources towards protecting a portion of the country's rich biodiversity. However, despite strong commitments from the government, limited actions have been taken to systematically remove the barriers towards the

establishment of sustainable PA management in Sumatra and the conservation of globally significant wildlife in priority landscapes, in the face of ongoing pressures for forest conversion and increasing exploitation of wildlife. The proposed intervention recognizes the need to secure the ecological integrity of these priority landscapes and to establish the foundations for effective management at the site and landscape levels.

107. **In the baseline situation**, biodiversity conservation efforts in Sumatra have been hampered by low management capacity and inadequate financing for effective PA management and low levels of cooperation within and between different government and civil society organisations. Lack of coordinated action has substantially reduced conservation impacts and ineffectively addressed multi-jurisdictional issues such as wildlife trade. The Ministry of Forestry will continue to implement its NTRP, but it is anticipated that although the species faces severe threats at present, this plan will be implemented on a piecemeal basis due to financial and human resource constraints, therefore its conservation management targets will therefore not be met in a timely manner.
108. Existing inter-agency and multi-landscape collaboration is inadequate to address trans-boundary issues such as the illegal wildlife trade, which require close coordination and cooperation between multiple agencies. Despite most of the NGOs working on similar issues, with the same main partner (national park authority) and applying similar approaches, their general mode of operation has been to take a site-specific approach to project implementation. Yet, on the few occasions where the government agencies and NGOs have collaborated, the results have been unprecedented and it is proposed that GEF resources will play a catalytic and unifying role to build on this.
109. All the targeted National Parks are dependent on MoEF funding for their annual budgets, yet there has been a 19.3% decrease in the annual budget allocation to these national parks from 2013 to 2014, directly impacting the baseline for this project. As most budget supports staff and running costs for park offices, insufficient budget remains for technical activities, especially those designed for the direct protection of natural resources (see the Financial Sustainability Scorecard in **Annex 2A**). Partnerships between the national park authorities and international NGOs (FFI, WCS, ZSL and WWF) have helped to fill the gaps left by budget shortfalls in ensuring that core PA activities are routinely conducted. However, the NGOs are reliant on external donor funding and this type of support is both inherently unstable and can reduce government ownership. Overall, the PAs are generating little or no revenue of their own, whether from user fees, tourism or other concessions or PES, and have no rights to retain such revenues despite significant potential for revenue generation. REDD+ is gaining momentum in Sumatra, with baseline activities underway for the REDD+ pilot provinces of Aceh, Riau, West Sumatra, Jambi and South Sumatra that are creating the institutional infrastructure and framework to support the implementation of a comprehensive REDD+ work plan.
110. **In a scenario enabled by the GEF**, the project will remove the identified systemic and institutional barriers to improved PA management and sustainable

financing in Sumatra at the national, provincial and local levels, by demonstrating and consolidating the successful strategies that have been pursued by the project partners and related stakeholders in specific areas, analysing and documenting the reasons for their success, internalizing these through effective partnerships between the MoEF, local government agencies and NGOs, and replicating them in other priority Sumatran landscapes. The project's success will be indicated by an improvement in the density of the Sumatran tiger in the five target landscapes. Under the first component, the management effectiveness of the five national park management agencies will be enhanced through systematic capacity building, including habitat/biodiversity monitoring, SMART patrolling and law enforcement monitoring system. The government's RBM system will be strengthened to reduce threats of encroachment and poaching. Under the second component, conditions for wildlife population viability in priority areas in the target landscapes will be dramatically improved through landscape management partnerships that will eliminate key threats (i.e. poaching, trade and unplanned deforestation), and through reduced response times for human-wildlife conflicts. A variety of innovative forest and biodiversity management interventions will be piloted and prepared for replication. Under the third component, new sustainable financing mechanisms will be demonstrated and shared to meet long-term management needs for the targeted PAs, with the potential to replicate successful models elsewhere in Indonesia, and pilot public-private partnerships will be demonstrated to support biodiversity-friendly land uses and reduce key threats to wildlife within the priority landscapes. Barriers impeding sustainable financing of the national PA system will be addressed through the analysis of central MoEF policies and procedures.

The project's **global environmental benefits** derive from improved management effectiveness and sustainable financing of five globally important National Parks (WHC and Ramsar Sites) totaling 3,185,358 ha that form the core of key tiger conservation landscapes totaling 8,182,192 ha (see summary information on these sites in **Table 7** and landscape profiles in **Annex 1**). The project will strengthen partnerships at landscape level to reduce key threats to wildlife, including poaching, wildlife trade, human-wildlife conflicts and habitat destruction. The overall success of the project will be indicated by an increase in Sumatran tiger density in core areas in the target landscapes. The capacity building and improved PA management systems will strengthen the entire national PA system through uptake by the MoEF. Overall, these outcomes will provide improved protection for globally significant populations of key species, including Sumatran tiger, Asian elephant, Sumatran orangutan, Sumatran rhinoceros, globally important ecoregions and some of the most highly diverse plant communities in the world.

PROJECT GOAL, OBJECTIVE, OUTCOMES AND OUTPUTS/ACTIVITIES

111. **The project goal** is to contribute to the conservation and sustainable use of globally significant biodiversity in Indonesia. **The project objective** is to enhance biodiversity conservation in priority landscapes in Sumatra through adoption of best management practices in protected areas and adjacent production landscapes, using tiger recovery as a key indicator of success. The most plausible way to achieve this will be through implementing the MoEF's NTRP because it contains many of the key elements required for protecting forests and wildlife in Sumatra. The project recognises that past actions to achieve this in Sumatra this have been hampered by

poor institutional planning, co-ordination and cooperation within and between different government and civil society organisations. This is due to the lack of an effective framework for information exchange and strategy development, few focal points for collaboration and a lack of capacity and key expertise to perform the required actions.

112. The project aims to address a range of institutional, governance and financial issues that presently prevent the project objective from being achieved. To do so, it will create a model biodiversity management system based on government-civil society organization partnerships that is operational across the target landscapes and that can be scaled-up across Sumatra and, potentially, across Indonesia. In order to achieve the above objective, and based on a barrier analysis (see Section I, Part I), which identified: (i) the problem being addressed by the project; (ii) its root causes; and (iii) the barriers that need to be overcome to actually address the problem and its root causes, the project's intervention has been organised into three components (in line with the concept presented at PIF stage).
113. **Component 1** will address the first barrier, weak natural resource governance and protected area management capacity, through strengthening the adaptive management capacity of the MoEF at central and protected area levels for the five target national parks, upgrading PA management plans, renewing the NTRP, strengthening patrolling and law enforcement capacity, and introducing systematic monitoring and evaluation of PA management effectiveness.
114. **Component 2** will address the second barrier, poor institutional coordination between multiple agencies for wildlife and forest conservation, by bringing together all of the relevant agencies (at national and local levels) through creating biodiversity management partnerships that focus on the pertinent issues of illegal wildlife trade, infrastructure development, exotic plantation operations in PA buffer zones and human-tiger conflict mitigation. Efforts here will be guided and monitored through project developed tiger, prey and threat assessments.
115. **Component 3** will address the third barrier, inadequate financial planning and management for protected areas, by demonstrating and sharing new sustainable financing mechanisms to meet long-term management expenditure needs for protected areas in priority landscapes with the potential to replicate successful models elsewhere in Indonesia, and piloting public-private partnerships in high biodiversity sites adjacent to protected areas to support biodiversity-friendly land use within priority landscapes.
116. The three project components will result in the following project outcomes:
 - **Outcome 1: Increased effectiveness of key protected area management institutions** through training and technical assistance to increase the management capacity of the 5 target NPs, enhancing management and annual work plans for the target NPs, developing an updated NTRP, reducing tiger-related threats and encroachment into the NPs through developing and implementing adaptive management law enforcement tools and standards, such as SMART, in priority RBM units in the target landscapes, and improving the tracking

of PA management effectiveness through training results and tailored METT assessments for Indonesia's PA system.

- **Outcome 2: Intersectoral coordination systems developed for priority landscapes** through developing and operationalizing landscape-level and inter-landscape partnerships between relevant agencies concerned with illegal wildlife trade, documenting and reviewing innovative forest and wildlife management interventions in target landscapes for replication and upscaling, informing management decision-making through systematic wildlife and forest monitoring using a standardised scientific survey protocol, and by enhancing the management of human-tiger conflicts in the target landscapes. Overall, this component aims to dramatically improve conditions for wildlife population viability in priority areas in each the target landscapes through eliminating threats and decreasing the response time to appropriately handle human-wildlife conflicts.
- **Outcome 3: Sustainable financing for biodiversity management** is developed for the five target landscapes through conducting a financial sustainability analysis and related financial planning to improve cost-effectiveness and disbursement mechanisms for target PAs, developing and implementing sustainable financing plans for selected production areas through business and biodiversity mechanisms (Payment for Environmental Services schemes) private sector endowment and corporate social responsibility schemes and biodiversity offsetting), and developing and operationalizing an institutional framework at national level to support sustainable financing scheme implementation.

Component 1. Increased effectiveness of key protected area management institution (Total Cost: US\$ 31,916,699; GEF US\$ 4,562,750; Co-financing US\$ 27,353,949)

117. As Indonesia's GDP grows, the main barrier to achieving biodiversity conservation is increasingly shifting from the availability of resources to the effective use of resources available. Component 1 prioritizes strengthening the capacity of the MoEF at the national and protected area level. FFI, WCS and ZSL will act as *PHKA*'s technical partner at the sites where they respectively work. *HarimauKita* being assigned a central role, will partner with the MoEF in coordinating project implementation to ensure consistency between landscapes activities and high delivery standards throughout.

118. A key outcome from Component 1 is improved management effectiveness in five target protected areas. The project will therefore provide training and technical assistance to facilitate the institutional strengthening process (**Output 1.1**). This will first require an assessment of the current management structures and systems (including the weak links in the chain), from which training needs will be identified and a suitable capacity building strategy developed for subsequent project attention. Thus, professional competency standards will be developed and institutionalized.

119. The MoEF will be supported to identify and introduce appropriate incentive structures to improve staff performance and national park institutional performance. It will work with these institutions to identify and adequately plan and budget for the implementation of a comprehensive set of activities and measures that enable the

- protected area management agencies to satisfactorily complete their core duties. These should include law enforcement protocols, forest and biodiversity monitoring protocols, upgrading of knowledge management systems and replication of pilot project activities (as learned from other target landscapes in Outcome 2). This will be captured within enhanced national park management plans and annual work plans (**Output 1.2**) that are designed, in part, to support *PHKA* in the successful delivery of its NTRP and the Sumatran Tiger Strategy and Action Plan, both of which run until 2017 and will be renewed for 2018-2028 based on wide consultation and drawing upon the findings and lesson learned from activity in Components 1-3 (**Output 1.5**).
120. A key area for project support is law enforcement through documenting best management practices currently in use in Sumatra. This will also include outlining a strategy to enhance or replicate the existing specialist forest ranger teams (**Output 1.3**) that is subsequently supported through improved surveillance, apprehension and prosecution of perpetrators of wildlife crime in the wider protected area landscapes (**Output 2.1**). For ranger teams, priority is placed on the introduction of robust standards and techniques, such as SMART-based patrolling, which in combination establish a missing yet greatly needed adaptive management system for each of the target national parks (**Output 1.3**).
121. Several project-introduced tracking tools will be used. These will become part of a routine standardized monitoring and evaluation system that results in transparent reporting on key performance indicators. These tools will be used to annually track not only project performance but also the anticipated improvements in national park management effectiveness, with a specific aim to increase protected area-specific METT scores against pre-agreed targets (**Output 1.4**). The changes in protected area staff through training and technical assistance will be measured over the project using the UNDP's Capacity Development scorecard (**Output 1.1**).
122. The main target groups in Component 1 are the five national park managers, their deputies (10 people) and their technical office staff (between 20 and 30 people per protected area), who will be trained up in management performance tools, reporting procedures, annual work plan development (including budgets) and implementation and technical duties and field experts (200+ forest rangers), as recipients of SMART-based patrolling.
123. The **expected outcome** of Component 1 is improved management effectiveness of five priority protected areas through ongoing implementation of best practice adaptive management plans. In order to achieve this outcome Component 1 will deliver five outputs.

Output 1.1. Management capacity increased in target protected areas through training and technical assistance

124. Management capacity will be increased for key personnel in each national park so they are able to perform their daily duties to a high standard. The Capacity Development Scorecard (**Annex 3**) will be used to monitor progress made in improving the institutional capacity of the five national parks, against the baseline

and targets set in the Strategic Results Framework. This is complementary to the METT assessments that will be used (**Output 1.4**).

125. The Capacity Development Scorecard consists of five strategic areas of support, all of which will be applied in the project. These are the capacity to,
- a. conceptualize and formulate policies, legislations, strategies and programmes
 - b. implement policies, legislation, strategies and programmes
 - c. engage and build consensus among all stakeholders
 - d. mobilize information and knowledge
 - e. monitor, evaluate, report and learn.

126. The project will adopt either the Indonesian Forestry Profession Certification Agency's (*Lembaga Sertifikasi Profesi Kehutanan Indonesia*) scheme or the "Competence Standards for Protected Area Jobs in South East Asia" developed by the ASEAN Regional Centre for Biodiversity Conservation⁴⁰. The ASEAN standards consist of recommendation for the skills and knowledge required for 24 key protected area jobs, which are divided into 17 technical categories and five levels. The standards have been developed to assist protected area management authorities to improve human resource development, staff performance and training. Being developed through a review of best practice in the ASEAN region, the standards remain one of the most relevant for the region and also most applicable to the focal Sumatran protected areas.

127. The standards are not intended to be prescriptive, but instead be used to provide a recommended level of competence and be adapted and used for the specific need and context of a protected area institution. The standards support protected areas capacity development in the following main ways, of which eight will be adapted for the project:
- a. Providing a clear description of best practice, based on real regional experience (**Output 1.3**).
 - b. Providing a common language of skills, enabling inter-agency communication and collaboration and improving transboundary and international cooperation (**Outputs 2.1-2.4**).
 - c. Defining functions, job descriptions, terms of reference and forming the basis for appraisals and performance assessments (**Output 1.1**).
 - d. Developing a more performance-based focus for training and development (**Output 1.1**).
 - e. Designing training needs assessments, training strategies and programmes and for developing, delivering and assessing in-service training (**Output 1.1**).
 - f. Revising tertiary education programmes and syllabi and designing new courses at universities and colleges (**Output 2.3**).
 - g. Encouraging institutional ownership of training, enabling protected area authorities to specify more clearly to donors and partners what their training requirements and gaps are (**Outputs 1.1 and 1.2**).
 - h. Improving recognition of the complexity and importance of 21st Century PA management, encouraging and demonstrating improved professionalism and helping to secure more resources (**Outputs 3.1 and 3.3**).

⁴⁰ Appleton, M. R., Texon, G.I. & Uriarte, M.T. (2003) Competence Standards for Protected Area Jobs in South East Asia. ASEAN Regional Centre for Biodiversity Conservation, Los Baños, Philippines. 104pp. (<http://www.cbd.int/protected/tools/>).

- i. Providing the basis for potential future accreditation of training institutions, agencies, organisations and individuals which use and/or achieve the standards (**Output 1.1**).

128. The standards consist of four main components,

- a. Levels: These define five indicative staff levels based on job responsibilities and equivalent (but not required) educational attainment. These levels form the basis for defining the skills requirements for the protected area jobs.
- b. Jobs or Occupations: These are 24 typical protected area jobs presented in an indicative organisational chart, based on the organisational charts for protected area authorities in ASEAN Countries.
- c. Competences: These define the ideal requirements of competence for 250 skills in 17 categories of protected area work at up to five levels. For each category and level the competence consists of three parts,
 - o Skills: the specific activities in which an individual worker should be able to demonstrate competence at work
 - o Scope and context: competence in the same skill may be demonstrated in a range of ways, depending on the local conditions
 - o Knowledge: competence is not just about skills. There is also a requirement for knowledge and understanding.
- d. Standards: The standards define the competences that should ideally be expected for any job. Suggested standards are provided for the 24 jobs defined, but additional standards can be readily created for jobs not specifically listed.

129. Working through the MoEF's Training and Education Centre (*Pusat Pendidikan dan Pelatihan, PusDikLat*), an accredited syllabus and set of thematic training modules will be developed based on whichever of the above two schemes is selected by PHKA. The syllabus and modules will be used to upgrade PHKA's current expert trainers through a Training of Trainers scheme. These trainers will provide the training to selected personnel from the target protected areas. To achieve this, a small working group led by PHKA and facilitated by a protected area capacity development consultant, FFI, WCS, ZSL and *HarimauKita* will be established. The progress of trainees will be monitored at the site level throughout the project, with refresher training provided where needed and initial training provided to new recruits. This should maintain a high level of competency amongst the target protected areas institutions.

130. The working group will review the competency standards and develop recommendations for their adaption and application towards improving professional competencies for these areas through their institutionalization and long-term use. To initiate this process, project support will be provided for the adoption of the professional competency standards, including reviewing and advising on job descriptions, and providing training using external providers to address immediate short-term needs for implementation of technical activities, such as monitoring and evaluation. The working group will prepare a capacity development strategy and action plan for increasing the management effectiveness of the target protected areas.

131. The application of competency standards will identify gaps in protected area management positions, gaps in knowledge that can be addressed by developing or

modifying a *PHKA* training curriculum. Here, the aim is to develop a clear set of guidelines for performance assessment of protected area staff and help develop individual performance monitoring mechanisms. Incentive mechanisms, such as accreditation or career points, for increasing the motivation of field staff will be included. Overall, improvements in staff capacity here should lead to national park authorities being able to produce enhanced management and annual work plans (**Output 1.2**) that are sustainably financed (**Output 3.1**).

132. To further support the *UPT* in satisfactorily performing their daily management duties, especially with the implementation of RBM, *PHKA* with support from its site partners (FFI, WCS and ZSL) will twice assess the target PA equipment needs and against current equipment availability. From this, recommendations will be made for either upgrading or supplying new equipment, which will be purchased according to the budget allocation.

Output 1.2. Enhanced management and annual work plans developed, adopted and implemented for target protected areas

133. A new ten-year management plan has just been completed for Sembilang National Park. The project will provide technical support for management plan completion in 2015 for the other target Sumatran national parks. Here, the project will provide support in reviewing and developing these management plans and facilitate the incorporation NTRP priority actions. The project will also provide support for a mid-term review and any necessary revisions of each management plan, as well as targeted support to implement each management plan.

134. The project aims to strengthen management through sustainable financing (**Output 3.1**) that includes the development of annual work plans and integrated reporting across the multi-year management plans to ensure support for activities that increase species and habitat protection. The production of annual work plans will include an analysis to identify which agencies are implementing which activities (as specified in the NTRP) in the target landscapes and inside the national parks. From this the gaps will be identified for subsequent project intervention, with a view to producing comprehensive plans whereby all of the required activities are adequately considered and incorporated.

135. Further, in order to improve management effectiveness, participatory results-oriented performance indicators will be introduced, within the target national park work plans. This will include monitoring, review and updating mechanisms. Participation is an important element in this approach and management/work plans will therefore give greater consideration to local communities and gender during the planning and implementation phases. In part, this will be informed by the the site stakeholder inputs gathered during the PPG phase. An output for each target national park will be a high-quality, relevant and on-time work plan.

136. The project will identify and test RBM options in the target national parks by reviewing their activities and financial expenditure, identify spending gaps and needs, making budget recommendations for greater cost-effectiveness or advocating for greater national park funding, especially in allocating sufficient funds for wildlife

monitoring, protection and conflict response. FFI, WCS and ZSL will work closely with their respective National Park Directors to advocate for greater government funding, remembering that their annual park budgets has been reduced by an average of 19.3%, will be addressed in **Output 3.1**.

137. The project will provide targeted support to implementation of the management plans, including patrolling of core areas and implementation of the RBM approach. These activities will build upon several NGO-supported ranger patrol units that already exist under various names, including Tiger Protection Units and SMART patrols. The ultimate objective will be to ensure sufficient allocation of staffing and resources for management of the core areas and wider national park.

Output 1.3. Adaptive management law enforcement tools and standards, such as SMART, are implemented in priority RBMs in target landscapes

138. The site visits and consultations with national park staff during the project preparation phase identified that there was an insufficient number of well-trained forest rangers and that this was one of the main constraints to effective protected area management. In order to enhance systems across the target national parks, the project will review in detail the current state of their respective forest patrolling system and law enforcement capacity, such as the number of forest patrol units, as well as a review of the implementation status of RBM. From this, feasible time-bound and target-based recommendations for project support will be made. This will include the integration of national park-NGO (FFI, WCS and ZSL) initiatives, such as Tiger Protection and Conservation Units, into national park management systems and then scaling these up across the core and surrounding areas. These NGOs will directly support the implementation of RBM

139. To boost forest patrol systems, an adaptive management approach that incorporates the SMART standards will be used. SMART is an interactive, spatially explicit system for managing and analysing law enforcement monitoring data. It was developed out of a need for a site-based tool that conservation area managers could use to adaptively manage their enforcement operations. SMART is a simple to use, open-sourced programme that inputs field observational data on incidents and patrol efforts collected by rangers, and output information on levels and trends in threats, performance of patrol teams and individual staff, as well as gaps in patrol coverage. In this project, SMART will be used by target national park institutions to monitor trends in threats to forests and wildlife, plan enforcement operations, monitor staff performance, and demonstrate site-level effectiveness.

140. Working through *PusDikLat*, an accredited syllabus with thematic training modules will be developed, with technical support provided by the expert SMART trainers from FFI, WCS and ZSL (which have been closely involved in developing the SMART standards, software and training manuals). After this, a Training of Trainers course will be run and the expert SMART trainers graduating from *PHKA* will go on to run thematic SMART workshops to initiate the full launch of SMART systems in each target national park. The training topics to be delivered will include field data collection methods (for approximately 200 forest rangers or 40 per national

park), data base construction, operation and analysis (for 25 national park technicians) and strategic planning (for 20 senior national park management).

141. At each national park, support will be given on developing a SMART-based patrolling system. A five-day basic-advanced SMART training workshop will run for forest patrol teams. For some of these rangers it may act as a refresher course, while for many rangers it will be the first time that they have been trained in SMART-based patrolling. Here, training will cover the theory behind SMART-based patrolling and adaptive management principles coupled with practical exercises so that the patrol teams become familiar with the system and its patrol sheets. The ranger teams will receive training on patrolling strategy (i.e. forest areas to be covered, by which team and how frequently) and the correct use of SMART patrol datasheets. These datasheets have been developed with a view towards selectivity so that the focus is firmly placed on threat detection and mitigation (e.g. illegal logging, tiger poaching and prey base poaching) rather than biodiversity monitoring. In these datasheets only signs of select species (e.g. tiger, elephant and rhino, and/or key tiger prey) will be recorded. This allows the teams to spend most of the patrol detecting and disabling threats in the field. After training, the respective national park patrol teams will continue their routine activities that are firmly placed within an adaptive management system.
142. Next, training will focus on the in-depth techniques for operating the SMART database, checking that its design closely matches each national park's needs and managing data and performing routine yet essential analyses on patrolling activities (patrol effort and location of each team and response to the shifting pattern of threats). The effectiveness of training delivery for all SMART components will be assessed by post-training questionnaires that are completed by the participants.
143. The SMART approach promoted through this project is designed to create a fully-functioning adaptive management system, whereby the feedback and evaluation from analysed ranger patrol data is fully incorporated into the subsequent strategic planning in each national park. Towards the end of each year, when annual work plans for the following year are being developed, ranger patrol team performance will be evaluated and discussed at the national park level and compared between sites at the national level. Working in their respective national park/s, FFI, WCS, ZSL and the *UPT* will facilitate discussions during a workshop on the strategic use of patrol results for prioritizing future patrol locations. It also provides an opportunity to revisit the concept of adaptive management through a question and answer session which will be opened up to all national park staff to create a common understanding. This strategy meeting will be an annual event that allows for the evolving law enforcement performance and capacity needs to be routinely reassessed through discussions on patrol team results and feedback from key personnel and then addressed through informing work plan development (**Output 1.2**). Annual meetings will be held at RBM, national park and national levels to ensure that all of the important managerial levels are engaged. The benefits from this activity include motivating forest rangers, empowering national park heads and their section managers and ensuring accountability and good governance in *PHKA*.

Output 1.4. Management effectiveness change annually tracked through training results and METT assessments

144. The project will establish a small technical working group, which is led by *PHKA* and receives close technical support from FFI, WCS, ZSL and *HarimauKita*, to develop a METT toolkit that is tailored for Indonesia's PA system. Here, the project would look to work with the E-PASS project in jointly developing a METT-Indonesia framework that has countrywide application. A pilot study of this METT framework and subsequent revisions will produce the final tracking tool, which will be widely socialised by *PHKA*.
145. Training will be provided over three days to *PHKA*'s current METT assessors, as well as two technicians from each target national park (and possibly the Sulawesi national parks in E-PASS), in *PusDikLat*. Training will start with a review of protected area management concepts, including adaptive management and the priority actions listed in the NTRP (and other species action plans, where appropriate) and how METT and SMART (**Output 1.3**) are essential for supporting these. The participants will then be trained in the six main METT components (context, planning, inputs, process, outputs and outcomes). Training will next focus on a series of practical sessions, whereby participants will trial delivering the METT questions, identify questions requiring greater explanation and then receive feedback on their administering techniques.
146. For each national park, the METT training graduates will lead on conducting annual METT assessments. Other partners with good knowledge of the park will also be invited to observe and ensure that the responses given to the METT questions are an adequate representation of the situation on the ground. After the introductory questions, the 30 main METT questions will be asked, which cover topics such as the protected area regulations in place, ability of staff to ensure law enforcement rules, suitability and status of the protected area work plan, types of active research programmes and availability of adequate human resources for the protected area, and relationships with local people. Each question will be scored using a four point scale; 0 (no or negligible progress), 1 (some progress), 2 (quite good, but room for improvement) and 3 (approaching optimum situation). Following this, a total score will be calculated for each national park and a percentage for the final possible score (as some METT questions, e.g. commercial tourism operations, may not be applicable to each national park).
147. The METT assessment scores from 2010, 2014 (from the project preparation phase) and subsequent years and the key responses will be compared, interpreted and disseminated with the wider national park staff. This is intended to stimulate discussion on the main issues or aspects of protected area management that assist or obstruct staff from effectively performing their duties. From this, discussions will progress towards identifying management capacity needs for each national park, for subsequent dissemination to the MoEF at the national level. From an early stage, the project will seek to engage with the IUCN's World Commission on Protected Areas, so that advice may be sought and *PHKA*'s be widely recognised.

148. Finally, the time-series METT assessment scores will be used by the project to evaluate its own performance, especially in supporting the improvement in management effectiveness, as measured against the baseline and targets set in the Strategic Results Framework.

Output 1.5. Updated version of the National Tiger Recovery Plan and Sumatran Tiger Strategy and Action Plan developed and adopted

149. The current Sumatran Tiger Conservation Action Plan and Strategy and the NTRP both run up until 2017. The project will therefore support *PHKA* in developing a subsequent plan for the years 2018-2028. The drafting of the Action Plan and Strategy for 2018-2028 will be guided by the vision and mission of MoEF towards species conservation and its commitments under the GTI. The drafting will be coordinated by *HarimauKita*, with the majority of the inputs coming from *PHKA* and partnering NGOs, but also from other government agencies and the private sectors, especially agribusiness.

150. The strategy will be informed by the delivery on the targets set in the previous Action Plan and Strategy and NTRP for 2007-2017, by the changing landscape-level contexts, and by *PHKA* and its partners' experience and learning over the intervening years. This will involve a meeting between the government and non-government agencies working on Sumatran tiger conservation issues. Here, progress made against the current Action Plan and NTRP will be evaluated, successes and shortfalls identified, along with the reasons for both. In preparation of this meeting *HarimauKita* will also oversee the compilation of recent tiger-related data, such as from camera traps, occupancy surveys, forest habitat monitoring, law enforcement patrols, spatial plans. It will use these data and their results to develop island-wide, landscape and national park summaries on the state of Sumatran tigers.

151. A second meeting will be held with a larger stakeholder group. A primary aim will be to identify national and site level needs that are used to produce the final Action Plan and Strategy for endorsement by MoEF. The final document will represent the MoEF strategy for Sumatran tiger conservation. It will be executed largely, but not solely, by *PHKA* and partnering NGOs but will also be realized by significant contributions from other agencies, such as *Dishut*, Police, *Bappeda* and Public Works, and sectors, such as the oil palm and pulp and paper companies. The Plan will contain medium (5 year) and long-term (10 year) targets that are SMART-bound, meaning,

- Specific – target a specific area for improvement.
- Measurable – quantify or at least suggest an indicator of progress.
- Assignable – specify who will do it.
- Realistic – state what results can realistically be achieved, given available resources.
- Time-related – specify when the result(s) can be achieved.

Component 2. Developing inter-sectoral coordination systems in priority landscapes

Cost: US\$ 21,717,017; GEF US\$ 3,445,550.00; Co-financing US\$ 18,271,467)

152. Increasing the effectiveness of management inside protected areas is critical and the primary objective in Component 1. To complement this, it is crucial to ensure that

biodiversity management across the wider landscape engages the other set of agencies that while being able to have a significant influence do not necessarily consider biodiversity conservation to be an institutional priority. The project will bring together all of the relevant agencies (at national and local levels) through creating biodiversity management partnerships that focus on the pertinent issues of illegal wildlife trade (Output 2.1), infrastructure development, exotic plantation operations in protected area buffer zones (Output 2.2) and human-tiger conflict mitigation (Output 2.4). Efforts here will be guided and monitored through project developed tiger, prey and threat assessments (Output 2.3).

153. This component aims to dramatically improve conditions for wildlife population viability in priority areas in each the target landscapes through eliminating threats (i.e. poaching, trade and unplanned deforestation) and decreasing the response time to appropriately handle human-wildlife conflicts. This will be achieved by:

- a) Supporting intelligence-based patrols, with community participation, and providing incentives to those communities, e.g. maintaining snare-free or better secured core areas over time
- b) Engaging communities to sustainably manage their customary forest (through land tenure recognition, land use planning, benefit-sharing mechanisms and forest protection)
- c) Engaging private concessionaires to sustainably manage their production forests through Ecosystem Restoration Concession, HCV or other schemes
- d) Implementing standardized biological monitoring and reporting schemes, for which a robust methodology and baseline dataset already exists, and conducting repeat surveys to measure wildlife and threat trends
- e) Establishing best practice conflict reduction demonstration plots (through improved animal husbandry, such as tiger-proof livestock pens)
- f) Identifying problem wildlife release sites based on ecological, socio-economic and political considerations
- g) Developing a post-release protocol that ensures problem wildlife are satisfactorily monitored and remedial measures taken should conflict reoccur.
- h) Engaging with private sector companies to develop sustainable zero-deforestation supply chains for the principal agricultural commodities that cause deforestation (e.g. cocoa, coffee, etc.)

154. The **expected outcomes** of Component 2 are: Increased coordination between key stakeholders operating in the target landscapes, resulting in an integrated, more cost-effective approach to biodiversity conservation; Viability and replicability of innovative forest and biodiversity management interventions demonstrated through pilots in selected landscapes; and, Key threats to biodiversity loss mitigated *within demonstration sites* in each target landscapes that result in an increase in Sumatran tigers by 10%, elimination of tiger poaching and deforestation reduced to <1%/yr in core areas. In order to achieve these outcomes Component 2 will deliver four outputs.

Output 2.1. Landscape-level and inter-landscape partnerships developed and operationalized between relevant agencies concerned with illegal wildlife trade

High level command unit

155. Several of the most important actions in the NTRP, which directly supports the goal of the project, require interagency collaboration, but have yet to receive adequate

- attention. Yet, this is despite high levels of political will, as illustrated by a multi-agency workshop held on Sumatran tiger trade in 2012. Attended by INTERPOL's National Police Force, four Sumatran provincial police forces, MoEF representatives from five provinces (including two target national parks) and six NGOs, numerous shared common goals were identified, but the established mechanisms for enabling subsequent actions were noted as either lacking at the subnational level or not fully operational at a national level.
156. The project will support the already established national inter-agency (MoEF, Police, Customs and Judiciary) Command Unit. This provides an interface between key government agencies and lead law enforcement actions, as necessary, to interdict and prosecute major illegal wildlife traders and others who operate across provincial and national boundaries where capacity and safety of forest officers and police officers is in question at a landscape level. The activation of a dedicated Echelon III Wildlife Crime Officer post and an adequate operating budget under the Secretariat of the Director General of *PHKA* (*SekDitJen*) will be discussed and, if required, partially supported by the project. This post would provide a dedicated, specialist institutional link to other state agencies, in particular Indonesia National Police and Customs agencies as per recommendations of the Indonesia delegation at the 2009 Kathmandu Global Tiger Workshop and a crucial but presently lacking interface between three key *PHKA* sub-directorates (*KKH*, *KK* and *PPH*) while also receiving, monitoring and actioning responses to reports from local operating units of *PHKA* and conservation NGO partners.
157. Support will be provided for thematic inter-agency workshops: analyse the Sumatra wildlife trade situation for both domestic and international markets; conduct a gap analysis on agency policies and human resources capacity; including assessing pre-existing information collection capacity and source of data and review sharing arrangements and mechanisms; conduct thematic trainings on evidence gathering, specimen identification, crime scene investigation and forensics, review current legal challenges to managing and controlling of illicit wildlife trade. Graduates of specialist thematic training, in particular for forensics and evidence identification, will be awarded certification from relevant agencies so they may present evidence in court.
158. Officers assigned as members to the high-level Command Unit will routinely meet to formulate and direct national and sub-national actions against organised illegal wildlife trade, at landscape and trans-provincial border levels, review data on changes in pressure on wildlife all of which lead actions to interdict exporter or national-level illegal wildlife traders as required or other wildlife crime in areas where field-level capacity is low or where locally-led law enforcement would have the potential to place local officers or their families at risk
159. Representative members of the Command Unit will also routinely brief directors of their respective institutions and provide input in developing strategic policy level actions and individually and jointly as appropriate facilitate international liaison through INTERPOL, ASEAN-WEN and nationally so that agencies such as the Indonesian Corruption Eradication Commission and the Indonesian Financial Transaction Reports and Analysis Centre bring their resources and expertise to bear.

While both have yet to play a prominent role in supporting efforts to tackle wildlife crime, the legislative framework exists. So, when relevant, these two agencies will be represented in high-level training workshops and specific co-ordination meetings.

160. The Unit will support actions through respective sub-national agencies, at both provincial and protected area levels while monitoring reports received to identify trend and changes in pressure at a national level that permit strategic planning. Working with this Unit, FFI, WCS and ZSL will lead an academic review of the legal basis for arresting, charging and prosecuting suspected poachers and traders from which to make recommendations to address gaps and weakness through upgrading these as appropriate or through extension of existing national laws such as for conspiracy to commit and offence.

Landscape level networks

161. Landscape level cross-agency Networks will be established under an inter-agency MoUs and maintained to address illegal wildlife trade through specialist investigations and subsequent inter-institutional and trans-border domestic law enforcement actions. One landscape provides a demonstrable model which exists in the form of a technical MOU between the Kerinci Seblat National Park Authority and four provincial police authorities. Applying this more widely across Sumatra will bring in partners from eight provincial police forces and selected Units of MoEF *UPT* (national park and selected wildlife agencies). Other forestry and wildlife protection agencies and protected area managers will, *de facto, ex officio* members of the Network through their national level institutional affiliations while improved and strengthened internal and trans-agency reporting and coordination structures, including through development of a specialist Wildlife Crime Post within the Secretariat of the Director General of *PHKA* and establishment of a focused High level Command Post will strengthen liaison and strategy development and international actions through ASEAN WEN and INTERPOL as relevant.
162. To strengthen actions at sub-national and landscape level, the project will also work with the MoEF to review the capacity and record of *SPORC* Brigades department of forestry to assess and action, if relevant, establishment of a mobile *PANSUS* (specialist wildlife crime unit) within regional *SPORC* units reporting directly to the Wildlife Crime Officer and to Director of *PPH (Penyidikan dan Pengamanan Hutan)*. Partnering agencies will assign an officer to support strategy development and join evaluation meetings (three times a year), which will be in addition to routine inter-agency collaborations on individual cases. A model of how a partnership network can operate is demonstrated by the recent signing of an MoU between the *KSNP* authority and four provincial police forces (Jambi, West Sumatra, Bengkulu and South Sumatra), witnessed by *DirJen-PHKA* and *KaBaResKrim*, to collectively address illegal wildlife trade in the Kerinci Seblat Landscape.
163. It is envisioned that three multi-agency partnership Networks with the core membership composing a protected area management authority and provincial police authorities will be established for northern, central and southern Sumatra (i.e. three sub-national partnerships). However the extent and composition of the individual partnerships will be landscape and site need dependent. Partnerships will be codified

through individual MoUs which are based on local landscape and sub-national needs and drafted jointly at member level with input and direction from national level officers. These will enable an integrated law enforcement response to information secured which will be backed up by Elite Wildlife Crime Investigation Groups consisting of an estimated 60 *PPNS*, 20 Expert Witnesses and 20 Prosecutors. Senior members of the benches of Judges (1 per mainland province) in the project areas will receive specialist training in wildlife law sentencing precedents and access to judgments national and international. Training for 8 journalists (1 per mainland province) will also be provided.

164. The Network members will be supported by FFI, WCS and ZSL to review the wildlife crime law enforcement initiatives in Indonesia (e.g. *PHKA-PPH*, ICITAP and UNODC), legal basis for arresting suspected poachers (including *KPK* and *PPATK*) and current penalties for prosecuted poachers/wildlife traders, with a view to upgrade these as appropriate. The project will also assess and identify wildlife crime investigation capacity and needs in the project focus areas and provide training, with support from specialist species conservation teams and Indonesia national police to develop local and institutional capacity to detect and respond to poaching and illegal wildlife trade. The project will work with the Ministry of Forestry to review the record and role of *SPORC* in wildlife crime law enforcement actions and, if appropriate, recommend the *SPORC* Brigade remit be extended to wildlife crime.
165. These reviews will feed into project-supported inter-agency workshops that will analyse in greater detail the Sumatran wildlife trade situation for domestic and international markets (including identifying poaching and trade syndicates and acquiring evidence to support targeted law enforcement actions against trans-boundary illegal wildlife trade syndicates). From this, an agency gap analysis (including policy, human resources, capacity and information sharing) will be conducted. All information generated will be used to develop an integrated law enforcement Action Plan on the wildlife trade for Sumatra for subsequent project implementation. Training modules (including adaptation of other modules, e.g. ICCWC Wildlife and Forest Crime Analytic Toolkit) will be produced for each component of the Action Plan.
166. Priority will be given to not only strengthening law enforcement systems (**Output 1.3**) but also the ability to prosecute wildlife poachers, traders and associates. The project will facilitate the recruitment of 20 high-quality candidates from the MoEF to receive certificated training as elite wildlife crime investigators and also provide training to Police investigators in wildlife crime investigations and evidence identification. Training will follow the MoEF's *PPNS* and the International Consortium on Combatting Wildlife Crime (ICCWC) wildlife crime forensic tool kit training modules,.
167. The ICCWC Toolkit provides a comprehensive overview for understanding the main issues related to environmental offences and for analysing preventive and criminal justice responses to wildlife and forest offences. It provides a framework through which measures for prevention and response can be analysed and understood as the basis for an effective national response to wildlife and forest offences. It is

primarily designed to assist government officials in wildlife and forestry administration, Customs and other relevant enforcement agencies.

168. The Toolkit can be used as training material for law enforcement agencies, but also civil society partners. It consists of five parts:
- a. Legislation - relevant to wildlife and forest offences and other illegal activities, such as CITES implementation and regional initiatives, as well as domestic wildlife and forest offences and associated crimes, such as corruption and money-laundering.
 - b. Enforcement – covers measures pertaining to wildlife and forest offences. It includes analytic tools related to enforcement agencies, staffing, intelligence, investigations, border control and Customs, international cooperation, technical assistance and aid, witness and victim protection, and the accountability and integrity of law enforcers.
 - c. Judiciary and prosecution - capacities to respond to wildlife and forest crime. It includes an analysis of the mandate, structure and processes of prosecution services and judicial organs, sentencing issues, international judicial cooperation and victim compensation.
 - d. Drivers and prevention - related to wildlife and forest offences, and the effectiveness of preventive interventions. This includes the motives of the actors involved, different uses of wildlife and forest products, and natural resource management systems and other preventive mechanisms.
 - e. Data and analysis – for the collection, analysis and examination of data and other information relevant to wildlife and forest crime. It includes an analysis of available crime statistics and other data, mechanisms for information sharing, performance measures and analytic research capacities for a given country.

169. The elite wildlife crime investigators will have a primary duty of building a prosecution case, once an arrest or confiscation has been made by the law enforcement agency. There will be no post law enforcement investigations and case development without investigations conducted to first secure evidence for law enforcement. This is a key action that needs to be brought into the planning. Next, the building of prosecution cases will involve examining the evidence secured, confirming its validity, and preparing the required documents for a Prosecuting Investigator who will prepare the final case for submission to court and, with the arresting team, identify where a case may be expanded to include other offences and/or suspects.

170. To strengthen the ability to achieve successful prosecutions and deterrent sanctions, an agreement will be drawn up for assigning specialist wildlife crime prosecutors to manage major cases. A group of expert witnesses will be established to inform and support the police and prosecutors for investigations conducted after law enforcement operations. Prosecutors and expert witnesses will receive their own needs-based training. These officers will take leading roles where a trans-boundary criminal linkage is involved. It is anticipated that these activities will increase inter-agency and inter-jurisdiction actions on tackling wildlife crimes within and between Sumatran provinces.

171. It is likely that a significant percentage of cases will be a result of improved management of post-law enforcement investigations by officers of an elite investigation group. However, access to a trusted group of liaison officers will also

support improved reporting of wildlife crime by communities and local civil society groups. The project will facilitate elite investigation groups from the Networks to manage and build legal cases at pre- and post-law enforcement stages and to support and direct the final pre-law enforcement investigations. The performance of these investigators will be routinely monitored and mechanisms for communication established to increase information flow between provinces. To assist this, the project will support a review of the local informant models that are operating in Sumatra, with an explicit aim being to identify the most effective models for enhancement and replication in each of the target landscapes. Here, principles for the adoption of informant networks into law enforcement system, so that information secured feeds into informant-based forest ranger patrolling mechanisms, will be developed.

172. Project support will be provided for community-led on-the-ground actions, such as anti-poaching information gathering and forest patrols. Local CSOs and customary village groups will receive needs-based training and technical support through their involvement in a collaborative partnership with FFI, WCS, ZSL and government agencies. National park rangers will provide training to community ranger partners on threat identification and information collection required to support law enforcement agency actions.

Output 2.2. Innovative forest and wildlife management interventions in target landscapes documented and reviewed for replication and upscaling

173. During the project preparation phase, consultation workshops were run for stakeholders from each of the five target landscapes. The workshops sought to obtain views from the various groups of stakeholders represented on issues including the threats facing each national park; operations including patrolling and law enforcement, community livelihoods that might be effected by the project; community participation in the project, private sector participation in the project and communication and collaboration between the different stakeholder groups. On the issue of local livelihoods, the project will explore sustainable mechanisms for the participation of non-government stakeholders (such as communities and the private sector) in protected area management processes, primarily in buffer zone management for securing protected area borders.
174. The project will evaluate five co-financed sustainable forest management demonstration projects conducted outside NPs in target landscapes, including lessons learned and replicability in other landscapes. Sustainable financing lessons will also be drawn from these demonstrations in **Output 3.2**. The project will develop a compendium of best management practice case studies from these case studies and support project site exchange visits between stakeholders. For this, FFI, WCS and ZSL, working in their respective landscapes, will take the MoEF and District level authorities involved in management of forest concessions and regional development planning authorities (e.g. *Bappeda*), and select private sector actors through the entire process of piloting several innovative forest/biodiversity projects. These include: scaling up REDD+ related schemes, such as Village Forest (*Hutan Desa*) that also fully considers the role of women in natural resource use; engaging with companies managing production areas to set aside important forest habitat as corridors and buffers to protected areas and monitoring the results, with public recognition of

successful pilots and companies; applying World Bank Smart Green Infrastructure guidelines to partially address the proposed Ladia-Galaska road network that would fragment the Leuser Ecosystem's forest, including part of Gunung Leuser National Park, and planned upgrades to roads bisecting Bukit Barisan Selatan National Park; and development of deforestation-free agricultural commodity supply chains.

175. Several of the demonstration projects are aiming to receive external third party validation and verification that is pursuant to the CCB standards⁴¹, which foster the integration of good-practice and multiple-benefit approaches from the early stages of development through implementation. These projects typically apply a Free Prior and Informed Consent process (FPIC) to ensure meaningful community participation, HCV principles for the biodiversity component, and if a REDD+ project is part of the design then the Verified Carbon Standard (VCS) is applied for determining verified emission reduction. Thus, there are lessons to be learned for all landscapes.

176. The community-based forest management activities, which operate under different models, e.g. Village Forest and/or Ecosystem Restoration Concession (ERC) initiatives, have been selected for each of the target sites based on specific combinations of the following criteria: community interest in participation (based on the principles of FPIC), forest size, level of deforestation threat, overlapping land claims and conflict, social organization, community tenure and forest management systems, number of community beneficiaries, accessibility, local government support and/or land status. For these selected communities, local level conservation agreements go beyond co-management arrangements but aim to legally recognise community land and forest by local and national government. This will involve project facilitated community-level planning processes, consultation and cooperation between participating communities, local and provincial governments and, where appropriate, the MoEF. For example, the Village Forest demonstration project will achieve this through completing preparations for, and coordinating submission of, the initial Village Forest Area License application and the subsequent Village Forest Management License application. Here, steps required include participatory mapping of village and village forest boundaries, establishment of Village Forest Management Institutions, management plans and village laws regarding forest management. Community forest tenure within a Village Forest is valid for 35 years and is renewable, subject to monitoring that will be conducted at least once every five years.

177. Besides efforts to secure tenure, focal communities will be supported with numerous interventions to build capacity for long-term sustainable forest management, including a number of options such as: participatory village land use planning; stakeholder identification and analysis (including vulnerable groups); participatory forest inventories (carbon and other services); community-based/collaborative institutional development; village-level forest protection activities; and inclusion of forest protection regulations and protection systems (patrolling, enforcement and fire prevention/suppression) in forest management plans.

41 <http://www.climate-standards.org>

178. Securing legally recognised village forest and sustainable forest management will make important and quantifiable contributions to avoiding greenhouse gas emissions. To further achieve this, participating communities will be facilitated to access performance-based incentives to provide support for: i) planning and implementation of forest protection/restoration activities; and, ii) activities that support and enhance sustainable livelihoods and human well-being. These incentives will be funded by buyers of verified carbon or ecosystem service benefits derived from sustainable forest management, and will only be granted after verification of the monitoring results of the carbon benefit and biodiversity co-benefits from the community-managed forests. The size of the incentive will be based on an opportunity cost/resource valuation assessment.
179. A training and capacity building program for design and implementation will be delivered through a training-of-trainers program targeting local civil society and community leaders of the selected communities. This training-of-trainers program will be centred around a theory of change model, based on the Manual on Social and Biodiversity Impact Assessment for REDD+ Projects⁴². This will enable: identification of the drivers of deforestation; focal issues; starting conditions; without project scenario; legal framework; risk assessment; social, environmental and biodiversity impact monitoring; and, participatory forest carbon inventory. It will also provide a useful measure from which to assess the opportunity costs scenarios and assumptions.
180. As described in Annex 5 Environmental and Social Screening Summary report, robust mitigation plans for communities who may be adversely affected by project intervention actions will be included within the design of the individual community-based forest management schemes. They will include grievance mechanisms that are specific to the context of the target areas, based on the internationally recognised principles.⁴³
181. A summary of each demonstration project is provided below.

Community Carbon Pool-Village Forest (Hutan Desa) scheme buffering Kerinci Seblat National Park

182. FFI is supporting the development of Village Forest initiatives in Jambi province, with 17 villages in Merangin district and six villages in Sarolangun district. The village clusters, known as ‘Community Carbon Pools’ are being codified within their own Forest Management Units that cover a contiguous 140,800 ha at the national park border. Village Forest creation involves participatory land use planning, FPIC processes, and community-based forest management through collectively selling carbon credits under the PlanVivo scheme or VCS-REDD+ in return for safeguarding the forest. The Units also empower communities to conduct forest patrols that tiger snare traps, manage human-tiger conflict and monitor tigers and other wildlife using camera traps.

⁴² http://www.forest-trends.org/documents/files/doc_2981.pdf

⁴³ See FFI (2014) ‘Grievance mechanisms: Lessons learned from REDD+ and Other Conservation Strategies’ <http://www.fauna-flora.org/wp-content/uploads/Grievance-mechanisms.pdf>

Priority wildlife habitat conserved in production area for Kampar

183. Peatlands are one of the most threatened ecosystem types in the world, especially in the tropics. The 377,466 ha Kampar Peninsula represents one of Southeast Asia's largest peatlands. Years of selective logging may have degraded the Kampar forest, but being a deep peat landscape, this Peninsula still retains exceptionally high carbon stocks. The peat ecosystem is threatened by commercial agriculture, which first drains the peat swamp forest, and is often followed by newcomers encroaching on the land and using fire to clear it.

184. To properly manage the Kampar Peninsula, *Restorasi Ekosistem Riau (RER)*, a not-for-profit organization that was created in 2013 by APRIL, is in the process of restoring >100,000 hectares of forest through its Ecosystem Restoration Concessions. Operating under a 60-year eco-restoration licence granted by the Indonesian MoEF, the *RER* approach is to create a peat forest conservation concession through four phases,

- 1) Assess the ecosystem services and the social environment of those who depend on it
- 2) Protect the landscape from further degradation
- 3) Revitalize native plant and wildlife species
- 4) Manage the area over the long-term to sustain biodiversity and local community livelihoods.

185. FFI is the main technical advisor for RER, as part of an initial three year partnership that began in May 2013. It has designed RER a work plan that is consistent with the CCB Standards and is now implementing the community, carbon and biodiversity components of this work plan with RER and the partnering local NGO Bidara.

186. Kampar previously contained tigers, but recent data are lacking. The tiger field surveys planned by FFI and *RER* for 2015 will therefore be revealing. The impact of the *RER* Ecosystem Restoration Concession project should be far reaching because it aims to provide APRIL with a replicable model for restoring and protecting critically important peatland elsewhere in the Kampar Peninsula. Beyond peatland, Ecosystem Restoration Concessions are being developed in Jambi and South Sumatra provinces through the Harapan Project⁴⁴, which pioneered this approach. There are lessons to be learned from this project and synergies to be made. The Harapan Project implementation agencies will therefore be engaged during evaluations and discussions.

Preparation for REDD+ pilot project in Berbak NP

Berbak National Park has been declared as Indonesia's first REDD+ Demonstration Activity site by the MoEF. In support of this, ZSL is implementing a project that aims to ensure Berbak's climate resilience, while maintaining biodiversity and enhancing local community wellbeing. So far, ZSL has conducted a preliminary carbon study for the national park and is currently collecting data on biodiversity, carbon and peat depth measurements (which forms part of a detailed hydrological study, including the influence of artificial canals). The project will assess sustainable financing (public and/or private) options through a new REDD+ institution that

⁴⁴ <http://harapanrainforest.org/>

would fund project activities and therefore make significant contributions to the overarching project aim.

Village forest restoration in Berbak-Sembilang national parks

ZSL has launched a project to restore the national parks' buffer zone. So far, it has focused its efforts on conducting social surveys in five villages, in collaboration with the local NGOs *Gita Buana* and *Walestra*. The project will build three seed nurseries as part of its plan to then reforest 750 ha of degraded forest tiger habitat by planting 150,000 seedlings, which will also contribute to the livelihoods of local communities through supporting 20 Forest Management Community Groups.

Development of sustainable agricultural commodities in Bukit Barisan Selatan and Gunung Leuser national parks

Agricultural expansion, particularly for coffee and cocoa, is the main driver of deforestation in Bukit Barisan Selatan and Gunung Leuser National Parks. Under the project, WCS will engage with private sector buyers to establish deforestation-free commodity chains for coffee and cocoa leading out of these landscapes. This will include analyzing the supply chains that originate at the edges of these critical protected areas by: assessing the true extent and impact of each commodity on park encroachment; identifying major buyers, traders and retailers linked with these supply sources; investigating the effectiveness of certification programs such as FairTrade and Wildlife Friendly at reducing deforestation, and working with different companies in the supply chain to establish model contracts which link purchase agreements to commitments not to clear further forest.

'Smart Green Infrastructure' guidelines towards roads evaluated and tailored for tiger landscapes

187. The application of 'Smart Green Infrastructure' guidelines in tiger range states was listed as one of the nine recommendations made at the recent GTI Stocking Taking Conference⁴⁵. In cooperation with Public Works, *BAPPENAS* and *Bappeda* in the Leuser, Kerinci Seblat and Bukit Barisan Selatan landscapes, the 'Smart Green Infrastructure' guidelines towards roads will be evaluated and modified for tiger landscapes. In addition, *HarimauKita*, in partnership with *PHKA*, *FFI* and *WCS*, will lead on a feasibility study on the incorporation of tiger-specific criteria into the Environmental Impact Assessment (*Analisis Dampak Lingkungan* or *AMDAL*). These activities will focus on the proposed Ladia-Galaska road network that would fragment the Leuser Ecosystem's forest, including part of Gunung Leuser National Park, the recurrent road proposals that would run through Kerinci Seblat National Park and planned upgrades to roads bisecting Bukit Barisan Selatan National Park

Output 2.3. Management decision-making informed through wildlife and forest monitoring using a standardised scientific survey protocol

188. A biological monitoring system will be developed for the target national parks, but will be designed to make it directly transferrable to other Sumatran protected areas and adaptable to other Indonesian protected areas. A set of environmental indicators will be developed that enable protected area performance in safeguarding

⁴⁵ GTI. 2014. Dhaka Recommendations on Advancing Implementation of the Global Tiger Recovery Program (16 September 2014). Dhaka, Bangladesh.

- natural resources to be quantitatively evaluated. A standardized field survey design and accompanying protocol for estimating the status of tiger and principle tiger prey species will be produced. This will be based on the sampling design and techniques developed by WCS, FFI and ZSL for tiger monitoring across Asia and which are recognised as a best-practice approach.
189. Within core national park areas, density will be measured using a camera trap-based survey design that has been rigorously field tested across Asia. This method involves setting camera traps at similar distances a part (2-3 km), area (700-2000 km²) and sampling effort (45-50 trap nights per camera trap placement). At a landscape level, distribution will be measured using the occupancy survey method that was developed for sampling indirect tiger and prey signs in Sumatra⁴⁶. It is likely that the completion of the occupancy surveys would be planned to coincide with the the development of the 2018-2028 triger Action Plan, so that the results can feed into its development. To complete this activity, FFI, WCS, ZSL and others will need to raise additional funds during the project.
190. For all of the target national parks, baseline density and occupancy estimates already exist. Nevertheless, at the start of the project the monitoring approaches for both camera trap and occupancy surveys will be reviewed and discussed to ensure that there is a common understanding amongst partners for their respective landscapes. A biological monitoring syllabus with training modules will be developed with *PusDikLat* to fully cover the proposed monitoring methods. The relevant *PHKA* personnel from the national level and national parks will then receive sufficient training in survey design, data analysis and interpretation of data outputs, so that these monitoring methods are routinely and correctly used for measuring achievements against flagship species conservation targets. During the project, repeat surveys will be conducted to enable estimates of tiger and prey population trends. Refresher training will be provided to key personnel and those from non-target protected areas and for other target species, depending on the *PHKA*'s preference.
191. *HarimauKita* will assess the situation for developing an accredited university wildlife monitoring syllabus with training modules that are based on the *PHKA* materials. A strong justification for doing so already exists because numerous students who were originally trained up through the *PHKA*-NGO projects have stay invovled in tiger conservation, e.g. working with an NGO or with *PHKA*. A local university, or universities, will be identified and partnered with to develop the training materials. *HarimauKita*, with support from FFI, WCS amd ZSL, will work with a designated university to run annual courses in Sumatra for local students. These will most likely follow a format of one-week class-based teaching followed by on-the-job training, with small student research grants provide to support student participation in a research project in one of the focal Sumatran landscapes.
192. *PHKA* will review the forest cover data sets and remote sensing data interpretation methods used by from Planologi. The forest cover data will then be

⁴⁶ Wibisono, H.T. and 41 others. 2011. Population status of a cryptic top predator: An island-wide assessment of tigers in Sumatran rainforests. PLoS ONE, 11 e25931

used to analysis forest change dyanmics across the project landscapes, national parks and core areas. This has the added benefit of establishing an intra-institutional relationship between *PHKA* and *Planologi* that should go on to form a routine forest monitoring system for Sumatran national parks.

193. The tiger and forest habitat assessment results will be used by *HarimauKita*, with participation from *PHKA*, FFI, WCS and ZSL, to investigate the spatial occurrence of tigers in national parks, conservation areas and production forests, with particular emphasis on habitat connectivity. Recommendations will be made for upgrading the protected status of important ecological corridors that currently exist and, where feasible, creating new forest corridors. For example, this might include engaging Public Works and *Bappeda* to incorporate recommendations in provincial or district spatial plans. The population field survey data will also be used to identify potential release sites for conflict caught tigers that fit the criteria for reintroduction (e.g. being young, healthy and not having previously engaged in high risk conflict incidents). A workshop will be convened by *HarimauKita-PHKA* with the relevant partners from government and NGOs to develop the framework for this approach, with subsequent meetings as needed. This activity will be linked with those in Output 2.4. It may also provide an opportunity to work with the UNEP-GEF RIMBA project, where there is geographical overlap.
194. The salient field survey findings will be disseminated to select government agencies and the data entered in a national species monitoring data base. *HarimauKita* will lead on producing a comprehensive Sumatran tiger Atlas in conjunction with *PHKA*, FFI, WCS and ZSL, but with sensitive information, such as tiger locations, removed from documents that are subsequently made publically available. The MoEF has developed a web-based GIS porthole that includes an interactive map⁴⁷ for displaying forest type designations and functions. The project will review how these data and tool links with those from the government agencies responsible for spatial planning and infrastructure development, especially in informing the development process and environmental impact assessments (*AMDAL*). Here, the project will determine the need for an interactive tool to enable the different data sets to connect so that, at the very least, key data on tiger habitat, watershed forest etc feed into the spatial planning and infrastructure developments processes.
195. Next, the project will review the current data management systems in *PHKA*'s national office and in the national park offices, along with the SMART data base and a human-tiger conflict data base that has been developed by *BKSDA-Jambi* and ZSL. It will verify whether the systems meet the current data storage and usage needs and whether the key technicians are adequately trained and supported to effectively do their job. This also extends to the management of human-tiger conflict data and connectivity between data bases at the national level and national park level. Thus, a comprehensive review will focus on compatibility, performance, constraints and recommendations for improving through upgrading, redesign and/or modifications. Training for *PHKA* data technicians from the national and national park levels will be provided as necessary.

⁴⁷ <http://appgis.dephut.go.id/appgis/petunjukwebgis.aspx>

196. Finally, the availability and applicability of new technologies for improving tiger conservation, such as unmanned aerial vehicle (drones), poacher cams and others, will be explored and assessed by *HarimauKita* and *PHKA* as a cost-effective and complementary approach to standard monitoring techniques. New technological innovations will be actively encouraged through running national competitions to promote home-grown initiatives. These might include, for example, the development of human-tiger conflict early warning systems using mobile phones, the application of social media for more effective outreach and awareness raising or the use of pico/micro-hydro for improving livelihoods that depend on intact ecosystem services such as watershed in tiger habitats.

Output 2.4. Human-tiger conflicts effectively managed in five target landscapes

197. To determine where to direct project support for mitigating human-tiger conflicts in the most cost-effective way, a priority-setting exercise will be conducted by *HarimauKita* to map the spatio-temporal conflict patterns and identify conflict prone districts. These incidents will be mapped over multiple project years so that the changing patterns of the conflict are identified and adequately responded to. How best to support these areas will be determined through a review of the implementation of *PHKA*'s human-tiger conflict mitigation protocol (P.48/Menhut-II/2008). This will include landscape level partner workshops to review how effective the socialisation of protocol has been, and whether further socialisation is needed, as well as the different approaches to managing human-tiger conflict, including wildlife response units, in-kind compensation payment mechanisms for victims through identified government agencies, budget allocations etc. For example, Bengkulu province has agreed mechanisms and budgeted funds for both livestock attack compensation (through *Dinas Peternakan*) and appropriate mechanisms for more serious incidents where human injury or death occur (through *Dinas Sosial*). The replicability of such an approach needs to first be assessed.

198. From this, the next steps for full implementation of P48 will be identified and are likely to include, amongst other activities, the development of tools (e.g. awareness raising posters and mitigation hand books) and training materials (e.g. tiger-friendly livestock husbandry techniques). The creation of new conflict mitigation teams and/or the enhancement of current teams will require training. Working through *PusDikLat*, the project will seek to produce a training syllabus and materials based around P48, so that it will be fully supported in the field. Training would be delivered to conflict response teams, including personnel from the national parks, *BKSDA*, local government officers, communities, and other relevant institutions from the target landscapes.

199. The areas most prone to human-tiger conflict will be supported to develop dedicated and fully resourced rapid conflict response team/s, under *BKSDA*. These teams will perform initial assessments and/or site visits to all 'problem' tiger reports. Critical to satisfactorily resolving problem tiger situations is a rapid response to reports (i.e. within 24 hours) and an appropriate response as per the human-tiger conflict mitigation protocol. This will be used as a project indicator for measuring performance. To support this, a conflict response team standard operating procedures

document will be developed and project supervision provided thereafter to ensure satisfactory and ultimately independent responses. A primary goal here will be to secure full and formal legal agreement between provincial governments and *BKSDA* in the target provinces, gubernatorial decrees and formal establishment of well trained provincial and district level multi-agency conflict mitigation teams and development of budgeting for *APBN* submission and local reporting and response procedures.

200. The target landscapes will share one mobile Wildlife Emergency Rescue Team that is assigned to maximise response time to major conflicts and wildlife emergencies for capturing, pre-conditioning and relocating problem tigers, as well as improving local veterinarian capacity in the field.
201. Finally, *PHKA*, *FFI*, *WCS* and *ZSL* will engage private sector partners working in the national park buffer zones to facilitate the development of an emergency holding centre for rescued tigers pending relocation. These discussions are already taking place and plan to build a temporary holding facility in Jambi province creates an entry point for discussions and possibly project collaboration through providing technical input through available expertise, project information (such as predicted tiger release sites) and training (such as in the human-tiger conflict protocol).

Component 3. Sustainable financing for biodiversity management in priority landscapes

Cost: US\$ 7,406,284; GEF US\$ 581,700; Co-financing US\$ 6,824,584)

202. The final component supports the recognition that, whilst institutional reform, better use of resources and mainstreaming conservation in multiple sectors are essential and can greatly improve the efficacy of existing budgets, ensuring the availability of adequate and dedicated financing for biodiversity conservation over the long-term is essential for achieving the goals of reversing species and habitat loss. This is particularly true in a world where the availability of grants for biodiversity conservation means that government spending priorities tend to focus elsewhere, leaving an unsustainable reliance on donors.
203. Two outcomes will be targeted for this component: firstly, development of two or more options for increasing revenues available to protected area managers sufficient to meet expenditure requirements for effective biodiversity conservation over the long-term as measured by the financial sustainability scorecard. Specifically the project would complete sustainable financing plans for the five target protected areas covering 3.81 million ha and aim to test different revenue generating mechanisms through a partnership approach.
204. The second outcome under this component will be the development of a mechanism for increasing revenue available to managers outside protected areas sufficient to meet expenditure requirements on biodiversity conservation. Specifically the project would aim to produce sustainable financing plans for conservation in selected unprotected areas. Here, outputs would be achieved using similar activities focusing in different areas, with the main difference being the type of financial instruments and for-profit business models used in each. Financial planning would include: i) identifying the financial shortfall required to fund desired biodiversity

conservation activities, but also to identify how current resources should be better spent; ii) assessment of the feasibility for payments for ecosystem services within protected areas e.g. carbon and water; iii) assessment of the feasibility of using Corporate Social Responsibility programmes from organizations within the target landscapes to contribute to local biodiversity financing; iv) using a portion of licensing fees to underwrite conservation; and, v) workshops to disseminate knowledge gained to a national level.

205. FFI, WCS and ZSL are currently working to create a corporate conservation initiative by establishing private-public management forums to improve forest connectivity and effectiveness of protected (and conservation) area management in Indonesia. The model includes large agribusinesses, smallholder farmers, rural communities and local (district/provincial) governments. The MoEF and FFI are implementing village forest (*hutan desa*) schemes around Kerinci Seblat National Park as a novel model for generating revenue (possibly through REDD initiatives) at a local level and outside of a protected area. An evaluation of this and other approaches will be conducted and the pertinent aspects captured in a management handbook and their feasibility in the other project landscapes assessed for piloting. At the very least, the project will facilitate ongoing exchange between the landscapes, but with a view to increase replication of appropriate financing models.

206. The **expected outcomes** of Component 3 are: New sustainable financing mechanisms to meet long-term management expenditure needs for protected areas in priority landscapes with the potential to replicate successful models elsewhere in Indonesia; and, public-private partnerships piloted in high biodiversity sites adjacent to protected areas to support biodiversity-friendly land use within priority landscapes. In order to achieve these outcomes Component 3 will deliver three outputs.

Output 3.1. Financial sustainability analysis conducted to improve cost-effectiveness, disbursement mechanisms and budget resources for UPT

207. The pilot demonstration and assessment of diversified financing sources for PA management will be based on management needs as identified through the management plans and annual work plans that are developed for the five target PAs (Output 1.2). Here, PA management costs and defining non-state appropriated revenue options and mobilising market opportunities will be identified to ensure that PAs and their economic valuations are not under-estimated and that core activities are adequately funded. To demonstrate potential sustainable financing approaches, revenue generation opportunities will be identified, assessed and, where deemed feasible, implemented in several of the demonstration PAs. For this, a small team will be tasked with developing a financing plan for each target PA. This will include the PA Manager, Financial Officer, government agency representatives and management planning team representatives, with technical support provided by FFI, WCS and ZSL. The team will produce a funding roadmap (or Financing Plan) for each of the five national parks using existing government funding allocations (including Env. Law No. 32 of 2009) post-financial review. This will act as a catalyst for communicating to key stakeholders, such as the police, *Bappeda*, *BKSDA*, *BPDAS*, *Dishut* etc, for achieving greater cost-effectiveness through jointly implementing activities and sharing budgets, and for communicating with central government to

advocate for greater resources. These should include, for example, activities related to law enforcement (Output 2.1), forest management in buffer zones (Output 2.2), spatial planning and environmental impact assessments (Output 2.3) and human-tiger conflict management (Output 2.4).

208. For Sumatra, several international donor projects are in the pipeline and there are several active projects that prioritise forests and wildlife issues that are shared by this GEF project (see **Section IV Part IV, Stakeholder Involvement Plan**). Furthermore, most of these donor agencies work with the MoEF as their government counterpart and, in particular, under the auspices of *PHKA*. Opportunities therefore exist to establish new, or modify current, financing mechanisms for greater PA support through a coordinated response that identifies and then channels donor support to the target PAs and their priority tiger conservation actions. This approach should deliver mutual benefits because it allows donor agencies to build on the GEF project's investment through supporting the target PAs, its activities with demonstrated success and its well-trained personnel and partner agencies. An important step will be to clearly communicate the project, the NTRP upon which the GEF project is founded and advancing, to these agencies and highlight where each can provide its own unique support. Thus, a multi-donor workshop will be convened by *PHKA*. For donors interested in supporting key aspects of the NTRP, working groups will be established to modify current or create new criteria that are inline with project identified goals and priority activities, with significant project backing provided thereafter.

Output 3.2. Sustainable financing plans developed and implemented for selected production areas through business and biodiversity mechanisms

209. A review of sustainable financing options for conservation activities outside the PA system, but which have a strong influence on the operations inside, will be conducted through this output. An intended outcome is that enabling conditions are created for Ecosystem Restoration Concessions, conservation of HCV forest in plantations and other pro-environment initiatives in production forests that directly support PA institutions in securing their borders, guided by tiger survey results (**Output 2.3**) and offer new revenue streams. This would include support for activities that are jointly implemented at the PA border, such as forest patrols, boundary demarcation and wildlife monitoring.
210. Under this output, sustainable financing lessons will be drawn from the evaluation of the five co-financed sustainable forest management demonstration projects conducted outside NPs in the target landscapes in **Output 2.2**. These will be documented for each of the demonstration projects and their potential for replication and upscaling evaluated. Particular attention would be given to the following demonstration projects here:

Preparation for REDD+ pilot project in Berbak NP

211. Berbak National Park has been declared as Indonesia's first REDD+ Demonstration Activity site by the MoEF. In support of this, ZSL is implementing a project that aims to ensure Berbak's climate resilience, while maintaining biodiversity and enhancing local community wellbeing. So far, ZSL has conducted a preliminary

carbon study for the national park and is currently collecting data on biodiversity, carbon and peat depth measurements (which forms part of a detailed hydrological study, including the influence of artificial canals). The project will assess sustainable financing (public and/or private) options through a new REDD+ institution that would fund project activities and therefore make significant contributions to the overarching project aim.

Development of sustainable agricultural commodities in Bukit Barisan Selatan and Gunung Leuser national parks

212. Agricultural expansion, particularly for coffee and cocoa, is the main driver of deforestation in Bukit Barisan Selatan and Gunung Leuser National Parks. Under the project, WCS will engage with private sector buyers to establish deforestation-free commodity chains for coffee and cocoa leading out of these landscapes. This will include analysing the supply chains that originate at the edges of these critical protected areas by: assessing the true extent and impact of each commodity on park encroachment; identifying major buyers, traders and retailers linked with these supply sources; investigating the effectiveness of certification programs such as FairTrade and Wildlife Friendly at reducing deforestation, and working with different companies in the supply chain to establish model contracts which link purchase agreements to commitments not to clear further forest.
213. The project will initiate dialogue with companies operating in production forest to secure firm commitment to support tiger conservation activities within their respective landscape/s. Thus, new and additional funds from public-private partnerships operating outside of PA boundaries would be explored, especially in bringing the companies into mainstream tiger conservation programmes and enable a wider support base for the implementation of the NTRP. Several important opportunities exist, such as the APRIL support to developing multiple contiguous Ecosystem Restoration Concessions in the Kampar landscape and ZSL's partnerships with APP, Musim Mas and ConocoPhillips. Recently, several of the largest agribusinesses operating in Sumatra and elsewhere in Indonesia, made strong pledges to significantly improve their practices for sustainably managing forests within their concessions and of their supplies. The project will seek to develop similar pledges to support the NTRP and, in particular, actions that are specific to these companies (**Output 1.2**).
214. Indirect support is anticipated to be provided through the creation and operation of a REDD+ Agency in each of the Government of Indonesia's REDD+ pilot provinces for Sumatra. Here, the project will work with the provincial agencies to create synergies in areas such as spatial planning, forest monitoring, ecosystem service (and PA) economic valuation and forest management institution capacity building. Where possible, collaborations and other support would be linked to the NTRP to ensure a complementary approach.

Output 3.3. Institutional framework at national level adopted to support sustainable financing scheme implementation

215. The result of the project activities, especially in **Output 3.1** and **3.2**, will be disseminated to stakeholders towards the project end as part of a process to modify

existing institutional frameworks (provincial and national) to enable increased support to PAs. First, existing laws, regulations and policies will be reviewed and recommendations made to enable revenue flow to PAs from non-governmental sources. Next, identified barriers will be removed as far as possible through project support to legislation revisions. Here, the project will facilitate stakeholder exchanges between the landscapes, with a view to increase replication of appropriate financing models.

216. The project's sustainable financing team (from **Output 3.1**) will work to identify synergies with the RIMBA project which shares common goals through its outcomes that aim to support "Green Economy" activities related to conserving and growing natural capital in forests, carbon, soils, water resources and biodiversity that become institutionalized and result in planned policy reforms, investments and related programmes. The pertinent RIMBA outputs are:

- Green economic development and conservation scenario(s) for corridor and three demonstration areas that are based on natural capital accounting.
- Government institutions have aligned their priorities with respect to financial policies and budgets to achieve consistency with land use to support a RIMBA regional Green Economy approach.
- RIMBA regional secretariat for development and cooperation is established to institutionalize a sustainable natural resources planning, management and investment framework, and to coordinate and facilitate the implementation of Green Economy in the RIMBA National Strategic Area.
- Technical capacity and operational modalities established in the nine demo districts and governmental agencies to create a green economy focused on forest, water and carbon resources.
- Two Schemes for Payment for Water Services operational, watershed formalized partnership and payment mechanisms, and FSC certified, evidence-base established on forest, water and financial benefits.

217. The *PHKA* Sumatra protected area project can certainly learn from the sustainable financing models proposed by RIMBA and would presumably benefit from these models if they succeed in securing buffer zone forests that in turn halt encroachment inside the protected area borders. While being laudable ideas, they are ambitious and the *PHKA* project has therefore prioritised working through established financing mechanisms.

PROJECT INDICATORS

218. The project indicators contained in **Section II / Part II (Strategic Results Framework)** include only impact (or 'objective') indicators and outcome (or 'performance') indicators. They are all 'SMART'⁴⁸.

219. The project will also need to develop a certain number of process-oriented indicators to compose the 'M&E framework' at the site level, and the establishment

⁴⁸ Specific, Measurable, Achievable, Relevant and Time-bound.

of such a framework has been integrated into the design of **Component 1** for the protected areas, in particular **Output 1.2 and 1.4, as well as Component 2, Output 2.3** for the wider landscapes. This site-level framework will include the incorporation of a wide range of indicators in site management plans, in law enforcement monitoring plans, community participation and development programmes, and the development and operationalisation of monitoring systems for key ecosystems and threatened species. A selection of these site-level indicators will also feed into the project's overall M&E framework. It is envisaged that the project's overall M&E framework (see **Part IV** below) will build on UNDP's existing M&E Framework for biodiversity programming.

220. The organisation of the logframe is based on the general assumption that: *if* (Outcome 1) Increased effectiveness of key protected area management institutions; and *if* (Outcome 2) Intersectoral coordination systems are developed for priority landscapes; and *if* (Outcome 3) Sustainable financing for biodiversity management in priority landscapes, are achieved; *then* (Project Objective) Biodiversity conservation in priority landscapes in Sumatra will have been enhanced through adoption of best management practices in protected areas and adjacent production landscapes, using tiger recovery as a key indicator of success. This logic is based on the barrier and root-cause analysis carried out during the PPG phase (refer to **Section I, Part I**, chapter 'Long-term solution and barriers to achieving the solution').
221. In turn, the choice of indicators was based on two key criteria: (i) their pertinence to the above assumption; and (ii) the feasibility of obtaining / producing and updating the data necessary to monitor and evaluate the project through those indicators. The following are therefore the project's key indicators:

Table 9. Elaboration of Project Indicators (M&E Matrix)

Expected results	Indicators (with baselines and indicative targets)	M&E Event with data collection methods	Time or schedule and frequency	Responsibilities	Means of verification: data source and type	Resources	Risks
At objective level - To enhance biodiversity conservation in priority landscapes in Sumatra through adoption of best management practices in protected areas and adjacent production landscapes, using tiger recovery as a key indicator of success							
0.1 Project Objective achieved	0.1 Increase in Sumatran tiger density by >10% in core area in 4 target landscapes* (see inset table in SRF). <i>*Note: 4 landscapes that contain 5 NPs. Kampar is not included</i>	<ul style="list-style-type: none"> The monitoring protocol will be established in Y1 and applied to all target landscapes Camera trap surveys will be conducted for 4 tiger core areas in Y1 and 5. Density = number of adult individual tigers/100km² ± 95% CIs 2013 estimates have been used for the baseline where available, with a 1999 estimate for BBS (Source: O'Brien et al. 2003 Crouching tigers, hidden prey: Sumatran tiger and prey populations in a tropical forest landscape. Animal Conservation 6:131-139) The camera trap sampling design for estimating tiger density is described in detail in Pickles et al. (2014) Running a Camera Trap Grid. Panthera Field Manual Series, PFM03. [http://www.panthera.org/tigersforeverresources] 	Camera trap surveys from Y1 and 5	FFI, WCS, ZSL and UPT	Project reports on Density results.		<p>Risk 1: Exploitation of tigers and forest products dramatically increase due to increased international trade</p> <p>Risk 8: Climate change may undermine conservation objectives of the project.</p>
At outcome 1 level – Increased effectiveness of key protected area management institutions							
Outcome 1 achieved	1.1 Improved institutional capacity of the 5 target protected area authorities for management as indicated by the Capacity Development Scorecard (see Annex 3, and inset table in SRF)	<ul style="list-style-type: none"> The capacity of the MoEF management units for the five target National Parks were assessed using the UNDP PA Capacity Development Scorecard and baselines established during the PPG (individual site scores can be seen in Annex 3, together with comments). Individual target scores have been set for each NP for repeat assessments at mid term in Y3 and at the end of the project in Y5. The method is self explanatory, involving facilitated interviews with the five target national park management authorities to complete the CD 	Baseline during PPG; Mid term assessment in Y3; Final assessment in Y5	UPT, PHKA-KKH, FFI, WCS, ZSL and HK	Project reports on Capacity Development Scorecard.		<p>Risk 2: Insufficient government commitment at all levels is secured to achieve the project objective.</p> <p>Risk 7: Failure to learn from previous experiences of biodiversity conservation in Sumatra that were not successful</p>

Expected results	Indicators (with baselines and indicative targets)	M&E Event with data collection methods	Time or schedule and frequency	Responsibilities	Means of verification: data source and type	Resources	Risks
		scorecard. Comments should be recorded in order to explain numerical scores and indicate changes.					
Outcome 1 achieved	1.2 Reduction of tiger-related threats by >10% in each of the 5 target protected areas indicated by a reduction in the number of illegal activities as shown in SMART-RBM monthly patrolling reports (See inset table in SRF)	<ul style="list-style-type: none"> SMART patrolling data will be recorded using GPS units for each NP according to the SMART training provided to each NP during Y1. This indicator uses the encounter rate reported during SMART patrolling for each target PA landscape (see inset table in SRF for baseline and target rates). The encounter rate is defined as: the average number of tiger and prey snare traps removed/100km of forest patrol The baseline rate of number of illegal activities recorded per year per 100km patrolled in each PA is indicated in the insert table in the SRF, using 2013 data for each target NP. Target rates, indicating a reduction in rates by Y5, are shown in the same table. 	Monthly patrolling reports for each PA	<i>UPT</i> , FFI, WCS and ZSL	SMART monthly patrolling reports for each PA.		Risk 2: A lack of suitable ranger candidates and technical support staff results in ineffective patrolling and incomplete adaptive management systems.
Outcome 1 achieved	1.3 Increase in law enforcement patrol effort (km walked per year) by >10% in each of the 5 target protected areas as shown in SMART-RBM monthly patrolling reports (See inset table in SRF)	<ul style="list-style-type: none"> This indicator uses the effort reported during SMART patrolling for each target PA landscape (see inset table in SRF for baseline and target rates). Effort is a measure of changes in patrolling effort – the number of forest patrol kilometres walked per year in PA and adjacent forests for each of the target PA landscapes. See inset table for baseline number of forest patrol kilometers walked per year in PA and adjacent forests, using 2013 data. Target rates, showing an increase in patrolling effort by Y5, are shown in the same table. 	Monthly patrolling reports for each PA	<i>UPT</i> , FFI, WCS and ZSL	SMART monthly patrolling reports for each PA.		Risk 2: A lack of suitable ranger candidates and technical support staff results in ineffective patrolling and incomplete adaptive management systems.
Outcome 1 achieved	1.4 Forest degradation rates in 5 core areas in target protected areas reduced to <1% by	<ul style="list-style-type: none"> Forest degradation is defined as forest located inside a NP's core area that has completely become non-forest but retains its NP status. Forest degradation rates baselines and targets will 	Annual assessments	<i>UPT</i> , <i>PHKA-KKH</i> , <i>Planologi</i> , FFI, WCS, ZSL	Project reports on deforestation rates.		Risk 2: PA institutions are unwilling to tackle illegal forest conversion and lack the capacity

Expected results	Indicators (with baselines and indicative targets)	M&E Event with data collection methods	Time or schedule and frequency	Responsibilities	Means of verification: data source and type	Resources	Risks
	end of project (See inset table in SRF)	<ul style="list-style-type: none"> be the percentage of change per year. The methodology for determining baseline and target rates will be reviewed and determined by <i>PHKA-KKH, UPT</i> and <i>Planologi</i>. 					and resources to do so.
Outcome 1 achieved	1.5 Improved management effectiveness of 5 target protected areas covering 3,185,359 ha, indicated by the increase in the METT assessment (see inset table in SRF and Annex 2):	<ul style="list-style-type: none"> This indicator only includes the legally gazetted National Parks, not the surrounding production landscapes. See the inset table in the SRF for METT baseline and target scores, while the METT forms for each individual PA are given in Annex 2. The baseline scores were established through assessments conducted during the PPG, with repeat assessments planned for project midterm (Y3) and at Y5 to determine project achievements. 	Baseline assessment in PPG; Mid term assessment in Y3; Final assessment in Y5	<i>UPT, PHKA-KKH, FFI, WCS, ZSL</i> and <i>HK</i>	Project reports on METT applied at PPG, midterm and project completion.		Risk 2: There is a reorientation of economic development priorities and policies leading to a change in land use plans to the detriment of the PA system.
At outcome 2 level – Intersectoral coordination systems are developed for priority landscapes							
Outcome 2 achieved	2.1 Number of wildlife crime cases submitted for prosecution from operations conducted at island level as a result of intersectoral collaboration increases by >25% (see inset table in SRF)	<ul style="list-style-type: none"> See inset table in SRF for the baseline number of cases submitted for prosecution per year in project landscapes, using 2013 data. A combined target is set in the same inset table for Y5, indicating an increase of at least 25% over the combined baseline. 	Annual reporting on continual logging of wildlife crime reports	<i>PHKA (UPT, BKSDA), Police, local government agencies, FFI, WCS, ZSL</i>	Project reports on law enforcement.		Risk 3: Law enforcement personnel and agencies do not support inter-agency collaborations and lack interest in the project objectives.
Outcome 2 achieved	2.2 At least 25 staff of the Ministry of Forestry, Provincial/District level authorities and/or regional development planning authorities (e.g. <i>Bappeda</i> and Public Works)	<ul style="list-style-type: none"> This indicator will document the involvement of staff of the Ministry of Forestry and Provincial/District level authorities, regional development planning authorities (e.g. <i>Bappeda</i> and Public Works), and select private sector actors in innovative forest /biodiversity projects contributing towards the project objective. These staff will participate in exchanges and training covering the process of piloting these innovative 	Quarterly reporting on project activities; ad hoc specific reports on completion of	<i>PHKA (KKH, UPT), local government agencies, FFI, WCS, ZSL, HK</i>	Project reports on forest/wildlife management interventions outside PAs.		Risk 4: Lack of support from industrial sector stakeholders Risk 6: Uncertainty in REDD+ development

Expected results	Indicators (with baselines and indicative targets)	M&E Event with data collection methods	Time or schedule and frequency	Responsibilities	Means of verification: data source and type	Resources	Risks
	participate in the process of piloting 5 innovative forest/biodiversity projects.	<p>projects so as to gain the capacity for managing and replicating such schemes in other locations.</p> <ul style="list-style-type: none"> Progress reporting for each such pilot project will document the staff involved at all stages of the pilot and specific capacity building activities provided for these staff. 	exchange and training activities related to this outcome				
Outcome 2 achieved	2.3 Standardised tiger, prey and forest habitat monitoring system developed and operationalized for 5 target protected areas and their surrounding landscapes.	<ul style="list-style-type: none"> This indicator will report on the status of the proposed monitoring system to be developed and operationalized for the 5 target national parks and their surrounding landscapes. Specific key elements of the monitoring system will be: 1) a standardized field survey design and protocol (to become <i>PHKA</i> regulation) for tiger density and prey relative abundance (camera trapping) and distribution (occupancy); and 2) forest cover assessment methodologies in collaboration with MoEF/Planologi. 	Quarterly progress reports on activities	<i>PHKA (UPT, KKH), FFI, WCS, ZSL</i>	Project report on biological surveys.		Risk 5: Financial resources are not adequate to support surveys at a sufficient level of scientific rigor.
Outcome 2 achieved	2.4 >95% of human-tiger conflict reports are correctly assessed and/or responded to in accordance with <i>PHKA</i> mitigation protocol P48, by Project Year 3 (see inset table in SRF):	<ul style="list-style-type: none"> The inset table in the SRF indicates the 2013 baseline figures available on the percentage of human-tiger conflict (HTC) reports that were correctly responded, and proposed targets by Year 3. HTC reports are currently received through a variety of media, so the baseline is not based on systematic official data. However, the project plans to establish a Conflict Mitigation Coordination Team in each of the NP landscapes, as well as one Wildlife Emergency Rescue Team for Sumatra to respond to major conflicts and wildlife emergencies. The reports received by these teams would be systematically logged and responses recorded, for use in compiling annual statistics for MoEF and reporting on this indicator. 	Annual reports based on continuous logging of HTC events in each landscape	<i>PHKA (UPT, BKSDA), local government agencies, FFI, WCS, ZSL</i>	HTC event logs maintained by Conflict Mitigation Coordination Teams for each landscape		Risk 3: Personnel and agencies targeted for wildlife conflict mitigation support do not support inter-agency collaboration and lack interest in the project.
At outcome 3 level – Sustainable financing for biodiversity management in priority landscapes							

Expected results	Indicators (with baselines and indicative targets)	M&E Event with data collection methods	Time or schedule and frequency	Responsibilities	Means of verification: data source and type	Resources	Risks
Outcome 3 achieved	3.1 Five new financing plans in place for target protected areas by the project end and budgets increased by 10%.	<ul style="list-style-type: none"> The baseline established during the PPG period indicates that no financing plans are currently in place at any of the five target PAs, and funding for operations is inadequate at the PAs (see Financial Sustainability Scorecard in Annex 2A). A financing plan will be put in place for each of the target PAs by Y5. Sustainable financing plans here means that a financial roadmap or business plan will be developed for all five target PAs, allowing cost savings to be made, and that funding from sources that include from central government (MoEF) and CSOs, but also will be sought where feasible to support particularly operational management of the PAs. This may include: use rights such as tourism concessions, REDD+, and potential donors to specific target NPs and priority tiger conservation activities. 	Quarterly project progress reports on activities	<i>PHKA (KKH, UPT), FFI, WCS, ZSL</i>	Project reports on financing plan.		Risk 3: Government agencies do not view PA management as important to their own objectives;
Outcome 3 achieved	3.2 Two sustainable financing plans produced for production area/s through business and biodiversity mechanisms (PES, private sector endowment and corporate social responsibility schemes and biodiversity offsetting) involving public-private partnerships.	<ul style="list-style-type: none"> This indicator will report on the status of development of two project supported financing plans produced for production area/s through business and biodiversity mechanisms (PES, private sector endowment and corporate social responsibility schemes and biodiversity offsetting) involving public-private partnerships. Project reporting will identify the locations and total areas covered by the financing plans, including maps showing the related boundaries, description of the financial mechanisms involved, the partners involved and related agreements, the period of the financing plans, the financial targets during the project period (by Y5) as well as progress towards them, and the global environmental benefits accrued through these 	Quarterly project progress reports on activities	<i>FFI, WCS, ZSL, PHKA-KKH</i>	Project reports on financing plans and mechanisms.		Risk 5: Lack of conservation funding for biodiversity-rich habitats outside protected areas; changes in external donor priorities result in reduced support to Indonesia and forestry sector.

Expected results	Indicators (with baselines and indicative targets)	M&E Event with data collection methods	Time or schedule and frequency	Responsibilities	Means of verification: data source and type	Resources	Risks
		interventions.					
Outcome 3 achieved	3.3 Increase by >25% for each of the three component scores in the Financial Sustainability Scorecard for the sub-system of Sumatra's protected areas (see inset table in SRF and Annex 2A)	<ul style="list-style-type: none"> Review of GEF BD1 Tracking Tool - Financial Scorecard Section by PY5 Methods are self-explanatory, but require inputs from senior <i>PHKA</i> staff with knowledge of the budgets and financial reporting of PAs in Sumatra as well as financing of the national PA system 	Baseline during PPG; Mid-term assessment in Y3; Final assessment in Y5.	FFI, WCS, ZSL, <i>PHKA-KKH</i>	Project reports on PA financing; financial scorecard repeat assessment in PY5		<p>Risk 3: Government agencies do not view PA management as important to their own objectives;</p> <p>Risk 5: Lack of conservation funding for biodiversity-rich habitats outside protected areas; changes in external donor priorities result in reduced support to Indonesia and forestry sector.</p>

RISKS AND ASSUMPTIONS

222. The project strategy, described in detail within this project document, makes the following key assumptions in proposing the GEF intervention:

- Baseline conditions in the target protected area landscapes can be extrapolated with high confidence level to other protected area landscapes in Indonesia and lessons learned can be successfully disseminated.
- Increased awareness and capacity will lead to a change in behaviour with respect to the integration of biodiversity conservation concerns into land use policies and practices, especially within and adjacent to protected areas.
- Sustainable financing and effective protected area management will gradually become a national priority for Indonesia as knowledge and information is made available.

223. During project preparation, risks were updated from what has been presented at the PIF stage, elaborated and classified according to UNDP/GEF Risk Standard Categories⁴⁹, and assessed according to criteria of ‘impact’ and ‘likelihood’ (see **Box 1 and Table 10** below). These risks and the mitigation measures will be continuously monitored and updated throughout the project, and will be logged in ATLAS and reported in the PIRs.

224. The UNDP Environmental and Social Screening Procedure (see **Annex 5**) has been applied during project preparation and did not identify any significant environmental or social risks associated with the proposed project, with the exception of a number of road developments proposed by local governments that have the potential to impact the target landscapes, and therefore project outcomes, if approved.

225. High level intervention has already taken place in the case of the three national parks (Kerinci Seblat, Gunung Leuser and Bukit Barisan Selatan) that together comprise the World Heritage Site *Tropical Rainforest World Heritage of Sumatra (Indonesia)*, following its addition to the **List of World Heritage in Danger** through Decision 35COM7B.16 of the World Heritage Committee in 2011 (see: <http://whc.unesco.org/en/soc/322>). Following a State of Conservation report in early 2014, Decision 38 COM 7A.28 of the World Heritage Committee (May 2014) confirmed that the site should be retained on the **List of World Heritage in Danger** <http://whc.unesco.org/en/soc/2932>. Proposed road developments (as well as illegal gold mining activities inside Kerinci Seblat NP) were an important part of the case for this status, with the following response from the World Heritage Center and its Advisory Bodies in 2014.

226. **Road Development:** Although no new roads have been allowed within the national parks that comprise the property, the demand to build new routes remains high, as does the pressure to upgrade existing tracks. Following the legalization of an emergency relief road in KSNP in 2011, it has become common practice for new road construction projects to be proposed and justified as evacuation routes. On 17 February 2014, a press release by the Indonesian Parliament states that it has been promoting the possibility of a road construction by downgrading KSNP first from a National Park to a Protected Forest. It should be noted with serious

⁴⁹Includes the following eight categories: environmental; financial; operational; organizational; political; regulatory; strategic; and other.

concern that such a downgrade in the level of protection of the property would expose the property not only to the risks of road construction and the associated potential impacts of poaching and encroachment, but also mining and geothermal energy development, which is permitted in Protected Forests according to Indonesian protected areas legislation. For Bukit Barisan Selatan National Park, *PHKA* has established a team consisting of LIPI, UNILA and MoEF to consider a proposal submitted by the Ministry of Public Works for the improvement of three pre-existing roads inside the national park. WCS and WWF have provided information on key species around the road locations. The team has recommended that the roads can be improved by up to 6-7m as long as this is suitable with the conditions in the field. This is not as wide as in the original proposal (up to 15m). It is also recommended that wildlife crossings, flyovers, underpasses and canopy bridges are constructed at strategic locations. *Bina Marga* will prepare a detailed engineering design plan and conduct the *AMDAL*. The team has also recommended that the national park authority makes an agreement with local government and transportation agency to control traffic on the roads by prohibiting trucks passing from dusk until dawn. The construction is predicted to be conducted in about three year's. Regarding the Langkat-Karo road in the Leuser landscape, *PHKA* has yet to receive a proposal for it.

227. Further information on specific road development proposals affecting the project sites is given in the ESSP summary in **Annex 5**.

228. In general, the project will contribute positively towards the conservation and sustainable use of biodiversity in Indonesia's PA system – specifically in Sumatra, as well as by demonstrating and building capacity for the involvement of indigenous and local communities in protected area management, community-based natural resource management and improved land use sustainability.

229. During the PPG phase, projects risks were updated from what has been presented at the PIF stage. They were further elaborated and classified according to UNDP/GEF Risk Standard Categories⁵⁰, and assessed according to criteria of 'impact' and 'likelihood' (Box 1):

Box 1. Risk Assessment Guiding Matrix						
		Impact				
		CRITICAL	HIGH	MEDIUM	LOW	NEGLECTIBLE
Likelihood	CERTAIN / IMMINENT	Critical	Critical	High	Medium	Low
	VERY LIKELY	Critical	High	High	Medium	Low
	LIKELY	High	High	Medium	Low	Negligible
	MODERATELY LIKELY	Medium	Medium	Low	Low	Negligible
	UNLIKELY	Low	Low	Negligible	Negligible	Considered to pose no determinable risk

⁵⁰ Includes the following eight categories: environmental; financial; operational; organizational; political; regulatory; strategic; and other.

Table 10. Project Risk Log

#	Description	Date Identified	Type	Impact & Probability	Countermeasures / Mgt response	Owner	Submitted, updated by	Last Update	Status
	Enter a brief description of the risk <i>(In Atlas, use the Description field. Note: This field cannot be modified after first data entry)</i>	When was the risk first identified <i>(In Atlas, select date. Note: date cannot be modified after initial entry)</i>	Environmental Financial Operational Organizational Political Regulatory Strategic Other <i>Subcategories for each risk type should be consulted to understand each risk type (see Deliverable Description for more information) (In Atlas, select from list)</i>	Describe the potential effect on the project if this risk were to occur Enter probability on a scale from 1 (low) to 5 (high) P = Enter impact on a scale from 1 (low) to 5 (high) I = <i>(in Atlas, use the Management Response box. Check "critical" if the impact and probability are high)</i>	What actions have been taken/will be taken to counter this risk <i>(in Atlas, use the Management Response box. This field can be modified at any time. Create separate boxes as necessary using "+", for instance to record updates at different times)</i>	Who has been appointed to keep an eye on this risk <i>(in Atlas, use the Management Response box)</i>	Who submitted the risk <i>(In Atlas, automatically recorded)</i>	When was the status of the risk last checked <i>(In Atlas, automatically recorded)</i>	e.g. dead, reducing, increasing, no change <i>(in Atlas, use the Management Response box)</i>
1	Exploitation of tigers and forest products dramatically increase due to heightened international trade that puts the control of these drivers of change beyond the project's intervention.	PPG Stage October 2014	Strategic	The illegal international trade in wildlife and forest products is a cause of major international concern at present. Poaching and related trade in tiger parts is of particular concern, as a source of quick profit to unscrupulous individuals and criminal organizations. The risk here is that international trade drives poaching to new levels beyond the resources of government authorities to control, outweighing project benefits. P =2 I = 4	The project takes a systematic approach towards controlling the illegal taking and trading of wildlife and forest products, seeking to strengthen inter-agency and government – civil society partnerships, communications, and building capacity for more effective and efficient patrolling, enforcement and information management. This response is likely to represent the most effective approach under more intense international trade pressures, while it should be supported by increased financial resources and intensified international collaboration.	PMU / MoEF			
2	Insufficient government commitment at all levels is secured to achieve the project objective	PIF Stage March 2014	Strategic	The key risk to the project lies in obtaining sufficient commitment from all relevant sectors of government to enable the fundamental changes in management and coordination that the project is targeting. In particular,	Risk recognized during PPG phase, mitigated through extensive consultation process that has engaged diverse partners in order to foster positive relations as a prelude to the establishment of more formalized partnerships during implementation. The stakeholder	PMU / MoEF			

				<p>divisions exist between national and regional levels of government. Thus, there is a risk of reorientation of economic development priorities and policies leading to changes in land use plans to the detriment of the PA system. For example, continued pressures exist for road development within and around NPs threatening habitat integrity and facilitating encroachment and poaching. A further issue under this risk is that a lack of suitable ranger candidates and technical support staff could result in ineffective patrolling and incomplete adaptive management systems. PA institutions may also be unwilling to tackle illegal forest conversion and lack the capacity and resources to do so.</p> <p>P = 2 I = 4</p>	<p>involvement plan takes account of this concern and will be further elaborated during project inception. Project design has ensured that the project is well aligned with national government policy to ensure strong country ownership which should support staff assignment to project tasks. In addition, the project partners have been active in the project landscapes for years, and have sound understanding of the issues as well as established institutional relationships. This strong baseline will help to guide project strategy during implementation.</p>				
3	Lack of commitment to environmental protection and biodiversity conservation from non-focal government agency stakeholders	PIF Stage March 2014	Strategic	<p>The lack of widespread engagement of provincial and district governments, especially in sustainably managing forests outside PAs is an issue for conservation. Weak commitment from agencies for which biodiversity conservation is not a priority could constrain the achievement of Outcome 2. Further to this, certain agencies such as Public Works (responsible for infrastructure including road development) can have a substantial and detrimental impact if biodiversity concerns are not adequately addressed through SEA and EIA procedures, and if the necessary budget is not provided for proper assessment and mitigation actions, posing a significant risk to</p>	<p>The project's engagement at five NPs will raise the profile of these globally important sites at local, provincial and national levels and raise awareness of their biodiversity values and the need to maintain their ecosystem integrity. Further, landscape level biodiversity management partnerships will be established involving a variety of agencies as well as NGOs and the private sector, in order to demonstrate a series of sustainable land uses. The project will also work with provincial SEA/EIA agencies to ensure that, for example, the GTI's 'Smart Infrastructure' principles and actions are adopted, especially in relation to any unavoidable road construction through important biodiversity areas, and develop interagency policy and regulatory</p>	PMU / MoEF			

				<p>the integrity of PAs and unprotected forest landscapes.</p> <p>Similarly, law enforcement personnel and agencies may not support inter-agency collaborations and lack interest in the project objectives.</p> <p>P = 2 I = 3</p>	<p>measures by local decree that ensure agencies are incentivized and responsible for both considering and evaluating biodiversity impacts, and held accountable for not doing so. The project will collaborate with the GEF RIMBA project, which will also contribute substantially towards addressing this risk in central Sumatra through a range of actions towards promoting a green economy among a wide range of government organizations including MPW.</p>				
4	Lack of support from industrial sector stakeholders	PIF Stage March 2014	Strategic	<p>Conserving wildlife is not a priority for plantation and forestry companies. Consequently, Sumatra continues to lose significant tracts of lowland forest each year, overwhelmingly due to conversion to plantation crops. Forest conversion occurs in landscapes adjacent to existing PAs, representing an external threat to the integrity of the forest ecosystems and wildlife populations supported by the PAs.</p> <p>P = 2 I = 3-4 (variable between outcomes)</p>	<p>The project will mitigate this risk by a combination of promoting best management practices of plantation and forestry sectors, public awareness raising, public and private dialogue, regulatory approaches, and market driven self-regulation approaches to improve management that, in return, should add premium value to their products. Technical assistance will be provided by NGO partners to build capacity within companies through pilot projects to manage and conserve wildlife. Newly created partnerships, such as the MOU between the Ministry and Forestry and a major pulpwood and paper company to protect tigers within its concessions, highlight the increasing willingness of the industrial sector to engage in sustainable forest management that delivers net biodiversity benefits.</p>	PMU / MoEF			
5	Lack of conservation funding for biodiversity-rich habitats outside protected areas	PIF Stage March 2014	Strategic	<p>The limited and inefficiently-used national budgets for biodiversity conservation are primarily allocated to protected areas, with the consequence that unprotected forest areas are side-lined, even though their biodiversity conservation value is increasing as Sumatra's forest area continues to diminish rapidly.</p>	<p>The project will address this risk by engaging with the plantation and forestry industries to promote improved management of biodiversity within their concessions and demonstrating incentives for doing so. It will mitigate this risk through a sustainable financing strategy that includes buy-in from the private sector. Innovative financing</p>	PMU / MoEF			

				Changes in external donor priorities result in reduced support to Indonesia and forestry sector. P = 2 I = 3-4 (variable between outcomes)	mechanisms for supporting unprotected forests such as REDD+, PES and Village Forest (Hutan Desa) schemes will be piloted by the project in high conservation landscapes in collaboration with key government and private sector partners.				
6	Uncertainty in REDD+ development	PIF Stage March 2014	Strategic	One of the most promising prospects for alternative funding under Component 3 currently lies with the development of REDD+. There are two risks associated with this. Firstly, compliance markets might not materialize if no agreement is reached to replace the Kyoto Protocol. This would severely restrict both the price and demand for carbon credits and thus the potential for indirectly providing biodiversity financing. Secondly, there is a risk that voluntary markets for REDD+ will also not develop to a sufficient stage to allow financially viable projects to occur. Of particular concern is the lack of progress on legislation and guidelines concerning REDD+ in Indonesia at present. However, with the signing of a Letter of Intent in 2010, and an estimated US\$1billion being committed by the Government of Norway to incentivize the Government of Indonesia to develop and implement a best-practice national REDD+ strategy, the outlook is improving. P = 3 I = 3	The project will ensure close coordination and synergy with Indonesia's national REDD+ programme and associated projects, as well as through the creation and operation of a REDD+ Agency in each of the Government of Indonesia's REDD+ pilot provinces for Sumatra. Here, the project will work with provincial agencies to create synergies in areas such as spatial planning, forest monitoring, ecosystem service (and PA) economic valuation and forest management institution capacity building. Where possible, collaborations and other support would be linked to the National Tiger Recovery Plan to ensure a complementary approach. The project will also support capacity development for MoF within the context of its pilot activities in the Berbak landscape and promote its replication through the integration of Sumatran PAs in the REDD+ modalities and implementation. Finally, the project's sustainable financing component will analyze alternative sources of finance that would complement potential carbon payments.	PMU / MoEF			
7	Failure to learn from previous experiences of biodiversity	PIF Stage March 2014	Strategic	The Kerinci Seblat-Integrated Conservation and Development Project (ICDP) exemplifies the problems associated with project	Previous conservation initiatives in Sumatra were analyzed during project preparation. This project differs in that it seeks to improve the overall PA	PMU / MoEF			

	conservation in Sumatra that were not successful			<p>implementation for a large-sized donor-funded project if poor inter-agency coordination exists. Secondly, a key lesson learned from the Aceh Forest and Environment Project was that simply sending reports on illegal logging to the law enforcement agencies does not illicit a response, but proactively engaging with these agencies (i.e. building their capacity to respond and linking them within a wider stakeholder network) is needed achieve progress.</p> <p>P = 2 I = 3</p>	<p>management system towards a more adaptive model capable of responding to changes in threats and biodiversity status as revealed by systematic monitoring programmes and the SMART law enforcement monitoring system. As such it has the power to continually learn and adapt; avoiding mistakes of the past. Specifically, the project design aims to strengthen the capacity of PHKA, BKSDA and demonstration park management agencies to conduct more effective intelligence-based patrolling and law enforcement practices supported by collaborative inter-agency approaches and advanced information management systems. The project will also build on recent positive collaborative experiences, such as the coordination between multiple NGOs and the Ministry of Forestry during the Sumatra-wide survey, with HarimauKita acting as a facilitating agency, which demonstrated how a regional initiative can be successfully implemented.</p>				
8	Climate change may undermine the conservation objectives of the project	PIF Stage March 2014	Environmental	<p>Climate change is forecast to result in increased temperatures, increased rainfall, increased frequency of storms and droughts, and sea level rise. Such changes may impact the PA system through, for example, increased incidence of fires during El Nino induced droughts, saltwater intrusion in low-lying coastal forests as well as direct impacts of temperature changes on sensitive habitats and species.</p> <p>P = 2 I = 2</p>	<p>The nature of the project is such that climate change effects are unlikely to impact objectives or activities directly, although in the long term climate change may alter habitat structure or species resilience, and possibly necessitate the adjustment of protected area boundaries. The project will mitigate the anticipated negative impacts of climate change through improving PA management and securing linkages between PAs and forested areas in adjacent landscapes. As such, 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.</p>	<i>PMU / MoEF</i>			

INCREMENTAL REASONING AND EXPECTED GLOBAL, NATIONAL AND LOCAL BENEFITS

230. **The incremental approach can be summarised as follows:** The Government of Indonesia has identified biodiversity conservation as a priority and has contributed limited available resources towards protecting a portion of the country's rich biodiversity. However, despite strong commitments from the government, limited actions have been taken to systematically remove the barriers towards the establishment of sustainable PA management in Sumatra and the conservation of globally significant wildlife in priority landscapes, in the face of significant ongoing pressures for forest conversion and increasing exploitation of wildlife resources. The proposed intervention recognizes the need to secure the ecological integrity of priority landscapes for biodiversity conservation and to establish the foundations for effective management at the site and landscape levels.
231. The project aims to address the institutional issues facing biodiversity management in Indonesia by focusing on the island of Sumatra, Indonesia's largest wholly owned island. The project will focus on some of the world's most important forests for biodiversity, including the National Parks of Bukit Barisan Selatan (0.36 million ha), Kerinci Seblat (1.39 million ha), Gunung Leuser (1.10 million ha), Berbak (0.14 million ha) and Sembilang (0.20 million ha). These national parks connect to other biodiversity-rich areas in the surrounding landscapes, which support wildlife populations and are important to wide ranging species such as tigers and elephants. In combination, these protected and conservation areas cover 8.18 million ha, including the UNESCO Tropical Forest Heritage of Sumatra World Heritage Site cluster (Gunung Leuser, Kerinci Seblat and Bukit Barisan) as well as Berbak and Sembilang Wetlands of International Importance (Ramsar Sites).
232. The project will also include a sample of the forest concessions surrounding these national parks, primarily consisting of production forest. In addition, the Kampar-Kerumutan landscape (0.98 million ha) has already been identified as being strategically important because a portion of suitable tiger habitat in Kampar (0.38 million ha) is being developed under an Ecosystem Restoration Concession land use type, which forms part of a larger Forest Management Unit that would offer an opportunity of managing this area as a tiger source population and as a pilot for enabling a positive change in status. Together these forests represent some of the largest contiguous areas of forest remaining in Indonesia and represent all of Indonesia's priority Tiger Conservation Landscapes.
233. Besides tigers, the Sumatran landscapes support the last viable populations of Sumatran rhinoceros, Sumatran orangutan and Sumatran elephant. They also provides vital ecosystem services for the local community (e.g. through water supply regulation; genetic resources with potential commercial application, such as agriculture and bio-products; and, macro-biodiversity with high tourism amenity value), as well as for the international community (e.g. through climate regulation).
234. Thus, the project areas have been chosen for the following reasons:

- a) they offer the best long-term survival for tigers as global and national priority Tiger Conservation Landscapes, including large landscapes (e.g. Kerinci Seblat and Gunung Leuser) which therefore need to act as protected area flagships for Indonesia; or they are smaller areas (e.g. Bukit Barisan Selatan and Berbak-Sembilang National Parks) that offer potential for recovering tiger populations under suitable management systems; or a model for achieving effective wildlife management in production landscapes (e.g. Kampar);
- b) they are MoEF priority areas (as stipulated in national policy); and,
- c) each project area already has a CSO-MoEF partnership that will enable the proposed project to swiftly move to an implementation phase.

235. **In the baseline situation**, biodiversity conservation efforts in Sumatra have been hampered by weak management capacity and inadequate financing for effective PA management and low levels of cooperation within and between different government and civil society organisations. Lack of coordinated action has substantially reduced conservation impacts and ineffectively addressed multi-jurisdictional issues such as illegal wildlife trade. The MoEF continues to implement the NTRP, but it is anticipated that although the species faces severe threats at present, this plan will be implemented on a piecemeal basis due to financial and human resource constraints, therefore its conservation management targets will therefore not be met in a timely manner.

236. The management of biodiversity in Sumatra is extremely variable. In some areas government, NGO and community partnerships operate successful wildlife protection and conflict mitigation teams, such as the Kerinci Seblat-Tiger Protection and Conservation Units or the Wildlife Crime Units operating in Gunung Leuser and Bukit Barisan. In other areas, serious problems occur. At a landscape level, deforestation continues inside and outside the conservation areas – sometimes at indistinguishable rates. Clashes also occur between national and regional authorities, or between conservation bodies and other departments, such as over recently proposed road developments inside or impacting national parks. Illegal hunting is also a major issue, threatening in particular the larger mammals such as the tiger.

237. Conservation efforts in Sumatra have typically been conducted at a site level and between the MoEF and an NGO partner. Consolidated efforts to conserve wildlife on Sumatra have only recently begun since the creation of *HarimauKita*, as a unified voice for a coalition of NGOs to more effectively engage with the Ministry. This has not yet resulted in a fully integrated approach for tiger conservation, but there are nonetheless promising signs of increased coordination and the benefits that it can deliver.

238. Inter-agency and multi-landscape collaboration is inadequate to address trans-boundary issues such as the illegal wildlife trade, which require close coordination and cooperation between multiple agencies. Despite most of the NGOs working on similar issues, with the same main partner (national park authorities) and applying similar approaches, their general mode of operation has been to take a site-specific approach to project implementation. Yet, on the few occasions where the government agencies and NGOs have collaborated, the results have been

unprecedented and it is proposed that GEF resources will play a catalytic and unifying role to build on this.

239. All the targeted National Parks are dependent on MoEF funding for their annual budgets, yet there has been a 19.3% decrease in the annual budget allocation to these national parks from 2013 to 2014, directly impacting the baseline for this project. As most budget supports staff and running costs for park offices, insufficient budget remains for technical activities, especially those designed for the direct protection of natural resources (see the Financial Sustainability Scorecard in **Annex 2A**). Partnerships between the national park authorities and international NGOs (FFI, WCS, ZSL and WWF) have helped to fill the gaps left by budget shortfalls in ensuring that core protected area activities are routinely conducted. However, the NGOs are reliant on external donor funding and this type of support is both inherently unstable and can reduce government ownership. Overall, the PAs are generating little or no revenue of their own, whether from user fees, tourism or other concessions or PES, and have no rights to retain such revenues, despite significant potential for revenue generation.
240. REDD+ is gaining momentum in Sumatra, with baseline activities underway for the REDD+ pilot provinces of Aceh, Riau, West Sumatra, Jambi and South Sumatra that are creating the institutional infrastructure and framework to support the implementation of a comprehensive REDD+ work plan. However, weaknesses include REDD+ and related forest conservation and rehabilitation programs are not based on principles of maintaining landscape and ecological connectivity (e.g. in protected area buffer zones and tiger landscapes, maintaining adequate water levels to sustain peat swamp forests); and weak collaboration of government agencies with local stewards such as local communities.
241. **In the alternative scenario enabled by the GEF**, the project will remove the identified systemic and institutional barriers to improved PA management and sustainable financing in Sumatra at the national, provincial and local levels, and create a model biodiversity management system involving government-civil society organization partnerships operating across key conservation landscapes that can be scaled up across Sumatra and, potentially, beyond. The project's approach will be to demonstrate and consolidate the successful strategies that have been pursued by the project partners and related stakeholders in specific areas, analysing and documenting the reasons for their success, internalizing these in collaboration with the MoEF and other local government partners, and replicating them in other priority Sumatran landscapes. The project's success will be indicated by an improvement in the density of the Sumatran tiger in core areas in the target landscapes with national parks.
242. The project will approach this through three components. The first component will focus on improving the management effectiveness of existing protected areas, specifically aiming to increase it (see the METT in **Annex 2**, and **SRF** for targets) across the 3.185 million ha of protected areas in the landscape. Accordingly, the management capacity of the five national park management agencies will be enhanced (see Capacity Development Scorecards in **Annex 3** and **SRF** for targets) through a range of systematic capacity building activities, including habitat/biodiversity monitoring, SMART patrolling and law enforcement

monitoring system. The government's RBM system will be strengthened to reduce threats of encroachment and poaching.

243. Under the second component, conditions for wildlife population viability in priority areas in the target landscapes will be dramatically improved through developing and operationalizing landscape management partnerships that will eliminate key threats (i.e. poaching, trade and unplanned deforestation), documenting and reviewing innovative forest and wildlife management interventions in target landscapes for replication and upscaling, informing management decision-making through systematic wildlife and forest monitoring using a standardised scientific survey protocol, and by enhancing the management of human-tiger conflicts in the target landscapes (see **SRF** for indicator targets).
244. Under the third component, new sustainable financing mechanisms will be demonstrated and shared to meet long-term management needs for the the five target landscapes through conducting a financial sustainability analysis and related financial planning to improve cost-effectiveness and disbursement mechanisms for target PAs, developing and implementing sustainable financing plans for selected production areas through business and biodiversity mechanisms, private sector endowment and corporate social responsibility schemes and biodiversity offsetting, and developing and operationalizing an institutional framework at national level to support sustainable financing scheme implementation across the national PA system (see Financial Sustainability Scorecard in **Annex 2A** and **SRF** for targets).
245. In summary, without this project, the business-as-usual approach will continue; no new net resources will be generated to support long-term management and existing needs, current resources will be depleted with limited measurable effects, adaptive management strategies will be neither developed nor implemented, and biodiversity and forests will continue to decline. Thus, the project aims to deliver cost-effective biodiversity conservation by improving efficiency and effectiveness within protected area management and strengthening the institutional basis for the sustainable management of unprotected habitats. Previous initiatives to protect key wildlife species and their habitats in Sumatra have tended to focus on adding layers, or duplicating resources, rather than addressing the question of why the existing resources are not delivering more effectively. This project aims to explicitly remove this constraint and at a scale that is large enough to see a real and measurable impact. Ground level monitoring and evaluation will feed into central government planning, existing human resources and financial management practices will be improved towards incentive-based systems that promote motivation by rewarding success, and management units will reconsider their structure and organization in response to the threats and opportunities they face, rather than following static approaches that have yet to yield the desired results. Within the focal protected areas, small-scale projects have already achieved limited success and provide models for the different activities, such as law enforcement patrolling and biodiversity monitoring. This project will capture these activities, integrate them within a best management practice that will act as a pilot for dissemination across Sumatra, and ultimately across Indonesia.

National Socio-economic Benefits

246. At the local level, tangible socioeconomic benefits will be delivered to rural communities directly, through better managing their conflicts with wildlife and indirectly the protection and restoration of the major watershed forests in Sumatra and the ecosystem services that they provide. The province of Aceh in northern Sumatra provides compelling evidence of the importance of these services, which are found in all other project provinces. A total economic valuation of well-protected forest and its ecosystem services in Aceh, for example, estimated these to be worth US\$12.9 billion over 30 years. Although this represents local and national benefits, at least some of these local benefits would be expected to offset the costs of conserving globally significant biodiversity in the forests. No doubt the other large tropical forest landscapes covering multiple watersheds located along the Barisan mountain chain (i.e. Kerinci Seblat, Gunung Leuser and Bukit Barisan Selatan) or deep peat (i.e. Berbak-Sembilang and Kampar) offer significant, yet unquantified, benefits towards the climate, communities and biodiversity at subnational, national and international levels.
247. At the national level, this project will represent a model for how forest resources should be managed and thus will have a direct impact on the estimated 100 million people who are estimated to depend on forest resources, in particular the 50 million who are living on land classified as public forest. Furthermore, the project will directly support the Government of Indonesia in implementing its national REDD+ scheme in pilot Sumatran sites, e.g. Berbak, through delivering improved management of forests and biodiversity that clearly demonstrates reduced rates of deforestation and loss of globally significant biodiversity. Local communities represent an important stakeholder in REDD+ projects and will be entitled to a share of revenue.
248. There are two project components where gender has been identified as being important. In Component 1, the role of women in protected area management may be influential on success. Indonesia has a relatively good record at empowering women compared to some countries, but significant barriers to progress still remain. The importance of gender equality will therefore be addressed specifically when management structure and reforms are addressed. Gender will also be important in Component 2 when engaging communities through green rural development and income generating schemes for rural households, firstly because women may have a different relationship with their environment to men, which might reflect the range of development and conservation options they would find beneficial and secondly because female engagement in implementation is likely to be important for the success of development projects.
249. Overall, the project will seek to establish or strengthen stakeholder participation mechanisms in order to achieve legally recognized, sustainable management of natural resources in buffer zones and to mitigate resource use conflicts as appropriate. Accordingly, the project aims to introduce a participatory approach to PA management that will involve awareness raising, environmental education, involvement in management activities, stakeholder representation in site committees, and support for sustainable livelihood activities in suitable

locations. The project aims to engender support for PA management from local communities and other stakeholders (eg private sector), for which an inclusive and mutually beneficial approach is needed. In order to avoid negative impacts on local communities, the project will also ensure that stakeholders will be involved in the development of conservation agreements and other local area management plan development, and capacity will be developed within both genders for their implementation, thereby increasing women's and men's ability to use, develop and protect natural resources and capital assets. For sites implementing REDD+, Village Forest or Ecosystem Restoration Concession activities (Kerinci Seblat, Berbak-Sembilang and the Kampar landscapes) an FPIC process will be used to ensure meaningful community involvement in these project activities.

250. For the selected communities in PA buffer zones (based on criteria mentioned in **Output 2.2**), local level conservation agreements will go beyond co-management arrangements but aim to legally recognise community land and forest by local and national government. Besides efforts to secure tenure, focal communities will be supported with numerous interventions to build capacity for long-term sustainable forest management, including a number of options such as: participatory village land use planning; stakeholder identification and analysis (including vulnerable groups); participatory forest inventories (carbon and other services); community-based/collaborative institutional development; village-level forest protection activities; and inclusion of forest protection regulations and protection systems (patrolling, enforcement and fire prevention/suppression) in forest management plans.

251. Securing legally recognised village forest and sustainable forest management will make important and quantifiable contributions to avoiding greenhouse gas emissions. To further achieve this, participating communities will be facilitated to access performance-based incentives to provide support for: i) planning and implementation of forest protection/restoration activities; and, ii) activities that support and enhance sustainable livelihoods and human well-being. These incentives will be funded by buyers of verified carbon or ecosystem service benefits derived from sustainable forest management, and will only be granted after verification of the monitoring results of the carbon benefit and biodiversity co-benefits from the community-managed forests. The size of the incentive will be based on an opportunity cost/resource valuation assessment.

252. A training and capacity building program for design and implementation will be delivered through a training-of-trainers program targeting local civil society and community leaders of the selected communities. See **Output 2.2** for further information on the scope of this program.

253. Robust mitigation plans for communities who may be adversely affected by project intervention actions are inherent within the design of the community-based forest management schemes and include grievance mechanisms as part of this plan (the approach that will be followed is summarised here <http://www.fauna-flora.org/wp-content/uploads/Grievance-mechanisms.pdf>).

254. The project's **global environmental benefits** derive from improved management effectiveness and sustainable financing of five globally important

National Parks (WHC and Ramsar Sites) totaling 3,185,358 ha that form the core of key tiger conservation landscapes totaling 8,182,192 ha (see summary information on these sites in **Table 7** and landscape profiles in **Annex 1**). The project will strengthen partnerships at landscape level to reduce key threats to wildlife, including poaching, wildlife trade, human-wildlife conflicts and habitat destruction. The overall success of the project will be indicated by an increase in Sumatran tiger density in core areas in the target landscapes. The capacity building and improved PA management systems will strengthen the entire national PA system through uptake by the MoEF. Thus, the global environmental benefits that the project is expected to bring include the delivery on all major national strategies for biodiversity conservation in Sumatra, leading to a reduction in greenhouse gas emissions, and the generation of improved financing mechanisms for the protection of biodiversity inside and new mechanisms for outside protected areas. Overall, these outcomes will provide improved protection for globally significant populations of key species, including Sumatran tiger, Asian elephant, Sumatran orangutan, Sumatran rhinoceros, globally important ecoregions and some of the most highly diverse plant communities in the world.

COST-EFFECTIVENESS

255. The project takes the approach of addressing barriers to the achievement of effective biodiversity conservation in five large protected area landscapes in Sumatra, including weak natural resource governance and protected area management capacity, poor inter-agency coordination, and inadequate financial planning and management for protected areas. This approach is cost-effective in that it will have broad applicability at provincial and national levels, including impacts beyond the target protected area landscapes. As such, the project contributes directly towards larger national policy, regulatory, fiscal, data management and communications goals in support of biodiversity conservation and an effectively managed national PA system. The project implementation arrangements include links between the target PA landscape and national levels (e.g. in relation to sustainable financing for PAs, and implementation of the NTRP) to ensure that this potential will be realized.
256. The project strategy also focuses on taking existing best practice experiences delivered by the partner CSOs in specific landscapes and transferring and piloting these in other landscapes in order to extend their impact and raise overall standards through capacity building and systematization, which is highly cost-effective and low risk. The project's second component aims to build support for biodiversity conservation in the target landscapes through building partnerships across multiple sectors (involving government, CSOs, private sector and other stakeholders) for more effective implementation of NTRP actions in particular. This approach also seeks to replicate and test partnership approaches that have been successful in other landscapes for cost-efficiency and maximum project impact.
257. At a technical level, the streamlining of progressive approaches into the targeted National Parks for upscaling throughout Indonesia's PA system for law enforcement, monitoring and information management will be a cost-effective

investment in terms of project impact as well as MoEF's operations in the long term. This includes technical support and capacity building (e.g. in application of SMART patrolling) for the implementation of MoEF's RBM approach at the targeted National Parks, which should result in more cost-effective PA enforcement.

258. The project's financial sustainability component will demonstrate and share new sustainable financing mechanisms to meet long-term management needs for the targeted PAs with potential to replicate successful models elsewhere in Indonesia. It will review and recommend how available resources can be used most efficiently through conducting a financial sustainability analysis and related financial planning to improve cost-effectiveness and disbursement mechanisms for the targeted PAs. The sustainable financing of the targeted PAs will be strengthened through identifying other potential revenue streams and developing sustainable financing mechanisms. Sustainable financing of the national PA system will be supported through developing and operationalizing an institutional framework and review and recommendations for national regulatory and policy improvements. Finally, public-private partnerships will be developed to support biodiversity-friendly land uses and reduce key threats to wildlife within the priority landscapes, with sustainable financing plans developed and implemented for selected production areas through business and biodiversity mechanisms (PES schemes) private sector endowment and corporate social responsibility schemes and biodiversity offsetting). Collectively, these approaches will secure and extend long term financing for the target PAs and biodiversity conservation in wider landscapes beyond existing levels.
259. The total GEF investment of US\$9,000,000 for this project will leverage a minimum of US\$53.45 million in cofinancing, a highly cost-effective ratio of 5.94 with additional associated financing inputs anticipated during project implementation. The overall GEF investment in strengthening management effectiveness for the targeted National Parks in Sumatra (3,185,358 ha) will average around US\$ 0.56 per hectare per year, a small fraction of the estimated value of the ecosystem services provided.
260. Finally, the recognition associated with involvement in an international project and receipt of GEF resources channeled through a UN implementing agency is a source of pride for national, regional and local project partners in Indonesia, which can provide a much strengthened position in addressing critical threats to protected areas such as road development, mining and hydro-electric schemes. The increased awareness, capacity and improved communications between different layers of government that the project will also enable will facilitate the political commitment to take difficult decisions on issues such as expanding the PA network, upgrading PA protection status, inter-agency coordination to reduce external pressures on PAs, and the adoption of more environmentally friendly practices in related sectors. These all represent significant cost-effective project impacts.

PROJECT CONSISTENCY WITH NATIONAL PRIORITIES/PLANS:

261. The proposed project is fully consistent with the Government of Indonesia's national policy and plans on wildlife, forest and environmental protection, most significantly the Indonesian Biodiversity Strategy and Action Plan and the National Tiger Recovery Plan. These include commitments under the international MEAs mentioned below:
262. The Convention on Biological Diversity (enacted through Law 5/1999), as expanded in the Indonesian Biodiversity Strategy and Action Plan (IBSAP) 2003-2020 (BAPPENAS 2003). This is now being reviewed through GEF Project #4980, which aims to strengthen the national biodiversity framework for implementation of the IBSAP and integration of Indonesia's obligations under the CBD into its national development and sectoral planning frameworks in line with the CBD's Strategic Plan for 2011-2020. The IBSAP is stated in Medium Term National Development Planning (2004-2009), Presidential Regulation (7/2005), the 6th National Development Target of Environment Conservation and sustainable use of biodiversity according to the IBSAP 2003-2020; and the Program on Protection and Conservation of Natural Resources, through the main activity: Management and Protection of biodiversity to avoid loss biodiversity (terrestrial, marine and coastal).
263. The Convention for the Protection of the World's Cultural and Natural Heritage (enacted through Presidential Decision 26/1989), in particular the Action Plan for protection of the Tropical Rainforest Heritage of Sumatra Natural World Heritage Site, whose three components - Kerinci Seblat, Gunung Leuser and Bukit Barisan Selatan National Parks are project target landscapes).
264. The Ramsar Convention (which came into force in Indonesia on 8/8/1992), which include maintaining the ecological character of listed Wetlands of International Importance (seven Indonesian sites listed as of 11/9/2014), of which Berbak and Sembilang National Parks are covered by this project), as well as a wider commitment to the wise use of all wetlands in Indonesia's territory. National implementation has included the establishment of the National Strategy for the Management of Wetlands in Indonesia (2004) and the National Strategy and Action Plan for Sustainable Management of Peatlands (2006). Indonesia's parliament agreed to ratify the Asean Agreement on Transboundary Haze Pollution on 16 September 2014, 12 years after the country signed the pact alongside all other Asean members. The Bill will be formally signed into law by the president at a later date. This is of relevance as the ASEAN haze agreement was mainly precipitated by land clearing via open burning in Sumatra and Kalimantan in the late 1990s.
265. The project also addresses objectives and activities under the National Strategy and Action Plan for Sumatran Tiger, Rhino, Orangutan and Asian Elephant (MoEF: P42/Menhut-II/2007, P44/Menhut-II/2007, P43/Menhut-II/2007, P53/Menhut-II/2007) and human-wildlife conflict (P48/Menhut-II/2008), as well as Indonesian commitments under the Convention on International Trade

in Endangered Species (CITES; enacted through Presidential Decision 43/1978) through its activities aimed at strengthening controls on the illegal wildlife trade.

266. The Government of Indonesia signed the St. Petersburg Declaration on Tiger Conservation as adopted by the range states at the Global Tiger Summit in November 2010. This complements the MoEF's own NTRP, part of the Global Tiger Recovery Program for which the GEF has a stated financial supporting role. The Indonesian NTRP was in turn informed by the Indonesian Sumatran Tiger Action Plan, both of which were developed by the Indonesian government and HarimauKita which represents all agencies working on tiger conservation in Indonesia. The NTRP states four priority actions: i) Replicate specialized law enforcement and conflict mitigation units to secure the tiger and its prey; ii) Create a Sumatra-wide adaptive management system based on robust monitoring of tigers, their prey and effective management interventions; iii) Create a legal basis to protect tigers outside protected areas and implement it within and between the priority landscapes; and, iv) Explore and mobilize domestic and international funds to ensure the long-term protection of tiger populations in priority landscapes.
267. In terms of overall national development context, Indonesia's National Long-Term Development Plan (2005-2025) aims to achieve a "green and ever-lasting Indonesia" The vision and mission of the plan is to establish a country that is developed and self-reliant, just and democratic, and peaceful and united, in order to achieve the development goals as mandated in the Preamble to the Constitution of 1945.
268. The Government's commitment to pursuance of a sustainable green development path is clear. Government has launched a green economy programme as part of its sustainable development plan which is pro-growth, pro-job, and pro-poor. To support the implementation of green economics, programmes have been drawn up on food resilience by implementing sustainable agriculture, sustainable forestry management, efficiency and renewable energy usage, clean technology support, waste management, efficient and low carbon transportation management and green infrastructure development.
269. Indonesian commitments under UNFCCC were enacted through Law 6/1994. The National Action Plan addressing Climate Change (2007) provides guidance to various institutions in carrying out coordinated and integrated efforts to tackle climate change. Specific policies include reforms of subsidies for electricity industries to reduce greenhouse gas emissions, reforms of fuels subsidies making them more targeted, new policy instruments for the promotion of renewable energy such as geothermal and other clean energies, as well as incentives for industries which promote environmental friendly products. Indonesia has voluntarily committed to reducing greenhouse gas emissions or carbon intensity per unit of GDP by 2020. Indonesia is committed to reducing its greenhouse gas emissions by 26%, and up to 41% with international support, by 2020. The majority of the emission reduction is expected to be realised in the forestry and land based sectors by reducing and avoiding deforestation and forest degradation.

270. The national REDD programme for Indonesia was approved by the UN-REDD Programme Policy Board in March 2009. Indonesia is one of the nine pilot countries for the initial phase, and started its implementation phase in March 2010. A first draft National Strategy on REDD+ was completed in 2010. The National Strategy for REDD+ was formulated, with the objective of reducing emissions of greenhouse gases from the forestry sector by a minimum of 14% as part of the aforementioned country's commitment under UNFCCC. Pursuance of REDD+ policy provides the opportunity for advancing biodiversity conservation and increasing management effectiveness of the protected areas in the country, while the policy recognizes the roles of protected areas in safeguarding forests avoiding a significant amount of potential emissions. This project will assist through cofinanced support to the REDD+ pilot project in the Berbak NP landscape, working with the provincial agencies to create synergies in areas such as spatial planning, forest monitoring, ecosystem service (and PA) economic valuation and forest management institution capacity building. Where possible, collaborations and other support would be linked to the NTRP to ensure a complementary approach.

271. The second Medium Term Development Plan (2010-2014) contains specific policies and goals on mainstreaming sustainable development and natural resource and environmental management. The project is fully in line with the National Action Plan for PAs, covering the period 2010–2015, directly implementing a number of priority actions that go towards meeting the five-year objectives. These include:

- Build and strengthen long-term support for PA protection and management amongst local people and the broader community, and improve management of PAs where possible through involvement of communities and other stakeholders;
- Ensure that PA management is supported by strong institutions that are recognised as priorities in government planning and budgeting processes, and that are well coordinated at national, provincial and district levels;
- Ensure that PAs in Indonesia have adequate funding for effective management by 2014 and that systems are in place to sustain and increase this funding for the future development of the PA system;
- Well trained staff with capacity to effectively implement all PA management functions by 2014;
- Improve effectiveness of PA management through regular systematic evaluation;
- Develop a comprehensive M&E system that provides effective feedback to policy-makers and managers on lessons learned regarding management strategies and which meets local, national and international reporting requirements.

272. Furthermore, the project will directly contribute to achievements of the targets under the Five Year Strategic Plan of *PHKA* covering the 2010-2014 period, including: Development of BLU (General Service Unit) in the 12 UPTs (Technical Implementation Unit) to support financial sustainability of national parks; 5% reduction of conflict and pressure on protected areas; 3% increase in population of priority species compared to 2008 baseline estimates; 20% reduction in threats to biodiversity on the islands of Borneo, Sumatra and Sulawesi; and increase in nature tourism by 60% compared to the 2009 baseline. While Sembilang NP has updated its plan, the other National Parks will do so only in 2015.

273. MoEF has a specific programme and targets covering all nature reserves and conservation areas across Indonesia. The programme identifies 12 priority provinces and 51 priority national parks. It is organized into six components, each of which has associated targets. These are described in **Table 11** below.

Table 11: National priority actions programme

Programme Area	Lead Department	Work Areas
1. Conservation area development and essential ecosystems	Directorate of Conservation Areas	<ul style="list-style-type: none"> • Conflict and pressure on the national parks and other protected areas (nature reserves / NR, wildlife reserves / WR, hunting parks /HP) and protected forest / PF reduced by 5%. • Management of essential ecosystems as life support increased 10%. • Handling of forest encroachment in 12 priority provinces • Improved management effectiveness of protected areas through RBM in the 51 priority National Parks.
2. Investigation and forest protection	Directorate of Investigation and Forest Protection	<ul style="list-style-type: none"> • New cases of forest crime (Illegal logging, encroachment, Illegal Trading of Plants and Wildlife, Illegal Mining and Forest Fire) increased at least 75%. • Encroachment, Illegal Trading of Plants and Wildlife, Illegal Mining and Forest Fire) decreased 25% per year. • Case of law of the conservation area encroachment increased 20%
3. Genetic and species conservation development	Directorate of Biodiversity Conservation	<ul style="list-style-type: none"> • Populations of biodiversity and endangered species increased by 3% from 2008 according to the biological conditions and the readiness of habitat. • Breeding and utilization of biodiversity species in a sustainable manner increase by 5%.
4. Forest fire control	Directorate of Fire Control	<ul style="list-style-type: none"> • Hotspots in the Island of Kalimantan, Sumatra and Sulawesi decreased. • Burnt forest area reduced by 50% compared to 2008. • Increase the capacity of government officials and community in the effort of risk reduction, mitigation and management of forest fire hazard in 30 DAOPS (33 provinces)
5. Development of environmental services and nature tourism	Directorate of Environmental Services and Eco-tourism	<ul style="list-style-type: none"> • Business of nature tourism increased 60% compared to 2008, and the license of new water environmental services utilization is 25 units. • PNBP in the sector of nature tourism increase 100% compared to 2008. • Incomes in certain protected areas increased to a minimum of Rp.800.000, - per month per household (or by 30%) through the efforts of community empowerment. • Increased community development and nature tourism in the conservation areas in 29 provinces.
6. Management support and other technical tasks	All Directorates	<ul style="list-style-type: none"> • Institutional capacity of conservation area management increased from 16 UPT (Technical Executor Unit) to 77 UPT. • Establishment of 6 new UPT of General Directorate PHKA in the Riau Islands, Bangka Belitung, Banten, West Sulawesi, Gorontalo and North Maluku. • Cooperation and partnerships in the sector of natural forests conservation and their ecosystem by funding sources as grants, non-commercial, and technical assistance, and forest removal program through DNS is increasing each year, at least 2 documents per year. • Availability of laws and regulations in the sector of conservation of natural forest resources and its ecosystems that

Programme Area	Lead Department	Work Areas
		<p>is comprehensive in supporting dynamic field, 3 documents per year.</p> <ul style="list-style-type: none"> • Availability of program and budget documents and report of evaluation and financial at 6 central work units and 77 UPT work unit and 33 provincial offices, 580 documents. • National Parks and other protected areas of high biodiversity potential, have endangered species and flagship, or have a protective function of upriver, and or have a significant potential for nature tourism, it can self-finance all or part of the development program of conservation in the form of the BLU by 12 units, DNS, trust fund and collaboration by 4 units.

274. At the national level, this project is within Indonesia's law requiring spatial planning (land use planning) for all provinces and districts (26-2007), supervised by the Public Works Ministry and National Spatial Planning Coordinating Board (under *BAPPENAS*). This spatial planning will take ecological considerations into account through strategic environmental assessment (under 32-2009), overseen by the Ministries of Environment and Home Affairs. Spatial planning commitments in Sumatra are enacted through Presidential Decision 13/2012.

275. The intention to develop and implement a Sumatra-wide spatial plan to balance ecological functions and economic development for the people of Sumatra was announced at the 2008 IUCN World Conservation Congress when all ten Sumatran provincial governors signed a non-legally binding commitment⁵¹. While it has political support from the Indonesian Ministries of Interior, Forestry, Environment and Public Works, this commitment has yet to be realized at ground level. This will be addressed primarily through the UNEP/GEF RIMBA project, but the present project will contribute to forest conservation in the target landscapes in close coordination with RIMBA.

COUNTRY OWNERSHIP: COUNTRY ELIGIBILITY AND COUNTRY DRIVENNESS

276. As a signatory of the CBD, the Ramsar Convention, CITES and other related multilateral environmental conventions, the Government of Indonesia is committed to biodiversity conservation and eligible to receive GEF funds. The project will directly support the implementation of the Indonesian Biodiversity Strategy and Action Plan (IBSAP).

277. The project will contribute to the implementation of the Programme of Work on Protected Areas (PoWPA) as submitted to the CBD secretariat in January 2012, and towards achievement of the Aichi Targets, in particular under the **Strategic Goal C**: To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity, specifically through **Target 11** through increasing management effectiveness of the PA system in a way that is integrated into the wider landscapes, and **Target 12**, through improving the conservation status of globally threatened species, with specific focus on the Sumatran tiger.

278. The project will contribute towards **IBSAP Objective 1** on issues including: increasing community participation and partnership towards effective

⁵¹ Roadmap toward Rescuing the Ecosystem of Sumatra. Vision of Sumatra for the Year 2020. January 2010.

conservation area management; building partnerships in management, utilization and conservation of biodiversity between the government, the community and private sector; extension and law enforcement in biodiversity management and conservation; and practical guidelines for business activities based on sustainable biodiversity management; **Objective 2** through providing data on the state of biodiversity; and improvement in the investment of sustainable and equitable biodiversity management; **Objective 3** through contributions towards reduction in the rate of biodiversity loss; decrease in the deforestation rate for Sumatra; and reduction in the rate of wetlands conversion; **Objective 4** through reducing forest damage, illegal logging and harvesting of wildlife in conservation areas; reduction of overharvesting and damage of biodiversity outside conservation areas; capacity building for local government; and **Objective 5** through enhancing response and reporting on the analyses of conflicts over natural resources; training of skilled personnel for advocating the prevention of and finding solution to natural resources conflicts; documentation of cases and sources of conflicts, and efforts to resolve conflict between human beings and wildlife.

279. The project's intervention will also directly support Indonesia's international obligations under the World Heritage Convention through enhancing protection and management effectiveness of Kerinci Seblat, Gunung Leuser and Bukit Barisan Selatan National Parks, all of which are components of the Tropical Rainforest Heritage of Sumatra Natural World Heritage Site.
280. The project will also strengthen the management effectiveness and protection of Berbak and Sembilang National Parks, both of which are Wetlands of International Importance listed under the Ramsar Convention. The project landscapes also include substantial areas of peatlands and intact peat swamp forests, which are priorities for conservation and sustainable use under the National Strategy and Action Plan for Sustainable Management of Peatlands (2006).
281. Finally, the project is strongly aligned to strengthen implementation of the MoEF's NTRP, part of the Global Tiger Recovery Program for which the GEF has a stated financial supporting role. The Government of Indonesia has also signed the St. Petersburg Declaration on Tiger Conservation as adopted by the range states at the Global Tiger Summit in November 2010.
282. These all add up to a clear commitment on behalf of the government to ensure adequate protection and restoration of the natural environment of the country to protect biodiversity, maintain vital ecosystem functions and help regulate climate. As host of the national focal point for Protected Areas under CBD, national focal point for the Ramsar Convention and national Implementing Partner for this project, the MoEF has both strong ownership and a strong interest in its success. The project will directly contribute towards the further development and sustainable financing of the national protected areas system, which is under the direct mandate of the *PHKA*. The MoEF and its related bodies have been involved in both the development of the PIF and this project document and have committed substantial co-financing (US\$ 53.58 million) to enable implementation of the full sized project.

SUSTAINABILITY AND REPLICABILITY

283. **The Environmental and Social Screening Procedure (ESSP)** was followed during project preparation, as required by the ESSP Guidance Note of the UNDP. Accordingly, the environmental and social sustainability of project activities will be in compliance with the ESSP for the project (see **Annex 5**). The ESSP identified no significant issues for this project that would result in negative environmental and social impacts. However, development pressures identified by the WHC for the site *Tropical Rainforest World Heritage of Sumatra* include encroachment, demand for building new roads and upgrading existing tracks with NPs, illegal goldmining within Kerinci Seblat National Park, the new Aceh Spatial Plan which may impact forested landscapes adjacent to Gunung Leuser National Park, and proposed geothermal energy development within Bukit Barisan Selatan National Park. These issues have been brought to the attention of the national government, and potentially the project could help in responding to some of them through improving site management capacity for patrolling, law enforcement, biodiversity monitoring and stakeholder involvement. Overall, the project is expected to result in major long term positive impacts for biodiversity conservation and greater participation of local and indigenous communities in PA management processes in Sumatra.

284. The project's community-related interventions will be focused on communities within and around the five target demonstration protected areas, namely Kerinci Seblat, Gunung Leuser, Bukit Barisan Selatan, Berbak and Sembilang National Parks. Given the project's conservation objectives, the anticipated environmental impacts of the project are overwhelmingly positive. The project also aims to have a positive social impact, by strengthening PA managers' capacity for community outreach and participatory management, as well as by supporting development of conservation agreements that define mechanisms for reducing threats and maintaining biodiversity, while at the same time establishing mechanisms for securing alternative livelihoods. The project will support the realisation of benefits for communities in the target landscapes through pilot demonstrations of conservation financing mechanisms such as REDD+ and Village Forest (*Hutan Desa*) schemes.

285. Despite the above, based on the results of the ESSP, several issues will need to be carefully considered during project implementation. These include possible variable impacts the project could have on women and men, different ethnic groups and social classes. Project activities may also have impacts that could affect women's and men's ability to use, develop and protect natural resources. In order to avoid any negative adverse impacts of the project on the community in and around the target protected area sites, selection of target communities will be done in a transparent fashion, based on clear criteria such as location of the communities in relation to protected areas and key biodiversity areas outside the protected areas, type of livelihood activities and their impacts on protected area management. Different roles played by women and men in households and communities will be fully taken into account to ensure that the project benefits both genders equitably. The project will ensure that all stakeholders will be involved in the development of conservation agreements and other local area

management plan development, and capacity will be developed (within both genders) for their implementation, thereby increasing women's and men's ability to use, develop and protect natural resources. See **Output 2.2** for further information on the involvement of local communities in demonstration activities and safeguards such as grievance mechanisms.

286. The project will address sustainability as follows:

- Financial sustainability will be achieved through the project's emphasis on improving funding security for PA operations, especially to support the financial needs of effective PA management, including monitoring and enforcement programmes. Analysis of existing financial management practices will be undertaken to identify areas for cost savings, and sustainable financing plans developed for the target National Parks that take account of various revenue sources. The project includes support for piloting revenue generating instruments, including REDD+, as well as for addressing institutional barriers and perceptions of environmental economic value. Finally, the project's support for implementation of RBM is expected to have a significant impact on the cost effectiveness of PA management.
- In addition, the project has been designed to ensure that the major costs involved in setting up new systems and technologies are covered during the project period, with any necessary long-term maintenance costs related to project initiatives remaining affordable. Most project components will be completed within the project period, including capacity building, financial planning, recommendations for improvement of policies, regulations; demonstration activities at the selected sites including site management and monitoring plans, enhanced law enforcement monitoring, biodiversity monitoring systems, community participation and development programmes, and education and awareness programmes. At the target site level, it is recognised that sufficient financial sustainability must be established to cover long term management costs, especially patrolling and monitoring.
- Institutional sustainability will be improved through systematic capacity development measures for PHKA and target National Park management authorities based on the Competence Standards for Protected Area jobs in Southeast Asia⁵² and upgrading key technical skills such as the SMART patrol and data management system, which will contribute directly towards piloting effective implementation of RBM at the demonstration sites. It is intended that the capacity development through this project will contribute towards enhanced national training systems for biodiversity conservation, in order to enhance professionalism and the uptake of progressive techniques within the national PA system.
- The sustainability of necessary project activities and benefits beyond the completion of the GEF project will also be ensured as a result of their conformity with Government of Indonesia policy and regulations, specifically the IBSAP (2003), the second Medium Term Development Plan (2010-2014) and the Five Year Strategic Plan of the Directorate of Forest Protection and Nature Conservation of the MoEF covering the 2010-2014 period, including integrating the project's work at local level

⁵² http://www.arcbc.org.ph/arcbcweb/pdf/competence_standards.pdf

into regional development plans. The succeeding period for this Plan will be 2015-2019.

- At a technical level, the CSO implementing partners FFI, WCS, ZSL and *Harimaukita* have significant long term experience in supporting PA management, capacity building, law enforcement monitoring and biodiversity assessment and monitoring in Sumatra, including presence at all five of the selected demonstration sites. The approaches and techniques to be institutionalized through this project have been tested in Sumatra and applied successfully in other countries in the region (e.g. Cambodia), and with the time and resources available through this GEF project, are intended to reach a point of operational sustainability by the end of the project.
- Social sustainability will be improved through the development/strengthening of stakeholder participation mechanisms for the target protected areas, establishment of landscape level partnerships for biodiversity conservation and wildlife crime enforcement, piloting of public-private partnerships for sustainable development in production landscapes, and local level community-based natural resource management committees. Local communities will be empowered through involvement in PA management and demonstration activities in the wider landscape activities (e.g. Village Forest (*Hutan Desa*) schemes), sustainable livelihood development and awareness raising to address existing local resource use conflicts and empower women. Long-term investments to raise staff and institutional capacities for stakeholder participation, and sustained improvements in relations with local communities (through regular communication, joint field operations and targeted awareness raising) will lead to increased levels of local participation and improved PA governance, contributing to the overall sustainability of project outcomes.
- Environmental sustainability will be achieved through improved PA management effectiveness for five internationally significant National Parks, integration with local development planning and reduction of external threats on PAs and wildlife through landscape level partnerships, enhanced controls on the wildlife trade and poaching, and local capacity development. The project's contributions in strengthening capacity at the internationally important target sites and also at national level will strengthen the environmental sustainability of the national PA system through more effective threat reduction.

287. The project's outcomes are replicable as the barriers it addresses are largely shared by PA sub-systems across Indonesia, and to a fair extent in other countries in Southeast Asia, and the approaches used are transferable to strengthen the management effectiveness of PA systems in the region (as already demonstrated by the CSO partners to varying degrees). The project's outcomes will also contribute towards larger national policy, regulatory, fiscal, data management and communications goals in support of biodiversity conservation. This will include informing national policy development on issues such as strengthening inter-sectoral coordination with regard to the PA system and biodiversity conservation, innovative financing mechanisms to support PA management costs, systematic monitoring of biodiversity and pressures such as wildlife crime and human-wildlife conflicts, and community participation approaches. Strengthening of

national-level structures at *PHKA* will also have a direct benefit in this regard, as national-level human and institutional capacities are raised. Activities for capturing best practices will be used in the project to help promote replicability, shared through central training programmes for wildlife management and UNDP's Learning and Knowledge Sharing electronic platform.

288. The project's Exit Strategy is presented in **Annex 6**, following the standard format of the UNDP Indonesia Country Office.

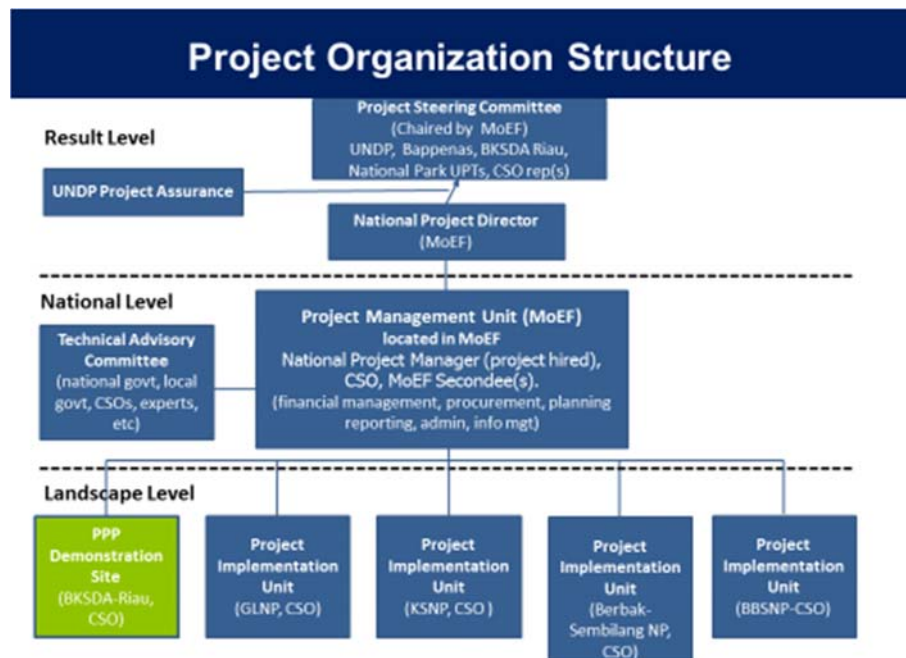
PART III: Management Arrangements

IMPLEMENTATION ARRANGEMENTS

289. The project will be implemented under the National Implementation Modality (NIM), with the MoEF as the Government Implementing Partner (IP). The project's implementation and execution arrangements will focus on maintaining strong collaboration and cooperation between the project partners in order to achieve the project objective. Specifically, these arrangements will enable the realization of a fully operational partnership for project implementation between the lead government agency units under the MoEF and the CSO partners. This will aim to maximize synergy between the experiences and ongoing cofinanced initiatives involving the partners, in order to raise collective capacity for the management of priority protected area landscapes in Sumatra, and to elevate standards and resourcing for the overall national PA system. Profiles of the CSO partners, indicating their goals, values, philosophy, experience in delivering conservation projects in Indonesia and existing cooperation with the MoEF are provided in **Annex 7**.
290. The Implementing Partner is responsible and accountable for managing the project - including the monitoring and evaluation of project interventions - and achieving project outputs, and for the effective use of project resources. Based on the approved Annual Work Plan, UNDP provides the required financial resources to the Implementing Partner to carry out project activities. The transfer of financial resources is done in accordance with the Harmonized Approach to Cash Transfer (HACT) mechanism, which identifies the following four cash transfer modalities:
- i. Direct Cash Transfers to Implementing Partners, for obligations and expenditures to be made by them in support of activities;
 - ii. Direct Payments to vendors and other third parties, for obligations incurred by the Implementing Partners;
 - iii. Reimbursement to Implementing Partners for obligations made and expenditure incurred by them in support of activities;
 - iv. Direct Agency Implementation through which UNDP makes obligations and incurs expenditure in support of activities (Country Office Support Services – COSS).
291. Under the COSS arrangement, UNDP will be responsible for (i) the identification and recruitment of project and programme personnel, (ii)

procurement of goods and services, (iii) the administration of donor financial contributions and, (iv) provision of other technical or administrative support required to deliver the outputs. In providing these services, UNDP will apply its rules and regulations. The Support Services and conditions attached to them are described in the Country Office Support Service Agreement in Annex 8. Services provided by the UNDP Country Office, including those through the COSS modality, will be subject to audit by UNDP's external (the United Nations Board of Auditors) and/or internal auditors (UNDP's Office of Audit and Investigation).

292. UNDP will provide technical guidance, administrative and managerial support and oversight to the project. A National Project Director will be appointed by the Implementing Partner to oversee and provide appropriate guidance to the UNDP-Project Management Unit, which will manage day to day activities of the project. However, the Implementing Partner will retain overall ownership of the programme, including authority to provide strategic guidance and to endorse the project Annual Work Plan.
293. With respect to the Government of Indonesia's reporting procedures on grant realization, UNDP shall prepare the Minutes of Handover (Berita Acara Serah Terima – BAST) of Goods and Services to be signed jointly by UNDP and the Implementing Partner's Authorized Budget Owner (Kuasa Pengguna Anggaran - KPA). This will be submitted by the Implementing Partner to the Directorate General of Debt Management (Direktorat Jenderal Pengelolaan Utang – DJPU) and the State Treasury Service Office (Kantor Pelayanan Pembendaharaan Negara – KPPN) under the Directorate General of Treasury (Direktorat Jenderal Perbendaharaan) of the Ministry of Finance.
294. The *PHKA* under the MoEF is the government institution responsible for the daily execution and coordination of the project. A Director of the *PHKA* will act as the National Project Director (NPD), who is the MoEF focal point for the project. The NPD will be responsible for providing government facilitation and guidance for project implementation. The NPD will not be paid from the project funds, but will represent a Government in-kind contribution to the Project.
295. The National Project Director from the MoEF and UNDP will co-chair the Project Steering Committee (PSC), which will be convened at least twice a year. In case a consensus cannot be reached within the PSC, final decision shall rest with the UNDP. UNDP is the sole GEF Implementing Agency for the project, providing the project assurance and cycle management services.
296. The National Project Manager (NPM) will be responsible and accountable for the implementation of the project. The NPM will be paid by project funds. A Project Management Unit (PMU) will be established within the MoEF Headquarters in Bogor headed by the NPM and staffed by MoEF personnel, with additional project hired personnel as appropriate, and supported by CSO partner staff according to the terms of related agreements for cooperation between the MoEF and the project partners. The management organization of the project is shown in the following organogram:



Project Oversight

297. Oversight of project inputs and outputs will be the responsibility of the PSC. As IP of the project, *PHKA* will be responsible for the project implementation, and the timely and verifiable attainment of project objectives and outcomes. Day-to-day operational oversight for project procurement and implementation of activities, and quarterly and annual reporting (substantive and financial) will be ensured by *PHKA*. This oversight will include ensuring that the project strictly adheres to the UNDP policies and procedures as set out in the UNDP Programme and Operation Policies and Procedures (POPP) and due diligence with regard to UNDP’s Social and Environmental Quality Standards.
298. UNDP as the GEF implementing agency holds overall accountability and responsibility for the delivery of results to the GEF. Working closely with MoEF, the UNDP Country Office (UNDP-CO) will have the project assurance role and will: 1) provide financial and audit services to the project including budget release and budget revision, 2) oversee financial expenditures against project budgets, 3) ensure that all activities including procurement and financial services are carried out in strict compliance with UNDP/GEF procedures, 4) ensure that the reporting to GEF is undertaken in line with the GEF requirements and procedures, 5) ensure project objectives achievement and timeliness, 6) facilitate project learning, exchange and outreach within the GEF family, 7) contract the project mid-term and final evaluations, and 8) trigger additional reviews and/or evaluations as necessary and in consultation with the project counterparts. The UNDP Country Director or his designated officials will be represented on the PSC. Strategic oversight will be provided by the UNDP/GEF Regional Technical Advisor (RTA) responsible for the project. This oversight will include ensuring that the project practices due diligence with regard to UNDP’s Environmental and Social Screening Procedure (see **Annex 5**).

Project Steering Committee

Membership

299. The Project Steering Committee (PSC) will be jointly convened by MoEF and UNDP. The PSC will be chaired by the National Project Director from the MoEF and include BAPPENAS, BKSDA Riau, the UPTs of the five National Parks, and CSO representative(s). Other organizations may be added as necessary and agreed by the PSC. The PMU will serve as secretary for the PSC.

Functions

300. The PSC will serve as the project's decision-making body. It will meet according to necessity, at least twice each year, to review project progress, approve project work plans and approve major project deliverables. The PSC is responsible for providing the strategic guidance and oversight to project implementation to ensure that it meets the requirements of the approved Project Document and achieves the stated outcomes.

301. The PSC's role will include: (i) providing strategic guidance to project implementation; (ii) assuring coordination between various donor funded and government funded projects and programmes; (iii) ensuring coordination with various government agencies and their participation in project activities; (iv) approving annual project work plans and budgets, at the proposal of the National Project Manager (NPM); (v) approving any major changes in project plans or programmes; (vi) overseeing reporting in line with GEF requirements; (vii) ensuring commitment of human resources to support project implementation, arbitrating any issues within the project (ix) negotiating solutions between the project and any parties beyond the scope of the project; (x) overall project evaluation and (xi) ensuring that UNDP Environmental and Social Screening Procedure safeguards are applied to project implementation.

302. Specific PSC membership and terms of reference will be finalized during the Project Inception Workshop.

Technical Advisory Committee

303. A Technical Advisory Committee (TAC) will be established to provide technical advice and inputs relating to project implementation and will be chaired by the NPD with support from the NPM.

Membership

304. The members of the TAC will consist of representatives from MoEF, UNDP, other relevant government agencies, research and educational organizations, NGOs (including FFI, WCS, ZSL and *HarimauKita*), technical experts and other relevant stakeholders to be agreed by the PSC. Technical experts may be invited in to discuss specific issues.

Functions

305. While the TAC will primarily focus on project-related issues, the intention is that this group would evolve to provide technical support to *PHKA*/MoEF on a

wide range of issues concerning the protected areas system. The rapid growth in socio-economic development pressures impinging on the natural environment, and an associated rapid increase in international donor and conservation organization interest make this a challenging period for *PHKA* with many issues to contend with.

306. During the project period, the TAC will provide a means of updating related stakeholders at the national level about project implementation progress, to share lessons learned from project implementation, to obtain information about and coordinate with related initiatives, and to obtain technical advice on specific issues. There should be an option to request the TAC or a subset of its members to undertake specific project-related tasks, such as preparing or reviewing analytical reports, strategies and action plans, etc.

PROJECT MANAGEMENT

Project Management at the national level

307. *PHKA* under MoEF will take overall responsibility for the timely and verifiable attainment of project objectives and activities.
308. The National Project Manager will be recruited following the appropriate UNDP mechanism, with input to the selection process from the Project partners. The NPM will have expertise in PA management and will be responsible for the day-to-day administration and implementation of the project, within the framework delineated by the PSC. S/he will provide technical expertise, review and prepare TOR's and review the outputs of consultants and other sub-contractors. S/he will work in close cooperation with the MoEF in Jakarta and its provincial, district and park staff. See **Section IV Part III** for the Terms of Reference for this position.
309. Senior staff experts from the Project partner CSOs will provide the primary technical assistance required by the project for protected area management, socio-economic/community conservation, conservation management planning, survey and monitoring. These inputs will be delivered through subcontracts between UNDP CO and CSO partners (see subcontract TORs in **Annex 11**). Beyond these inputs, additional technical experts will be recruited to assist the National Project Manager and *PHKA* staff with implementation of specific project activities (see **Section IV Part III, Overview of Inputs from Technical Assistance Consultants**).
310. Recruitment of specialist services for the project will be done by the NPM (MoEF) in consultation with the UNDP. The NPM will also liaise and work closely with all partner institutions to ensure strong coordination with other complementary national programmes and initiatives. The organogram for project management (see **Section IV Part II**) illustrates the working relationship between all the main project implementing parties or bodies.

Project Management at the Landscape Level

311. Landscape level project management will be undertaken by joint landscape management teams called Project Implementation Units (PIUs). Each Unit will be led by the National Park manager at each of the target landscapes and supported by one Project Liaison Officer per landscape, who will be selected from the *UPT* (see **Table 12**). The Kampar landscape is unique in that it does not contain a national park and is included as a demonstration site of a public-private partnership for forest management. This landscape will not therefore require a PIU. Existing management capacity at each of the five demonstration PAs (Berbak and Sembilang are in the same landscape, and the fifth is a production landscape on Kampar Peninsula) is outlined in the site profiles (see **Annex 1**) and the capacity development scorecards (**Annex 3**). Technical assistance will be provided for project implementation in each landscape through subcontracted inputs from each of the Project partner CSOs. The distribution of the demonstration PAs among different administrations is outlined in **Table 12** below:

Table 12. Distribution of demonstration PAs among different administrative areas

Landscape	Area (ha)	Province
Kerinci Seblat NP	1,389,500	Jambi (32%), W. Sumatra (26%), Bengkulu (23%), S. Sumatra (19%)
Gunung Leuser NP	1,094,692	Aceh (80%) N. Sumatra (20%)
Berbak NP	142,750	Jambi (100%)
Sembilang NP	202,896	S. Sumatra (100%)
Bukit Barisan Selatan NP	355,511	Lampung (82%), Bengkulu (18%)
Kampar (Production Landscape)	377,466	Riau (100%)

312. Implementation of the project’s Stakeholder Involvement Plan will start out with identifying key communities within each PA landscape to work with on specific issues, according to baseline information and consultations during the PPG. It recognizes the need for strong CBOs as effective partners for sustainable PA management, and will seek to strengthen existing CBOs and develop new CBOs to fulfil such roles. The CBOs will be responsible for specific tasks at the demonstration sites and will be supported by central project management and the PA management teams. Each partnering NGO will appoint experienced staff to act as focal points for community engagement and development, and will assign and train community facilitators to lead the community participation and capacity development processes. The project will also strengthen the representation of stakeholders including local communities on committees supporting site management. There will be proactive consideration of the involvement of women and ethnic minorities on local level committees and groups related to project activities including community co-management, training and awareness activities. See the **Stakeholder Participation Plan in Section IV Part IV** for further details.

PART IV: Monitoring and Evaluation Plan and Budget

MONITORING AND REPORTING⁵³

313. Project monitoring and evaluation will be conducted in accordance with established UNDP and GEF procedures and will be provided by the project team and the UNDP Country Office (UNDP-CO) with support from the UNDP/GEF Regional Coordination Unit in Bangkok. The Strategic Results Framework in **Section II Part I** provides performance and impact indicators for project implementation along with their corresponding means of verification. The M&E plan includes: inception report, project implementation reviews, quarterly and annual review reports, and mid-term review and final evaluation. The following sections outline the principal components of the M&E Plan and indicative cost estimates related to M&E activities (see **Table 13** below). The project's M&E Plan will be presented and finalized in the Project's Inception Report following a collective fine-tuning of indicators, means of verification, and the full definition of project staff M&E responsibilities.

314. A Project Inception Workshop will be conducted with the full project team, relevant government counterparts, co-financing partners, the UNDP-CO and representation from the UNDP-GEF Regional Coordinating Unit, as well as UNDP-GEF (HQs) as appropriate. A fundamental objective of the Inception Workshop will be to assist the project team to understand and take ownership of the project's goal and objective, as well as finalize preparation of the project's first Annual Work Plan (AWP) and annual and quarterly activity plans on the basis of the Strategic Results Framework. This will include reviewing the logframe (indicators, means of verification, assumptions), imparting additional detail as needed, and on the basis of this exercise, finalizing the AWP with precise and measurable performance indicators, and in a manner consistent with the expected outcomes for the project.

315. A detailed schedule of project review meetings will be developed by the project management, in consultation with project implementation partners and stakeholder representatives and incorporated in the Project Inception Report. Day-to-day monitoring of implementation progress will be the responsibility of the Project Manager based on the project's AWP, activity plans and its indicators. Specific targets for the first year implementation progress indicators together with their means of verification will be developed at the Inception Workshop and included in the AWP. Targets and indicators for subsequent years would be defined annually as part of the internal evaluation and planning processes undertaken by the project team.

316. Measurement of impact indicators related to biodiversity conservation targets (as presented in the Strategic Results Framework) will occur according to the schedules defined in the Inception Workshop. Periodic monitoring of implementation progress will be undertaken by the UNDP-CO through quarterly meetings with the Implementing Partner, or more frequently as deemed necessary. This will allow parties to take stock and to troubleshoot any problems pertaining to the project in a timely fashion to ensure smooth implementation of project activities.

⁵³ As per GEF guidelines, the project will also be using the BD 1 Management Effectiveness Tracking Tool (METT). New or additional GEF monitoring requirements will be accommodated and adhered to once they are officially launched.

317. Annual Monitoring will occur through the PSC Meetings (PSCMs). This is the highest policy-level meeting of the parties directly involved in the implementation of a project. The project will be subject to PSCMs at least two times a year. The first such meeting will be held within the first six months of the start of full implementation.

318. The Project Manager in consultations with UNDP-CO and UNDP-GEF RCU will prepare a UNDP/GEF Project Implementation Review (PIR) during the months of June-August. In addition, the Project Manager, in consultation with UNDP-CO will prepare an Annual Review Report (ARR) by the end of January and submit it to PSC members at least two weeks prior to the PSCM for review and comments. The ARR will be used as one of the basic documents for discussions in the PSCM. The Project Manager will present the ARR (and if needed the PIR) to the PSC, highlighting policy issues and recommendations for the decision of the PSCM participants. The Project Manager also informs the participants of any agreement reached by stakeholders during the PIR/ARR preparation on how to resolve operational issues. Separate reviews of each project component may also be conducted if necessary. The PSC has the authority to suspend disbursement if project performance benchmarks are not met. Benchmarks will be developed at the Inception Workshop, based on delivery rates, and qualitative assessments of achievements of outputs.

319. The terminal PSCM is held in the last month of project operations. The Project Manager is responsible for preparing the Terminal Report and submitting it to UNDP-CO and UNDP-GEF RCU. It shall be prepared in draft at least two months in advance of the terminal PSCM in order to allow review, and will serve as the basis for discussions in the PSCM. The terminal meeting considers the implementation of the project as a whole, paying particular attention to whether the project has achieved its stated objectives and contributed to the broader environmental objective. It decides whether any actions are still necessary, particularly in relation to sustainability of project results, and acts as a vehicle through which lessons learnt can be captured to feed into other projects.

320. UNDP Country Offices and UNDP-GEF RCU as appropriate, will conduct yearly visits to project sites based on an agreed upon schedule to be detailed in the project's Inception Report/Annual Work Plan to assess first hand project progress. Any other member of the Project Board can also accompany.

Project Reporting

321. The Project Manager will be responsible for the preparation and submission of the following reports that form part of the monitoring process. A Project Inception Report will be prepared immediately following the Inception Workshop. It will include a detailed Annual Work Plan divided in quarterly time-frames detailing the activities and progress indicators that will guide implementation during the first year of the project. An Annual Review Report shall be prepared by the Project Manager and shared with the Project Steering Committee. As minimum requirement, the ARR shall consist of the Atlas standard format for the Project Progress Report (PPR) covering the whole year with updated information for each element of the PPR as well as a summary of results achieved against pre-defined annual targets at the

project level. The ARR should consist of the following sections: (i) project risks and issues; (ii) project progress against pre-defined indicators and targets and (iii) outcome performance. The Project Implementation Review is an annual monitoring process mandated by the GEF. Once the project has been under implementation for a year (from the CEO approval date), a Project Implementation Report must be completed by the CO together with the project team. Quarterly progress reports: Short reports outlining main updates in project progress will be provided quarterly to the local UNDP Country Office and the UNDP-GEF RCU by the project team. UNDP ATLAS Monitoring Reports: A Combined Delivery Report (CDR) summarizing all project expenditures, is mandatory and should be issued quarterly following the finalization of the quarterly progress reports. The following logs should be prepared: (i) The Issues Log is used to capture and track the status of all project issues throughout the implementation of the project. (ii) the Risk Log is maintained throughout the project to capture potential risks to the project and associated measures to manage risks; and (iii) the Lessons Learned Log is maintained throughout the project to capture insights and lessons based on good and bad experiences and behaviours. Project Terminal Report: During the last three months of the project the project team will prepare the Project Terminal Report. Periodic Thematic Reports: As and when called for by UNDP, UNDP-GEF or the Implementing Partner, the project team will prepare Specific Thematic Reports, focusing on specific issues or areas of activity. Technical Reports are detailed documents covering specific areas of analysis or scientific specializations within the overall project. As part of the Inception Report, the project team will prepare a draft Reports List, detailing the technical reports that are expected to be prepared on key areas of activity during the course of the Project, and tentative due dates. Where necessary this Reports List will be revised and updated, and included in subsequent APRs.

External Evaluations

322. The project will be subjected to at least one independent external review and one evaluation: An independent Mid-Term Review will be undertaken at the mid-point of the project lifetime. The Mid-Term Review will determine progress being made towards the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation and management. Furthermore, it will review and update the ESSP report. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term. The organization, terms of reference and timing of the mid-term review will be decided after consultation between the parties to the project document. The ToR for this Mid-term review will be prepared by the UNDP CO based on guidance from the UNDP-GEF Regional Coordinating Unit.

323. An independent Final Evaluation will take place three months prior to the terminal Project Board meeting, and will focus on the same issues as the mid-term review. The final evaluation will also look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals. The Final Evaluation should also provide recommendations for follow-up activities. The ToR for this evaluation will be prepared by the UNDP CO based on guidance from the UNDP-GEF Regional Coordinating Unit.

Learning and Knowledge Sharing

324. The project will develop a communications strategy in the first year, which will be updated annually and implementation supported by communications, education and/or awareness personnel from FFI, WCS and ZSL. This will include capturing and disseminating lessons learned, for review at PB meetings in order to inform the direction and management of the project, and shared with project stakeholders as appropriate. A project completion report will document the project's achievements and lessons learned at the end of the project. Results from the project will also be disseminated within and beyond the project intervention zone through a number of existing information sharing networks and forums.

Branding and Visibility

325. Full compliance is required with UNDP's Branding Guidelines and guidance on the use of the UNDP logo. These can be accessed at <http://web.undp.org/comtoolkit/reaching-the-outside-world/outside-world-core-concepts-visual.shtml>. Full compliance is also required with the GEF Branding Guidelines and guidance on the use of the GEF logo. These can be accessed at [http://www.thegef.org/gef/GEF logo](http://www.thegef.org/gef/GEF_logo). The UNDP and GEF logos should be the same size. When both logs appear on a publication, the UNDP logo should be on the left top corner and the GEF logo on the right top corner. Further details are available from the UNDP-GEF team based in the region.

Audit Clause

326. Audits will be conducted according to UNDP Financial Regulations and Rules and applicable Audit policies.

Table 13. M&E Activities, Responsibilities, Budget and Time Frame

Type of M&E activity	Responsible Parties	Budget US\$ <i>Excluding project team staff time</i>	Time frame
Inception Workshop	Project Coordinator UNDP CO UNDP GEF	25,000	Within first two months of project start up
Inception Report	Project Team, through Project Mgr UNDP CO	None	Immediately following IW
Measurement of Means of Verification for Project Purpose Indicators	Project Manager will oversee the hiring of specific studies and institutions, and delegate responsibilities to relevant team members	To be finalized in Inception Phase and Workshop. Indicative cost: 15,000.	Start, mid and end of project
Measurement of Means of Verification for Project Progress and Performance (measured on an annual basis)	Oversight by Project Manager Project team	To be determined as part of the Annual Work Plan's preparation. Indicative cost: 4,000 (annually); total: 24,000	Annually prior to ARR/PIR and to the definition of annual work plans
ARR and PIR	Project Team, through Project Mgr	None	Annually

Type of M&E activity	Responsible Parties	Budget US\$ <i>Excluding project team staff time</i>	Time frame
	UNDP-CO UNDP-GEF		
Quarterly progress reports	Project team, through Project Mgr	None	Quarterly
CDRs	Project Manager	None	Quarterly
Issues Log	Project Manager UNDP CO Programme Staff	None	Quarterly
Risks Log	Project Manager UNDP CO Programme Staff	None	Quarterly
Lessons Learned Log	Project Manager UNDP CO Programme Staff	None	Quarterly
Mid-term Evaluation	Project team UNDP- CO UNDP-GEF Regional Coordinating Unit External Consultants (i.e. evaluation team)	40,000	At the mid-point of project implementation.
Final Evaluation	Project team, UNDP-CO UNDP-GEF Regional Coordinating Unit External Consultants (i.e. evaluation team)	40,000	At the end of project implementation
Terminal Report	Project team UNDP-CO local consultant	0	At least one month before the end of the project
Lessons learned	Project team UNDP-GEF Regional Coordinating Unit (suggested formats for documenting best practices, etc)	12,000 (average 2,000 per year)	Yearly
Audit	UNDP-CO Project team	24,000 (average of 4,000 per year)	Yearly
Visits to field sites	UNDP CO UNDP RCU (as appropriate) Government representatives	For GEF supported projects, paid from IA fees and operational budget	Yearly
TOTAL indicative COST <i>Excluding project team staff time and UNDP staff and travel expenses</i>		US\$ 180,000	

PART V: Legal Context

327. This document together with the CPAP signed by the Government and UNDP which is incorporated by reference constitute together a Project Document.

- a) The Revised Basic Arrangement for Technical Assistance signed 29 October 1954 between the United Nations, the International Labour Organisation, the Food and Agriculture Organisation of the United Nations, the United Nations Educational, Scientific and Cultural Organisation, the International Civil Aviation Organisation, and the World Health Organisation and the Government of the Republic of Indonesia
- b) The Standard Agreement on Operational Assistance signed 12 June 1969 between the United Nations, the International Labour Organisation, the Food and Agriculture Organisation of the United Nations, the United Nations Educational, Scientific and Cultural Organisation, the International Civil Aviation Organisation, the World Health Organisation, the International Telecommunication Union, the World Meteorological Organisation, the International Atomic Energy Agency, the Universal Postal Union, the Inter-Governmental Maritime Consultative Organisation and the United Nations Industrial Development Organisation and the Government of the Republic of Indonesia
- c) The Agreement signed 7 October 1960 between the United Nations Special Fund and the Government of the Republic of Indonesia, and
- d) all CPAP provisions apply to this document.

328. Additionally, this document together with the CPAP signed by the Government and UNDP which is incorporated by reference constitute together the instrument envisaged in the [Supplemental Provisions](#) to the Project Document, attached hereto as **Annex 12**.

329. Consistent with the above Supplemental Provisions, the responsibility for the safety and security of the implementing partner and its personnel and property, and of UNDP's property in the implementing partner's custody, rests with the implementing partner.

330. The implementing partner shall:

- a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried out;
- b) assume all risks and liabilities related to the implementing partner's security, and the full implementation of the security plan.

331. UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of this agreement.

332. The implementing partner agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via <http://www.un.org/Docs/sc/committees/1267/1267ListEng.htm>. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document. ”

333. All activities herein shall comply with UNDP National Execution (NEX) Guidelines. The following types of revisions may be made to the Project Document, with the signature of the UNDP only, provided it is assured that the other parties involved in the Project have no objections to the proposed changes: (1) Revisions which do not involve significant changes to the immediate objectives, outputs or activities of the Project, but are caused by the rearrangement of inputs agreed to

or by cost increases due to inflation, etc.; and (2) Mandatory annual revisions, which re-phase the delivery of Project inputs or involve increased experts or other costs due to inflation or that take into account expenditures flexibility

334. The UNDP Resident Representative in Jakarta is authorized to effect in writing the following types of revision to this Project Document, provided that he/she has verified the agreement thereto by the UNDP-EEG Unit and is assured that the other signatories to the Project Document have no objection to the proposed changes:

- a) Revision of, or addition to, any of the annexes to the Project Document;
- b) Revisions which do not involve significant changes in the immediate objectives, outputs or activities of the project, but are caused by the rearrangement of the inputs already agreed to or by cost increases due to inflation;
- c) Mandatory annual revisions which re-phase the delivery of agreed project inputs or increased expert or other costs due to inflation or that take into account agency expenditure flexibility; and
- d) Inclusion of additional annexes and attachments only as set out here in this Project Document.

SECTION II: STRATEGIC RESULTS FRAMEWORK (SRF) AND GEF INCREMENT

PART I: Strategic Results Framework, SRF (formerly GEF Logical Framework) Analysis

INDICATOR FRAMEWORK AS PART OF THE SRF

335. The Strategic Results Framework for the Project is presented below, including annual targets. In addition, a detailed Annual Work Plan in UNDP CO format including the schedule for implementation is presented in **Annex 9** and a work plan matrix indicating lead responsibilities, supporting partner/s and direct beneficiaries is given in **Annex 10**. These will be finalised upon project inception.

STRATEGIC RESULTS FRAMEWORK

Project Title: Transforming effectiveness of biodiversity conservation in priority Sumatran landscapes

Project's Development Goal: To contribute to the conservation and sustainable use of globally significant biodiversity in Indonesia

Objective/ Outcome	Indicator	Baseline	EOP and Annual Project Targets	Source of Information	Risks and assumptions																					
Objective: To enhance biodiversity conservation in priority landscapes in Sumatra through adoption of best management practices in protected areas and adjacent production landscapes, using tiger recovery as a key indicator of success	Sumatran tiger density Increase in Sumatran tiger density* by >10% in core area in 4 target landscapes**:	See inset table for Density baseline metrics.	EOP: Increase in Sumatran tiger density* by >10% in core area in 4 target landscapes**: See inset table for Density target metrics. See inset table for Density target metrics. Y1: Standardized field survey design and protocol (to become <i>PHKA</i> regulation) developed for tiger density (camera trapping) Y2: Annual camera trap surveys initiated for core tiger areas Y3: Landscape-level tiger occurrence mapped and priority sites inside and outside PAs identified for targeted protection actions Y4: Existing data monitoring systems reviewed and upgraded to	Project reports on Density results.	<u>Risks:</u> Exploitation of tigers and forest products dramatically increase due to heightened international trade that puts the control of these drivers of change beyond the project's intervention. Climate change may undermine conservation objectives of the project. <u>Assumption:</u> Poaching and habitat loss are the primary threats to tigers and their prey, and the project's design enables their reduction and																					
	<table border="1"> <thead> <tr> <th>Landscape</th> <th>Density Baseline Estimate (2013)</th> <th>Density Target Estimate (PY5)</th> </tr> </thead> <tbody> <tr> <td>Leuser Ecosystem</td> <td>0.52 (0.27-0.99)</td> <td>0.57</td> </tr> <tr> <td>Kerinci Seblat</td> <td>1.13 (0.64-2.00)</td> <td>1.24</td> </tr> <tr> <td>Bukit Barisan Selatan</td> <td>n/a [1.56 (1.2-3.2)[§]]</td> <td>1.72</td> </tr> <tr> <td>Berbak-Sembilang</td> <td>1.02 (0.50-1.51)</td> <td>1.12</td> </tr> <tr> <td>Average score for 4 landscapes</td> <td>1.06</td> <td>1.17</td> </tr> </tbody> </table>					Landscape	Density Baseline Estimate (2013)	Density Target Estimate (PY5)	Leuser Ecosystem	0.52 (0.27-0.99)	0.57	Kerinci Seblat	1.13 (0.64-2.00)	1.24	Bukit Barisan Selatan	n/a [1.56 (1.2-3.2) [§]]	1.72	Berbak-Sembilang	1.02 (0.50-1.51)	1.12	Average score for 4 landscapes	1.06	1.17			
	Landscape					Density Baseline Estimate (2013)	Density Target Estimate (PY5)																			
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	Bukit Barisan Selatan					n/a [1.56 (1.2-3.2) [§]]	1.72																			
	Berbak-Sembilang					1.02 (0.50-1.51)	1.12																			
Average score for 4 landscapes	1.06	1.17																								
	*Density = number of adult individual tigers/100km ² (± 95% CIs)																									
	**4 landscapes that contain 5 NPs. Kampar is not included																									
	[§] Estimate is from 1999 (O'Brien et al. 2003 Crouching tigers, hidden prey: Sumatran tiger and prey populations in a tropical forest landscape. <i>Animal Conservation</i> 6:131-139). Calculated using strip-width boundary method and not SECR method, which slightly lowers the density estimate.																									
	The camera trap sampling design for estimating tiger density is described in detail in Pickles et al. (2014) Running a Camera Trap Grid. <i>Panthera Field Manual Series, PFM03</i> . [http://www.panthera.org/tigersforeverresources]																									

Objective/ Outcome	Indicator	Baseline	EOP and Annual Project Targets	Source of Information	Risks and assumptions															
			establish key species monitoring database (including tiger) Y5: Final tiger density assessment indicates increase of >10% in core area per target landscape over 2013 baseline estimate.		results in a tiger population increase.															
Outcome 1: Increased effectiveness of key protected area management institutions	Outputs: 1.1. Management capacity increased in target protected areas through training and technical assistance. 1.2. Enhanced management and annual plans developed, adopted and implemented 1.3. Adaptive management law enforcement tools and standards, such as SMART, are implemented in priority RBMs in target landscapes. 1.4. Management effectiveness increase annually tracked through training results and METT* assessments. 1.5 Updated version of the National Tiger Recovery Plan and Sumatran Tiger Strategy and Action Plan developed and adopted. [*A proposed refinement of METT adapted specifically for the Indonesian PA system context and retaining consistency with METT for project M&E]																			
	1.1. Capacity Development Score Improved institutional capacity of the 5 target protected area authorities for management as indicated by the Capacity Development Scorecard (see Annex 3): <table border="1" data-bbox="359 980 1073 1357"> <thead> <tr> <th data-bbox="359 980 680 1110">Protected Area</th> <th data-bbox="680 980 884 1110">Capacity Development Baseline Score (2014)</th> <th data-bbox="884 980 1073 1110">Capacity Development Target Score (PY5)</th> </tr> </thead> <tbody> <tr> <td data-bbox="359 1110 680 1175">Gunung Leuser NP</td> <td data-bbox="680 1110 884 1175">69%</td> <td data-bbox="884 1110 1073 1175">83%</td> </tr> <tr> <td data-bbox="359 1175 680 1240">Kerinci Seblat NP</td> <td data-bbox="680 1175 884 1240">72%</td> <td data-bbox="884 1175 1073 1240">85%</td> </tr> <tr> <td data-bbox="359 1240 680 1305">Bukit Barisan Selatan NP</td> <td data-bbox="680 1240 884 1305">71%</td> <td data-bbox="884 1240 1073 1305">81%</td> </tr> <tr> <td data-bbox="359 1305 680 1357">Berbak NP</td> <td data-bbox="680 1305 884 1357">69%</td> <td data-bbox="884 1305 1073 1357">83%</td> </tr> </tbody> </table>	Protected Area	Capacity Development Baseline Score (2014)	Capacity Development Target Score (PY5)	Gunung Leuser NP	69%	83%	Kerinci Seblat NP	72%	85%	Bukit Barisan Selatan NP	71%	81%	Berbak NP	69%	83%	See inset table for Capacity Development Scorecard baseline.	EOP: Improved institutional capacity of the 5 target protected area authorities for management as indicated by the Capacity Development Scorecard (see Annex 3): Y1: skill gaps and management training needs identified for 5 target NPs based on professional competency standards Y2: Key NP personnel	Project reports on Capacity Development Scorecard.	<u>Risks:</u> Insufficient government commitment at all levels is secured to achieve the project objective. Failure to learn from previous experiences of biodiversity conservation in Sumatra that were not successful <u>Assumptions:</u>
Protected Area	Capacity Development Baseline Score (2014)	Capacity Development Target Score (PY5)																		
Gunung Leuser NP	69%	83%																		
Kerinci Seblat NP	72%	85%																		
Bukit Barisan Selatan NP	71%	81%																		
Berbak NP	69%	83%																		

Objective/ Outcome	Indicator			Baseline	EOP and Annual Project Targets	Source of Information	Risks and assumptions
	Sembilang NP	69%	83%		<p>trained using accredited thematic skill training modules</p> <p>Y3: Mid term assessment of CD scorecards indicates at least 40% progress towards end of project targets over baseline.</p> <p>Y4: Available equipment and needs for RBM reviewed and recommendations made to PHKA to supply/upgrade essential equipment</p> <p>Y5: End of project assessment of CD scorecards - see targets in the inset table</p>		<p>The Ministry of Forestry continues to be committed to improved capacity of the PA institution through deploying a sufficient number of competent staff and having the budget to do so.</p>
	<p>1.2. SMART-RBM Threat Encounter Reports Reduction of tiger-related threats by >10% in each of the 5 target PAs indicated by a reduction in the number of illegal activities as shown in SMART-RBM monthly patrolling reports*:</p>			<p>See inset table for baseline rate of number of illegal activities recorded per year 100km patrolled each PA.</p>	<p>EOP: Reduction of tiger-related threats by >10% in each of the 5 target PAs indicated by a reduction in the number of illegal activities as shown in SMART-RBM monthly patrolling reports* (see inset table)</p> <p>Y1: RBM</p>	<p>SMART monthly patrolling reports for each PA.</p>	<p><u>Risks:</u> A lack of suitable ranger candidates and technical support staff results in ineffective patrolling and incomplete adaptive management systems.</p> <p><u>Assumptions:</u></p>
	<p>Protected Area</p>	<p>SMART Baseline (2013)</p>	<p>SMART Target (PY5)</p>				
Gunung Leuser NP	43.0	39.0					
Kerinci Seblat NP	44.0	39.0					
Bukit Barisan Selatan NP	2.0	1.0					
Berbak NP	0.22	0.00					
Sembilang NP	0.00 [#]	0.00					

Objective/ Outcome	Indicator	Baseline	EOP and Annual Project Targets	Source of Information	Risks and assumptions
	<p>*Encounter rate: average number of tiger and prey snare traps removed/100km of forest patrol</p> <p># No snare traps were encountered in 2013, and a new baseline will be explored.</p>		<p>implementation status, current patrolling system and LE capacity in target NPs reviewed and management recommendations presented; Routine RBM-SMART forest patrols, data analysis and strategic planning initiated</p> <p>Y2: Thematic RBM-SMART workshops conducted for target NPs to initiate RBM-SMART system; Annual RBM-SMART evaluations initiated at resort, NP and national levels</p> <p>Y3: Annual RBM-SMART training reviews and updates conducted.</p> <p>Y4: Lessons learned from Annual RBM-SMART evaluations at resort, NP and national levels shared and evaluated for upscaling</p>		<p>Ranger candidates are selected based on merit (past record), ability and motivation and sufficiently resourced and supported to perform their duties.</p>

Objective/ Outcome	Indicator	Baseline	EOP and Annual Project Targets	Source of Information	Risks and assumptions																		
			<p>across national PA system</p> <p>Y5: See inset table for end of project target rate of number of illegal activities recorded per year per 100km patrolled in each PA.</p>																				
	<p>1.3. Law Enforcement Patrol Effort Increase in law enforcement patrol effort (km walked per year) by >10% in each of the 5 target PAs as shown in SMART-RBM monthly patrolling reports*:</p> <table border="1" data-bbox="359 776 1052 1036"> <thead> <tr> <th>Protected Area</th> <th>Forest Patrol Baseline (2013)</th> <th>Forest Patrol Target (PY5)</th> </tr> </thead> <tbody> <tr> <td>Gunung Leuser NP</td> <td>237</td> <td>261</td> </tr> <tr> <td>Kerinci Seblat NP</td> <td>1722</td> <td>1895</td> </tr> <tr> <td>Bukit Barisan Selatan NP</td> <td>1023</td> <td>1126</td> </tr> <tr> <td>Berbak NP</td> <td>464</td> <td>511</td> </tr> <tr> <td>Sembilang NP</td> <td>320</td> <td>352</td> </tr> </tbody> </table>	Protected Area	Forest Patrol Baseline (2013)	Forest Patrol Target (PY5)	Gunung Leuser NP	237	261	Kerinci Seblat NP	1722	1895	Bukit Barisan Selatan NP	1023	1126	Berbak NP	464	511	Sembilang NP	320	352	<p>See inset table for baseline number of forest patrol kilometres walked per year in PA and adjacent forests.</p>	<p>EOP: Increase in law enforcement patrol effort (km walked per year) by >10% in each of the 5 target PAs as shown in SMART-RBM monthly patrolling reports* (see inset table)</p> <p>Y1: RBM implementation status, current patrolling system and LE capacity in target NPs reviewed and management recommendations presented; Routine RBM-SMART forest patrols, data analysis and strategic planning initiated</p>	<p>SMART monthly patrolling reports for each PA.</p>	<p><u>Risks:</u> A lack of suitable ranger candidates and technical support staff results in ineffective patrolling and incomplete adaptive management systems</p> <p><u>Assumption:</u> Ranger candidates are selected based on merit (past record), ability and motivation and sufficiently resourced and supported to perform their duties.</p>
Protected Area	Forest Patrol Baseline (2013)	Forest Patrol Target (PY5)																					
Gunung Leuser NP	237	261																					
Kerinci Seblat NP	1722	1895																					
Bukit Barisan Selatan NP	1023	1126																					
Berbak NP	464	511																					
Sembilang NP	320	352																					

Objective/ Outcome	Indicator	Baseline	EOP and Annual Project Targets	Source of Information	Risks and assumptions
			<p>Y2: Thematic RBM-SMART workshops conducted for target NPs to initiate RBM-SMART system; Annual RBM-SMART evaluations initiated at resort, NP and national levels</p> <p>Y3: Annual RBM-SMART training reviews and updates conducted.</p> <p>Y4: Lessons learned from Annual RBM-SMART evaluations at resort, NP and national levels shared and evaluated for upscaling across national PA system</p> <p>Y5: See inset table for end of project target number of forest patrol kilometres walked per year in PA and adjacent forests.</p>		
	<p>1.4. Forest Degradation Rates Forest degradation* rates in core areas in 5 target protected areas</p>	Deforestation rate baseline	EOP: Forest degradation* rates in	Project reports on	<p>Risks: PA institutions are unwilling to tackle</p>

Objective/ Outcome	Indicator	Baseline	EOP and Annual Project Targets	Source of Information	Risks and assumptions
	<p>reduced to <1% by end of project [baseline to be set in Project Year 1]</p> <p>*Forest degradation is defined as forest located inside a PA's core area that has completely become non-forest but retains its PA status.</p>	<p>to be calculated in PY1.</p>	<p>core areas in 5 target protected areas reduced to <1% by end of project.</p> <p>Y1: Forest cover data sets/methodologies reviewed and methodological protocol confirmed</p> <p>Y2: Forest cover assessments completed for 5 NPs with MoF / Planologi as part of routine monitoring system and encroachment hotspots identified for management action</p> <p>Y3: Targeted interventions reduce encroachment incidence at identified hotspots</p> <p>Y4: Targeted interventions continue to reduce encroachment at identified hotspots</p> <p>Y5: Final forest cover</p>	<p>deforestation rates.</p>	<p>illegal forest conversion and lack the capacity and resources to do so.</p> <p><u>Assumptions:</u> PA regulations do not change and enable enforcement of borders from encroachment, whilst forest ranger teams are well-trained and able to address this threat.</p>

Objective/ Outcome	Indicator	Baseline	EOP and Annual Project Targets	Source of Information	Risks and assumptions																		
			assessment completed. Deforestation rates target to be <1% by PY5.																				
	<p>1.5. Management Effectiveness (METT Score) Improved management effectiveness of 5 target protected areas* covering 3,185,359 ha, indicated by the increase in the METT assessment (see Annex 2):</p> <table border="1" data-bbox="359 586 1073 922"> <thead> <tr> <th data-bbox="359 586 680 683">Protected Area</th> <th data-bbox="680 586 884 683">METT Baseline Score (2014)</th> <th data-bbox="884 586 1073 683">METT Target Score (PY5)</th> </tr> </thead> <tbody> <tr> <td data-bbox="359 683 680 727">Gunung Leuser NP</td> <td data-bbox="680 683 884 727">63%</td> <td data-bbox="884 683 1073 727">76%</td> </tr> <tr> <td data-bbox="359 727 680 771">Kerinci Seblat NP</td> <td data-bbox="680 727 884 771">64%</td> <td data-bbox="884 727 1073 771">76%</td> </tr> <tr> <td data-bbox="359 771 680 815">Bukit Barisan Selatan NP</td> <td data-bbox="680 771 884 815">69%</td> <td data-bbox="884 771 1073 815">77%</td> </tr> <tr> <td data-bbox="359 815 680 859">Berbak NP</td> <td data-bbox="680 815 884 859">53%</td> <td data-bbox="884 815 1073 859">75%</td> </tr> <tr> <td data-bbox="359 859 680 922">Sembilang NP</td> <td data-bbox="680 859 884 922">59%</td> <td data-bbox="884 859 1073 922">75%</td> </tr> </tbody> </table> <p>*Note – this only includes the legally gazetted National Parks, not the surrounding production landscapes</p>	Protected Area	METT Baseline Score (2014)	METT Target Score (PY5)	Gunung Leuser NP	63%	76%	Kerinci Seblat NP	64%	76%	Bukit Barisan Selatan NP	69%	77%	Berbak NP	53%	75%	Sembilang NP	59%	75%	See inset table for METT Baseline scores.	<p>EOP: Improved management effectiveness of 5 target protected areas* covering 3,185,359 ha, indicated by the increase in the METT assessment (see Annex 2). See inset table.</p> <p>Y1: METT toolkit tailored for Indonesia's PA system developed by PHKA Working Group; review and revision of 10 year mgt plans for 5 target PAs; Skill gaps and management training needs identified for 5 target NPs based on professional competency standards</p> <p>Y2: High quality annual workplans developed that support performance based</p>	Project reports on METT applied at PPG, midterm and project completion.	<p><u>Risks:</u> There is a reorientation of economic development priorities and policies leading to a change in land use plans to the detriment of the PA system.</p> <p><u>Assumptions:</u> The Ministry of Forestry continues to be committed to improved management of the PA system despite competing demands for land and resources.</p>
Protected Area	METT Baseline Score (2014)	METT Target Score (PY5)																					
Gunung Leuser NP	63%	76%																					
Kerinci Seblat NP	64%	76%																					
Bukit Barisan Selatan NP	69%	77%																					
Berbak NP	53%	75%																					
Sembilang NP	59%	75%																					

Objective/ Outcome	Indicator	Baseline	EOP and Annual Project Targets	Source of Information	Risks and assumptions
			incentives Y3: Mid term METT assessment for 5 target NPs indicates 50% progress towards targets Y4: High quality annual workplans developed that support performance based incentives Y5: See inset table for end of project METT Target scores for 5 target NPs; METT introduced as routine monitoring system for national PA system.		
Outcome 2: Intersectoral coordination systems are developed for priority landscapes	Outputs: 2.1. Landscape-level and inter-landscape partnerships developed and operationalized between relevant agencies concerned with illegal wildlife trade ⁵⁴ . 2.2. Innovative forest and wildlife management interventions in target landscapes documented and reviewed for replication and upscaling, a) Community Carbon Pool-Village Forest (<i>Hutan Desa</i>) scheme buffering Kerinci Seblat NP (supported by FFI) b) Priority wildlife habitat conserved in production area for Kampar (supported by FFI) c) Village forest restoration in Berbak NP (supported by ZSL, TFCA project) d) ‘Smart Green Infrastructure’ guidelines towards roads evaluated and tailored or tiger landscapes, in cooperation with GTI (supported by <i>HarimauKita</i>).				

⁵⁴ PA authorities, SPORC, BKSDA, local government, police, prosecutors and judges, media

Objective/ Outcome	Indicator	Baseline	EOP and Annual Project Targets	Source of Information	Risks and assumptions														
	2.3. Management decision-making informed through wildlife and forest monitoring using a standardised scientific survey protocol. 2.4 Human-tiger conflicts effectively managed in 5 target landscapes.																		
	<p>2.1. Number of Wildlife Crime Cases Submitted for Prosecution Number of wildlife crime cases submitted for prosecution from operations conducted at island level as a result of intersectoral collaboration increases by >25%:</p> <table border="1" data-bbox="359 553 1121 1008"> <thead> <tr> <th data-bbox="359 553 680 711">Landscape</th> <th data-bbox="680 553 911 711">Number of cases submitted Baseline (2013)</th> <th data-bbox="911 553 1121 711">Annual number of cases submitted Target Score (PY5)</th> </tr> </thead> <tbody> <tr> <td data-bbox="359 711 680 776">Gunung Leuser</td> <td data-bbox="680 711 911 776">3</td> <td data-bbox="911 711 1121 1008" rowspan="5">9</td> </tr> <tr> <td data-bbox="359 776 680 841">Kerinci Seblat</td> <td data-bbox="680 776 911 841">3</td> </tr> <tr> <td data-bbox="359 841 680 906">Bukit Barisan Selatan NP</td> <td data-bbox="680 841 911 906">1</td> </tr> <tr> <td data-bbox="359 906 680 971">Berbak-Sembilang</td> <td data-bbox="680 906 911 971">0</td> </tr> <tr> <td data-bbox="359 971 680 1008">Kampar</td> <td data-bbox="680 971 911 1008">0</td> </tr> </tbody> </table>	Landscape	Number of cases submitted Baseline (2013)	Annual number of cases submitted Target Score (PY5)	Gunung Leuser	3	9	Kerinci Seblat	3	Bukit Barisan Selatan NP	1	Berbak-Sembilang	0	Kampar	0	See inset table for 2013 baseline number of arrests in project landscapes.	EOP: Number of wildlife crime cases submitted for prosecution from operations conducted at island level as a result of intersectoral collaboration increases by >25% (see inset table). Y1: Law enforcement capacity and needs reviewed and recommendations lead to action plan being developed for Sumatra Y2: Most effective local informant models identified and enhanced / replicated in landscape-wide initiatives, and principles developed for the adoption of informant networks into law enforcement system	Project reports on law enforcement.	<p><u>Risks:</u> Law enforcement personnel and agencies do not support inter-agency collaborations and lack interest in the project objectives.</p> <p><u>Assumption:</u> High willingness between different agencies to cooperate at national and landscape levels; prosecutors are well-trained and competent; judiciary understands the importance of illegal wildlife trade and pertaining laws; an increased number of arrests and prosecutions is a sufficient deterrent for lowering poaching.</p>
Landscape	Number of cases submitted Baseline (2013)	Annual number of cases submitted Target Score (PY5)																	
Gunung Leuser	3	9																	
Kerinci Seblat	3																		
Bukit Barisan Selatan NP	1																		
Berbak-Sembilang	0																		
Kampar	0																		

Objective/ Outcome	Indicator	Baseline	EOP and Annual Project Targets	Source of Information	Risks and assumptions
			<p>Y3: Informant networks operational and supported in 4 target landscapes</p> <p>Y4: Informant networks operational and supported in 4 target landscapes</p> <p>Y5: See inset table for end of project target number of arrests in project landscapes.</p>		
	<p>2.2. Number of Agency Staff participating in Pilot Projects At least 25 staff of the Ministry of Forestry, Provincial/District level authorities and/or regional development planning authorities (e.g. <i>Bappeda</i> and Public Works) participate in the process of piloting five innovative forest/biodiversity projects.</p>	0 people involved	<p>EOP: At least 25 staff of the Ministry of Forestry, Provincial/District level authorities and/or regional development planning authorities (e.g. <i>Bappeda</i> and Public Works) participate in the process of piloting five innovative forest/biodiversity projects.</p> <p>Y1: Implementation plans developed for</p>	Project reports on forest/wildlife management interventions outside PAs.	<p><u>Risks:</u> Lack of support from industrial sector stakeholders</p> <p>Uncertainty in REDD+ development</p> <p><u>Assumptions:</u> High levels of interest amongst different agencies and perception that interventions are a useful alternative for management outside PAs.</p>

Objective/ Outcome	Indicator	Baseline	EOP and Annual Project Targets	Source of Information	Risks and assumptions
			<p>GEF project engagement with 5 cofinanced pilot innovative forest/ biodiversity projects</p> <p>Y2: Evaluations conducted of 5 cofinanced forest / biodiversity projects outside NPs in target landscapes, including potential for replicability in other landscapes;</p> <p>Y3: Learnings from 5 pilot projects developed as a series of best management practice case studies; site exchange visits from targeted stakeholder audiences</p> <p>Y4: Continued site exchange visits / training for targeted stakeholder audiences and promotion of replication / upscaling</p> <p>Y5: Continued site</p>		

Objective/ Outcome	Indicator	Baseline	EOP and Annual Project Targets	Source of Information	Risks and assumptions
			exchange visits / training for targeted stakeholder audiences and promotion of replication / upscaling; total of at least 25 key stakeholders trained.		
	<p>2.3. Tiger, Prey and Forest Habitat Monitoring System Standardised tiger, prey and forest habitat monitoring system developed and operationalized for 5 target protected areas and their surrounding landscapes.</p>	0 systems in place	<p>EOP: Standardised tiger, prey and forest habitat monitoring system developed and operationalized for 5 target protected areas and their surrounding landscapes.</p> <p>Y1: Standardized field survey design and protocols for biological monitoring developed; PHKA accredited training modules developed;</p> <p>Y2: Training provided through PusDikLat to NP technical units and NGOs in biological monitoring methods (wildlife and forest)</p> <p>Y3: National and NP</p>	Project report on biological surveys.	<p><u>Risks:</u> Financial resources are not adequate to support surveys at a sufficient level of scientific rigor.</p> <p><u>Assumptions:</u> Trained personnel stay actively involved in conducting surveys and correctly follow protocol.</p>

Objective/ Outcome	Indicator	Baseline	EOP and Annual Project Targets	Source of Information	Risks and assumptions
			<p>data management systems reviewed as a basis for developing key species monitoring data base</p> <p>Y4: Annual workplans for NPs include biological monitoring and associated data management tasks</p> <p>Y5: Biological monitoring systems in place and operational at five target NPs by end of project</p>		
	<p>2.4. Human-Tiger Conflict Report Assessments / Responses >95% of human-tiger conflict reports are correctly assessed and/or responded in accordance with <i>PHKA</i> mitigation protocol⁵⁵ P48, by Project Year 3.</p>	<p>Variable response rates amongst landscapes. Problem tiger reports are not systematically logged and tracked preventing the development</p>	<p>EOP: >95% of human-tiger conflict reports are correctly assessed and/or responded in accordance with <i>PHKA</i> mitigation protocol⁵⁶ P48, by Project Year 3.</p> <p>Y1: Socialisation and implementation of the human-tiger conflict mitigation protocol (P48) reviewed and</p>	<p>Project report on human-tiger conflict.</p>	<p><u>Risks:</u> Personnel and agencies targeted for wildlife conflict mitigation support do not support inter-agency collaboration and lack interest in the project.</p> <p><u>Assumptions:</u> Conflict mitigation</p>

⁵⁵ PerMen.48/2008

⁵⁶ PerMen.48/2008

Objective/ Outcome	Indicator	Baseline	EOP and Annual Project Targets	Source of Information	Risks and assumptions
		of accurate baselines.	<p>next steps identified.</p> <p>Y2: One Conflict Mitigation Coordination Team established in each of the 4 NP landscapes, SOP developed and supervision provided.</p> <p>Y3-5: >95% of human-tiger conflict reports are correctly assessed and/or responded to in accordance with <i>PHKA</i> mitigation protocol⁵⁷ P48.</p>		teams are adequately trained and resourced and therefore able to correctly perform core duties.
Outcome 3: Sustainable financing for biodiversity management in priority landscapes	Outputs: 3.1. Financial sustainability analysis conducted to improve cost-effectiveness, disbursement mechanisms and budget resources for UPT 3.2. Sustainable financing plans developed and implemented for selected production areas through business and biodiversity mechanisms 3.3 Institutional framework at national level adopted to support sustainable financing scheme implementation				
	3.1. Financing Plans Five new financing plans in place for selected target PAs by the project end and budgets increased by 10%.	0 financing plans in place, and 2014 budget baselines are	EOP: Five new financing plans in place for selected target PAs by the project end and budgets increased by	Project reports on financing mechanisms.	<u>Risks:</u> Government agencies do not view PA management as

⁵⁷ PerMen.48/2008

Objective/ Outcome	Indicator	Baseline	EOP and Annual Project Targets	Source of Information	Risks and assumptions
		from the NPs and partnering CSOs.	<p>10%.</p> <p>Y1: - Y2: Funding road map (business plan) developed for 5 NPs using existing government funding allocations (including Env. Law No. 32 of 2009) post financial review and identification of external sources.</p> <p>Y3: new sustainable financing mechanisms developed through exploring options with potential donors in Indonesia to specific target NPs and priority tiger conservation activities.</p> <p>Y5: Multi - donor workshop convened by PHKA for supporting key aspects of the National Tiger Recovery Plan; New financing plans in place for the 5 target</p>		<p>important to their own objectives;</p> <p>Lack of conservation funding for biodiversity-rich habitats outside protected areas</p> <p>Change in external donor priorities results in reduced support to Indonesia and forestry sector.</p> <p><u>Assumption:</u> Sufficient financing opportunities exist and donor are willing to consider modifications for their criteria so that it better aligns with project objectives.</p>

Objective/ Outcome	Indicator	Baseline	EOP and Annual Project Targets	Source of Information	Risks and assumptions
			NPs by end of project and budgets increased by 10%.		
	<p>3.2. Sustainable Financing Plans for Production Areas involving PPPs</p> <p>Two sustainable financing plans produced for production area/s through business and biodiversity mechanisms (PES, private sector endowment and corporate social responsibility schemes and biodiversity offsetting) involving public-private partnerships (PPPs).</p>	0 plans in place.	<p>EOP: Two sustainable financing plans produced for production area/s through business and biodiversity mechanisms (PES, private sector endowment and corporate social responsibility schemes and biodiversity offsetting) involving public-private partnerships (PPPs).</p> <p>Y1: -</p> <p>Y2: -</p> <p>Y3: Review of sustainable financing options for conservation activities outside the PA system completed; Two PPPs established for sustainable financing of conservation in</p>	Project reports on financing mechanisms.	

Objective/ Outcome	Indicator	Baseline	EOP and Annual Project Targets	Source of Information	Risks and assumptions												
			<p>production areas.</p> <p>Y4: Two sustainable financing plans produced for production area/s through business and biodiversity mechanisms involving PPPs.</p> <p>Y5: 2 sustainable financing plans received funding and activity implementation begins.</p>														
	<p>3.3. Financial Sustainability Scorecard</p> <p>Increase by >25% for each of the three component scores in the Financial Sustainability Scorecard for the sub-system of Sumatra's protected areas*:</p> <table border="1" data-bbox="359 1024 1123 1367"> <thead> <tr> <th data-bbox="359 1024 627 1101">Component</th> <th colspan="2" data-bbox="627 1024 1123 1101">Financial Sustainability Scorecard score (%)</th> </tr> <tr> <td data-bbox="359 1101 627 1141"></td> <th data-bbox="627 1101 875 1141">Baseline (2014)</th> <th data-bbox="875 1101 1123 1141">Target (PY5)</th> </tr> </thead> <tbody> <tr> <td data-bbox="359 1141 627 1287">1. Legal, regulatory and institutional frameworks</td> <td data-bbox="627 1141 875 1287">42%</td> <td data-bbox="875 1141 1123 1287">53%</td> </tr> <tr> <td data-bbox="359 1287 627 1367">2. Business planning and tools for cost-</td> <td data-bbox="627 1287 875 1367">24%</td> <td data-bbox="875 1287 1123 1367">30%</td> </tr> </tbody> </table>	Component	Financial Sustainability Scorecard score (%)			Baseline (2014)	Target (PY5)	1. Legal, regulatory and institutional frameworks	42%	53%	2. Business planning and tools for cost-	24%	30%	See inset table for baseline scores on financial sustainability.	<p>EOP: Increase by >25% for each of the three component scores in the Financial Sustainability Scorecard for the sub-system of Sumatra's protected areas* (see inset table)</p> <p>Y1: -</p> <p>Y2: -</p> <p>Y3: Review of existing laws, regulations and</p>	Project reports on PA financing; financial scorecard repeat assessment in PY5	
Component	Financial Sustainability Scorecard score (%)																
	Baseline (2014)	Target (PY5)															
1. Legal, regulatory and institutional frameworks	42%	53%															
2. Business planning and tools for cost-	24%	30%															

Objective/ Outcome	Indicator		Baseline	EOP and Annual Project Targets	Source of Information	Risks and assumptions
	effective management			<p>policies completed including recommendations to enable revenue flow to PAs from non-governmental sources; Mid term assessment of financial scorecard shows 40% progress towards targets</p> <p>Y4: Removal of barriers to sustainable financing of the PA system as far as possible through project support to legislation revisions.</p> <p>Y5: See inset table for end of project target scores on financial sustainability</p>		
	3. Tools for revenue generation	35%	44%			
<p>*10 National Parks (Batang Gadis, Berbak, Bukit Barisan Selatan, Bukit Duabelas, Bukit Tiga Puluh, Gunung Leuser, Kerinci Seblat, Sembilang, Tesso Nilo and Way Kambas)</p>						

PART II: Incremental Cost Analysis

Baseline Trends

336. In the baseline situation, without GEF investment in the proposed project, biodiversity conservation efforts in Sumatra have been hampered by weak management capacity and inadequate financing for effective PA management and low levels of cooperation within and between different government and civil society organisations. All the targeted National Parks are completely dependent on MoEF funding for their annual budgets, yet there has been a 19.3% decrease in the annual budget allocation to these parks from 2013 to 2014. As most budget supports staff and running costs for park offices, insufficient budget remains for technical activities supporting the direct protection of natural resources (see the Financial Sustainability Scorecard in **Annex 2A**).
337. Lack of coordinated action has substantially reduced conservation impacts and ineffectively addressed multi-jurisdictional issues in wider landscapes such as illegal wildlife trade. Despite most of the NGOs working on similar issues, with the same main partner (national park authority) and applying similar approaches, their general modus operandi has been to take a site-specific approach to project implementation, thus limiting impacts to local situations. The MoEF continues implementing the NTRP, but it is anticipated that this plan will be implemented on a piecemeal basis due to financial and human resource constraints, therefore its conservation management targets will therefore not be met in a timely manner.
338. Against this backdrop, there have been some positive and systematic approaches towards strengthening the management and protection of natural resources, including baseline activities underway for the REDD+ pilot provinces of Aceh, Riau, West Sumatra, Jambi and South Sumatra that are creating the institutional infrastructure and framework to support the implementation of a comprehensive REDD+ work plan; and significant international donor and INGO programmes continue to support biodiversity conservation.
339. **However, without GEF investment in the proposed project**, the key barriers identified during project formulation will remain, namely weak natural resource governance and protected area management capacity, poor inter-agency coordination for wildlife and forest conservation, and inadequate financial planning and management for protected areas. At the national level, there has been no attempt to improve the overall PA system by systematically targeting barriers at different levels of administration – at national, provincial and site levels. In summary, without this project, the business-as-usual approach will continue; no new net resources will be generated to support long-term management and existing needs, current resources will be depleted with no significant or measurable effect, and adaptive management strategies will be neither developed nor implemented. Thus, in the face of significant ongoing pressures for forest conversion to productive land uses in Sumatra, the degradation of PA buffer zones, encroachment into their boundaries and risks of habitat fragmentation are set to continue, as are the impacts of the illegal wildlife trade and human-wildlife conflicts. These pressures will degrade the ecological integrity of existing protected areas and reduce wildlife populations, further endangering key populations of globally threatened species including the Sumatran tiger.

Global Environmental Objectives

340. The proposed project will contribute directly towards the achievement of GEF Biodiversity Objective 1 "Improve Sustainability of Protected Area Systems" (BD1) and specifically the BD1 Focal area Outcome 1.1 "Improved management effectiveness of existing and new protected areas" and Outcome 1.2 "Increased revenue for protected area systems to meet total expenditures required for management." This will be accomplished through improved management effectiveness and sustainable financing of five globally important National Parks (WHC and Ramsar Sites) totaling 3,185,358 ha that form the core of key tiger conservation landscapes totaling 8,182,192 ha. The project will strengthen partnerships at landscape level to reduce key threats to wildlife, including poaching, wildlife trade, human-wildlife conflicts and habitat destruction. The overall success of the project will be indicated by an increase in Sumatran tiger density in core areas in the target landscapes. The capacity building and improved PA management systems will strengthen the entire national PA system through uptake by the MoEF. Overall, these outcomes will provide improved protection for globally significant populations of key species, including Sumatran tiger, Asian elephant, Sumatran orangutan, Sumatran rhinoceros, globally important ecoregions and some of the most highly diverse plant communities in the world. The project will also directly contribute to the implementation of the CBD's PoWPA (2012) and achievement of the Aichi Targets, in particular Target 11 through increasing management effectiveness of the PA system including its integration with conservation actions across wider landscapes, and Target 12, through improving the conservation status of globally threatened species, with specific focus on the Sumatran tiger.

GEF Alternative

341. **In the alternative scenario enabled by the GEF**, the project will remove the identified systemic and institutional barriers to improved PA management and sustainable financing in Sumatra at the national, provincial and local levels, and create a model biodiversity management system operating across key conservation landscapes that can be scaled up across Sumatra and, potentially, beyond. The project's approach will be to demonstrate and consolidate the successful strategies that have been pursued by the project partners and related stakeholders in specific areas, analysing and documenting the reasons for their success, internalizing these in collaboration with the MoEF and other local government partners, and replicating them in other priority Sumatran landscapes. The project's success will be indicated by an improvement in the density of Sumatran tiger in core areas in the target landscapes.

342. The project will approach this through three components. The first component will focus on improving the management effectiveness of existing protected areas, specifically aiming to increase it across the 3.185 million ha of protected areas in the landscape (see the METT in **Annex 2**, and **SRF** for targets). Accordingly, the management capacity of the five national park management agencies will be enhanced (see Capacity Development Scorecards in **Annex 3** and **SRF** for targets) through a range of systematic capacity building activities, including habitat/biodiversity monitoring, SMART patrolling and law enforcement

monitoring system. The government's RBM system will be strengthened to reduce threats of encroachment and poaching.

343. Under the second component, conditions for wildlife population viability in priority areas in the target landscapes will be dramatically improved through developing and operationalizing landscape management partnerships that will eliminate key threats (i.e. poaching, trade and unplanned deforestation), documenting and reviewing innovative forest and wildlife management interventions in target landscapes for replication and upscaling, informing management decision-making through systematic wildlife and forest monitoring using a standardised scientific survey protocol, and by enhancing the management of human-tiger conflicts in the target landscapes (see **SRF** for indicator targets).
344. Under the third component, new sustainable financing mechanisms will be demonstrated and shared to meet long-term management needs for the the five target landscapes through conducting a financial sustainability analysis and related financial planning to improve cost-effectiveness and disbursement mechanisms for target PAs, developing and implementing sustainable financing plans for selected production areas through business and biodiversity mechanisms, private sector endowment and corporate social responsibility schemes and biodiversity offsetting, and developing and operationalizing an institutional framework at national level to support sustainable financing scheme implementation across the national PA system (see Financial Sustainability Scorecard in **Annex 2A** and **SRF** for targets)

System Boundary

345. The project aims to achieve the *in situ* conservation of terrestrial and aquatic biodiversity in five selected priority landscapes in Sumatra (see **Figure 3**, **Table 7** and the site profiles in **Annex 1**), with wider benefits to the regional Sumatran and national PA systems through its replication and upscaling potential. Five globally important National Parks totaling 3,185,358 ha form the core of the selected key tiger conservation landscapes, which together with surrounding buffer areas total 8,182,192 ha.
346. Capacity building activities under Component 1 specifically aim to strengthen the management of the selected national parks, but will also contribute directly towards strengthening the entire national PA system through uptake by the MoEF through demonstrating systemic improvements such as SMART patrolling application to RBM, biodiversity monitoring, and PA management effectiveness tracking, enabled through central training programmes. The project will also strengthen partnerships at landscape level under Component 2 to reduce key threats to wildlife, including poaching, wildlife trade, human-wildlife conflicts and habitat destruction. This will engage a wider range of government agencies as well as key CSOs and the private sector in piloting and reviewing innovative forest and wildlife management interventions in target landscapes. Under the third component, financial plans will be developed for the five targeted national parks, and new sustainable financing mechanisms will be demonstrated and shared to meet long-term management needs both inside and outside protected areas through developing and implementing sustainable financing plans for selected production areas. This component will also enable national PA system uptake of

sustainable financing mechanisms through developing and operationalizing a national institutional framework and removal of policy and regulatory barriers.

347. Overall, the project strategy aims to deliver the cost-effective conservation of Sumatra’s globally significant biodiversity by improving capacity and efficiency within protected area management, strengthening the financing for effective operational PA management, and strengthening the sustainable management of wildlife and habitats in wider landscapes. Baseline and incremental costs have been assessed over the five-year life span of the project.

Summary of Costs

348. The Baseline associated with this project is estimated at US\$133 million. The GEF Alternative has been costed at US\$196.34 million. The total Incremental Cost to implement the full project is US\$63.34 million. Of this amount, US\$9.9 million is requested from GEF. GEF funds have leveraged US\$53.45 million in co-financing for the Alternative Strategy. Costs have been estimated for six years, the duration of the planned project Alternative. These costs are summarized below in the incremental costs matrix (**Table 14**).

Table 14. Incremental Cost Matrix

Cost/Benefit	Baseline (B)	Alternative (A)	Increment (A-B)
BENEFITS			
Global benefits	<p>In the baseline, conservation efforts in Sumatra have been constrained by weak management capacity and inadequate financing for effective PA management and low levels of cooperation within and between different government and CSOs. There is a lack of systematized training in modern conservation techniques.</p> <p>Lack of coordinated action has substantially reduced conservation impacts and ineffectively addressed multi-jurisdictional issues in wider landscapes such as illegal wildlife trade. As a result, threats are intensifying and biodiversity losses increasing especially with growing socio-economic pressures.</p> <p>All the targeted National Parks depend on MoEF funding for their annual budgets, which declined by</p>	<p>In the GEF Alternative, the project will improve the management effectiveness of existing protected areas, across the 3.185 million ha of protected areas in the landscape through training, updating management plans, habitat/biodiversity monitoring, SMART patrolling and law enforcement monitoring system. The government’s RBM system will be strengthened to reduce threats of encroachment and poaching.</p> <p>Conditions for wildlife in the target landscapes will be dramatically improved through developing and operationalizing landscape management partnerships that will eliminate key threats, documenting and reviewing innovative forest and wildlife management interventions in target landscapes for replication and upscaling, informing management decision-making through systematic wildlife and forest monitoring using a standardised scientific survey protocol, and by enhancing the management of human-tiger conflicts in the target landscapes.</p> <p>New sustainable financing mechanisms will be demonstrated and shared</p>	<p>Improved institutional capacity of the five target PA authorities for management; Reduction of tiger-related threats in each of the five target PAs; Increase in law enforcement patrol effort in each of the five target PAs; Forest degradation rates in five target PAs reduced by end of project; Improved management effectiveness of five target PAs covering 3,185,359 ha.</p> <p>Increased coordination between key stakeholders operating in target landscapes, resulting in integrated, more cost-effective biodiversity conservation; 25% increase in the number of wildlife crime suspects arrested per year through joint operations; Improved rate and effectiveness of response to human-tiger conflict events; Demonstrated viability and replicability of innovative forest and biodiversity management interventions through pilots in selected landscapes; Biological monitoring system developed and operationalized for five target PAs and their surrounding</p>

Cost/Benefit	Baseline (B)	Alternative (A)	Increment (A-B)
	19.3% in 2013-14. Budget for operational management is a major constraint for more effective park management, while usage of available financial resources is also not efficient.	through conducting a financial sustainability analysis and related financial planning to improve cost-effectiveness and disbursement mechanisms for target PAs, developing and implementing sustainable financing plans for selected production areas through innovative mechanisms, and developing and operationalizing an institutional framework at national level to support sustainable financing scheme implementation for the national PA system.	landscapes. Three new sustainable financing mechanisms in place for selected target PAs; Two sustainable financing plans produced for production area/s through business and biodiversity mechanisms involving public-private partnerships; Proposal for the modification of existing institutional frameworks and the removal of legal and regulatory barriers to enable revenue flow to PAs from non-governmental sources.
National and local benefits	In the baseline, efforts to maintain forest and wetland ecosystem services (ES) are losing ground to development pressures, with the continuation of high deforestation rates. The massive economic potential of forest and wetland ES is being steadily eroded as a result of land conversion and degradation including encroachment into the PA system. This may impact future development options for fisheries, water supply, HEP, carbon sequestration, climate change adaptation and disaster risk reduction.	The strengthened management of the targeted PA landscapes will secure increased areas of natural resources in good condition, providing sustainable flows of ES that will support related development opportunities such as carbon trading, downstream HEP development, fisheries, etc; and reduce the impacts of climate change through ecosystem-based adaptation and improved livelihood security for communities dependent upon forest products. ES in PA landscapes maintained through improved resource management, enhanced uptake of CBNRM such as Village Forests, increased awareness of the economic values of ES, and sustainable livelihood opportunities. Improved regulation of natural resource use in target landscapes, human wildlife conflicts and community resource use conflicts are managed through enhanced response by landscape management partnerships, and sustainable resource usage improved through awareness raising, alternative livelihoods and innovative financing schemes	Ecosystem services provide sustainable flows of benefits to local communities and wider economy, including carbon sequestration/REDD+, HEP potential, sustained clean water supplies, fisheries, and NTFPs. Increased benefits to local communities from alternative land uses and innovative financing schemes. Increased sustainability of land and resource uses provides greater security of income for local communities.
COSTS			
Outcome 1: Increased effectiveness of key protected area management institutions	Baseline: \$73.0 million	Alternative: \$104.91 million	GEF \$4.56 million Cofinancing \$27.35 TOTAL \$31.91 million

Cost/Benefit	Baseline (B)	Alternative (A)	Increment (A-B)
Outcome 2: Intersectoral coordination systems are developed for priority landscapes	Baseline: \$43.0 million	Alternative: \$64.72 million	GEF: \$3.45 million Cofinancing: \$18.27 million TOTAL \$21.72 million
Outcome 3: Sustainable financing for biodiversity management in priority landscapes	Baseline: \$17.0 million	Alternative: \$24.40 million	GEF: \$0.58 million Cofinancing: \$6.82 million TOTAL \$7.40 million
TOTAL COSTS	Baseline: \$133 million	Alternative: \$196.34 million	PM-GEF: \$0.41 million PM-COF: \$1.0 million PM-TOTAL: \$1.41 million Agency Fees \$900,000 TOTAL GEF: \$9,900,000

SECTION III: Total Budget and Workplan

Award ID:	00085001
Project ID:	00092762
Award Title:	PIMS 5363 Sumatra Tiger Landscape

Business Unit:	
Project Title:	Transforming effectiveness of biodiversity conservation in priority Sumatran landscapes
Implementing Partner (Executing Agency)	Ministry of Environment and Forests, Republic of Indonesia

GEF Outcome/ Atlas Activity	Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Acct Code	Atlas Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Amount Year 6 (USD)	Total (USD)	Budget Note	
COMP 1: Increased effectiveness of key protected area management institutions	MoEF	62000	GEF	71200	International Consultants	-	-	-	-	-	-	-	-	
				71300	Local Consultants	-	-	-	-	-	-	-	-	-
				71600	Travel	10,000.00	40,000.00	25,500.00	16,250.00	19,250.00	17,500.00	128,500.00	1	
				72100	Contractual Services - Company	200,000.00	761,200.00	469,700.00	628,650.00	453,400.00	337,800.00	2,850,750.00	2	
				72200	Equipment	50,000.00	275,000.00	155,000.00	250,000.00	55,000.00	-	785,000.00	3	
				72400	Communications & AV Equipment	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00	3,334.00	18,334.00	4	
				74200	Audio-visual & printing production costs	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	833.00	8,333.00	5	

				74500	Miscellaneous	600.00	600.00	600.00	600.00	600.00	333.00	3,333.00	6	
				75700	Training, workshops	30,000.00	164,200.00	231,700.00	61,700.00	216,700.00	64,200.00	768,500.00	7	
					Total	295,100	1,245,500	887,000	961,700	749,450	424,000	4,562,750		
COMP 2: Developing inter-sectoral governance systems in priority landscapes	MoEF	62000	GEF	71200	International Consultants	-	-	-	-	-	-	-	-	
				71300	Local Consultants	-	-	-	-	-	-	-	-	-
				71600	Travel	5,000.00	17,000.00	15,000.00	16,000.00	4,000.00	1,000.00	58,000.00	8	
				72100	Contractual Services - Company	100,000.00	600,100.00	568,500.00	706,100.00	395,000.00	705,350.00	3,075,050.00	9	
				72200	Equipment	-	-	26,000.00	41,500.00	2,000.00	-	69,500.00	10	
				72400	Communications & AV Equipment	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00	3,334.00	18,334.00	11	
				74200	Audio-visual and printing production costs	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	833.00	8,333.00	12	
				74500	Miscellaneous	600.00	600.00	600.00	600.00	600.00	333.00	3,333.00	13	
				75700	Training, workshops	10,000.00	58,000.00	54,000.00	58,000.00	23,000.00	10,000.00	213,000.00	14	

					Total	120,100.00	680,200.00	668,600.00	826,700.00	429,100.00	720,850.00	3,445,550.00			
COMP 3: Sustainable financing for biodiversity management in priority landscapes	MoEF	62000	GEF	71200	International Consultants	-	-	-	-	-	-	-	-		
				71300	Local Consultants	-	-	-	-	-	-	-	-	-	-
				71600	Travel	-	-	4,000.00	-	-	-	-	-	4,000.00	15
				72100	Contractual Services - Company	-	-	42,500.00	156,200.00	218,000.00	123,000.00	539,700.00	16		
				72200	Equipment	-	-	-	-	-	-	-	-	-	-
				72400	Communications & AV Equipment	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00	3,334.00	18,334.00	17		
				74200	Audio-visual and printing production costs	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	833.00	8,333.00	18		
				74500	Miscellaneous	600.00	600.00	600.00	600.00	600.00	333.00	3,333.00	19		
				75700	Training, workshops	-	-	8,000.00	-	-	-	8,000.00	20		
					Total	5,100.00	5,100.00	59,600.00	161,300.00	223,100.00	127,500.00	581,700.00			
PROJECT MANAGEMENT	MoEF	62000	GEF	71300	Local Consultants	30,000.00	30,000.00	40,000.00	30,000.00	30,000.00	40,000.00	200,000.00	21		
				71400	Contractual Services - Individual	-	-	12,000.00	-	-	12,000.00	24,000.00	22		

				71600	Travel	5,000.00	5,000.00	12,000.00	5,000.00	5,000.00	12,000.00	44,000.00	23
				72200	Equipment	5,148.00	-	-	5,000.00	-	-	10,148.00	24
				74500	UNDP Cost Recovery Charges	5,721.00	-	1,065.00	-	-	1,066.00	7,852.00	25
				74100	Professional service	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00	24,000.00	26
				75700	Training, workshops	25,000.00	11,000.00	21,000.00	11,000.00	11,000.00	21,000.00	100,000	27
					Total	74,869.00	50,000.00	90,065.00	55,000.00	50,000.00	90,066.00	410,000.00	
TOTAL PROJECT						495,169.00	1,980,800.00	1,705,265.00	2,004,700.00	1,451,650.00	1,362,416.00	9,000,000.00	

Summary of Funds							
Source	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
GEF	495,169.00	1,980,800.00	1,705,265.00	2,004,700.00	1,451,650.00	1,362,416.00	9,000,000.00
Government (in kind)	7,350,000.00	7,350,000.00	7,350,000.00	7,350,000.00	7,350,000.00	7,350,000.00	44,100,000.00
CSO (in kind)	950,000.00	950,000.00	950,000.00	950,000.00	950,000.00	950,000.00	5,700,000.00
Private Sector	583,330.00	583,330.00	583,330.00	583,330.00	583,330.00	583,350.00	3,500,000.00
UNDP	25,000.00	25,000.00	25,000.00	25,000.00	25,000.00	25,000.00	150,000.00
Total	9,403,499.00	10,889,130.00	10,613,595.00	10,913,030.00	10,359,980.00	10,270,766.00	62,450,000.00

Budget Notes

Component 1

1	<p>Travel (Total = \$128,500) Travel and associated costs for consultants, contractors, project staff and participants to reach project headquarters and the 5 landscape sites for various tasks including stakeholder consultations, decision making and consensus building meetings, technical on-site investigation, research, training, project management or committee meetings, and for conducting awareness raising strategies in each landscape. Output 1.1. Sub-total = \$33,500.</p> <ul style="list-style-type: none"> • Output 1.2. Sub-total = \$37,500. • Output 1.3. Sub-total = \$32,500. • Output 1.4. Sub-total = \$25,000.
2a	Contractual Services – Company (Total = \$876,125)

	<p>Sub-contract – for provision of technical support to KSNP under all Outputs (see subcontract TOR in Annex 11)</p> <ul style="list-style-type: none"> • Output 1.1. Sub-total = \$10,000 <ul style="list-style-type: none"> ○ short-term PA mgt assessment expert (1W@\$2500 = \$2500), short-term PA Training Advisor (1W@\$2500 = \$2500), short-term PA assessor (1W@\$2500 = \$2500). • Output 1.2. Sub-total = \$25,000 <ul style="list-style-type: none"> ○ short-term PA mgt planner (4W@\$2500 = \$10,000), short-term RBM Advisor (2W@\$2500 = \$5000), short-term work plan Advisor (4W@\$2500 = \$10,000). • Output 1.3. Sub-total = \$818,625 <ul style="list-style-type: none"> ○ short-term law enforcement Advisor (6W@\$2500 = \$15,000), workshop costs = \$6000, travel costs = \$1500. ○ short-term RBM-SMART expert (\$17,500 per expert activity packet), workshop costs = \$35,000 + travel costs = \$3500). ○ short-term RBM-SMART Advisor (\$21,000 x 5 years = \$94,000), ranger patrol field costs (\$118,300 x 5 years = \$599,500), travel costs (\$2625 x 5 years = \$15,625). ○ short-term RBM-SMART Evaluator (4W@\$2500 = \$10,000). • Output 1.4. Sub-total = \$12,500 <ul style="list-style-type: none"> ○ short-term METT Advisors (5W@\$2500 = \$12,500). • Output 1.5. Sub-total = \$10,000 <ul style="list-style-type: none"> ○ short-term tiger conservation/NTRP Advisors (4W@\$2500 = \$10,000).
2b	<p>Contractual Services – Company (Total = \$1,175,375)</p> <p>Sub-contract – for provision of technical support to GLNP and BBSNP under all Outputs (see subcontract TOR in Annex 11)</p> <ul style="list-style-type: none"> • Output 1.1. Sub-total = 17,500 <ul style="list-style-type: none"> ○ short-term PA mgt assessment expert (2W@\$2500 = \$5000), short-term PA Training Advisor (1W@\$2500 = \$2500), short-term PA assessor (4W@\$2500 = \$10,000). • Output 1.2. Sub-total = \$50,000 <ul style="list-style-type: none"> ○ short-term PA mgt planner (8W@\$2500 = \$20,000), short-term RBM Advisor (4W@\$2500 = \$10,000), short-term work plan Advisor (8W@\$2500 = \$20,000). • Output 1.3. Sub-total = \$1,080,375 <ul style="list-style-type: none"> ○ short-term law enforcement Advisor (8W@\$2500 = \$20,000), 2 NP workshop costs@\$6000 = \$12,000, 2 NP travel costs@\$1500 = \$3000. ○ short-term RBM-SMART expert (GLNP: \$15,000; BBSNP: \$7500), workshop costs (GLNP: \$30,000; BBSNP: \$15,000), travel costs (GLNP: \$3000; BBSNP: \$1500). ○ short-term RBM-SMART Advisor (GLNP: \$18,000 x 5 years = \$90,000; BBSNP: \$9000 x 5 years = \$45,000), ranger patrol field costs (GLNP: \$101,400 x 5 years = \$570,000; BBSNP: \$50,700 x 5 years = \$253,500), travel costs (GLNP: \$2250 x 5 years = \$11,250; BBSNP: \$1125 x 5 years = \$5625). ○ short-term RBM-SMART Evaluator (8W@\$2500 = \$20,000). • Output 1.4. Sub-total = \$17,500 <ul style="list-style-type: none"> ○ short-term METT Advisors (7W@\$2500 = \$17,500). • Output 1.5. Sub-total = \$10,000 <ul style="list-style-type: none"> ○ short-term tiger conservation/NTRP Advisors (4W@\$2500 = \$10,000).

2c	<p>Contractual Services – Company (Total = \$628,500) Sub-contract for provision of technical support to BNP and SNP under all Outputs (see subcontract TOR in Annex 11)</p> <ul style="list-style-type: none"> • Output 1.1. Sub-total = 17,500 <ul style="list-style-type: none"> ○ short-term PA mgt assessment expert (2W@\$2500 = \$5000), short-term PA Training Advisor (1W@\$2500 = \$2500), short-term PA assessor (4W@\$2500 = \$10,000). • Output 1.2. Sub-total = \$50,000 <ul style="list-style-type: none"> ○ short-term PA mgt planner (8W@\$2500 = \$20,000), short-term RBM Advisor (4W@\$2500 = \$10,000), short-term work plan Advisor (8W@\$2500 = \$20,000). • Output 1.3. Sub-total = \$533,500 <ul style="list-style-type: none"> ○ short-term law enforcement Advisor (8W@\$2500 = \$20,000), 2 NP workshop costs@\$6000 = \$12,000, 2 NP travel costs@\$1500 = \$3000. ○ short-term RBM-SMART expert (BNP: \$5000; SNP: \$5000), workshop costs (BNP: \$10,000; SNP: \$10,000), travel costs (BNP: \$1000; SNP: \$1000. ○ short-term RBM-SMART Advisor (BNP: \$8000 x 5 years = \$40,000; SNP: \$8000 x 5 years = \$40,000), ranger patrol field costs (BNP: \$33,800 x 5 years = \$169,000; SNP: \$33,800 x 5 years = \$169,000), travel costs (BNP: \$750 x 5 years = \$3750; SNP: \$750 x 5 years = \$3750). ○ short-term RBM-SMART Evaluator (8W@\$2500 = \$20,000). • Output 1.4. Sub-total = \$17,500 <ul style="list-style-type: none"> ○ short-term METT Advisor (7W@\$2500 = \$17,500). • Output 1.5. Sub-total = \$10,000 <ul style="list-style-type: none"> ○ short-term tiger conservation/NTRP Advisor (4W@\$2500 = \$10,000).
2d	<p>Contractual Services – Company (Total = \$170,750) Sub-contract for provision of technical support to PHKA under Outputs 1.1, 1.4 and 1.5 (see subcontract TOR in Annex 11)</p> <ul style="list-style-type: none"> • Output 1.1. Sub-total = \$22,800: <ul style="list-style-type: none"> ○ short-term PA mgt assessment expert (4W@\$650 = \$2600), Int'l consultant PA specialist to assess competency standards (4@\$2500 = \$10,000). • Output 1.2. Sub-total = \$52,000: <ul style="list-style-type: none"> ○ short-term Project Management Support (16W@\$650 = \$10,400/yr x 5 yrs = \$52,000) • Output 1.4. Sub-total = \$1950: <ul style="list-style-type: none"> ○ short-term METT Advisor (3W@\$650 = \$1950). • Output 1.5. Sub-total = \$94,000: <ul style="list-style-type: none"> ○ short-term tiger conservation/NTRP Advisors (20W@\$650 = \$13,000); NTRP workshop cost for pre-meeting = \$15,000 & main meeting = \$45,000, with travel to pre-meeting = \$6000 & main meeting = \$15,000.
3	<p>Equipment (Total = \$785,000)</p> <ul style="list-style-type: none"> • Output 1.1. Sub-total = \$310,000: for RBM implementation in 5 NPs in PY2 and PY4: office = \$80,000 (in-focus, computer, printer, furniture); motor bikes = \$180,000; generators = \$50,000. • Output 1.3. Sub-total = \$475,000: Field equipment for RBM-SMART patrols in 5NPs in PY1 and PY3 = \$450,000 (GPS, compass, camera, UHF radio, field clothes, camping); and office for 5NPs = \$25,000 (computers).

4	<p>Communications and AV Equipment: (Total = \$18,334)</p> <ul style="list-style-type: none"> • Communication costs for implementation of activities in Component 1.
5	<p>Audio-visual & printing production costs (Total = \$8333)</p> <ul style="list-style-type: none"> • For implementation of activities in Component 1, including for technical reports and awareness materials.
6	<p>Miscellaneous (Total = \$3333)</p> <ul style="list-style-type: none"> • For implementation of activities in Component 1, such as a contingency for possible exchange rate fluctuations and miscellaneous costs associated with organizing meetings related to capacity building activities (venues, catering, facilitation, interpretation etc.).
7	<p>Training, workshops (Total = \$768,500) For activity budgets managed by PHKA-KKH/UPT for 5 NPs in Component 1.</p> <ul style="list-style-type: none"> • Output 1.1. Sub-total = \$402,500 <ul style="list-style-type: none"> ○ PA competency standard/capacity building workshop costs for 5NPs@\$2500 = \$12,500, Training module development = \$15,000, ToT session for 5 NPs = \$35,000, NP training costs (\$56,000/KSNP; \$48,000/GLNP & \$24,000/BBSNP; \$16,000/BNP & \$16,000/SNP) x 2 years = \$320,000, Equipment assessment for 5NPs@\$2000 = \$10,000 x 2 years = \$20,000. • Output 1.2. Sub-total = \$196,000 <ul style="list-style-type: none"> ○ NP management plan workshop for 5NPs@\$2500 = \$12,500 + mid-term review of management plans = \$12,500; ○ Workshop to identify RBM options for 5NPs@\$5000 = \$25,000; Workshop costs to develop annual work plans for 5NPs@\$2500 = \$12,500 x 4 years = \$50,000 + Project Implementation Unit Liaison Officers for 4 landscapes@\$4800/yr x 5 yrs = \$96,000) • Output 1.3. Sub-total = \$105,000 <ul style="list-style-type: none"> ○ Workshop costs for RBM-SMART syllabus development = \$10,000 and ToT = \$20,000, 1 national RBM-SMART review and planning workshop = \$15,000, Annual RBM evaluation meetings for 5NPs@\$3000 = \$15,000 x 4 years = \$60,000. • Output 1.4. Sub-total = \$65,000 <ul style="list-style-type: none"> ○ 1 METT development workshop = \$5,000, 1 METT training workshop = \$10,000, 1 national METT socialisation meeting = \$20,000, Mid-term METT/CapDev assessments in 5NPs@\$3000 = \$15,000, Final METT/CapDev assessments in 5NPs@\$3000 = \$15,000.
Component 2	
8	<p>Travel (Total = \$58,000)</p> <p>Travel and associated costs for consultants, contractors, project staff and participants to reach project headquarters and the 5 landscape sites for various tasks including stakeholder consultations, decision making and consensus building meetings, technical on-site investigation, research, training, project management or committee meetings, and for conducting awareness raising strategies in each landscape.</p> <ul style="list-style-type: none"> • Output 2.2. Sub-total = \$3000 • Output 2.3. Sub-total = \$20,000 • Output 2.4. Sub-total = \$35,000
9a	<p>Contractual Services – Company (Total = \$1,000,500)</p> <p>Sub-contract – for provision of technical support to KSNP under all Outputs (see subcontract TOR in Annex 11)</p>

	<ul style="list-style-type: none"> • Output 2.1. Sub-total = \$659,000 <ul style="list-style-type: none"> ○ Short-term wildlife crime expert (4W@\$2500 = \$10,000), 1 academic review = \$10,000, 1 wildlife crime partner workshop = \$20,000, Travel to workshop for 5NPs@\$1000 = \$5000; ○ Short-term illegal wildlife trade expert (8W@\$2500 = \$20,000); 3 inter-agency wildlife crime partner meetings@\$20,000 = \$60,000; 1 wildlife trade Action planning meeting = \$10,000, Travel to wildlife crime/action planning meetings 4W@\$4000 = \$16,000, Equipment - office (computers, etc) = \$2500; ○ Short-term wildlife crime Advisor (8W@\$2500 = \$20,000); 1 national inter-agency command unit partner meeting@\$4000 x 4 years = \$16,000; Travel to 1 meeting@\$2000 x 4 years = \$8000. ○ Short-term informant network assessment specialist (3W@\$2500 = \$7500) ○ Short-term informant specialist (\$21,000/year x 4 years = \$84,000), Support to informant network (\$21,000 x 4 years = \$84,000), informant network travel (\$3500 x 4 years = \$14,000) ○ Short-term multi-agency partnership specialist (6W@\$2500 = \$15,000); 1 training workshop = \$18,000, Travel to 1 workshop = \$3000. ○ Short-term regional partnership specialists (24W@\$2500 = \$60,000); Operational support to 1 regional partnership (\$40,000 x 4 years = \$160,000), Travel in 1 region (\$4000 x 4 years = \$16,000). • Output 2.2. Sub-total = \$61,000 <ul style="list-style-type: none"> ○ Short-term sustainable forest management experts (6W@\$2500 = \$15,000), 2 site exchange visits@\$12,000 = \$24,000, Travel to 2 sites@\$6000 = \$12,000. ○ Short-term EIA experts (4W@\$2500 = \$10,000). • Output 2.3. Sub-total = \$194,500 <ul style="list-style-type: none"> ○ Short-term wildlife monitoring protocol design expert (3W@\$2500 = \$7500) ○ Short-term wildlife monitoring advisor (KSNP: 16W@\$2500 = \$40,000), Field surveys (\$50,000 x 2 years = \$100,000), Travel to field (\$1000 x 2 years = \$2000), Equipment (computer, GPS, compass etc) = \$5000 x 2 years = \$10,000. ○ Short-term wildlife teaching experts (9W@\$2500 = \$22,500) ○ Short-term spatial analyst specialist (2W@\$2500 = \$5000) ○ Short-term database specialist (2W@\$2500 = \$5000) ○ Short-term mapping/Atlas specialist (1W@\$2500 = \$2500) • Output 2.4. Sub-total = \$90,500 <ul style="list-style-type: none"> ○ HTC outreach specialist (2W@\$2500 = \$5000) ○ HTC response unit specialists (8W@\$2500 = \$20,000), Operational support for HTC mitigation in 1 landscapes = \$8000 x 4 years = \$32,000, Travel = \$6000. ○ Wildlife rescue specialist (6W@\$2500 = \$15,000). ○ HTC training specialist (4W@\$2500 = \$10,000) ○ Tiger translocation specialist (1W@\$2500 = \$2500)
9b	<p><u>Contractual Services – Company (Total = \$1,374,500)</u> Sub-contract – for provision of technical support to GLNP and BBSNP under all Outputs (see subcontract TOR in Annex 11)</p> <ul style="list-style-type: none"> • Output 2.1. Sub-total = \$844,500 <ul style="list-style-type: none"> ○ Short-term wildlife crime expert (4W@\$2500 = \$10,000) ○ Short-term illegal wildlife trade expert (8W@\$2500 = \$20,000)

	<ul style="list-style-type: none"> ○ Short-term wildlife crime Advisor (8W@\$2500 = \$20,000); 1 national inter-agency command unit partner 2 meeting@\$8000 x 4 years = \$32,000; Travel to 2 meeting@\$4000 x 4 years = \$16,000. ○ Short-term informant network specialist (3W@\$2500 = \$7500); 2 partner meetings to review informant models@\$12,000 = \$24,000; Travel 4 landscapes@\$3000 = \$12,000 ○ Short-term informant specialist (GLNP: \$18,000 x 4 years = \$72,000; BBSNP: \$9000 x 4 years = \$36,000), Support to informant network (GLNP: \$18,000 x 4 years = \$72,000; BBSNP: \$9000 x 4 years = \$36,000), informant network travel (GLNP: \$3000 x 4 years = \$12,000; BBSNP: \$1500 x 4 years = \$6000). ○ Short-term multi-agency partnership specialist (6W@\$2500 = \$15,000); 2 training workshops@18,000 = \$36,000; Travel to 2 workshops@3000 = \$6000. ○ Short-term regional partnership specialists (24W@\$2500 = \$60,000); Operational support to 2 regional partnerships@\$80,000 x 4 years = \$320,000, Travel in 2 regions@\$8000 x 4 years = \$32,000. ● Output 2.2. Sub-total = \$30,000 <ul style="list-style-type: none"> ○ Short-term sustainable forest management experts (4W@\$2500 = \$10,000). ○ Short-term EIA experts (8W@\$2500 = \$20,000). ● Output 2.3. Sub-total = \$346,500 <ul style="list-style-type: none"> ○ Short-term wildlife monitoring protocol design expert (3W@\$2500 = \$7500) ○ Short-term wildlife monitoring advisor (GNLP: 16W@\$2500 = \$40,000; BBSNP: 16W@\$2500 = \$40,000), Field surveys (GLNP: \$50,000 x 2 years = \$100,000; BBSNP: \$50,000 x 2 years = \$100,000), Travel to field (GLNP: \$1000 x 2 years = \$2000; BBSNP: \$1000 x 2 years = \$2000), Equipment (computer, GPS, compass etc, GNLP: \$5000 x 2 years = \$10,000; BBSNP: \$5000 x 2 years = \$10,000). ○ Short-term wildlife teaching experts (9W@\$2500 = \$22,500) ○ Short-term spatial analyst specialist (2W@\$2500 = \$5000) ○ Short-term database specialist (2W@\$2500 = \$5000) ○ Short-term mapping/Atlas specialist (1W@\$2500 = \$2500) ● Output 2.4. Sub-total = \$153,500 <ul style="list-style-type: none"> ○ HTC outreach specialist (4W@\$2500 = \$10,000) ○ HTC response unit specialists (16W@\$2500 = \$40,000), Operational support for HTC mitigation in 2 landscapes@\$8000 x 4 years = \$64,000, Travel = \$12,000. ○ Wildlife rescue specialist (6W@\$2500 = \$15,000). ○ HTC training specialist (4W@\$2500 = \$10,000) ○ Tiger translocation specialist (1W@\$2500 = \$2500)
9c	<p>Contractual Services – Company (Total = \$447,500) Sub-contract – for provision of technical support to BNP and SNP under all Outputs (see subcontract TOR in Annex 11)</p> <ul style="list-style-type: none"> ● Output 2.1. Sub-total = \$111,500 <ul style="list-style-type: none"> ○ Short-term informant network specialist (3W@\$2500 = \$7500) ○ Short-term informant specialist (BNP: \$6000 x 4 years = \$24,000; SNP: \$6000 x 4 years = \$24,000), Support to informant network (BNP: \$6000 x 4 years = \$24,000; SNP: \$6000 x 4 years = \$24,000), informant network travel (BNP: \$1000 x 4 years = \$4000; SNP: \$1000 x 4 years = \$4000) ● Output 2.2. Sub-total = \$51,000 <ul style="list-style-type: none"> ○ Short-term sustainable forest management experts (6W@\$2500 = \$15,000), 2 site exchange visits@\$12,000 = \$24,000, Travel to 2 sites@\$6000 =

	<p>\$12,000.</p> <ul style="list-style-type: none"> • Output 2.3. Sub-total = \$194,500 <ul style="list-style-type: none"> ○ Short-term wildlife monitoring protocol design expert (3W@\$2500 = \$7500) ○ Short-term wildlife monitoring advisor (BNP-SNP: 16W@\$2500 = \$40,000), Field surveys (\$50,000 x 2 years = \$100,000), Travel to field (\$1000 x 2 years = \$2000), Equipment (computer, GPS, compass etc) = \$5000 x 2 years = \$10,000. ○ Short-term wildlife teaching experts (9W@\$2500 = \$22,500) ○ Short-term spatial analyst specialist (2W@\$2500 = \$5000) ○ Short-term database specialist (2W@\$2500 = \$5000) ○ Short-term mapping/Atlas specialist (1W@\$2500 = \$2500) • Output 2.4. Sub-total = \$90,500 <ul style="list-style-type: none"> ○ HTC outreach specialist (2W@\$2500 = \$5000) ○ HTC response unit specialists (8W@\$2500 = \$20,000), Operational support for HTC mitigation in 1 landscapes = \$8000 x 4 years = \$32,000, Travel = \$6000. ○ Wildlife rescue specialist (6W@\$2500 = \$15,000). ○ HTC training specialist (4W@\$2500 = \$10,000) ○ Tiger translocation specialist (1W@\$2500 = \$2500)
9d	<p>Contractual Services – Company (Total = \$247,250)</p> <p>Sub-contract for provision of technical support to PHKA under Outputs 1.1, 1.4 and 1.5 (see subcontract TOR in Annex 11)</p> <ul style="list-style-type: none"> • Output 2.2. Sub-total = \$25,200 <ul style="list-style-type: none"> ○ Short-term EIA expert (8W@\$650 = \$5200), 2 site exchange visits @\$5000 = \$10,000, 1 EIA/AMDAL meeting = \$4000, Travel to 2 sites @\$2000 = \$4000, travel to AMDAL meeting = \$2000. • Output 2.3. Sub-total = \$199,750 <ul style="list-style-type: none"> ○ Wildlife teaching experts (22W@\$650 = \$14,300), Classroom training = \$12,000 x 3 years = \$36,000; field research grants to 6 students @\$2000 = \$12,000 x 3 years = \$36,000; Travel to training = \$3000 x 3 years = \$9000; Equipment for teaching and research (computer, GPS etc) = \$5000 x 3 years = \$15,000. ○ Spatial analyst specialist (8W@\$650 = \$5200), 2 land use planning workshops@\$20,000 = \$40,000, Travel to 2 workshops@\$3000 = \$6000. ○ Technology specialist (8W@\$650 = \$5200). ○ Mapping/Atlas specialist (9W@\$650 = \$5850), 1 tiger atlas meeting = \$15,000, Travel to Atlas meeting = \$3000, Printing of Atlas = \$10,000. • Output 2.4. Sub-total = \$22,300 <ul style="list-style-type: none"> ○ HTC analyst specialist (4W@\$650 = \$2600). ○ HTC analyst specialist (HK: 12W@\$650 = \$7800), 3 HTC mapping workshops@\$3000 = \$9000, Travel to 3 HTC mapping workshops@\$1000 = \$3000, Office equipment (computer, GIS software etc) = \$2500.
10	<p>Equipment (Total = \$69,500)</p> <ul style="list-style-type: none"> • Output 2.3. Sub-total = \$39,500: For support to database management (computers, IT etc) = \$3500, For 6 innovative technology sub-grants@\$6000 = \$36,000. • Output 2.4. Sub-total = \$30,000: For office equipment (computer, GIS software etc) for HK to conduct spatio-temporal analysis of human-tiger conflict = \$2500, For HTC mitigation (flares, UHF radio, GPS, livestock cages etc) for 4 teams@\$6000 = \$24,000, For Wildlife Emergency Rescue Team (drugs, syringes etc) for 1 team over 3years@\$2000 = \$6000.

11	<p>Communications and AV Equipment: (Total = \$18,334)</p> <ul style="list-style-type: none"> • Communication costs for implementation of activities in Component 2.
12	<p>Audio-visual & printing production costs (Total = \$8,333)</p> <ul style="list-style-type: none"> • For implementation of activities in Component 2, including for technical reports and awareness materials.
13	<p>Miscellaneous (Total = \$3333)</p> <ul style="list-style-type: none"> • For implementation of activities in Component 2, such as a contingency for possible exchange rate fluctuations and miscellaneous costs associated with organizing meetings related to capacity building activities (venues, catering, facilitation, interpretation etc).
14	<p>Training, workshops (Total = \$213,000) For activity budgets managed by PHKA-KKH/UPT for 5 NPs in Component 2.</p> <ul style="list-style-type: none"> • Output 2.2. Sub-total = \$6000 <ul style="list-style-type: none"> ○ 1 meeting on sustainable forest management demonstration projects conducted outside target NPs = \$6000 • Output 2.3. Sub-total = \$62,000 <ul style="list-style-type: none"> ○ 1 field survey design and protocol/syllabus development workshop = \$4000 & 1 protocol training workshop = \$9,000. ○ Meeting to review and assessment forest cover change = \$5000 x 2 years = \$10,000. ○ 1 meeting to assess need for developing an internal GIS application to guide spatial planners/economic development planning/AMDAL decision making = \$3000. ○ 2 meetings to review current national and NP data management systems@\$3000 = \$6000. ○ 2 technology competition events @\$15,000 = \$30,000. • Output 2.4. Sub-total = \$137,000 <ul style="list-style-type: none"> ○ 1 national HTC protocol workshop = \$4000. ○ HTC mitigation outreach in 4 landscapes@\$9,000 = \$36,000. ○ 1 HWC mitigation strategic planning workshop = \$10,000. ○ Wildlife Emergency Rescue Team training workshop = \$8000 x 2 years = \$16,000 & operational support for rescue response over 3 years@\$15,000 = \$45,000. ○ 1 human-tiger conflict mitigation techniques/ tiger conservation workshop at <i>PusDikLat</i> over 2years@\$15,000 = \$30,000. ○ 1 workshop on identifying potential tiger release sites = \$4000.
Component 3	
15	<p>Travel (Total = \$4000) Travel and associated costs for consultants, contractors, project staff and participants to reach project headquarters and the 5 landscape sites for various tasks including stakeholder consultations, decision making and consensus building meetings, technical on-site investigation, research, training, project management or committee meetings, and for conducting awareness raising strategies in each landscape.</p> <ul style="list-style-type: none"> • Output 3.1. Sub-total = \$4000

16a	<p>Contractual Services – Company (Total = \$202,100) Sub-contract – for provision of technical support to KSNP under all Outputs (see subcontract TOR in Annex 11)</p> <ul style="list-style-type: none"> • Output 3.1. Sub-total = \$53,500 <ul style="list-style-type: none"> ○ PA funding specialist (4W@\$2500 = \$10,000), 1 NP meeting = \$1500, Travel to 1 NP = \$1000. ○ PA funding mechanism specialist (10W@\$2500 = \$25,000), 2 meetings@\$6000 = \$12,000, Travel to 2 meetings@\$2000 = \$4000. • Output 3.2. Sub-total = \$81,100 <ul style="list-style-type: none"> ○ Public-private funding specialist (6W@\$2500 = \$15,000), 1 meetings = \$3500, Travel = \$1000 ○ Private sector specialist (6W@\$2500 = \$15,000), 1 meeting = \$4000, Travel = \$3600 ○ Regional planning sector specialist (6W@\$2500 = \$15,000), 1 Sumatra workshop = \$20,000, Travel = \$4000 • Output 3.3. Sub-total = \$67,500 <ul style="list-style-type: none"> ○ Legal experts (6W@\$2500 = \$15,000), 1 meeting = \$1500, Travel = \$1000 ○ Landscape experts (10W@\$2500 = \$25,000), 2 landscape exchange trips@\$7500 = \$15,000, Travel for 2 exchange trips@\$5000 = \$10,000
16b	<p>Contractual Services – Company (Total = \$182,000) Sub-contract – for provision of technical support to GNLP and BBSNP under all Outputs (see subcontract TOR in Annex 11)</p> <ul style="list-style-type: none"> • Output 3.1. Sub-total = \$56,000 <ul style="list-style-type: none"> ○ PA funding specialist (4W@\$2500 = \$10,000), 2 NP meetings@\$1500 = \$3000, Travel to 2 NPs@\$1000 = \$2000. ○ PA funding mechanism specialist (10W@\$2500 = \$25,000), 2 meetings@\$6000 = \$12,000, Travel to 2 meetings@\$2000 = \$4000. • Output 3.2. Sub-total = \$58,500 <ul style="list-style-type: none"> ○ Public-private funding specialist (6W@\$2500 = \$15,000), 1 meetings = \$3500, Travel = \$1000 ○ Regional planning sector specialist (6W@\$2500 = \$15,000), 1 Sumatra workshop = \$20,000, Travel = \$4000 • Output 3.3. Sub-total = \$67,500 <ul style="list-style-type: none"> ○ Legal experts (6W@\$2500 = \$15,000), 1 meeting = \$1500, Travel = \$1000 ○ Landscape experts (10W@\$2500 = \$25,000), 2 landscape exchange trips@\$7500 = \$15,000, Travel for 2 exchange trips@\$5000 = \$10,000
16c	<p>Contractual Services – Company (Total = \$155,600) Sub-contract – for provision of technical support to BNP and SNP under all Outputs (see subcontract TOR in Annex 11)</p> <ul style="list-style-type: none"> • Output 3.1. Sub-total = \$56,000 <ul style="list-style-type: none"> ○ PA funding specialist (4W@\$2500 = \$10,000), 2 NP meetings@\$1500 = \$3000, Travel to 2 NPs@\$1000 = \$2000. ○ PA funding mechanism specialist (10W@\$2500 = \$25,000), 2 meetings@\$6000 = \$12,000, Travel to 2 meetings@\$2000 = \$4000. • Output 3.2. Sub-total = \$57,100 <ul style="list-style-type: none"> ○ Public-private funding specialist (6W@\$2500 = \$15,000), 1 meetings = \$3500, Travel = \$1000 ○ Private sector specialist (6W@\$2500 = \$15,000), 1 meeting = \$4000, Travel = \$3600 ○ Regional planning sector specialist (6W@\$2500 = \$15,000) • Output 3.3. Sub-total = \$42,500 <ul style="list-style-type: none"> ○ Legal experts (6W@\$2500 = \$15,000), 1 meeting = \$1500, Travel = \$1000 ○ Landscape experts (5W@\$2500 = \$12,500), 1 landscape exchange trip = \$7500, Travel for 1 exchange trip = \$5000
17	<p>Communications and AV Equipment: (Total = \$18,334)</p> <ul style="list-style-type: none"> • Communication costs for implementation of activities in Component 3.

18	<p><u>Audio-visual & printing production costs (Total = \$8,333)</u></p> <ul style="list-style-type: none"> For implementation of activities in Component 3, including for technical reports and awareness materials.
19	<p><u>Miscellaneous (Total = \$3333)</u></p> <ul style="list-style-type: none"> For implementation of activities in Component 3, such as a contingency for possible exchange rate fluctuations and miscellaneous costs associated with organizing meetings related to capacity building activities (venues, catering, facilitation, interpretation etc).
20	<p><u>Training, workshops (Total = \$8000)</u> For activity budgets managed by PHKA-KKH/UPT for 5 NPs in Component 3.</p> <ul style="list-style-type: none"> Output 3.1. Sub-total = \$8000 <ul style="list-style-type: none"> 1 national meeting on funding road map (business plan) production for PAs = \$8000.
Project Management Costs	
21	<p><u>Local consultants (Total = \$200,000)</u></p> <ul style="list-style-type: none"> National Project Manager (\$2,000/month x 6 years). Sub-total = \$144,000 Administration Assistant (\$500/month x 6 years). Sub-total = \$36,000 Local consultant for MTR and TE (25 days x \$400 for each) = \$20,000
22	<p><u>Contractual Services – Individual (Total = \$24,000)</u> International consultant for MTR and TE (20 days x \$600 for each) = \$24,000</p>
23	<p><u>Travel (Total = \$44,000)</u> Travel and associated costs for consultants, contractors, project staff and participants to reach project headquarters and the 5 landscape sites for various tasks including stakeholder consultations, decision making and consensus building meetings, technical on-site investigation, research, training, project management or committee meetings, and for conducting awareness raising strategies in each landscape. Sub-total = \$32,000 Travel for local and international consultants for MTR (\$2000 and \$4000 respectively) and TE (\$2000 and \$4000 respectively). Subtotal = \$12,000</p>
24	<p><u>Equipment (Total = \$10,148)</u></p> <ul style="list-style-type: none"> For PMU office equipment (computers, printer/scanners, camera, software, accessories, furniture, etc)
25	<p><u>UNDP Cost Recovery Charges (Total = \$7,852)</u> Estimated UNDP Direct Project Service/Cost recovery charges as indicated in the Agreement in Section IV Part I of the Project Document. The project is to be managed on the 100% Country Office Cost Recovery basis, upon request of the government implementing partner. The estimated cost (Total USD 7,852) includes:</p> <p>(i) issuing and managing the 4 sub-contracts: USD 4,176 (USD 1,044 per contract; breakdown is \$ 600 per PO; \$ 444 for payments based on USD 37 per payment X estimated 12 payments).</p> <p>(ii) handling individual consultant contracts for 4 evaluators (2 X international and 2 X national evaluation consultants for mid-term review and final evaluation): USD 2,131 (USD 533per contract; breakdown is US\$ 260 for consultant recruitment (per person) plus USD 111 for payments based on USD 37 per payment X 3 payments, contract tracking USD 25 per case, international travel arrangement and hotel reservation USD \$ 137)</p>

	<p>(iii) Organization of workshops and logistics USD 1,545 (Estimated USD 309 per case for meeting arrangement, travel arrangement, hotel arrangement, translator/logistics agreement etc.)</p> <p>In accordance with GEF Council requirements, the costs of these services will be part of the executing entity's Project Management Cost allocation identified in the project budget. DPS costs would be charged at the end of each year based on the UNDP Universal Pricelist (UPL) or the actual corresponding service cost. The amounts here are estimations based on the services preliminarily indicated, however as part of annual project operational planning the DPS to be requested during the calendar year would be defined and the amount included in the yearly project management budgets and would be charged based on actual services provided at the end of that year. Sub Total: \$7,852.</p>
26	Annual audit arrangement.
27	<p><u>Training, workshops (Total = \$100,000)</u></p> <p>Costs over project to support M&E Plan - detailed breakdown in Table 13, Section I, Part IV of ProDoc. This includes inception workshop, measuring MOV for SRF indicators, documenting lessons learned. MTR and TE stakeholder workshops. Note that consultant fees and travel costs for MTR and TE are not included here.</p>

SECTION IV: ADDITIONAL INFORMATION

PART I: Other agreements

CO-FINANCING LETTERS

-- *See separate file*—

[filename]

PART II: Organigram of Project

The Organigram is presented in Section I Part III (Management Arrangements)

PART III: Terms of Reference for key project staff

NATIONAL PROJECT DIRECTOR

Background

The National Project Director (NPD) is a *PHKA* director who will be accountable to the MoEF and UNDP for the achievement of objectives and results in the assigned Project. The NPD will be part of the Project Steering Committee and answer to it. The NPD will be financed through national government funds (co-financing), whose appointment will be made by the Director General of *PHKA* (unless it is the Director General), in consultation with the UNDP CO and, depending on the implementation modality, a CSO partner.

Duties and Responsibilities

- Serve as a member of the Project Steering Committee.
- Supervise compliance with objectives, activities, results, and all fundamental aspects of project execution as specified in the project document.
- Supervise compliance of project implementation with MoEF policies, procedures and ensure consistency with national plans and strategies.
- Facilitate coordination with other organizations and institutions that will conduct related conservation activities for the protected area system, same target landscapes or same themes from elsewhere in Indonesia, especially related to UNDP's E-PASS project and UNEP's RIMBA project.
- Participate in project evaluation, testing, and monitoring missions.
- Coordinate with national governmental representatives on legal and financial aspects of project activities.
- Coordinate and supervise government staff inputs to project implementation.
- Coordinate, oversee and report on government cofinancing inputs to project implementation.

NATIONAL PROJECT MANAGER

Background

National Project Manager (NPM), will be locally recruited following UNDP procedure, with input to the selection process from the Project partners. The position will be appointed by the project implementing agencies and funded entirely from the Project. The NPM will be responsible for the overall management of the Project, including the mobilisation of all project inputs, supervision over project staff, consultants and sub-contractors. The NPM will report to the NPD from *PHKA* in close consultation with the assigned UNDP Programme Manager for all of the Project's substantive and administrative issues. From the strategic point of view of the Project, the NPM will report on a periodic basis to the Project Steering Committee (PSC), based on the NPD's instruction. Generally, the NPM will support the NPD who will be responsible for meeting government obligations under the Project, under the NIM execution modality. The NPM will perform a liaison role with the government, UNDP and other UN agencies, NGOs and project partners, and maintain close collaboration with other donor agencies providing co-financing. The NPM will work closely with the Project Implementation Unit Coordinators.

Duties and Responsibilities

- Plan the activities of the project and monitor progress against the approved work-plan.
- Supervise and coordinate the production of project outputs, as per the project document in a timely and high quality fashion.
- Coordinate all project inputs and ensure that they adhere to UNDP procedures for nationally executed projects.
- Supervise and coordinate the work of all project staff, consultants and sub-contractors ensuring timing and quality of outputs.
- Coordinate the recruitment and selection of project personnel, consultants and sub-contracts, including drafting terms of reference and work specifications and overseeing all contractors' work.
- Manage requests for the provision of financial resources by UNDP, through advance of funds, direct payments, or reimbursement using the UNDP provided format.
- Prepare, revise and submit project work and financial plans, as required by PSC and UNDP.
- Monitor financial resources and accounting to ensure accuracy and reliability of financial reports, submitted on a quarterly basis.
- Manage and monitor the project risks initially identified and submit new risks to the project board for consideration and decision on possible actions if required; update the status of these risks by maintaining the project risks log.
- Liaise with UNDP, PSC, relevant government agencies, and all project partners, including donor organisations and NGOs for effective coordination of all project activities.
- Facilitate administrative support to subcontractors and training activities supported by the Project.
- Oversee and ensure timely submission of the Inception Report, Combined Project Implementation Review/Annual Project Report (PIR/APR), Technical reports, quarterly financial reports, and other reports as may be required by UNDP, GEF and other oversight agencies.
- Disseminate project reports and respond to queries from concerned stakeholders.
- Report progress of project to the steering committees, and ensure the fulfilment of PSC directives.
- Oversee the exchange and sharing of experiences and lessons learned with relevant community based integrated conservation and development projects nationally and internationally.
- Assist community groups, municipalities, NGOs, staff, students and others with development of essential skills through training workshops and on the job training thereby increasing their institutional capabilities.
- Encourage staff, partners and consultants such that strategic, intentional and demonstrable efforts are made to actively include women in the project, including activity design and planning, budgeting, staff and consultant hiring, subcontracting, purchasing, formal community governance and advocacy, outreach to social organizations, training, participation in meetings; and access to program benefits.
- Assists and advises the Project Implementation Units responsible for activity implementation in the target sites.
- Carry regular, announced and unannounced inspections of all sites and the activities of the Project Implementation Units.

Required skills and expertise

- A university degree (MSc or PhD) in a subject related to natural resource management or environmental sciences.
- At least 10 years of experience in natural resource management (preferably in the context of forest, wildlife and protected area planning and management).
- At least 5 years of demonstrable project/programme management experience.
- At least 5 years of experience working with ministries, national or provincial institutions that are concerned with natural resource and/or environmental management.

Competencies

- Strong leadership, managerial and coordination skills, with a demonstrated ability to effectively coordinate the implementation of large multi-stakeholder projects, including financial and technical aspects.
- Ability to effectively manage technical and administrative teams, work with a wide range of stakeholders across various sectors and at all levels, to develop durable partnerships with collaborating agencies.
- Ability to administer budgets, train and work effectively with counterpart staff at all levels and with all groups involved in the project.
- Ability to coordinate and supervise multiple Project Implementation Units in their implementation of technical activities in partnership with a variety of subnational stakeholder groups, including community and government.
- Strong drafting, presentation and reporting skills.
- Strong communication skills, especially in timely and accurate responses to emails.
- Strong computer skills, in particular mastery of all applications of the MS Office package and internet search.
- Strong knowledge about the political and socio-economic context related to the Indonesian protected area system and biodiversity conservation at national and subnational levels.
- Excellent command of English and Indonesian languages.

PART IV: Stakeholder Involvement Plan

Information dissemination and consultation during the PPG

349. The project has been designed through a participatory process that is in line with UNDP and GEF requirements. The PPG phase included consultations with the project's key stakeholders at the national, subnational and local levels.

350. Two national level consultation meetings were first held,

- The project 'Kick-off' meeting was held in Jakarta on 7 May 2014. Opened by Pk Agus Sutito (Deputy Head of Biodiversity Conservation, *PHKA*) and followed Midori Paxton (UNDP, Regional Technical Advisor) and Crawford Prentice (UNDP Project Development Consultant) who explained the aims, objectives, and core design of the GEF project and the PPG process. There were >20 participants from MoEF (national and subnational), *Bappenas*, UNDP, *HarimauKita*, WCS, ZSL and FFI.
- A follow up meeting, which acted as a pre-cursor to the site visits, was held with *PHKA* in Jakarta on 1 July 2014 to socialise the project design (including high level components and different implementation modalities), timeline for its development and anticipated implementation thereafter, GEF BD1 tracking tool and UNDP Capacity Development

Scorecard, the ESSP process and key issues identified during the initial assessment, and the purpose and plan for the site-level stakeholder consultations. The meeting was designed to allow for participant discussion and input into each item. There were 52 participants from MoEF (national and subnational), *Bappenas*, UNDP, *HarimauKita*, WCS, ZSL and FFI.

351. The potential stakeholders to consult during site visits were identified through these two meetings, informal *PHKA*-NGO meetings thereafter, and the initial ESSP assessment. Next, for each of the target landscapes, visits were conducted by a project preparation team consisting of personnel from *PHKA*, FFI, WCS, ZSL and *HarimauKita*. Subnational consultation workshops held with local stakeholders were convened as follows (see **Annex 4**):

- For the Kerinci Seblat landscape, the workshop was conducted on 14-15 August in Kerinci, Jambi. There were 31 participants from 15 relevant organisations from three provinces, including *PHKA* (national, NP and *BKSDA*) *Dishut*, Police, local NGOs, FFI, *HarimauKita* and a women's group (*Aliansi Perempuan Merangin*).
- For the Gunung Leuser landscape, the workshop was conducted on 13 August 2014 in Medan. There were 41 participants from 19 relevant organizations, including *PHKA* (national, NP, *BKSDA*), *Dishut*, subdistrict governments, local NGOs, WCS, VESWIC and private sector.
- For the Bukit Barisan Selatan landscape, the workshop was conducted on 15 August 2014 at in Lampung. There were 35 participants from 19 relevant organizations, including *PHKA* (national, NP, *BKSDA*), *Dishut*, *Bina Marga*, *BAPPEDA*, subdistrict governments, local NGOs, WCS, *HarimauKita*, *Konsorsium UNILA-PILI* and private sector.
- For the Berbak-Sembilang landscape, a workshop was conducted for each national park. The Berbak workshop was conducted on 15 August 2014 in Jambi. There were 39 participants from 22 relevant organisations, including *PHKA* (national, NP and *BKSDA*) *Dishut*, *BPDAS*, subdistrict and village representatives, local NGOs, ZSL, *HarimauKita*, private sector and the University of Jambi. Next, the Sembilang workshop was conducted on 19th August 2014 in Palembang. There were 43 participants from 20 relevant organisations, including *PHKA* (national, NP and *BKSDA*) *Dishut*, *BPDAS*, provincial Police, subdistrict and village representatives, local NGOs, ZSL, *HarimauKita*, private sector, donor agencies (GIZ and JICA) and Sriwijaya University.
- For the Kampar landscape, the workshop was conducted on 11-12 August in Riau. There were 33 participants from 12 relevant organisations, including *PHKA* (national, Tesso Nilo NP, Bukit Tigapuluh NP and *BKSDA*), *Dishut*, Police, local NGOs, WWF, FFI, *HarimauKita* and private sector (*Sinarmas Forestry* and PT. Riau Andalan Pulp and Paper/APRIL).

352. Four national level consultation meetings were then held. First, a meeting on 4-5 September 2014 assessed the landscape information collected during the site visits, with special attention given to the METT scores, Capacity Development Scorecards and other issues arising through the public discussions. There were 17 participants from the MoEF (which chaired the meeting), *HarimauKita*, WCS, ZSL and FFI. Second, a meeting on 9-10 September 2014 reviewed in detail the draft Strategic Results Framework and draft project activity plan, as well as discussing implementation arrangements and the Financial Sustainability

Scorecard. There were 21 participants from the MoEF (which chaired the meeting), *HarimauKita*, WCS, ZSL and FFI. Third, on 21 October 2014 a meeting was held at the UNDP CO to discuss and agree upon the project implementation arrangements. The meeting was attended by 15 people MoEF, Ministry of Finance, BAPPENAS, FFI, WCS, ZSL, HK and UNDP. Fourth, on 30 October 2014, a meeting was held at the *PHKA* office to review and discuss the project budget. The meeting was attended by >20 participants and attended MoEF (which chaired the meeting), *HarimauKita*, WCS, ZSL, FFI and UNDP. Finally, a Project Document review meeting was held in Bogor from 13-14 November 2014, with >40 representatives from MoEF (*PHKA-KKH*, the 5 target *UPTs*, *Planologi* and *PPH*), Ministry of Finance, FFI, WCS, ZSL, HK and UNDP.

Approach to stakeholder participation

353. The project will focus stakeholder engagement at the following levels of intervention: (i) working with national, provincial and local public institutions and agencies (especially national park authorities, *BKSDA* and Police) in order to strengthen their capacity to consolidate, expand and effectively manage the protected area system and to align project activities with the government's strategic priorities, especially the MoEF's NTRP; (ii) engaging with sub-national government agencies, when needed, who are responsible for land use and development planning for the landscapes and wider regions encompassing the target PAs (mainly *Bappeda* and Public works); and (iii) working directly with national park staff, civil society organisations, formal and informal resource users (rights holders), private landowners (mainly concessionaires) and individuals to strengthen collaborative relationships for participatory protected area management across the target landscapes, mitigate impacts of agribusiness practices, and ensure the socio-economic benefits arising from the project.

354. The ESSP report (**Annex 5**) identified women and community groups as potential vulnerable stakeholder groups, whose participation might not be ensured in the project. In response, special consideration has been given to these groups through conducting a gender analysis and developing a community stakeholder involvement plan.

Gender analysis

355. The project design has followed the UNDP's Eight Point Agenda for Women Empowerment and Gender Equality:

1. Strengthen women's security in crisis: Stop violence against women
2. Advance gender justice: Provide justice and security for women
3. Expand Women's Citizenship, Participation and Leadership: Advance women as decision-makers
4. Build Peace with and for women: Involve women in all peace processes
5. Promote gender equality in disaster risk reduction: Value women's knowledge and experience
6. Ensure gender-responsive recovery: Support men and women to build back better
7. Transform government to deliver for women: Include women's issues in the national agenda
8. Develop Capacities for Social Change: Work together to transform society

356. For the project, most government agencies and public initiatives are still dominated by men in the five target landscapes, although women play an important role in household economic activities, not least in agricultural production that may be in national park buffer zones. During project implementation, a concerted effort will be made to take into account the special needs of women and to ensure their broad participation in project activities. This will be achieved through the following actions.
357. To ensure that gender is a prominent issue in the project, guidelines for the engagement of women in forest conservation will be developed based on analysis of: a) the roles women play in forest use and its management; b) the level of participation of women in project activities to date, factors which influence their participation and strategies which have increased their participation; and, c) the potential for women to be positively engaged. These guidelines will aim to increase the participation of women and to enhance the quality of their involvement in the project.
358. For two of the three partnering NGOs (ZSL and WCS), the most senior in-country position is filled by a woman and in *HarimauKita* women have long played active roles as members, which suggests that gender discrimination is not a major issue. Nevertheless, special attention will be given to recruiting competent women to fill staff positions in the project team and also for consulting assignments.
359. Project staff who will be responsible for community engagement and facilitation will be trained to ensure that gender issues are addressed and that women are involved in group discussions and in group decision-making. During the PPG, a concerted effort was made to ensure that women participated in the stakeholder consultations and discussions. This approach will be carried over into project implementation to ensure that women are involved in group discussion activities, given opportunities to voice their opinions and to be proactively encouraged to do so.
360. Finally, to enable the Project to keep track of who is participating in its activities and who is receiving benefits from it, a monitoring and evaluation system will be constructed and implemented that includes, as one of the indicators, recording gender information. Ongoing reviews will enable the Project to keep track of gender sensitivity throughout implementation and make remedial changes, if necessary.

Breakdown of stakeholders

361. A full list of stakeholders, their relevant roles and responsibilities for each of the five target landscapes has been developed (see landscape profiles in **Annex 1**), from which a summary of the Project’s key stakeholders has been prepared (**Table 15**).

Table 15. Preliminary list of key stakeholders of the project for government, private sector, NGOs and communities.

Stakeholder	Proposed role in the project	Potential conflict and mitigation
<i>National level</i>		

Stakeholder	Proposed role in the project	Potential conflict and mitigation
Ministry of Environment and Forestry	UNDP's main government counterpart in Indonesia as national Implementing Partner for this project. Primary implementer of the project at national level (including head of PSC and PMU) and at landscape level through its subsidiary agencies (NP and <i>BKSDA</i>). Major beneficiary of capacity building (NP and <i>BKSDA</i>) and technical support for implementing core tasks in its NTRP and meeting international tiger (Global Tiger Initiative) and biodiversity commitments (CBD).	As the national Implementing Partner, there should be no potential conflict.
Ministry of National Development Planning (<i>BAPPENAS</i>)	Participant and beneficiary of planning and financing component (especially for wider landscapes outside protected areas) Will provide national government oversight, including monitoring and evaluation of the use of foreign funds.	Seeks to support economic development that may not always be aligned with project forest management goals. Mitigation: close coordination with MoEF should ensure good coordination/alignment.
Police	Provincial police forces will be engaged as partners within landscape level networks for improved cooperation and coordination in tackling illegal wildlife and forest trade. National police will be regularly informed on project activities and progress, to feed into INTERPOL and ASEAN-WEN objectives related to illegal wildlife trade.	May not want to allocate time and/or resources towards project Mitigation: constructively engage police from outset (through PSC, capacity building and landscape partnerships).
Public Works	Capacity building related to implementation of the project plan, engagement with SMART Green Infrastructure guidelines.	Seeks to support infrastructure development that may not always be aligned with project forest management goals. Mitigation: close coordination with MoEF should ensure good coordination/alignment.
REDD+ Taskforce	The Task Force has a key role in ensuring a synergetic impact between planned REDD+ work and the envisaged project interventions in and around landscapes that include REDD+ pilot provinces. Here, the mandated role would include coordination, synchronisation, planning, facilitation, management, monitoring, supervision and control of the pilot REDD+ activities.	No potential conflicts envisioned, but the PSC should ensure good communication and coordination with the Taskforce and therefore implementation in the field.
<i>Landscape level</i>		
Provincial and District Governments	Important stakeholders for project activities related to land use plan development and implementation, especially outside NPs in buffer zone forests, thus reducing external pressures on protected areas.	May show weak support for project as conserving natural resources may be seen to restrict economic development. Mitigation: project will engage with local government members and raise awareness of the benefits of conservation/ecosystem services through demonstration activities
National Park Agencies	These agencies and their subsidiary units will be the primary implementers of the demonstration activities at provincial and district levels, including through RBM units. Major beneficiaries of capacity building and technical assistance to strengthen NP management effectiveness.	As the principal implementing partners at the landscape level and being under MoEF, there should be no potential conflict.
Natural Resources	This agency will be a key partner for activities outside NPs, including problem wildlife management and tackling illegal	As the principal implementing partners at the landscape level

Stakeholder	Proposed role in the project	Potential conflict and mitigation
Conservation Agencies (BKSDA)	wildlife trade. Beneficiary of capacity-building support and strengthened partnership with other relevant agencies to help advance effectiveness of its own work.	and being under MoEF, there should be no potential conflict.
Provincial/District Forestry Agencies (Dishut)	Key stakeholders for the provincial level activities, including capacity building and improved wildlife and forest management outside of national parks, especially in critically important buffer zones.	May not support adaptations to current forest and wildlife management methods. Mitigation: project executants will include senior forestry department staff in each focal area.
Provincial agencies for Watershed Management (BPDAS)	Stakeholders in provincial and district level project activities related to forest ecosystem services outside NPs.	As key implementing partners at the landscape level and being under MoEF, there should be no potential conflict.
Provincial development and planning agencies (Bappeda)	Primary stakeholders for provincial level activities outside of NPs. Stakeholders for land use plan and financing plan development and implementation.	Seek to support subnational economic development that may not always be aligned with project forest management goals. Mitigation: close coordination with PMU and Landscape Teams should ensure good coordination/alignment.
Provincial/District Tourism and Culture Agency (DisBudPar)	Stakeholders in provincial and district level project activities related to nature tourism. Nature tourism, especially inside NPs is not well developed in Sumatra and within the project few opportunities exist to support this.	No conflict perceived, unless tourism lodges were to be built inside NPs, but there are no plans for this.
Local communities and indigenous people	Important participants of the project at the local level and targets of efforts to change unsustainable activities including poaching and encroachment. May include those from transmigrant sites (e.g. Sembilang). Key role in project as forest rangers and members of local informant network, as well as beneficiaries of alternative livelihood strategies, such as Village Forest and REDD+. In Kampar, NGOs may play an ongoing watchdog role over forest management practices of private sector concessionaires.	Some communities may not agree with the project, be fearful over loss of user rights to land and natural resources. Mitigation: Identify key issues through the UNDP's ESSP and ensure full consultation and involvement during the inception phase.
CBOs	CBOs will be primary stakeholders involved in landscape interventions, mainly in problem wildlife management and tackling wildlife trade, and in cases receiving project support through technical trainings.	Will be strongly supported through the project; however, some activities or mechanisms may need adapting which could raise objections. Mitigation: full consultation from early stage of the project.
<i>HarimauKita</i>	<i>HarimauKita</i> will work with the MoEF in playing a facilitating role between landscape partners and with national PMU. It will act as a technical partner to the MoEF in the Global Tiger Initiative by attending regional meetings and supporting document preparation.	Government agencies may be unwilling to work with <i>HarimauKita</i> due to issues of confidentiality of information or differences in institutional culture, but given the long-term and successful partnership, there should be no potential conflict.
International NGOs (FFI,	FFI, WCS and ZSL are project implementation partners, providing technical expertise on capacity building,	Government agencies may be unwilling to work with NGOs

Stakeholder	Proposed role in the project	Potential conflict and mitigation
WCS, ZSL and WWF-Indonesia)	operational and other inputs to the project at landscape and national levels. WWF-Indonesia (RIMBA Project) to be regularly informed concerning project development and implementation; its role will be explored during the inception phase.	due to issues of confidentiality of information or differences in institutional culture, but given the existing background of long-term and successful landscape-level partnerships, such potential conflict is unlikely.
Academic institutions	Conducting management oriented scientific research and surveys, as well as recipients of capacity building support. Supporting science-based monitoring of focal species population trends is a key component of evaluating project intervention strategy. Universities may be from national (such as <i>UNAS</i> , <i>UI</i> and <i>IPB</i>) and provincial (such as <i>UNAND</i> and <i>USU</i>) institutions.	Universities programmes may not be geared towards the needs of the relevant implementing agencies. Mitigation: suitable and willing universities will be identified and engaged at the start of the project to allow greater communication and participation throughout.
Private agribusiness sector - pulp/paper (e.g. APRIL, SinarMas) and oil palm (e.g. PT Whana Sumponjen Indah, Raja Palma)	Targets of efforts to reduce environmentally destructive and unsustainable activities. Demonstration sites for enabling private sector involvement in biodiversity-friendly investments and rural livelihood creation through sustainable financing schemes that follow best practices standards such as CCB. Will have key roles in Kampar, and in securing buffer areas around Berbak NP and Sembilang NP.	May be unwilling to change practices or resolve land tenure conflicts with state owned forest land to suit project objectives. Mitigation: The main plantation companies in this landscape have adopted sustainable forest management policies, so good coordination with project landscape teams should ensure a complementary approach.
Private logging sector (e.g. PT Putra Duta Indawood, PT Persona Belantara Persada)	Targets of efforts to reduce environmentally destructive and unsustainable activities. Demonstration site/s for enabling private sector involvement in environmentally-friendly certification initiatives.	May be unwilling to change practices to suit project objectives. Mitigation: Encourage and support forest management policy development, including adoption of environmentally-friendly timber certification scheme.

Stakeholder engagement plan for each project component and output

362. The final agreement through which stakeholders (beyond the project partners) will be involved at the national and landscape levels will be decided during the inception phase when a full Stakeholder Implementation Plan will be developed. Here, a *preliminary Stakeholder Implementation Plan* is presented. The project proposes a mechanism to achieve broad-based stakeholder involvement in the project preparation and implementation processes. Stakeholder participation will include the following components:

- Project Steering Committee - Chair: Director General of *PHKA*; Members: MoEF, *BAPPENAS*, UNDP (for project assurance), BKSDA Riau and the UPTs of the five National Parks, and CSO representative(s).
- Project Management Unit - Includes MoEF/*PHKA* (Head), Key partner assistance (such as national government, local government, NGOs and private sector) will be invited as appropriate.

- Technical Advisory Committee - Chaired by the NPD with support from the NPM. Aims to provide technical advice and inputs relating to project implementation. Members will consist of representatives from MoEF, UNDP, other relevant government agencies, research and educational organizations, NGOs (including FFI, WCS, ZSL and *HarimauKita*), technical experts and other relevant stakeholders to be agreed by the PSC. Technical experts may be invited in to discuss specific issues.
- Project Implementation Teams - Representatives from National Park authority and NGO partners; Technical experts may be invited in to discuss specific issues.

Long-term stakeholder participation

363. The project will provide the following opportunities for the long-term participation of all stakeholders. Emphasis will be placed on the active participation of local communities, where appropriate, and enhancement of inter-sectoral and sub-national transboundary coordination for achieving effective protected area management across multiple landscapes.

364. Decision-making: The establishment of the Project Steering Committee will empower national level stakeholders, especially the MoEF. The structure will follow a participatory and transparent process involving the confirmation of all key project stakeholders; conducting one-to-one consultations with all stakeholders; development of Terms of Reference and norms; inception meeting to agree on the constitution of the Project Steering Committee.

365. Capacity building: This is an important project intervention that will target all stakeholders, and at various levels (national, landscape and individual), who have the potential to be involved in implementing natural resource management activities in and around the protected areas, or whose own activities, such as infrastructure development, are likely to influence the success of these activities. Women, ethnic minority, and other community groups will be proactively considered for capacity building activities based on specific needs assessments that, in turn, increases their meaningful participation.

366. Communication: will include the participatory development of an integrated communication strategy. The communication strategy will be based on the following key principles:

- providing information to all stakeholders
- promoting dialogue between all stakeholders
- promoting access to information.

367. The project's design incorporates several features to ensure on-going and effective stakeholder participation in the project's implementation. The mechanisms to facilitate involvement and active participation of different stakeholder in project implementation will comprise a number of different components, as follows.

i) Project inception workshop

The project will be launched by a multi-stakeholder workshop. This workshop will provide an opportunity to provide all stakeholders with the most updated information on the project, refine and confirm the work plan, and will establish a basis for further consultation as the project's implementation commences.

ii) Constitution of the Project Steering Committee

The PSC will be constituted to ensure consistent representation of the key stakeholders throughout the project's implementation. The representation, and broad terms of reference, of the Committee are described in the **Management Arrangements in Section I Part III**.

iii) Constitution of the Technical Advisory Committee

The TAC will be constituted to provide consistent representation of wider stakeholders beyond the PSC with an interest or influence over project activities and outcomes. It will provide a means of updating stakeholders at the national level about project implementation progress, to share lessons learned, obtain information about and coordinate with related initiatives, and to obtain technical advice on specific issues. A subset of TAC members may be tasked to undertake specific project-related assignments. See **Management Arrangements in Section I Part III**.

iv) Establishment of the Project Management Unit

PHKA will take direct operational responsibility for facilitating stakeholder involvement and ensuring increased local ownership of the project and its results. The Unit will be located in the PHKA office in Jakarta and will be supported sub-nationally through landscape teams in Kerinci, Bukit Barisan Selatan, Gunung Leuser and Berbak-Sembilang (Kampar will not need a permanent team because it is a different type of project demonstration site). This should ensure coordination among key stakeholder organizations at the landscape and local levels during the project.

v) Establishment of Project Implementation Units

At the activity level, a Project Implementation Unit will be established for each landscape to facilitate the active participation of key institutions, organisations and individuals in the implementation of the respective project activities. Different stakeholder groups may take the lead in specially formed working groups, depending on their respective mandates and the local design. There will be equitable representation of women and ethnic minorities on site stakeholder committees and groups related to livelihoods and awareness activities.

vi) Project communications

The project will develop, implement and annually update a communications strategy to ensure that all stakeholders are informed on an on-going basis about: the project's objectives; the project's activities; overall project progress; and the opportunities for stakeholders' involvement in various aspects of the project's implementation.

vii) Implementation arrangements for stakeholder participation in project activities

A number of project activities have specifically been designed to directly involve local stakeholders in the implementation of, and benefit from, these activities. These include the creation or development of new opportunities for sustainable livelihood options and natural resource uses for local communities. Women and minority groups will be proactively considered for participation in sustainable livelihood activities based on these assessments. The principle of FPIC will be applied to the establishment of any conservation management agreements established with local communities, in line with the project's approach to environmental and social risk management as identified through the ESSP (**Annex 5**). See **Output 2.2** for further information on the involvement of local communities in demonstration activities.

viii) Formalizing cooperative governance structures

The project will actively seek to formalize cooperative governance structures, codified within partner MoUs, at the landscape level to ensure on-going participation of local stakeholders in the planning and management of the five target national parks and their surrounding forest.

ix) Capacity building

All project activities are strategically focused on building capacity – at systemic, institutional and individual levels – of the key stakeholder groups to ensure sustainability of initial project investments. The project will also seek to raise public awareness of the value and importance of the ecosystem services and biodiversity secured through effective habitat conservation and restoration.

Coordination with related initiatives

368. The UNDP will ensure close collaboration and synergetic impact with a number of UNDP-led initiatives in the country, especially those offering opportunities to co-finance community livelihood development, climate change adaptation and poverty alleviation. The project will be fully integrated in the UNDP’s Country Programme and have close ties with the UN’s Environment Programme (UNEP) and its relevant in-country projects. The project will work closely with UN-REDD Programme and its partners in strengthening the links between the national PA network, sustainable landscape management and REDD+ community-based activities, and will also explore increasing sustainable financing opportunities through the REDD+ mechanism. Linkages and synergies will be sought through coordination with the GEF projects listed in **Table 16** below.

Table 16. Coordination and collaboration with related GEF financed initiatives

Project	How collaboration with the project will be ensured
UNDP/GEF, E-PASS (CEO Endorsed)	<p>E-PASS intends to focus on institutional planning and management capacity within protected areas, financial sustainability of protected areas and threat reduction and co-management at the protected area borders. It therefore shares several common goals with the Sumatra project and is highly complementary. There is no significant overlap as E-PASS focuses on the island of Sulawesi.</p> <p>The MoEF/PHKA is the Implementing Partner for this project. It will also head the Project Steering Committee, which quite likely would be based out of the same office as the Sumatra Project Steering Committee. All of these characteristics provide a mechanism for information sharing, lesson learning, coordination and frequent communication. Further, plenty of opportunities exist for collaboration and sharing approaches and experiences, e.g. in SMART-patrolling and REDD pilot projects, that can maximize project impacts. Cross-representation on the respective Project Steering Committees for the two projects would further increase opportunities for coordination and, during the inception phase, activities of mutual interest actively explored so that synergies can be developed for the implementation phase.</p>
UNEP/GEF, RIMBA (Council Approved)	<p>WWF in partnership with UNEP is developing the RIMBA project, which intends to work with national, provincial and district government partners in the production landscapes of a portion (3 provinces) of the central Sumatra landscape. Whereas the Sumatra-wide project proposed here predominantly focuses on the island’s main protected areas, which are the highest priority for biodiversity conservation, the RIMBA project focuses on strengthening connections between forested areas across a corridor of mainly production landscapes, from Kerinci Seblat NP in the west to Berbak NP in the east, where components of biodiversity, especially large-bodied mammals, would disperse from the protected areas. The RIMBA project takes a complementary approach through its strong emphasis on developing a green economy including investing in natural capital and low carbon growth initiatives outside of protected areas.</p>

Project	How collaboration with the project will be ensured
	<p>The MoEF/<i>PHKA</i> is a technical executing partner for the RIMBA project. It will therefore ensure coordination of complementary project activities and sharing of project documents and other information. This, <i>PHKA</i> as the head of the Sumatra Project Steering Committee will have the authority to invite RIMBA representatives to participate in meetings of thematic relevance, thereby identifying synergies and areas for collaboration, especially in production forests protecting critical habitat, corridors and breeding grounds for wildlife in protected area buffer zones.</p>
<p>UN-REDD, National REDD+ Strategy</p>	<p>The Indonesia REDD+ Programme receives funding from various agencies, including UN-REDD, the World Bank's Forest Carbon Partnership Facility and the Government of Norway. The Government of Indonesia through its REDD Task Force is currently focusing on REDD preparation. This includes the strengthening of institutions required to implement an effective REDD programme and the technology required to monitor and measure reduced emissions.</p> <p>The MoEF is integral to the development of this REDD+ programme and five Sumatran provinces are currently receiving support from the national government's REDD readiness phase. Thus, the Project Steering Committee will coordinate its activities at the national level with the REDD Task Force, whereas the project Landscape Teams (overseen by the Project Management Unit) will work cooperatively with the provincial level pilot teams, under <i>Bappeda</i>, that are mandated to established REDD+ Body (<i>Badan REDD+ Provinsi</i>). Here, the project can provide information on civil society involvement in reducing deforestation, e.g. working with the law enforcement agencies.</p>
<p>UNESCO-WHS, Rapid Response Facility (RRF)</p>	<p>The RRF was designed to provide timely resources to address threats and emergencies affecting World Heritage Sites (WHS) and surrounding areas of influence, and to do so quickly, flexibly and in real time. Two grants have been made that are relevant to the project, one that was recently awarded to address a spike in elephant poaching in the Gunung Leuser landscape and another that is a pipeline grant for increasing the law enforcement response in the Kerinci Seblat landscape.</p> <p>The nature of RRF grants are to operate in a short time frame (months and not years) to mitigate emerging threats. The project is working in three UNESCO WHSs and the RRF grants will no doubt be highly relevant. The project will therefore ensure that it is ready to collaborate and coordinate activities with any RRF awardee during implementation.</p>
<p>UNDP/GEF National Biodiversity Planning to Support the Implementation of the CBD 2011-2020 Strategic Plan (CEO Approved)</p>	<p>This project aims to strengthen National biodiversity framework for implementation of Indonesia Biodiversity Strategy and Action Plan (IBSAP) and integration Indonesia's obligations under CBD into its national development and sectoral planning frameworks in line with the CBD's Strategic Plan for 2011-2020. Lead executing agencies are: Ministry of Environment, BAPPENAS (National Development and Planning Agency), Indonesia Institute of Sciences (LIPI).</p> <p>Coordination with this project will be achieved through the Project Steering Committee and Technical Advisory Committee, in order to exchange information and take note of developments on both sides. This should ensure integration of NTRP priorities into the IBSAP, as well as ensuring that relevant IBSAP priority actions are taken into account during project implementation and reporting.</p>

Project	How collaboration with the project will be ensured
IFAD/GEF Sustainable Management of Peatland Ecosystems in Indonesia (2014-2018) (PIF Approved)	<p>This project aims to conserve and significantly reduce GHG emissions from peatlands through sustainably managing peatlands and meeting the livelihood needs of adjacent communities. It follows up on the recently completed IFAD/GEF project rehabilitation and sustainable management of peatlands in SE Asia (APFP). Both projects aim to assist the Indonesian government to implement the ASEAN Peatland Management Strategy (2006 - 2020), the National Strategy for Sustainable Peatland Management (revised 2012), and the recently ratified (2014) ASEAN Agreement on Transboundary Haze Pollution. The Ministry of Environment is the national executing agency.</p> <p>Specific activities in Sumatra include the minimization of peatland fires through Fire/Haze Free Villages Program in targeted districts in northern Riau province, and partnership for sustainable management of peatlands in Indragiri Hilir District of Riau province. National aspects are also of relevance, including hydrological mapping of peatland units, best management practices for peatlands, and fire prediction and warning systems.</p> <p>Coordination with this project will be accomplished through the Project Steering Committee and Technical Advisory Committee.</p>

369. The Project will coordinate with the GTI⁵⁸, through directly contributing to the National Tiger Action Plan. The project will promote the objectives and recommendations of the NTRP and will work in Indonesia's designated Tiger Conservation Landscapes (TCLs). The project will coordinate with other initiatives through *PHKA* and programmes being implemented by the local and international NGOs. Relevant work includes the following.

370. For Indonesia, the Forest Investment Programme (supported by the Asian Development Bank, World Bank and International Finance Corporation) has assigned a grant of US\$37.5 million and a loan of US\$32.5 million, of which the potential Sumatra provinces for interventions are Aceh, Jambi, Riau and South Sumatra. The development objective of the Investment Plan is to reduce barriers to sub-national REDD+ implementation and to increase provincial and local capacity for REDD+ and sustainable forest management. Key entry points for the Investment Plan to address sub-national barriers will be the national Forest Management Unit (*Kesatuan Pengelolaan Hutan*) system and ongoing tenure reform processes. Activities will focus on the following three inter-related themes: Institutional development for sustainable forest and natural resource management; Investments in forest enterprises and community based forest management; and, Community capacity building and livelihoods development. As the MoEF will be the chief executing agency, the project will coordinate its efforts through *PHKA* to ensure complementarity.

371. A tiger conservation programme managed by IUCN, International Union for Conservation of Nature, is being supported by €20 million from the German government through the KfW Development Bank. The aim of the programme is to increase the number of tigers in the wild and improve the livelihoods of communities living in and close to their habitat. The five-year Integrated Tiger Habitat Conservation Programme will benefit NGOs and conservation authorities from selected tiger range countries which committed to doubling the number of tigers occurring within their territories by 2020. Eligible countries include

⁵⁸ <http://globaltigerinitiative.org/>

Bangladesh, Bhutan, Cambodia, India, Indonesia, Laos, Myanmar, Nepal and Viet Nam.

372. The TFCA is a debt for nature swap scheme between the US and Indonesian Governments, based on the 1998 US Law on Tropical Forest Conservation. The scheme acts as a mechanism to reduce foreign debts of the countries with high tropical forest riches, to the US Government. TFCA Sumatera or The Action of Sumatera Tropical Forest Conservation manages some funds derived from the swap of Indonesian Government debts to the US Government (debt for nature swap) amounting to US\$29.6 million lasting for up to 10 years. In this bilateral agreement, two NGOs act as swap partners (Conservation International and *KEHATI*), with each contributing US\$1 million. The program is managed by the Oversight Committee with four permanent members consisting of the Indonesian Government represented by the MoEF, the US Government represented by the USAID and the representatives from the two NGOs.
373. The German Development Bank KfW, on behalf of the German Ministry of Economic Cooperation and Development (BMZ), has signed an agreement with the Indonesian government for a €23 million project, to be implemented by the MoEF's BPDAS and PHKA, in and around in Kerinci Seblat National Park, including sub-watersheds in the districts Merangin and Kerinci. Support will be provided for enforcement activities, biodiversity conservation and rehabilitation of critical watersheds, as well as 20 buffer zone development projects that promote community forestry schemes. The project, through FFI, has been in dialogue with the preparation team since 2012. Next, KfW and the MoEF are preparing a €8.5 million project to support the Leuser Ecosystem in Aceh, with a special focus on the districts of Aceh Selatan, Subulussalam and Singkil. Support will be provided to selected communities in conservation-oriented development activities and in resolving conflicts with the Gunung Leuser Ecosystem or adjacent forests, as well as strengthening the capacity of conservation related institutions (GLNP, *BKSDA* and district authorities).
374. The MCC/MCAI GP Project. Berbak has been selected for potential investment from the MCC/MCAI GP Project in the districts of Muaro Jambi and Tanjung Jabung Timur, with MoUs between MCAI and the district heads signed. The project's main focus is improving local rural livelihoods through low carbon development, based on an understanding that protection and conservation of the TAHURA and Berbak NP are essential for achieving this goal. The key project areas include renewable energy, improving land use practices and natural resource management and spatial planning.
375. Japanese International Cooperation Agency (JICA) - supports a project focused on restoring mangrove ecosystems degraded by the construction of fish ponds in the Sembilang National Park area. Activities include field studies on the causes and location of mangrove destruction, biophysical and social-economic condition of the area, construction of tree nurseries and site restoration through assisted natural regeneration, enrichment planting, and planting.

376. The newly-launched GIZ project entitled Biodiversity and Climate (BIOCLIME) aims to support biodiversity conservation and to maintain carbon storage capacity from HCV forest ecosystems in South Sumatra, thereby supporting sustainable development and low carbon emissions. Thus, there is an opportunity for Sembilang NP through better-managed development around its borders, securing all remaining HCV forests in the vicinity that extends wildlife habitat and secures the national park's buffer zone.
377. FFI, WCS and ZSL run similar types of projects in core sites in respective focal NPs, which include SMART-based patrolling, human-tiger conflict mitigation, tiger population monitoring through camera trapping. Funding from these projects will be used as co-financing.
378. WWF: Besides the RIMBA project, there are also general complementary programme interests with this project, including capacity building for SMART-based patrolling in Riau and Jambi protected areas, capacity development for PA management and sustainable land use, development of indicators for PA management minimum standards, support for data gathering for spatial planning including ecosystem services. WWF also collaborates with the Rhino Foundation of Indonesia (*Yayasan Badak Indonesia, YABI*) in a Sumatran rhino population monitoring and protection project that collaborates with the national park authorities in Bukit Barisan Selatan and Gunung Leuser.
379. *RER*: the pulp and paper company APRIL has set up *RER* to manage Ecosystem Restoration Concession projects in the Kampar Peninsula. Its projects aim to restore degraded peat swamp forest over 60 years through a comprehensive work plan that has been developed in line with the CCB Standards. APRIL has allocated US\$17 million. FFI is working as the principal technical partner of *RER* and APRIL for this project and therefore enables direct engagement for the Sumatra GEF project.
380. ASEAN Wildlife Enforcement Network: Project partners include the two key Government of Indonesia representatives to this regional wildlife trade reduction forum (Department of Forestry and National Police).

Project Annexes

Annex 1. Profiles for Target Protected Area Landscapes

See attached files

Annex 2. BD-1 Tracking Tool (METT)

See attached Excel Workbook

Annex 2A. Financial Sustainability Scorecard (Section III of BD1 Tracking Tool)

See attached Excel Workbook

Annex 3. Capacity Development Scorecards for Target National Park Agencies

See attached Excel Workbook

Annex 4. Stakeholder Consultation Meeting Reports

See attached files

Annex 5. Environmental and Social Screening Procedure Summary

See attached files

Annex 6. Project Sustainability Plan / Exit Strategy

See attached files

Annex 7. Profiles of CSO Partners

See attached files

Annex 8. Letter of Agreement for UNDP Direct Project Services

See attached files

Annex 9. Annual Work Plan

See attached files

Annex 10. Work plan matrix indicating lead responsibilities, supporting partner/s and direct beneficiaries

See attached files

Annex 11. Terms of Reference for CSO Subcontracts

See attached file

Annex 12: Supplemental Provisions to the Project Document

Standard annex to project documents for use in countries which are not parties to the Standard Basic Assistance Agreement (SBAA)

Standard Text: Supplemental Provisions to the Project Document:
The Legal Context

General responsibilities of the Government, UNDP and the executing agency

1. All phases and aspects of UNDP assistance to this project shall be governed by and carried out in accordance with the relevant and applicable resolutions and decisions of the competent United Nations organs and in accordance with UNDP's policies and procedures for such projects, and subject to the requirements of the UNDP Monitoring, Evaluation and Reporting System.
2. The Government shall remain responsible for this UNDP-assisted development project and the realization of its objectives as described in this Project Document.
3. Assistance under this Project Document being provided for the benefit of the Government and the people of (the particular country or territory), the Government shall bear all risks of operations in respect of this project.
4. The Government shall provide to the project the national counterpart personnel, training facilities, land, buildings, equipment and other required services and facilities. It shall designate the Government Co-operating Agency named in the cover page of this document (hereinafter referred to as the "Co-operating Agency"), which shall be directly responsible for the implementation of the Government contribution to the project.
5. The UNDP undertakes to complement and supplement the Government participation and will provide through the Executing Agency the required expert services, training, equipment and other services within the funds available to the project.
6. Upon commencement of the project the Executing Agency shall assume primary responsibility for project execution and shall have the status of an independent contractor for this purpose. However, that primary responsibility shall be exercised in consultation with UNDP and in agreement with the Co-operating Agency. Arrangements to this effect shall be stipulated in the Project Document as well as for the transfer of this responsibility to the Government or to an entity designated by the Government during the execution of the project.

7. Part of the Government's participation may take the form of a cash contribution to UNDP. In such cases, the Executing Agency will provide the related services and facilities and will account annually to the UNDP and to the Government for the expenditure incurred.

(a) Participation of the Government

1. The Government shall provide to the project the services, equipment and facilities in the quantities and at the time specified in the Project Document. Budgetary provision, either in kind or in cash, for the Government's participation so specified shall be set forth in the Project Budgets.
2. The Co-operating Agency shall, as appropriate and in consultation with the Executing Agency, assign a director for the project on a full-time basis. He shall carry out such responsibilities in the project as are assigned to him by the Co-operating Agency.
3. The estimated cost of items included in the Government contribution, as detailed in the Project Budget, shall be based on the best information available at the time of drafting the project proposal. It is understood that price fluctuations during the period of execution of the project may necessitate an adjustment of said contribution in monetary terms; the latter shall at all times be determined by the value of the services, equipment and facilities required for the proper execution of the project.
4. Within the given number of man-months of personnel services described in the Project Document, minor adjustments of individual assignments of project personnel provided by the Government may be made by the Government in consultation with the Executing Agency, if this is found to be in the best interest of the project. UNDP shall be so informed in all instances where such minor adjustments involve financial implications.
5. The Government shall continue to pay the local salaries and appropriate allowances of national counterpart personnel during the period of their absence from the project while on UNDP fellowships.
6. The Government shall defray any customs duties and other charges related to the clearance of project equipment, its transportation, handling, storage and related expenses within the country. It shall be responsible for its installation and maintenance, insurance, and replacement, if necessary, after delivery to the project site.
7. The Government shall make available to the project - subject to existing security provisions - any published and unpublished reports, maps, records and other data which are considered necessary to the implementation of the project.

8. Patent rights, copyright rights and other similar rights to any discoveries or work resulting from UNDP assistance in respect of this project shall belong to the UNDP. Unless otherwise agreed by the Parties in each case, however, the Government shall have the right to use any such discoveries or work within the country free of royalty and any charge of similar nature.

9. The Government shall assist all project personnel in finding suitable housing accommodation at reasonable rents.

10. The services and facilities specified in the Project Document which are to be provided to the project by the Government by means of a contribution in cash shall be set forth in the Project Budget. Payment of this amount shall be made to the UNDP in accordance with the Schedule of Payments by the Government.

11. Payment of the above-mentioned contribution to the UNDP on or before the dates specified in the Schedule of Payments by the Government is a prerequisite to commencement or continuation of project operations.

(b) Participation of the UNDP and the executing agency

1. The UNDP shall provide to the project through the Executing Agency the services, equipment and facilities described in the Project Document. Budgetary provision for the UNDP contribution as specified shall be set forth in the Project Budget.

2. The Executing Agency shall consult with the Government and UNDP on the candidature of the Project Manager a/ who, under the direction of the Executing Agency, will be responsible in the country for the Executing Agency's participation in the project. The Project Manager shall supervise the experts and other agency personnel assigned to the project, and the on-the-job training of national counterpart personnel. He shall be responsible for the management and efficient utilization of all UNDP-financed inputs, including equipment provided to the project.

3. The Executing Agency, in consultation with the Government and UNDP, shall assign international staff and other personnel to the project as specified in the Project Document, select candidates for fellowships and determine standards for the training of national counterpart personnel.

4. Fellowships shall be administered in accordance with the fellowships regulations of the Executing Agency.

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5. The Executing Agency may, in agreement with the Government and UNDP, execute part or all of the project by subcontract. The selection of subcontractors shall be made, after consultation with the Government and UNDP, in accordance with the Executing Agency's procedures.
 6. All material, equipment and supplies which are purchased from UNDP resources will be used exclusively for the execution of the project, and will remain the property of the UNDP in whose name it will be held by the Executing Agency. Equipment supplied by the UNDP shall be marked with the insignia of the UNDP and of the Executing Agency.
 7. Arrangements may be made, if necessary, for a temporary transfer of custody of equipment to local authorities during the life of the project, without prejudice to the final transfer.
 8. Prior to completion of UNDP assistance to the project, the Government, the UNDP and the Executing Agency shall consult as to the disposition of all project equipment provided by the UNDP. Title to such equipment shall normally be transferred to the Government, or to an entity nominated by the Government, when it is required for continued operation of the project or for activities following directly therefrom. The UNDP may, however, at its discretion, retain title to part or all of such equipment.
 9. At an agreed time after the completion of UNDP assistance to the project, the Government and the UNDP, and if necessary the Executing Agency, shall review the activities continuing from or consequent upon the project with a view to evaluating its results.
 10. UNDP may release information relating to any investment oriented project to potential investors, unless and until the Government has requested the UNDP in writing to restrict the release of information relating to such project.

Rights, Facilities, Privileges and Immunities

1. In accordance with the Agreement concluded by the United Nations (UNDP) and the Government concerning the provision of assistance by UNDP, the personnel of UNDP and other United Nations organizations associated with the project shall be accorded rights, facilities, privileges and immunities specified in said Agreement.
2. The Government shall grant UN volunteers, if such services are requested by the Government, the same rights, facilities, privileges and immunities as are granted to the personnel of UNDP.

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3. The Executing Agency's contractors and their personnel (except nationals of the host country employed locally) shall:
- (a) Be immune from legal process in respect of all acts performed by them in their official capacity in the execution of the project;
 - (b) Be immune from national service obligations;
 - (c) Be immune together with their spouses and relatives dependent on them from immigration restrictions;
 - (d) Be accorded the privileges of bringing into the country reasonable amounts of foreign currency for the purposes of the project or for personal use of such personnel, and of withdrawing any such amounts brought into the country, or in accordance with the relevant foreign exchange regulations, such amounts as may be earned therein by such personnel in the execution of the project;
 - (e) Be accorded together with their spouses and relatives dependent on them the same repatriation facilities in the event of international crisis as diplomatic envoys.
4. All personnel of the Executing Agency's contractors shall enjoy inviolability for all papers and documents relating to the project.
5. The Government shall either exempt from or bear the cost of any taxes, duties, fees or levies which it may impose on any firm or organization which may be retained by the Executing Agency and on the personnel of any such firm or organization, except for nationals of the host country employed locally, in respect of:
- (a) The salaries or wages earned by such personnel in the execution of the project;
 - (b) Any equipment, materials and supplies brought into the country for the purposes of the project or which, after having been brought into the country, may be subsequently withdrawn therefrom;
 - (c) Any substantial quantities of equipment, materials and supplies obtained locally for the execution of the project, such as, for example, petrol and spare parts for the operation and maintenance of equipment mentioned under (b), above, with the provision that the types and approximate quantities to be exempted and relevant procedures to be followed shall be agreed upon with the Government and, as appropriate, recorded in the Project Document; and

(d) As in the case of concessions currently granted to UNDP and Executing Agency's personnel, any property brought, including one privately owned automobile per employee, by the firm or organization or its personnel for their personal use or consumption or which after having been brought into the country, may subsequently be withdrawn therefrom upon departure of such personnel.

6. The Government shall ensure:

(a) prompt clearance of experts and other persons performing services in respect of this project; and

(b) the prompt release from customs of:

(i) equipment, materials and supplies required in connection with this project; and

(ii) property belonging to and intended for the personal use or consumption of the personnel of the UNDP, its Executing Agencies, or other persons performing services on their behalf in respect of this project, except for locally recruited personnel.

7. The privileges and immunities referred to in the paragraphs above, to which such firm or organization and its personnel may be entitled, may be waived by the Executing Agency where, in its opinion or in the opinion of the UNDP, the immunity would impede the course of justice and can be waived without prejudice to the successful completion of the project or to the interest of the UNDP or the Executing Agency.

8. The Executing Agency shall provide the Government through the resident representative with the list of personnel to whom the privileges and immunities enumerated above shall apply.

9. Nothing in this Project Document or Annex shall be construed to limit the rights, facilities, privileges or immunities conferred in any other instrument upon any person, natural or juridical, referred to hereunder.

Suspension or termination of assistance

1. The UNDP may by written notice to the Government and to the Executing Agency concerned suspend its assistance to any project if in the judgement of the UNDP any circumstance arises which interferes with or threatens to interfere with the successful completion of the project or the accomplishment of its purposes. The UNDP may, in the same or a subsequent written notice, indicate the conditions under which it is prepared to resume its assistance to the project. Any such suspension shall continue until such time as such conditions are accepted by the Government and as the UNDP shall give written notice to the Government and the Executing Agency that it is prepared to resume its assistance.