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United Nations Development Programme Country: Papua New Guinea

UNDP GEF PIMS 5261
Atlas Award: 00090689 and Project ID: 00096336

PROJECT DOCUMENT

Project Title: R2R Strengthening the Management Effectiveness of the National System of Protected Areas

UNDP Strategic Plan Environment and Sustainable Development Primary Outcome: 1. Growth and development are inclusive and sustainable incorporating productive capacities that create employment and livelihoods for the poor and excluded
Outcome Indicator: 1.5. Hectares of land that are managed sustainably under a conservation, sustainable use or access and benefits sharing regime

Expected CP Outcome(s): Reduced vulnerability to natural disasters and climate change, improved environmental and natural resource management, and promotion of energy conservation through access to affordable and renewable energy, particularly in off-grid local communities

Expected CP Output(s): Enhanced institutional and communities' capacity for environmental conservation and use of natural resources

Executing Entity/Implementing Partner: Tenkile Conservation Alliance

Implementing Entity/Responsible Partners: Tenkile Conservation Alliance (TCA) and United Nations Development Programme

Brief description

The present project falls under umbrella of 'Strengthening the Management Effectiveness of the National System of Protected Areas' programme that will be implemented by CEPA (Outputs 1.1-1.4, Component 1) using National Implementation Modality (NIM) and by NGOs Woodland Park Zoo (Outputs 2.1 and 2.2, Component 2) and Tenkile Conservation Alliance (Outputs 2.3 and 2.4, Component 2). The present project covers Component 2.

Component 2 directly supports two conservation areas, one of which is already fully gazetted and registered (YUS CA), and the other (Torricelli CA) is already in the process of finalizing their application as official CA (Torricelli). The intended outputs are (2.1) the expansion to the landscape level and effective management of the YUS Conservation Area, (2.2) community livelihood assistance in the YUS landscape with a focus on Conservation Coffee and Cocoa; (2.3) the formal gazetted and effective management of the Torricelli Mountain Range (TMR), and (2.4) community livelihood assistance in the TMR landscape proposed CA: Alternative protein, focusing on domestic animal farming, fish farming and home gardens.

The present Project Document covers Outputs 2.3 and 2.4 above with the total budget of **US\$ 2,639,037** which will be implemented by Tenkile Conservation Alliance.

Program Period 2012- 2017

Award ID: 00090689
Project ID: 00096336
PIMS #: 5261

Start date: July 2015
End Date: July 2020

Management Arrangements: NGO Implementation
PAC Meeting Date

Total resources required (total project funds): US\$ 4,933,237

Total allocated resources

GEF TF US\$ 2,639,037

Other (partner managed resources, in-kind):

TCA US\$ 2,294,200

Agreed by (NGO): Jim Thomas, Director, Tenkile Conservation Alliance

Date/Month/Year

Agreed by (UNDP): Roy Trivedy, Resident Representative, UNDP

Date/Month/Year

Table of Contents

SECTION I: Elaboration of the Narrative	6
PART I: Situation Analysis	6
Introduction	6
Context and Global Significance.....	7
Threats, Root Causes and Impacts	10
Introduction to Project site interventions	10
Stakeholder analysis	11
Baseline analysis	11
PART II: Strategy	13
Project Rationale and Policy Conformity.....	13
Project Goal, Objective, Outcomes And Outputs/Activities	15
Risks and assumptions	23
Incremental reasoning and expected global, national and local benefits	23
Cost-effectiveness	23
Project consistency with national priorities/plans:	24
Country Ownership: Country Eligibility and Country Drivenness	24
Sustainability and Replicability	24
PART III: Management Arrangements	25
Implementation Arrangements.....	25
PART IV: Monitoring and Evaluation Plan and Budget	28
Monitoring and reporting	28
Audit Clause.....	30
PART V: Legal Context	31
PART VI: Annexes	32

List of Tables

Table 1: Current Status of PNG Protected Area Coverage	9
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List of Figures

Figure 7: Geography of suggested TMR (C) CA area - without specific borders	19
Figure 2: Overview of the implementation and management arrangements of the programme	27

Acronyms

APR	Annual Project Review
BD	Biodiversity
CA	Conservation Area
CARR	Comprehensive, Adequate, Representative and Resilient
CBD	Convention on Biodiversity Diversity
CBO	Community Based Organisation
CBPNG	Cocoa Board Papua New Guinea
CCA	Community Conservation Areas
CEPA	Conservation and environmental Protection Authority
CIB	Cocoa Industry Board
CIC	Coffee Industry Corporation
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
DAL	Department of Agriculture and Livestock
DEC	Department of Environment and Conservation
DMT	District Management Team
DNPM	Department of National Planning and Monitoring
DSIP	District Support Improvement Program
DSP	Development Strategic Plan
ECCCP	Enhanced Conservation Capacity Program
EE	Environmental Education
EMP	Ecosystem Monitoring Program
ERC	Evaluation Resource Center
ESEGP	Environmentally Sustainable Economic Growth Policy
FSP	Full Size Project
GDP	Gross Domestic Product
GEF	Global Environment Facility
GIS	Geographical Information System
GoPNG	Government of Papua New Guinea
HR	Human Resource
ILG	Incorporated Land Group
ILUP	Integrated Land Use Planning
IPDM	Integrated Pest and Disease Management
IUCN	International Union for Conservation of Nature
JDP & BPC	Joint District Planning & Budgets Priority Committee
JICA	Japanese International Corporation Agency
LiDAR	Light Detection and Ranging
LLG	Local Level Government
LLGSIP	Local Level Government Support Improvement Program
M&E	Monitoring and Evaluation
MDG	Millennium Development Goal
MEC	Ministry of Environment and Conservation
METT	Management Effectiveness Tracking Tool
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MTDP	Medium Term Development Plan
NBSAP	National Biodiversity Strategy Action Plan
NCC	National Conservation Council

NCDC	National Capita District Commission
NEC	National Executive Council
NG	National Government
NGO	Non-Government Organisation
NP	National Park
NPART	Regional National Protected Areas Round Table
NPAS	National Protected Area Systems Policy
NPWS	National Parks and Wildlife Sanctuaries
OLP&LLG	Organic Law on Provincial and Local Level Government
PA	Protected Area
PAME	Protected Areas Management Effectiveness
PDM	Pest and Disease Management
PEC	Provincial Executive Council
PES	Payment for Ecosystem Services
PIF	Project Identification Form
PIR	Project Implementation Reports
PMT	Provincial Management Team
PNG	Papua New Guinea
PNGFA	Papua New Guinea Forest Authority
PPP	Public Private Partnership
PPR	Project Progress Report
PR	Public Relations
PSC	Project Steering Committee
PSIP	Provincial Support Improvement Program
R2R)	Ridge to Reef
RCF	Research Conservation Foundation
RPART	Protected Areas Round Table
RTA	Regional Technical Advisor
SCCP	Strengthening Conservation Capacity Project
SIT	Sterilie Insect Technology
TCA	Tenkile Conservation Alliance
TKCP	Tree Kangaroo Conservation Program
UNCBD	United Nations Convention on Biological Diversity
UNCCD	United Nations Convention to Combat Desertification
UNDAF	United Nations Development Action Framework
UNDP	United Nations Development Program
UNFCCC	United Nations Framework Convention on Climate Change
UPNG	University of Papua New Guinea
VNP	Varirata National Park
WDC	Ward Development Committee
WMAs	Wildlife Management Areas
WPDT	Ward Planning and Development Team
WWF	World Wildlife Fund
YUS	Yopno, Uruwa, Som (Names of major rivers in the area)

SECTION I: Elaboration of the Narrative

PART I: Situation Analysis

INTRODUCTION

1. The independent state of Papua New Guinea (PNG) occupies the eastern half of the island of New Guinea. It lies 10 degrees south of the equator and directly north of Australia, with many outlying islands to the north and east. PNG had a population of 7.06 million people in 2011. According to the 2000 census, 85% of the population lives in the rural areas, directly depending on ecosystem services for food security and livelihoods, while 15% lives in urban areas, towns and cities. The total land mass of PNG is 462,860 square kilometres. Of this land mass, 97% is held under customary land ownership, while 3% of the land has been converted to freehold and leasehold, where urban development has taken place. PNG's cultural and ethnic diversity is globally significant. About 848 different languages are listed for the country, of which 12 have no known living speakers. Seven million people live in multicultural customary communities. The physical geographical barriers contributed to the existing cultural diversity and complexity in PNG. PNG is likened to 'many nations' in a nation with diversity in geography, culture, language, and climate.

2. The country's large expanses of pristine habitat and high levels of biodiversity, coupled with its low level of human population, and indigenous peoples who have strong views for land ownership provide exceptional conservation opportunities. PNG encompasses some of the world's last great tracts of mature tropical rainforest and largest coral reefs. These forest and marine ecosystems, combined with a unique array of species that have evolved here in isolation, have made PNG one of the world's most important biodiversity hotspots¹. Arising from the above, threats impacting PNG's biodiversity and protected areas (PA) system include forest conversion and degradation from logging, mining, expanding industrial agriculture and a rapidly expanding largely rural human population with the expanding need for cash crops and subsistence gardens. Compounding all of this is the looming threat of climate change². The rugged terrain of PNG protects some of its forests and wildlife from outside threats, but risks are growing. Roughly 80 percent of lowland forests have been assigned to logging concessions or oil palm plantations. In the mountains, mines destroy land and pollute rivers, and unsustainable levels of hunting persist. Concerning marine resources, foreign fishing fleets operate in PNG's offshore waters with little control, while overfishing due to growing local populations depletes reef fisheries.

3. The PA system in PNG has performed poorly over the past decades, with lack of political commitment, lack of political commitment and interests from extractive industries posing major threats, as well as local population pressures increasing. Although few biodiversity assessments are being undertaken in PNG, conservationists are concerned about the poor performance of the conservation and protected areas institutions. However, the Government of Papua New Guinea (GoPNG) has recently made a renewed commitment to support a viable and sustainable protected area system in the country, working in partnership with community landowners, non-government conservation organizations at national and community levels, private sector and local government administrations. The premise is that if local people are capacitated to manage their ecosystems and landscapes sustainably, they will in turn enhance the value of ecosystem services, secure more rights to benefit from ecosystem products and other natural

¹ Wildlife Conservation Society (WCS). 2014. Papua New Guinea. Retrieved September 24, 2014, from <http://www.wcs.org/where-we-work/asia/papua-new-guinea.aspx>

² UNEP & GEF. 2010. Papua New Guinea's Fourth National Report to the Convention on Biological Diversity

resources and ultimately improve their livelihoods. PNG's new Protected Areas Policy (PAPs) approved by National Executive Council in December 2014 and the CEPA Act of May 2014 provides the overall policy and legal framework for the newly established Conservation and Environmental Protection Authority (CEPA). Both instruments are intended to give new impetus to conservation priorities and pose an excellent opportunity to improve biodiversity conservation in the broadest sense in PNG. However, the renewed Government commitment has been limited by lack of capacities across the entire spectrum of environmental management. Weak capacity means that the policies and legal framework meant to guide institutions to achieve conservation objectives are not being implemented and enforced.

4. This project is part of a medium-term modular approach towards strengthening biodiversity conservation in PNG. It complements work undertaken under the GEF-4/ Australia supported *Community-Based Forest and Coastal Conservation and Resource Management* project (GEFSEC PIMS 3954) to develop models for conservation in the Owen Stanley Range in Central Province as well as Nakanai and Whiteman Ranges in East and West New Britain Provinces. A third module focusing on biodiversity financing is planned in consultation with various partners, which will focus on sustainable biodiversity finance (biodiversity offsets framework, concession bidding, development of effective fund management mechanisms such as trust funds).

CONTEXT AND GLOBAL SIGNIFICANCE

Biodiversity Context

5. The island of New Guinea (combining mainland PNG and Indonesia's West Papua region), is one of the world's Megadiverse regions, containing 7% of the world's biodiversity and is the third largest expanse of tropical rainforest following the Amazon and the Congo. PNG is composed of the following biomes/ecosystems: glacial (permanent equatorial glaciers), alpine tundra, savannah, montane and lowland rainforest, mangroves, wetlands, lake and river ecosystems, sea grasses, and coral reefs. The island of New Guinea supports an estimated 5-9% of the world's terrestrial biodiversity in less than 1% of the land area. It contains habitats ranging from alpine grasslands to cloud forests to lowland wet tropical forests, swamps and dry sclerophyll woodlands. PNG has some of the largest unpolluted tropical freshwater systems in the Asia Pacific region.

6. The island of New Guinea as a whole has more than 18,894 described plant species, 719 birds, 271 mammals, 227 reptiles, 266 amphibians and 341 freshwater fish species. Endemism probably exceeds 30% for PNG and is well over 70% for Papuasias (the region from New Guinea to the Solomon Islands). It is also important to note that large gaps remain in the scientific knowledge of PNG's biodiversity, and new species are regularly being discovered.

7. PNG's forests perform a number of crucial ecosystem services and ecological functions, the importance of which tends to be underestimated. The broad range of these services includes provisioning of food, fibre, cultural, medicine; regulation of water catchments and enhancement of water quality; global, regional and microclimate stabilization; soil and nutrient retention which is particularly important for the extensive cultivated gardens; insect and rodent control; crop pollination; and the maintenance of fish stocks. Riverine systems and estuaries also perform important functions, e.g. in wetlands management, transport of nutrients for offshore sea grass beds and reefs and stabilization of coastal systems.

8. The three landscapes chosen for the project each contain important species, ecosystem and functional values: the **YUS Conservation region** is home to a large number of endemic species, many of

which are under threat. This includes the Endangered Matschie's Tree Kangaroo (*Dendrolagus matschiei*), the Critically Endangered Western Long-Beaked Echidna (*Zaglossus bruijni*), the Near-threatened Emperor Bird of Paradise (*Paradisaea guilielm*), the Vulnerable New Guinea Vulturine Parrot (*Psittrichas fulgidus*), the Vulnerable Papuan Harpy Eagle (*Harpyopsis novaeguineae*), the Vulnerable Wahnes's Parotia (*Parotia wahnesi*) and the Near-threatened Dwarf Cassowary (*Casuarius bennetti*). The region is also home to two poisonous bird species: the Hooded Pitohui (*Pitohui dichrous*) and the Blue-capped Ifrita (*Ifrita kowaldi*). The protected area extends to the adjacent network of reefs, beaches and sea grass beds in the near shore area of the Bismarck Sea. This marine habitat serves as vital feeding and nesting sites of the Critically Endangered Leatherback Turtle (*Dermochelys coriacea*), and the globally Vulnerable Dugong (*Dugong dugon*). The region is home to a population of approximately 12,000 people residing in 50 villages and a number of hamlets. These communities have limited access to external markets and services, with transportation links limited to small aircraft providing an erratic service. These communities have no telecommunications facilities. As a result, they are entirely dependent on their immediate environment for food and shelter.

9. **The Torricelli Mountain Range** site contains a mix of lowland and mid-montane tropical rainforest with a high level of endemism. It is the only known landscape in which three species of tree kangaroo are found, all endemic: the Scott's Tree Kangaroo or Tenkile (*Dendrolagus scottae*), the Golden-mantled Tree Kangaroo or Weimag (*Dendrolagus pulcherrimus*) and the Grizzled Tree Kangaroo or Yon-gi (*Dendrolagus inustus*). Other endemic species include the Black-spotted Cuscus (*Spilogale rufoniger*) and the Northern Glider (*Petaurus abidi*). The Tenkile Tree Kangaroo, Weimag Tree Kangaroo, Black-spotted Cuscus and Northern Glider are all classified as Critically Endangered. The Endangered Palm Cockatoo (*Probosciger aterrimus*) is also found in the region. A recent camera trap study by the Tenkile Conservation Alliance also recorded new species of forest wallaby.

10. Currently, the **Tenkile Conservation Alliance** operates in the Torricelli Mountain Range, an area which contains 50 villages with more than 10,000 people, who depend on subsistence agriculture (gardens) and hunting. The broader landscape in which the proposed Conservation Area will be established includes an additional 100 villages with up to a further 20,000 people. The river systems that flow from this mountain range run through extensive lowland forests and support important coastal ecosystems including the Sissano Lagoon and extensive mangrove and coral reef formations.

11. **Varirata National Park and the Sogeri Plateau** protects an important ecosystem that is an ecotone between savannah and monsoon rainforest. The Park is famed for a rich variety of birdlife, with well over 200 species recorded, and was the first location at which the poisonous properties of the Hooded Pitohui (*Pitohu dichrous*) were described by science. Beyond its intrinsic conservation value, its proximity to Port Moresby makes the site of especially high conservation education significance, critical in building the conservation constituency in the emerging middle class; their support will be critical to sustaining investment in conservation country wide. The sustainable management of the broader Sogeri plateau is critical to preserve water regulation and provisioning services vital for the National Capital District and also to sustain livelihoods of the local land owners.

Protected Area System: Current Status and Coverage

12. Since Independence in 1975 there has been a significant shift in protected areas from those that exclude people (e.g. National Parks) to those where people are part of the protected area system (Wildlife Management Areas and more recently Conservation Areas). Given that 97% of the land in PNG is under customary ownership, it is appropriate that protected areas are inclusive rather than exclusive of people. Biodiversity is also regarded as important as many Papua New Guineans believe that they provide a sense

of cultural identity, recreation and spiritual enrichment. Biodiversity is an important part of all of their lives and add value to their agricultural and local areas in a number of ways.

13. The exact figures for the number of PAs existing and their actual extent vary from source to source, but indicatively PNG’s terrestrial protected area system consists of approximately 53 PAs, totalling to 1,941,771 million hectares, which covers less than 4% of the land base;

14. PNG has committed to establish a comprehensive, effectively managed and ecologically-representative national system of protected areas, and the current categories and status are represented in Table 1. According to this classification, the PNG national PA System consists of three types of PAs: (1) National Parks and Wildlife Sanctuaries (NPWS) designated under the National Parks Act 1982 which are gazetted on freehold land and managed by the State; (2) Wildlife Management Areas (WMAs) designated under the Fauna (Protection and Control) Act 1966, which are managed by local communities on communal land for the conservation and sustainable use of wildlife resources, and; (3) Conservation Areas established under the Conservation Areas Act 1978, which allow communities to declare Conservation Areas on communal land, with these declarations being endorsed by the Government following the submission of a formal request.

Table 1: Current Status of PNG Protected Area Coverage

Protected areas	Count	Hectares	%
Wildlife Management Area	30	1,631,360	84%
Conservation Area	1	164,070	8%
Sanctuary	5	58,353	3%
Memorial Park	3	39,567	2%
National Park	8	28,025	1%
Protected Area	2	20,068	1%
Provincial Park	1	198	0%
Reserve	2	126	0%
District Park	1	3	0%
	53	1,941,771	100%

15. However, the PAP³ sets out a revised classification system of PAs (See section on *Policy and Legislative Context*, below for details), and suggests a transition period for the actual reclassification of existing PAs.

16. At present, YUS is the only gazetted Conservation Area (CA) in PNG, but there are on-going plans to gazette two more CAs, including one at Torricelli. So far, PNG has made limited progress towards meeting the CBD terrestrial goal and NBSAP goal of 10% of land area under protection by 2010. It also falls far short of Aichi target 11 which requires 17% of terrestrial and inland water areas and 10% of coastal and marine areas be covered by PAs by 2020. This project will go some way in progressing towards these targets for terrestrial PAs.

Please see *Annex 1 – Programme Document* for detailed institutional, policy and legislative context analysis.

³ Government of Papua New Guinea. 2014. Papua New Guinea Policy on Protected Areas, GoPNG

THREATS, ROOT CAUSES AND IMPACTS

17. The primary threats to biodiversity include forest conversion and degradation from logging, mining, expanding industrial and subsistence agriculture, driven by a rapidly expanding largely rural human population with expanding needs for cash crops and subsistence gardens.

The key threats to biodiversity and ecosystems, and their root causes include:

- 1) Small scale forest clearance;
- 2) Agriculture sector (cocoa and coffee production as the main cash crops and source of employment);
- 3) Expansion of low yielding agriculture;
- 4) Soil degradation;
- 5) Subsistence hunting, fishing and egg collection;
- 6) Small scale selective harvesting of timber and rainforest products;
- 7) Unsustainable marine ecosystem use;

The compounding threats are:

- 1) Inappropriate fire regimes;
- 2) Invasive species;
- 3) Water pollution;
- 4) Climate change and projected climate induced changes;
- 5) Poverty in the face of plenty, poor access to amenities;
- 6) Complexity of customary land/marine ownership; and
- 7) Additional potential threats such as mining oil and gas exploration, road construction, commercial and logging

For details on threats, root causes and impacts as well as long term solutions and barriers to achieving the solutions also covering stakeholder and baseline analysis, please see ***Annex 1 – Programme Document***.

INTRODUCTION TO PROJECT SITE INTERVENTIONS

18. The project will work at three specific project sites to provide a practical learning context for the operationalization of the PNG's draft Policy on Protected Areas Policy, one as a national example, and two as regional examples. Varirata National Park (VNP), situated just outside Port Moresby in Central Province, will serve as a working model for a National Protected Area. There are plans to expand the project site into the so-called Varirata-Sogeri Plateau complex, including the establishment of a conservation zone outside the Park in a new approach to engaging the local landowners in an expanded conservation effort. Two different examples of Regional Protected Areas are chosen to demonstrate (Community) Conservation Area work: (1) the YUS CA in Morobe Province, which already is fully registered as a CA, and (2) the Torricelli CA, which is still in the process of being gazetted and needs to finalise the application process.

19. The three project sites are:

- *Project Site 1: Varirata-Sogeri Plateau complex*
- *Project Site 2: YUS Conservation Area⁴*
- *Project Site 3: Proposed Torricelli Mountain Range Conservation Area*

⁴ Brooks, 2012: YUS Landscape Plan 2013-15, <https://www.zoo.org/document.doc?id=904>

TCA will cover **Project Site 3: Torricelli Mountain Range Conservation Area** on which a detailed situation analysis is provided in the corresponding section of the *Annex 1 – Programme Document*.

STAKEHOLDER ANALYSIS

20. Please see SECTION IV, PART III of the *Annex 1 – Programme Document*.

BASELINE ANALYSIS

21. The current area of National Parks and Wildlife Sanctuaries (including Protected Areas, Provincial Parks, etc.) is relatively small. These areas are critical and are directly managed by the State. In theory they have the highest level of conservation security and should provide a benchmark for effective PA management in the country. Gazetted WMAs cover an area of 1.9 million hectares. These areas are generally of high conservation importance, however their conservation security is limited as they generally address faunal management only and lack an active management presence. CA are designed to manage fauna, flora and ecosystem service resources, and their management plans generally include an ongoing conservation and monitoring capacity drawn from the participating communities, e.g. through Community Rangers. At present YUS is the only gazetted CA in PNG, however there are on-going plans for at least two more, including Torricelli. All three PA types face growing threats, from encroachment on neighbouring lands leading to growing habitat insularization, from the overharvest of fauna and flora, and from human induced fires.

22. The recent efforts of updating of the policy and legal framework relating to PA management in PNG (see above) is a promising step by the GoPNG. Implementing the CEPA Act (2014) and implementing the PAP (2014) will, however, require a concerted effort from the sector as well as other government and non-government partners. The PAP places a focus on creating benefits and ownership for CCAs (including former CAs and Wildlife Sanctuaries) with the intent to improve incentives for conservation. Additionally the PAP aims to facilitate an innovative PA financing framework, for which a lot more detailed background work is required. The governance framework for the PNG PAP depends, especially for the management of Regional PAs, on decentralised government structure such as the Provincial Government, institutions which have to date very limited experiences in PA management. Few Provincial Governments have environmental portfolios, staff and budget allocations at this time.

23. CEPA will oversee all environmental conservation and protection functions in the Government, and will have the mandate to put in place an effective system to license and regulate all development activities that have an impact on biodiversity and the environment. The Authority by statues has the mandate to raise funds through fees and charges, including for example by mandating offset mechanisms for biodiversity lost through development activities. The Government estimates that CEPA's total operational budget will be approximately PGK30-40 million PNG Kina (approx. US\$15-20 million) per year, for a total of US\$75-100 million over the duration of the project.

24. Previous GEF support to biodiversity conservation in PNG includes three projects implemented by UNDP; the *Biodiversity Conservation and Resource Management Program* (GEF PIMS 347, 1991-1998), the *Community-Based Coastal and Marine Conservation in Milne Bay Province Project* (GEF PIMS 1261, 2002-2006) and the *PAS: Community-Based Forest and Coastal Conservation and Resource Management in PNG Project* (GEF PIMS 3954, 2011-ongoing). These projects have provided a number of important lessons which have informed the design of this project, including the importance of community involvement and community support for conservation efforts. The need for strong community support for conservation initiatives is a common thread running through all past conservation initiatives in PNG. The country's community-based resource management system coupled with local communities' strong dependence on their local environment for basic needs and livelihoods, requires that any new

resource management regime (including conservation areas or protected areas) be carefully negotiated while respecting the needs and aspirations of participating communities. The lack of strong community-buy-in hampered PA establishment attempts at Bismarck Ramu and Lak in GEF PIMS 347, and inadequate attention to local needs and priorities also undermined the implementation of GEF PIMS 1261. The on-going GEF PIMS 3954 project is strongly aware of this requirement, and is undertaking careful and extended community engagement and community entry processes at its target sites. The intricacies of the traditional land tenure system in PNG and the respective trade-offs by landowners for logging or other natural resource projects over conservation has previously been a barrier to GEF projects (especially in Lak) and is one that is not overlooked in the design of the current project. Targeted capacity building and investment in community education and awareness raising activities under Component 2 will complement existing programs undertaken by the project partners (TKCP and TCA) at respective CCA sites.

25. Institutional capacity development needs to be approached as a strategic, long-term endeavour, rather than through time-bound project activities. The extensive capacity-building support provided to DEC and other partners in PIMS 347 was not sustained post-project, and similarly the capacity-building activities undertaken in Milne Bay Province through GEF PIMS 1261 have had limited long-term impact. Recognizing this, current capacity-building efforts are being built around a longer-term, modular approach across a range of separate projects and initiatives. The initial policy and institutional capacity-building undertaken through the ongoing PIMS 3954 project provides the foundation on which Component 1 of this current project is based. Further institutional strengthening (e.g. in the area of sustainable financing) is planned through future pipeline initiatives to be funded through Government resources as well as through donor projects.

26. Conservation activities at sites such as YUS and Torricelli (see also Site descriptions, above) are generally financed by external donors and conservation NGOs. Each site receives an average of US\$500,000 per year in support from a range of sources, however this funding is mostly ad-hoc and drawn from a variety of sources. YUS has an endowment of US\$2 million, which yields approximately US\$70,000 per year for basic management functions. YUS also received a sizeable grant from the German Government/ BMU (via Conservation International) in the past, which supported the establishment and operation of the YUS CA Management Committee and baseline conservation research and site management. As a gazetted CA, YUS has a management plan which is endorsed by the Government. The TCA in Torricelli has been implementing a long-term conservation strategy for the region that includes plans to establish an officially recognized CA, or, under the new PNG PAP Community Conservation Area (CCA). Baseline support to TCA includes approximately US\$1.7 million from the EU for safe water provision and was used to install water tanks for improved water supply in 320 locations across the landscape. The baseline investments at YUS and TMR are further expanded in the section *Introduction to project site interventions*, above.

27. District and Provincial Governments in the proposed site areas (including both Central Province and the National Capital District for Varirata) have development budgets averaging PGK10 million per year or approximately PGK60 million (US\$30 million) per year across the three sites. This funding is used for development and social service provision activities, including conservation-related activities, where requested by local communities. Examples of activities which are being funded include PGK5 million which has been allocated to upgrade the access road to Varirata National Park. Other conservation actors whose activities support the baseline project include conservation NGOs such as CELCOR, the Mama Graun Conservation Trust Fund,

28. The Nature Conservancy and the Wildlife Conservation Society. These organizations support a range of conservation activities on the ground as well as national-level policy advocacy and awareness-raising actions, the total value of which is estimated at approximately US\$2 million per year or \$10

million over the duration of the project. Please see Annex 1 – Programme Document for the summary of Protected Area activities supported by these and other NGOs.

PART II: Strategy

PROJECT RATIONALE AND POLICY CONFORMITY

Fit with the GEF Focal Area Strategy and Strategic Program

29. The project will support the strengthening of the national Protected Area system in PNG and support the new PA governance framework introduced through the PNG PA Policy. The systems and capacities established in CEPA will be validated and demonstrated through the improved management of Varirata National Park as a flagship demonstration site for Papua New Guinea. It will also strengthen the management and conservation of two flagship sites, the YUS Conservation Area in Morobe and Marang Provinces and the planned Tenkile Conservation Area in the Torricelli Mountain Range in East Sepik and Sandaun Provinces. It will also develop and implement mechanisms to incentivize communities living in and to whom the land belongs in these two protected areas to better protect the biodiversity and to adopt more sustainable land use and forestry management practices.

30. The project is consistent with Objective 1 of the GEF’s Biodiversity Focal Area Strategy, ‘*Improve Sustainability of Protected Area Systems*’. The project will contribute to the following outcomes under Objective 1: Outcome 1.1 ‘*Improved management effectiveness of existing and new protected areas*’.

31. The project will contribute to the achievement of GEF’s Biodiversity outcome indicators under Objective 1 as follows:

GEF-5 Biodiversity Results Framework														
Objective	Expected Outcome	Expected Indicator (and project contribution to indicator)												
Objective 1 Improve sustainability of Protected Area Systems	Outcome 1.1 Improved management effectiveness of existing and new protected areas	Indicator 1.1 Protected area management effectiveness as recorded by Management Effectiveness Tracking Tool												
		<u>Project contribution to indicator:</u> <i>METT scores for the 3 protected areas will improve respectively as below:</i>												
		<table border="1"> <thead> <tr> <th>PA</th> <th>Baseline METT</th> <th>Target METT</th> </tr> </thead> <tbody> <tr> <td>Varirata NP</td> <td>27</td> <td>50</td> </tr> <tr> <td>YUS CA</td> <td>57</td> <td>75</td> </tr> <tr> <td>TMR CCA (proposed)</td> <td>57</td> <td>72</td> </tr> </tbody> </table>	PA	Baseline METT	Target METT	Varirata NP	27	50	YUS CA	57	75	TMR CCA (proposed)	57	72
		PA	Baseline METT	Target METT										
Varirata NP	27	50												
YUS CA	57	75												
TMR CCA (proposed)	57	72												

32. The project is also consistent with the GEFs Land Degradation (LD) Focal Area Strategy Objective 2 ‘*Generate sustainable flows of forest ecosystem services in drylands including sustaining livelihoods of forest dependent people*’ and Objective 3 ‘*Reduce pressures on natural resources from competing land uses in the wider landscape*’. The project will contribute to the following outcomes under

Objective 2: *Sustainable flow of services in forest ecosystems in drylands* and under Objective 2: *“Integrated landscape management practices adopted by local communities”*.

33. The project will contribute to the achievement of GEF’s LD outcome indicators under Objective 2 and 3 as follows:

GEF-5 Land Degradation Results Framework		
Objective	Expected Outcome	Expected Indicator (and project contribution to indicator)
<p>Objective 2 Generate sustainable flows of forest ecosystem services in drylands including sustaining livelihoods of forest dependent people</p>	<p>Outcome 2.3 Sustainable flow of services in forest ecosystems in drylands</p>	<p>Indicator Increased quantity and quality of forests in dryland ecosystems</p> <p><u>Project contribution to indicator:</u> <i>5% reduction in sedimentation levels in the Lakoli River as a result of reforestation of 1,000 ha of forests and implementation of the Sirinumu Dam Integrated Land Use Plan</i></p>
<p>Objective 3 Reduce pressures on natural resources from competing land uses in the wider landscape</p>	<p>Outcome Integrated landscape management practices adopted by local communities</p>	<p>Indicator Application of integrated natural resource management (INRM) practices in wider landscapes</p> <p><u>Project contribution to indicator:</u> <i>Sirinumu Dam Integrated Land Use Plan approved covering a landscape area of > 7,000 ha 231,000 ha (YUS and Torricelli CCAs) of area covered by Integrated Land Use Plans directing CCA management</i></p>

Rationale and summary of GEF Alternative

34. Under the baseline scenario, PNG authorities and partners including local and district authorities will continue to function independently with little or no collaboration between national, district and local actors, without adequate investments necessary to create a robust system of protected areas that is backed with standards, monitoring tools and management effectiveness comparators to address the key threats to ecosystem services and associated benefits.

35. Although a new PNG PA policy and governance framework have been developed over the past years, under the baseline scenario the implementation of the Policy will be slow and largely ineffective. This is due to low capacities especially at the provincial government level, but also by CEPA, will negatively affect local level conservation efforts. Limited skills, technical knowhow and institutional capacities will continue to derail the effort of mainstreaming sustainable land management and biodiversity friendly practices in the areas outside of PAs where significant biodiversity exists. Decisions on landuse are likely to continue being made without strategic consideration of the overall landscapes, undermining ecosystems integrity, biodiversity and livelihoods.

36. Globally important biodiversity is likely to continue to be degraded and at worst, risk extinction. Under the baseline scenario, the national PA system will continue to be an ineffective mechanism to conserve PNG's globally-significant biodiversity and critical ecosystem services. In the absence of GEF funding, the creation and management of CA will continue to be ad-hoc processes initiated by external actors with limited long-term sustainability and unclear national benefits.

37. The project will support the paradigm shift to put the national PA system on a more secure institutional framework, both at the national level and through partnerships at the local level. At the local level, the project will demonstrate the effective operationalization of the CA model, providing a platform for local landowners, central, provincial and local governments and conservation actors to collaborate on the protection and sustainable use of important biodiversity resources and ecosystems. The land use plan and capacity for landowners will provide tools for strategic decision making on land use, ensuring that agriculture outside of the protected areas incorporates ecosystems and biodiversity friendly practices, thereby securing livelihoods and economic development while simultaneously restoring ecosystems integrity.

38. Under the alternative scenario, additional investments by the GEF, GoPNG and local partners will strengthen the national PA system and ensure the sustainability of investments in Conservation Areas on the ground. The objective of the project is —*To strengthen national and local capacities to effectively manage the national system of protected areas, and address threats to biodiversity and ecosystem functions in these areas.* This objective will be achieved through two major components. The first component focuses on the strategic support to the implementation of the new PNG Protected Areas Policy and the CEPA Act (May 2014) contributing to the establishment of a comprehensive and capable national system to oversee and support National and Regional PAs. The second component focuses on strengthening support to Community Conservation Areas (CCAs) to ensure that these areas are effectively managed and sustained within a supportive national framework, including through the provision of stable and predictable financial support through various Government channels. An expansion of the existing gazetted PAs will be supported, as well as effective PA management by local stakeholders. Targeted livelihood support will be provided as governed by locally established Conservation Area Agreements (CAAs) and specifically identified priorities on conservation grown coffee and cocoa in YUS and alternative protein in TMR.

PROJECT GOAL, OBJECTIVE, OUTCOMES AND OUTPUTS/ACTIVITIES

39. The objective of the project is to strengthen national and local capacities to effectively manage the national system of protected areas, and address threats to biodiversity and ecosystem functions in these areas.

40. In order to achieve the project objective, and address the barriers the project's intervention has been organised into two components (this is in line with the components presented at the PIF stage):

Component 1: Management Capabilities of the PNG State to oversee Protected Area Management

Component 2: Strengthening the Capacity of the State and Local Communities to Cooperatively Manage Protected Area Sites, and manage threats to biodiversity

Component 1: Management Capabilities of the PNG State to oversee Protected Area Management

41. Component 1 will be implemented by CEPA. For details please see *Annex 1 – Programme Document*.

Component 2: Strengthening the capacity of the state and local communities to cooperatively manage PA sites

42. Component 2 will be implemented by WPZ with the support of Tree Kangaroo Conservation Programme (TKCP) and by Tenkile Conservation Alliance (TCA). WPZ will implement Outputs 2.1 and 2.2, while TCA will implement Outputs 2.3 and 2.4 outlined below. The present Project Documents focused on Outputs 2.3 and 2.4, the details on implementation of remaining outputs can be found in *Annex 1 – Programme Document*.

43. Under Component 2 the project will strengthen the management and conservation of two flagship sites: the YUS CA in Morobe and Madang Provinces and the Tenkile Conservation Alliance (TCA) planned CA in the Torricelli Mountain Range (TMR) in East and West Sepik Provinces. The project will support the establishment of well-managed and well-resourced CAs with landowner communities in the two sites, to serve as benchmarks for CAs under the strengthened national PA regime in PNG. The project will build upon on-going conservation and management activities in each of the sites, and will help to systematize and integrate these into the national system to set benchmarks and standards for PA management nationally.

44. The project will aim to facilitate the formal gazettal of large CCAs in each site- in the case of YUS this being the expansion to the landscape level of the CA from 76,000 ha to up to 151,000 ha; and the TMR being ~180,000 ha. The creation and effective management of these CCAs will help to reduce hunting and habitat conversion pressures on key threatened species, including flagship species such as tree kangaroos and birds of paradise. Conservation of these large and diverse landscapes will also demonstrate effective ridge-to-reef management approaches which can be replicated elsewhere, including in the proposed CA in the Managalas Plateau in Northern Province.

45. A major focus will be placed on engendering the sustainable use of wild resources both for subsistence and artisanal purposes – strengthening community-based natural resource management. This will include supporting population surveys to ensure sustainable offtakes, strengthening traditional management systems (i.e. no take zones, rotational use) to mainstream biodiversity friendly practices in agriculture and natural resources management, monitoring the impacts of use and improving enforcement and monitoring of management. This will focus on non-timber forest products, sustainably produced cash crops such as coffee and cocoa and offtakes of wildlife where sustainability can be assured with effective conservation management and where there are existing markets that can be harnessed. The development of supply chains for produce will be important to provide a utilitarian incentive for conservation. In particular, the project will look into the constraints currently being experienced in producing, processing, transporting and marketing cocoa and coffee, in a cost-effective manner. Sustainable use activities will be geared towards threat reduction and the maintenance of viable populations of keystone species such as tree kangaroos.

46. In addition, the project will demonstrate integrated landscape management approaches in the project sites, to strengthen management of ecosystem services as part of local economic development (e.g. agriculture) and broader conservation objectives.

47. The project intends to help stabilize land clearance and reduce erosion, particularly along the Uruwa River system in the YUS CA (via co-finance)^{5 6}. The project will support intensification of cash crops including adoption of conservation farming practices. This will increase productivity of the land

⁵ This activity is nearing completion.

⁶ The project interventions will focus on supporting the increase of productivity of organic coffee and cocoa on existing agricultural land, including effective erosion management. However, these sites will be scattered around relevant land use zones throughout the landscape and it may not directly feasibility to assess the impact on the reduction of sedimentation levels of the Uruwa River system.

sustainably and reduce the rate of land clearance; it will also reduce erosion in the YUS Conservation Area. Focusing on an improvement of the organic coffee and cocoa production in the relevant land uses zones of YUS will help increase incomes of local households, which in return will reduce pressure for land clearance. Investing into the value chain development, improved processing and better market access for the products will ensure that existing agricultural land does provide optimal returns, which will likely also be reinvested into conservation efforts.

48. The hunting pressure on endangered species will be reduced in the Torricelli Mountain Range through up-scaling farming of Alternative Protein sources, potentially including rabbits and fish which are already piloted by TCA. The project support for non-indigenous species farming will be based on outcomes of a thorough Risk/Environmental and Social Impact Assessment. Other Alternative Protein sources such as improved chicken and poultry farming and gardening of vegetable/plant proteins will be further scoped. It is asserted that the investment into alternative protein sources, hand in hand with a well-orchestrated awareness and conservation program, will help reduce the consumption of bush meat. It is recognised that prevailing traditional belief systems revolve around hunting and consumption of bush meat, which the TCA approach to community engagement tries to influence in a systematic manner.

49. The project aims to set out *Conservation Area Agreements (CAAs)*: CAAs are negotiated framework agreements that will define commitment to the required conservation activities, as well as the approved livelihood activities (limited however to those acceptable by law) for each land use category in each project village. The short- and medium-term objectives of the CAAs are to stabilize conservation activities as well as the land uses in an agreed land use zone, support adaptation of land use practices, and provide suitable livelihoods incentives for continued support of the zonation. This will be achieved through enforcement, by mutual respect, of: (i) the land use and tenure rights of the land owners and village community; and, (ii) of the conservation status of the CCA. At YUS a zonation plan is already partially in place, and special efforts will focus on securing support for the expansion to landscape level of the CA. At TMR, the pre-negotiated zonations will be formalised and implemented.

50. Pre-consultation and CAA negotiation processes will take place in the identified beneficiary villages for targeted livelihood support (up to 10 within YUS⁷ and up to 50 within TMR, including through co-financing). Livelihood activities will be determined by each village (from a suite of options that are identified in a participatory and consultative manner). Each village will then identify and prioritize the livelihood development options that may be suitable for project-support in their village. The CAA will then define: (i) jointly agreed responsibilities of the village (e.g. to limit poaching and agricultural expansion outside of designated areas), and agreed conservation goals; (ii) the nature of the livelihood assistance that could be provided through the project for meeting both conservation targets and economic growth; and (iii) the local institutions (YUS CA committee, TCA CAM committees, LLM, other NGOs/CSOs) that could further finance and/or support the implementation of the CAs. The proposed activities identified in each CA will then be reviewed by the project team, and approved by CEPA or the provincial government responsible for the regional PA, for direct project support. Activities listed as potentially negative for social and environmental safeguard reasons will be screened out and not supported by the project.

51. The project will strengthen traditional management approaches (e.g. *tambu* and *ples masalai* zones) by working through established Conservation Area Management Committees and community land-use plans, and/or relevant structures/processes linked to the new PNG Policy on PAs. The project will also help establish or expand Community Ranger programs, and will help increase the technical and

⁷ Certain agreements do already exist within the YUS CA. To ensure that no overlap or contradictory agreements will be introduced a clear concept will be set out in the inception period with relevant partner communities.

field skills of the Rangers to ensure effective biodiversity monitoring, enforcement and community engagement and conflict resolution capacities.

52. Linkages between these CCAs and broader government systems will be strengthened, both with the CEPA for conservation and PA management purposes, and with local-level, District and Provincial Governments for broader development and service provision support to livelihoods, community mobilization and conservation activities. Improving the mechanisms by which these site-based initiatives are linked to broader national and local governance systems will help to increase the flow of financial and in-kind resources available to the CCAs, as well as ensuring the institutional and financial sustainability of these community protected areas. The support and oversight systems developed for these sites will help to inform the development of the overall national PA system under Component 1.

53. In all work, specific recognition of gender needs will be considered, and a formal gender strategy will be developed both for YUS and TMR CAs. Relevant trainings for gender screening and implementing engendered approaches will be part of all project outputs under component 2. The official governance structures of both Conservation Organisations (COs) already have gender considerations engrained in their formal constitutions.

54. Implementation of this component will be directed through four **outputs**:

- *Output 2.1: Expansion and effective management of the YUS Conservation Area;*
- *Output 2.2: Community livelihood assistance in the YUS landscape*
- *Output 2.3: Formal gazettal and effective management of the Torricelli Mountain Range*
- *Output 2.4: Community livelihood assistance in the Torricelli Mountain Range landscape proposed CCA: Alternative protein*

Outputs 2.1 and 2.2 will be implemented by WPZ as outlined in the corresponding section of **Annex I – Programme Document**. The present Project Document covers Outputs 2.3 and 2.4 which will be implemented by TCA.

Output 2.3: Formal gazettal and effective management of the Torricelli Mountain Range (TMR) Community Conservation Area

55. The final step to establishing the TMR (Community) CA involves mapping the land boundaries for government approval. TCA has been following the direction of local landowners in the field to map the exact boundaries of the Conservation Area boundary. Although a time consuming exercise, it has meant great ownership and responsibility on local management and a greater understanding in the meaning of conservation. TCA aims to work more closely in consultation with all 50 villages to further expand the boundaries to encompass the entire mountain range.

56. A primary focus of this GEF project will be to support TCA in developing a valid submission to CEPA under the newly endorsed PNG PAP, which sets out a new national PA governance framework and foresees a transition from CAs to CCAs. This will be underpinned by supporting and expanding TCA's ranger component to assist with equipment and training of the staff to become more effective in carrying out PA management responsibilities. The existing management plan will be reviewed and upgraded to take care of land uses that go beyond strict conservation foci. Further the GEF investment will strengthen the TCA to work with the PAP identified key responsible institutions for regional PA management, i.e. the provincial government, but also its related district, local level and ward structures.

57. Specific activities that will be implemented under this output are:

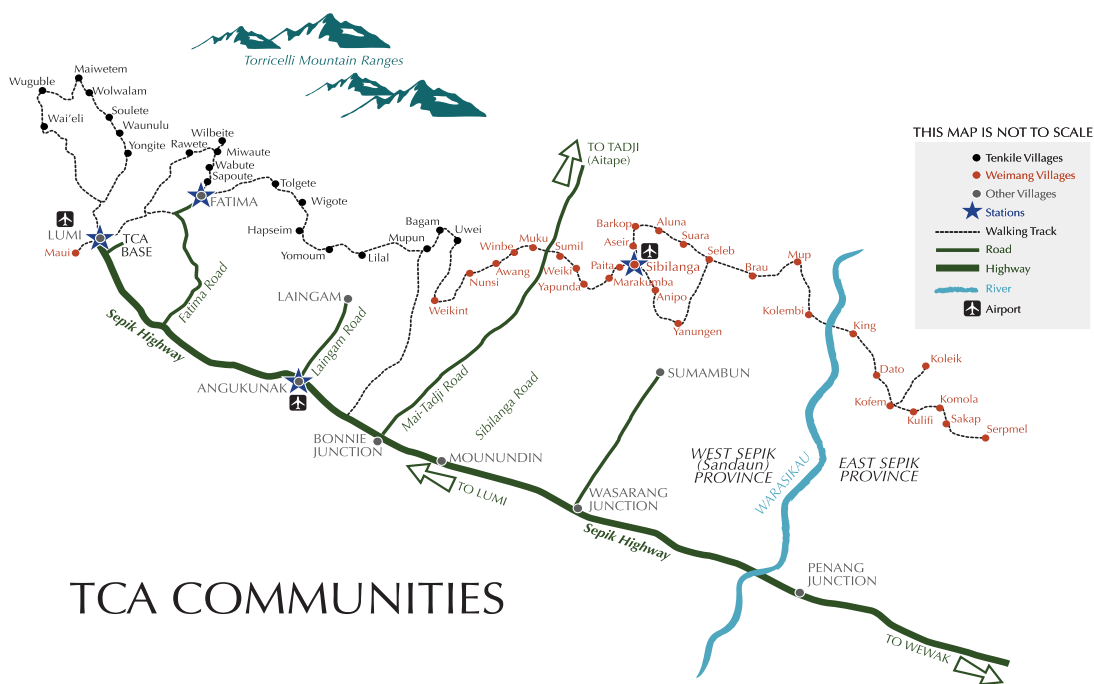


Figure 1: Geography of suggested TMR (C) CA area - without specific borders

Formal gazettal and CCA registration

- (i) Review new requirements for formal registration as CCA under PNG PAP, develop and implement registration strategy (see Annex 4). The project will provide the stakeholders with technical assistance (in the form of consultants) to facilitate the review.
- (i) TCA will map and gazette TMR CCA encompassing at least 200,000 ha with local landowners, local level, provincial & national governments and TCA rangers; under this activity, TCA will establish, write and print its' Protected Areas Strategy. In doing so, it will bring together all existing data, GPS and PA work to form an overall strategy, in a participatory process. TCA will therefore facilitate hiring of relevant ranger/field staff complement (110 casual staff – Research Officers x 10; Rangers x 100 (2 per village)), provide uniforms and equipment, including mobile phones and support ranger training in topics such as natural resources and PA management, law enforcement, conflict resolution (see Annex 3 for details);
- (ii) Invest into CCA PA management infrastructure: ranger/field staff posts, signage, and communication hubs 16 in total – across the eight teams (A-H) & 50 villages. NB: Two full-time TCA Project Officers assigned to each team.
- (iii) Project funds will also be used to hire a GIS Specialist to be engaged for data control and training. A total of 110 staff to be employed will be trained in natural resources and PA management, law enforcement, conflict resolution (see Annex 3 for details). Staff will be provided with a uniform, backpack, torch, umbrella, mobile phone for communication, stationary). Project funds will also support investments into TMR PA management infrastructure such as ranger / field staff posts, signage, and communication hubs with mobile phones for 16 sites.

Support TMR CCA governance

- (i) Support the institutional strengthening of TCA full-time staff x 30 (as support NGO: uniforms, equipment, including computers, data projectors & training, GPS units & training and outreach equipment).
- (ii) Implement targeted trainings (in conjunction with the CEPA, see output 1.3., component 1) such as for M&E oversight, project and financial management, general management, facilitation, outreach skills and public speaking, PC software, 1st Aid, conservation and PA management, project design, management and evaluation, participatory research, English, writing for proposals and reports, GIS and mapping, data/information analysis, gender analysis.
- (iii) Specifically implement training for all TCA members and staff on gender and addressing gender consideration in the CCA management framework.

Effective TMR CCA Management

58. Under this output, the project will facilitate the update of the TMR CCA management plan. In doing so, it will undertake a formal gender screening that will feed directly into the development of the new TMR management plan/integrated land use plan. Formal planning steps will be applied in accordance with the guidelines in the new PNG PAP. The CEPA and Provincial Government staff will be involved in the updating of the TMR CCA plan, as will other relevant stakeholders in learning/ exposure approach (linked to outcome 1). The project will facilitate the implementation of the revised TMR CCA plan, by assisting TMR to enter into formal CAA with villages in the TMR landscape, and to agree on conservation and sustainable development outcomes (see output 2.4.). Project funds will be used to finance village patrols to villages. They will support meetings to be held at TCA Base-Lumi with villages' representatives & Conservation Area Committees. Funds will also be used to produce agreements & MOUs with the 50 villages.

59. Under this output, the project will also facilitate the implementation of the livelihood activities of the TMR PA as identified and detailed in the TCA's Protected Areas Strategy. In doing so, the project will invest in outreach, capacity building and community training (see Annex 3) and awareness, including signposting, printed literature, exposure visits and education activities that focus on reducing the key threats to conservation (e.g. hunting, deforestation and habitat conversion, invasive species), but also highlight opportunities and benefits arising from conservation efforts (monetary and intrinsic).

60. Project funds will also be used to further develop biodiversity monitoring program and support TCA Rangers program to implement monitoring effectively⁸. This will include training organised by CEPA & the PA Policy staff.

61. Finally, the project will facilitate the generation of, and dissemination of lessons relevant to upscaling of this important pilot at national level. Under this output, the project will facilitate TMR to organize and implement peer learning and exchange visits and events with communities and landowners from YUS CA, TMR CA, and the Varirata-Sogeri Plateau Complex. There will also be exposure visits from representatives of the National and Regional PA governance structure (e.g. NPART, RPARTs), Provincial, District and LLG representatives, to demonstrate and share best practices and experiences, and help them understand their revised/updated responsibilities and PA management realities on the ground. This is to be co-financed by component 1. Project funds will be used specifically to compile and share experience on gender mainstreaming experiences at TMR CCA & TCA, by developing gender mainstreaming guidelines that can be applied elsewhere. All the activities under this output are programed with a view to develop a workable approach and practical case for the *establishment of PA management*

⁸ TCA has a partnership with Deakin University – camera traps, biodiversity & climate change. An application to GEF/SGP has been submitted to expand & develop this component

standards, a PA performance monitoring system for different categories of PAs and institutionalization of clear reporting structure and methods for Regional PAs (linked to Component 1).

***Output 2.4: Community livelihood assistance in the Torricelli Mountain Range landscapes proposed
CCA: Alternative protein***

62. Within the TMR area, 50 villages (18 supported by the project while 32 are supported via co-finance) will be the focus of the livelihood support activities. Work under this output will particularly focus on: (a) negotiating CAAs with the villages in TMR; and (b) facilitating access to technical and financial assistance for agreed livelihood development opportunities, focusing on alternative protein. The CAAs will be linked to output 2.3. and include PA management and conservation components as well.

63. Previous work by TCA demonstrates that providing alternative protein sources for human consumption helps reduce hunting pressure on key species in the TMR area, particularly the tree Kangaroo. TCA has recorded data on hunting rates, as there has been a dramatic reduction in hunting – which is attributed to the hunting moratorium, the established PAs in the mountains by the 50 villages and due to TCA’s preliminary rabbit, chicken & fish farming programs. The proposed project will support the furtherance of these support strategies. Although only species that have previously been introduced to the area will be used, there is still considerable concern what the long-term impact of increasing the number of these species, especially seeing that some of the species e.g. rabbit have had devastating effects in Australia as an invasive alien species. Similarly, the introduction of exotic fish species have had negative effects on natural ecosystems. A comprehensive Risk/Environmental Impact Assessment will be conducted on any exotic species that will be used for livelihood project prior to the implementation of the projects even if the species is already in the area to ensure that the project does not contribute to the degradation of the ecosystem. Should the specific non-native species be cleared, the specific introduction can go ahead, if not, alternative species should be considered.

64. Whilst the project output focuses on further extending already piloted initiatives on additional alternative protein, the establishment of small household level gardens will also be tested, as an additional alternative source of proteins, which will further reduce the pressure on the tree Kangaroo. Beans and cow peas, amongst others, are excellent sources of plant protein. Further the growing of leafy vegetables and fruits will be promoted to serve to improve nutritional levels amongst the local population. Although not readily linked to protein from hunted animals, education in this area will ideally change peoples’ perceptions due to a thorough educational component. Having alternatives to hunting, such as gardening, will reduce pressures, coupled with alternative protein farming.

65. Awareness campaigns will underpin the work on these aspects, and the introduction of a technological small innovation that allows for fast and safe cooking will be tested. From a dietary point of view, cooking of vegetables should be brief to retain key minerals and vitamins – which often get lost in lengthy charcoal/ wood fire cooking methods. It is noted that most common agricultural plants are already widely used in the TMR area, however, no new species will be added.

66. It is asserted that the promotion of alternative protein sources will contribute to household well-being and in-kind income. A possible cash income could be generated, however a clear concept would need to be scoped during the project implementation to identify such options during project implementation. Noting that most villages in the TMR area are very remotely situated and most of them are depending on subsistence, the in-kind contribution may be more meaningful to the objectives of the project.

67. As stated in output 2.3, the project will support training on gender issues. In addition, gender components will be built into the design of CAAs and specific livelihood activities.

68. The GEF project will support the following activities:

Conservation Area Agreements (CAAs):

- (i) Linked to output 2.1., develop CAA which include agreed to livelihood activities allowed in the relevant land use zone, in line with the TCA PA Strategy.
- (ii) Support implementation of extension advice to intensify land and crop productivity in existing gardens. This will be supported by applied research to identify best crops and best methods of intensifying production in the areas already under agriculture, with the aim of increasing production and household incomes, further reducing the need for clearing new areas for food production. This also applies to the alternative protein sources detailed below.
- (iii) During the update of the TMR management plans; use the opportunity to further scope the integration of ILUP principles and the pledge of additional land under conservation friendly land use zonation, including the promotion of improved land management practices e.g. through Conservation Agriculture, Organic Farming practices.

Alternative protein:

- (i) Risk/Social and Environmental Impact Assessment: As the project is proposing to increase number of non-native species in the area, it is necessary prior to any activity be undertaken, that possible species are identified and risk/environmental impact assessments are conducted and the specific species cleared as having no potential to have a short-term and long-term negative impact on the incomes of local communities and on the environment. Species cleared of having no risk will then be used in the selected projects below.
- (ii) Rabbit farming: Pending the results of a thorough Risk/Social and Environmental Impact Assessment, establishment of sustainable rabbit farms in interested target villages may be supported, based on a pilot approach already tested by TCA with communities in the TMR area. Animal protein in the diet of local families will increase, and hunting pressure on bush meat will decrease. An awareness program linked to output 2.3 will be implemented in parallel, working with local communities in changing their culturally-based behaviors linked to hunting and bush meat consumption. Investments will be made into training of rabbit farmers (four times a year to representatives from participating villages), as well as relevant training materials will be developed and disseminated. Specific training on rabbit husbandry including especially feeding needs will be conducted. Materials will be initially supplied (cages, fencing, rabbits for each village, with a 10% cash contribution from participating community). Business plans/ breeding/rearing plans will be devised and implemented. Farmers action research-based monitoring of success will take place four times a year for a period of five years. Community surveys will establish the linkages between availability of alternative protein and reduced hunting pressure. In the event that the Risk/Social and Environmental Impact Assessment is negative, the project will provide support for identifying more suitable alternative and development of alternative animal protein sources, in close consultation with local stakeholders.
- (iii) Fish and poultry farming: Based on a tested pilot approach integrated small scale aquaculture ponds will be set up for fish and poultry farming. Small scale ponds will be dug out and prepared in a manner that draining of water is possible. Poultry (chicken or dug) pens will be set up above the aquaculture ponds, so that any animal dung can serve as fish feed. Additionally, small solar lights will be installed above the set-up to attract insects

at night which will provide additional feed for the fish. The poultry will serve as additional protein source in terms of meat and egg supply. Similarly to the other alternative protein activities, awareness raising on linkages to reducing hunting pressure and bush meat consumption will be made, and a dedicated training, investment support and participatory success tracking program will be implemented. It is critical to invest into a sustainable supply chain for the inputs, especially fingerlings and chicks, which may have to be grown (semi-) commercially around Lumi area. A sustainable supply chain concept will be developed during the project inception phase.

Household gardens: The effectiveness of existing household gardens/ agricultural areas will be improved through applying relevant conservation agriculture methodologies, and with a focus to enhance productivity of locally grown food. A change in gardening practices and attitudes towards protein availability from house gardens will be effected, and awareness on healthy diets be raised. A combination of plant based protein and soliciting of critical minerals and vitamins especially from leafy green vegetables will be at the center of the agricultural improvement program. It is also considered strategic to foster “closer to home” production systems. By having gardens closer to the village will reduce hunting pressure via people spending more time at the village gardens than gardens closer to mountains where existing village CAs are established. As for the other activities, a dedicated training, investment support and participatory success tracking program will be implemented.

RISKS AND ASSUMPTIONS

69. An overview of the project risks are provided in Table 4 and Guiding Risk Assessment Matrix of *Annex 1 – Programme Document*.

INCREMENTAL REASONING AND EXPECTED GLOBAL, NATIONAL AND LOCAL BENEFITS

70. See *Rationale and summary of GEF Alternative and detailed component and outputs descriptions above, as well as Annex 1 – Programme Document*.

COST-EFFECTIVENESS

71. The project is considered cost-effective because (a) there are strong baseline investments dedicated by national government and CEPA for the present project. However, critical catalytic support through the GEF investment will generate more sustainable impacts. The incremental support will likely generate exponential benefits; (b) strong co-financing being mobilized from the Government for Varirata. In addition, JICA is committing a significant amount of co-financing to the establishment of a Man-and Biosphere type PA in the larger Sogeri Plateau Area, dovetailed with the ILUP approach suggested in the GEF project; and (c) Supporting the already established YUS CA and the proposed TMR CA conserves a significant baseline investment which is under threat due to critical financing gaps. Project funding for improving the capacity of selected NGOs is expected to improve their cost-effectiveness and sustainability.

For more details on cost-effectiveness of the project and related considerations, for details please see *Annex 1 – Programme Document*.

PROJECT CONSISTENCY WITH NATIONAL PRIORITIES/PLANS:

This project is well aligned with various national policies and programs, for details please see *Annex 1 – Programme Document*.

COUNTRY OWNERSHIP: COUNTRY ELIGIBILITY AND COUNTRY DRIVENNESS

72. PNG has ratified the UNCBD in 1993, UNFCCC in 1993 and UNCCD in December 2000. Thus the country is committed to safeguarding its territory in line with the three United Nations Multilateral Environmental Agreements. Progress towards meeting the Conventions' obligations was assessed in 2010⁹. For further details please see *Annex 1 – Programme Document*.

SUSTAINABILITY AND REPLICABILITY

73. Sustainability: The project has been carefully designed to optimize prospects for improving the environmental, institutional, and social sustainability of the system of protected areas.

74. Replication will be achieved through the direct replication of selected project elements and practices and methods, as well as the scaling up of experiences.

For further details on the project approach to sustainability, replication of selected project elements and knowledge management, please see *Annex 1 – Programme Document*.

⁹ Wickham, F., J. Kinch, D. Mitchell, M. Bongro, R. Alphonse, G. Sissiou, G. Maru, G. Kula and S. Nicholls. 2010. National Capacity Self Assessment Project: Assessing the Capacity of Papua New Guinea to Implement the United Nations Convention on Biological Diversity (UNCBD), the United Nations Convention to Combat Desertification (UNCCD), and the United Nations Framework Convention on Climate Change (UNFCCC): Final Report, Global Environment Facility, United Nations Development Program, and the Papua New Guinea Department of Environment and Conservation (DEC), Port Moresby.

PART III: Management Arrangements

IMPLEMENTATION ARRANGEMENTS

75. The present project falls under umbrella of the *‘Strengthening the Management Effectiveness of the National System of Protected Areas’* programme that will be implemented by CEPA (Component 1), as well as WPZ (Component 2: Outputs 2.1 and 2.2) and TCA (Component 2: Outputs 2.3 and 2.4). For details, please see *Annex 1 – Project Document*. The management arrangements of the present project cover Outputs 2.3 and 2.4 of Component 2 of the *‘Strengthening the Management Effectiveness of the National System of Protected Areas’* project that will be implemented by TCA.

During the PPG, capacity assessment of TCA was carried out resulting in the overall risk rating of involving TCA as an implementing partner as ‘medium’. For efficient use of allocated resources and high quality project outputs, TCA will be required to ensure due follow up on the recommendations resulting from the Financial Management Capacity Assessment which will be closely monitored by UNDP throughout the project lifespan. Please refer to *Annex 2 – Financial Management Capacity Assessment of Tenkile Conservation Alliance*, for details. A standard Project Cooperation Agreement (PCA) will be signed with TCA constituting the legal agreement between UNDP and TCA on the implementation of the project. Draft PCA is provided in *Annex 5 – Project Cooperation Agreement with TCA*.

For effective management of intended project outputs and targets, TCA is expected to work closely with CEPA which will implement Component 1 and will be providing overall coordination function of the project, and with WPZ which will implement Outputs 2.1 and 2.2 under Component 2 of the *‘Strengthening the Management Effectiveness of the National System of Protected Areas’* programme.

76. The UNDP will monitor the project’s implementation and achievement of the overall programme outputs, and ensure the proper use of UNDP/GEF funds. UNDP will also organize for the regular external project audits. At the same time TCA will be fully responsible for implementation of the part of the programme that is covered in this project document. During implementation the TCA will have to ensure that main UNDP principles are met.

77. A centralised Program Management Unit (PMU) is currently in the process of establishment by the UNDP and CEPA to oversee, support, administer and coordinate the implementation of all UNDP-GEF environmental projects in PNG implemented through CEPA. TCA will have to be closely working with the PMU since PMU is going to be fully responsible for coordination of the results of the programme where current project is going to contribute. Under the programme, the PMU is going to be responsible for coordination of all activities that are implemented by the different IPs. The PMU will be led by the international Technical Specialist. The TS will take the lead on and coordinate efforts of all PMU staff and contractors. The TS shall have a contractual responsibility to UNDP (in close coordination with CEPA) for the implementation of his/her duties and under the general guidance of the Projects Board.

78. The CEPA together with WPZ and TCA (and in close coordination with UNDP) will have the overall responsibility for achieving the programme goal and objectives. CEPA will designate its official to act as the National Project Director (NPD). The NPD will provide the strategic oversight and guidance to project implementation in close collaboration with UNDP.

79. The MoU will be signed among UNDP, CEPA, TCA and WPZ to clarify the reporting relationships between each implementing partner. The MOU will also clarify the financial and reporting arrangements and procedures for the project.

80. A Project Steering Committee (PSC) established for all UNDP/CEPA initiatives will have a technical functions, vis-à-vis the Project Board. It will be constituted to serve as the project's coordination and high level decision-making body. The PSC will ensure that the project remains on course to deliver the desired outcomes of the required quality. The PSC will be chaired by the CEPA and co-chaired by UNDP (the 'executive'¹⁰). The PSC will include representation from TCA and WPZ ('senior supplier'¹¹); (ii) major project beneficiaries including provinces ('senior beneficiary'¹²). Additionally, and UNDP will take role of project assurance¹³. Representatives of other stakeholder groups may also be included in the PSC, as considered appropriate and necessary. Prospective membership of the PSC will be reviewed, and recommended for approval, during the Project Inception meeting. The PSC will meet at least twice per annum to review project progress, approve project work plans and approve major project deliverables.

81. The PSC will establish a formal reporting relationship with the National PA Round Tables (NPART) and National Conservation Council (NCC) to ensure ongoing alignment of the project with national strategies, plans and programs, in line with the PPA, once approved.

82. CEPA (with support of PMU) will prepare annual work plans for each year based on the annual work plans submitted by WPZ and TCA. The PMU will then consolidate these work plans into a single Annual Work Plan (AWP) and Annual Budget Plan (ABP) for the project. The AWP and ABP will be reviewed by the PSC every year. These plans will provide the basis for allocating resources to planned activities. Each IP AWP will have to be signed with UNDP. The PMU will, with the inputs of each implementing partner, further produce quarterly operational reports and Annual Progress Reports (APR¹⁴) or any other necessary reports. These reports will summarize the progress made by the project versus the expected results, explain any significant variances, detail the necessary adjustments and be the main reporting mechanism for monitoring project activities.

¹⁰ The role of the 'executive' is to ensure that the project is focused on achieving its outputs and that the project adopts a cost-conscious approach.

¹¹ The 'senior supplier' is accountable for the quality of the outputs delivered by the supplier(s)

¹² The 'senior beneficiary' commits user resources and monitors project outputs against agreed requirements

¹³ The 'project assurance' will independently verify the quality of the products' or outputs'

¹⁴ This will be combined with the PIR

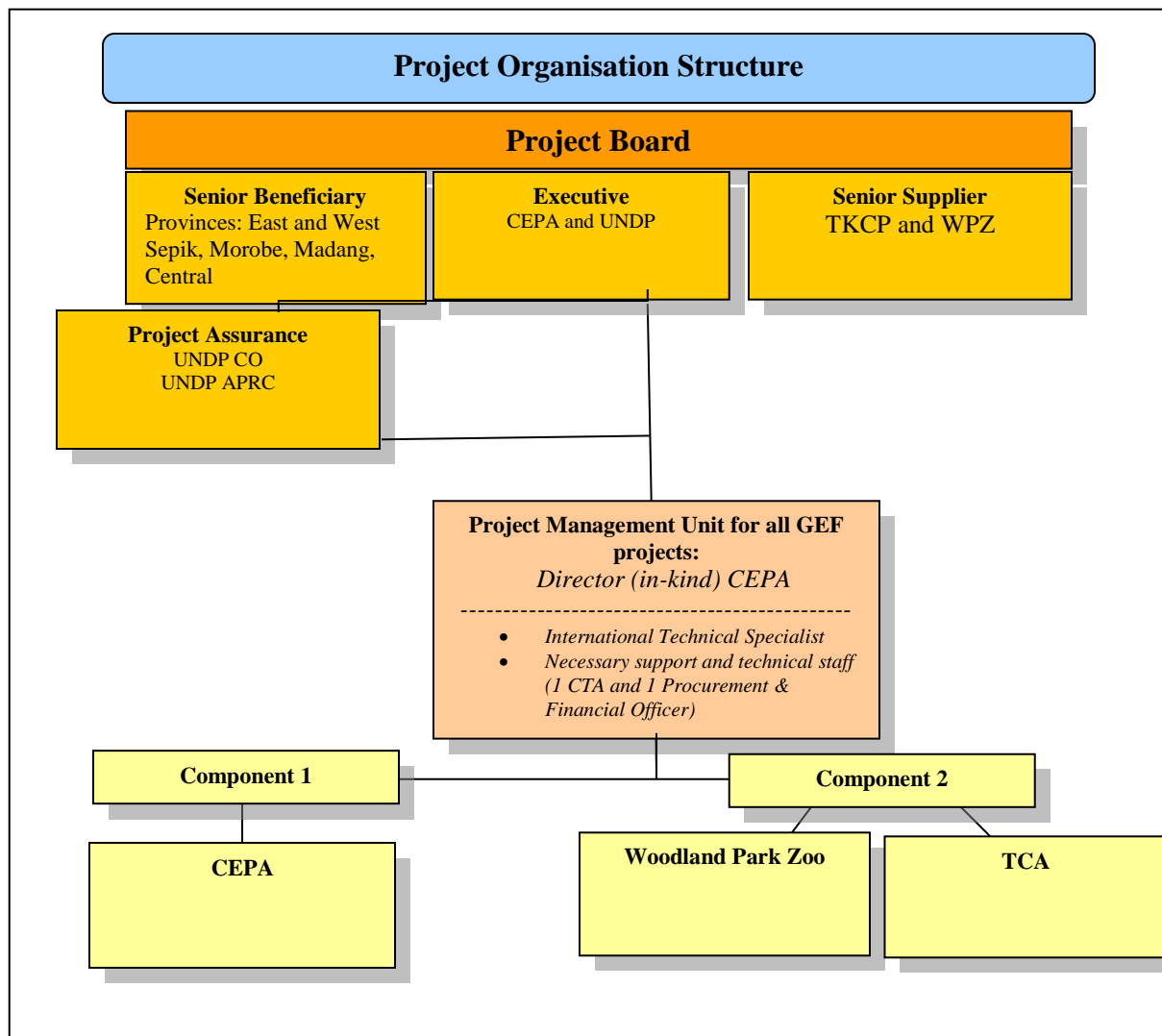


Figure 2: Overview of the implementation and management arrangements of the programme

Use of intellectual property rights

83. In order to accord proper acknowledgement to GEF for providing funding, a GEF logo should appear on all relevant GEF project publications, including among others, project hardware and vehicles purchased with GEF funds. Any citation on publications regarding projects funded by GEF should also accord proper acknowledgment to GEF.

PART IV: Monitoring and Evaluation Plan and Budget

MONITORING AND REPORTING

84. The project will be monitored through the following M& E activities. The M& E budget is provided in the table below.

Key M& E activities

Project start-up:

85. A Project Inception Workshop will be held within the first 3 months of project start with those with assigned roles in the project organization structure, UNDP country office and where appropriate/feasible regional technical policy and program advisors as well as other stakeholders. The Inception Workshop is crucial to building ownership for the project results and to plan the first year annual work plan.

86. The Inception Workshop will address a number of key issues including:

- a) Assist all partners to fully understand and take ownership of the project. Detail the roles, support services and complementary responsibilities of UNDP CO and APRC staff vis à vis the project team. Discuss the roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms. The Terms of Reference for project staff will be discussed again as needed.
- b) Based on the project results framework and the relevant GEF Tracking Tool if appropriate, finalize the first annual work plan. Review and agree on the indicators, targets and their means of verification, and recheck assumptions and risks.
- c) Provide a detailed overview of reporting, monitoring and evaluation (M&E) requirements. The Monitoring and Evaluation work plan and budget should be agreed and scheduled.
- d) Discuss financial reporting procedures and obligations, and arrangements for annual audit.
- e) Plan and schedule Project Board meetings. Roles and responsibilities of all project organisation structures should be clarified and meetings planned. The first Project Board meeting should be held within the first 12 months following the inception workshop.

87. An Inception Workshop report is a key reference document and must be prepared and shared by the TC with participants to formalize various agreements and plans decided during the meeting.

Quarterly:

- Progress made shall be monitored in the UNDP Enhanced Results Based Management Platform.
- Based on the initial risk analysis submitted, the risk log shall be updated on a quarterly basis in ATLAS. Risks become critical when the impact and probability are high. Note that for UNDP GEF projects, all financial risks associated with financial instruments such as revolving funds, microfinance schemes, or capitalization of ESCOs are automatically classified as critical on the basis of their innovative nature (high impact and uncertainty due to no previous experience justifies classification as critical).
- Based on the information recorded in Atlas, a Project Progress Reports (PPR) can be generated in the Executive Snapshot.

- Other ATLAS logs can be used to monitor issues, lessons learned etc. The use of these functions is a key indicator in the UNDP Executive Balanced Scorecard.

Annually:

88. Annual Project Review/Project Implementation Reports (APR/PIR): This key report is prepared to monitor progress made since project start and in particular for the previous reporting period (30 June to 1 July). The APR/PIR combines both UNDP and GEF reporting requirements.

89. The APR/PIR includes, but is not limited to, reporting on the following:
- Progress made toward project objective and project outcomes - each with indicators, baseline data and end-of-project targets (cumulative)
 - Project outputs delivered per project outcome (annual).
 - Lesson learned/good practice.
 - AWP and other expenditure reports
 - Risk and adaptive management
 - ATLAS QPR
 - Portfolio level indicators (i.e. GEF focal area tracking tools) are used by most focal areas on an annual basis as well.

Periodic Monitoring through site visits:

90. UNDP CO and the UNDP APRC will conduct visits to project sites based on the agreed schedule in the project's Inception Report/Annual Work Plan to assess first hand project progress. Other members of the Project Board may also join these visits. A Field Visit Report/BTOR will be prepared by the CO and UNDP APRC and will be circulated no less than one month after the visit to the project team and Project Board members.

Mid-term of project review:

91. The project will undergo an independent Mid-Term Review at the mid-point of project implementation. The Mid-Term Review will determine progress being made toward 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. 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 evaluation will be decided after consultation between the parties to the project document. The Terms of Reference for this Mid-term review will be prepared by the UNDP CO based on guidance from the Regional Coordinating Unit and UNDP-GEF. The management response and the evaluation will be uploaded to UNDP corporate systems, in particular the UNDP Evaluation Office Evaluation Resource Center (ERC).

92. The relevant GEF Focal Area Tracking Tools will also be completed during the mid-term review cycle.

End of Project evaluation:

93. The Terminal Evaluation should also provide recommendations for follow-up activities and requires a management response which should be uploaded to PIMS and to the UNDP Evaluation Office Evaluation Resource Center (ERC).

94. The relevant GEF Focal Area Tracking Tools will also be completed during the final evaluation.

95. During the last three months, the project team will prepare the Project Terminal Report. This comprehensive report will summarize the results achieved (objectives, outcomes, outputs), lessons learned, problems met and areas where results may not have been achieved. It will also lay out recommendations for any further steps that may need to be taken to ensure sustainability and replicability of the project's results.

Learning and knowledge sharing:

96. Results from the project will be disseminated within and beyond the project intervention zone through existing information sharing networks and forums.

97. The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to project implementation though lessons learned. The project will identify, analyze, and share lessons learned that might be beneficial in the design and implementation of similar future projects.

98. There will be a two-way flow of information between this project and other projects of a similar focus.

Communications and visibility requirements

99. Full compliance is required with UNDP's Branding Guidelines. These can be accessed at <http://intra.undp.org/coa/branding.shtml>, and specific guidelines on UNDP logo use can be accessed at: <http://intra.undp.org/branding/useOfLogo.html>. Amongst other things, these guidelines describe when and how the UNDP logo needs to be used, as well as how the logos of donors to UNDP projects needs to be used. For the avoidance of any doubt, when logo use is required, the UNDP logo needs to be used alongside the GEF logo. The GEF logo can be accessed at: http://www.thegef.org/gef/GEF_logo. The UNDP logo can be accessed at <http://intra.undp.org/coa/branding.shtml>.

100. Full compliance is also required with the GEF's Communication and Visibility Guidelines (the "GEF Guidelines"). The GEF Guidelines can be accessed at: [http://www.thegef.org/gef/sites/thegef.org/files/documents/C.40.08_Branding the GEF%20final_0.pdf](http://www.thegef.org/gef/sites/thegef.org/files/documents/C.40.08_Branding_the_GEF%20final_0.pdf). Amongst other things, the GEF Guidelines describe when and how the GEF logo needs to be used in project publications, vehicles, supplies and other project equipment. The GEF Guidelines also describe other GEF promotional requirements regarding press releases, press conferences, press visits, visits by Government officials, productions and other promotional items.

101. Where other agencies and project partners have provided support through co-financing, their branding policies and requirements should be similarly applied.

AUDIT CLAUSE

102. Audits will be conducted according to UNDP Financial Regulations and Rules and applicable Audit policies. The Implementing Partners will provide the UNDP Resident Representative with certified periodic financial statements for the project, and with annual audits of the financial statements relating to the status of UNDP (including GEF) funds according to the established procedures set out in the Programming and Finance manuals.

PART V: Legal Context

103. This Project Document shall be the instrument referred to as such in Article I of the Standard Basic Assistance Agreement between the Government of Papua New Guinea and the United Nations Development Program, signed by the parties on 7 April, 1981. The host country-implementing agency shall, for the purpose of the Standard Basic Assistance Agreement, refer to the government co-operating agency described in that Agreement.

104. Consistent with the Article III of the Standard Basic Assistance Agreement, 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.

105. 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;
- b) assume all risks and liabilities related to the implementing partner's security, and the full implementation of the security plan.

106. 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.

107. 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.

PART VI: Annexes

- Annex 1** Programme Document '*Strengthening the Management Effectiveness of the National System of Protected Areas*'
- Annex 2** Financial Management Capacity Assessment of Tenkile Conservation Alliance
- Annex 3** Project Strategic Results Framework
- Annex 4** Project Budget
- Annex 5** Draft Project Cooperation Agreement

Annex 1: Programme Document '*Strengthening the Management Effectiveness of the National System of Protected Areas*'

Annex 2: Financial Management Capacity Assessment of Tenkile Conservation Alliance

Annex 3: Project Strategic Results Framework (*the Results Framework for the overall programme is outlined in Annex 1*)

PROJECT OBJECTIVE AND COMPONENTS	INDICATOR	BASELINE	END OF PROJECT TARGETS	SOURCE OF INFORMATION
<p>Project Objective: To strengthen national and local capacities to effectively manage the national system of protected areas, and address threats to biodiversity and ecosystem functions in these areas</p>	Aggregated Average Capacity Development indicator score for CEPA, Madang, Morobe, West Sepik and East Sepik Provincial Government, TCA and TKCP	35.3%	62.3%	Project review of Capacity Development Indicator Scorecard
	Total area expansion of the National Protected Area in the Varirata-Sogeri Plateau, YUS and Torricelli Mountains Landscapes	0 ha	255,000 ha	CEPA Records
	Conducive policy environment for CEPA to operate within	<p>No policy regulating development impacts on biodiversity</p> <p>No clear direction on how funds and revenues will be earmarked within the overall CEPA financial structure</p>	<p>An enabling policy that established an effective national system to license and regulate development impacts on biodiversity</p> <p>An administrative regulation or similar issuance describing the process by which funds and revenues for PA management will be earmarked within the overall CEPA financial structure</p>	Issuance of policy and administrative regulation or similar issuance
	Number of villages directly benefitting from community-based livelihood activity that contribute to the reducing the extent and intensity of threats to the YUS and Torricelli CAs	0	>60	Project record of technical support and sub-grant funding agreements
	<p>IRRF Sub-indicator 1.1.3.A.1.1: Extent to which institutional frameworks are in place for conservation, sustainable use, and/or access and benefit sharing of natural resources, biodiversity and ecosystems</p>	To be defined at project start	To be defined at project start	Project reports

PROJECT OBJECTIVE AND COMPONENTS	INDICATOR	BASELINE	END OF PROJECT TARGETS	SOURCE OF INFORMATION
<p>Component 2: Strengthening the Capacity of the State and Local Communities to Cooperatively Manage Protected Area Sites</p>	<p>Outputs: 2.1 Expansion to the landscape level and effective management of the YUS Conservation Area 2.2 Community livelihood assistance in the YUS landscape 2.3 Formal gazettal and effective management of the Torricelli Mountain Range (TMR) 2.4 Community livelihood assistance in the TMR landscape proposed CA: Alternative protein</p>			
	<p>Capacity Development indicator score for Madang, Morobe, West Sepik and East Sepik Provincial Government, TCA and TKCP</p>	<p>Morobe Provincial Government: 27% Madang Provincial Government: 23% East Sepik Provincial Government: 23% West Sepik Provincial Government: 21% TCA: 53% TKCP: 62%</p>	<p>Morobe Provincial Government: 50% Madang Provincial Government: 55% East Sepik Provincial Government: 58% West Sepik Provincial Government: 56% TCA: 70% TKCP: 75%</p>	<p>Project review of Capacity Development Indicator Scorecard</p>
	<p>METT Scores of YUS Conservation Area and Torricelli Mountain Range Conservation Area</p>	<p>YUS: 57% Torricelli: 57%</p>	<p>YUS: 75% Torricelli: 72%</p>	<p>Project review of METT Scorecards at mid-term and end of project</p>
	<p>Extent of area under different National PA Categories and covered by Integrated Land Use Plans to direct management</p>	<p>YUS: Conservation Area: 76,000 ha Torricelli: 0 ha Protected Area</p>	<p>YUS: Community Conservation Area: 151,000 ha Torricelli: Community Conservation Area: 180,000 ha</p>	<p>CEPA Records</p>
	<p>Stable or increased populations of threatened species - YUS</p>	<p>YUS: Baseline: Matschie's Tree Kangaroo (<i>Dendrolagus matschiei</i>) (Endangered) 250+</p>	<p>YUS. Stable or increased population: Matschie's Tree Kangaroo (<i>Dendrolagus matschiei</i>)\ 250+</p>	<p>METT at Mid-term and End of Project Conservation Status and Biodiversity Monitoring reports at site level Annual YUS reports GEF PIRs</p>

PROJECT OBJECTIVE AND COMPONENTS	INDICATOR	BASELINE	END OF PROJECT TARGETS	SOURCE OF INFORMATION
	Stable or increased populations of threatened species - TMR	Tenkile Tree Kangaroo (<i>Dendrolagus scottae</i>) (Critically Endangered) Population estimate 300+; Weimag Tree Kangaroo (<i>D. pulcherrimus</i>) Population estimate 500+	Stable or Increased Populations: Tenkile Tree Kangaroo (<i>Dendrolagus scottae</i>), target 300+ Weimag Tree Kangaroo (<i>D. pulcherrimus</i>), 500+	METT at Mid-term and End of Project Conservation Status and Biodiversity Monitoring reports at site level Annual TCA reports GEF PIRs
	Productivity of organic coffee and cocoa in existing agricultural zones in YUS	Coffee = 2.5 tons per year from 22,650 ha. Cocoa = 38.6 tons per year from 6,091 ha.	Coffee > 30 tons per year from 22,650 ha Cocoa > 103 tons per year from 6,091 ha	APRs/PIRs
	Formal agreements in place between communities in participating conservation areas and central and/or Provincial Government/ project IAs, to provide financial and in-kind (service provision) support to participating communities, resulting in at least PGK 400 (approximately USD 150) in additional resources per household per year provided to the communities concerned.	YUS – US\$ 50 per Household (coffee and cocoa producers) TCA = US\$ 0	YUS – US\$ 200 per household (coffee and cocoa producers) TCA = US\$ 150 ¹⁵ per household (Alternative Proteins beneficiaries)	APRs/PIRs

¹⁵ A methodology will have to be developed during project implementation to measure this as “in-kind” or “subsistence” value for the alternative protein activities in TMR CA.

Annex 4: Project Budget (the full programme budgeted is outlined in Annex 1)

Award ID:	00090689
Project ID:	00096336
Award Title:	Strengthening the Management Effectiveness of the National System of Protected Areas
Business Unit:	PNG10
Project Title:	Strengthening the Management Effectiveness of the National System of Protected Areas
PIMS no.	5261
Implementing Partner (Executing Agency)	Tenkile Conservation Alliance

GEF Outcome/ Atlas Activity	Responsible Party/ Implementing Agent	Fund ID	Donor Name	ATLAS Budget Code	ATLAS Budget Description	Amount YEAR 1 (USD)	Amount YEAR 2 (USD)	Amount YEAR 3 (USD)	Amount YEAR 4 (USD)	Amount YEAR 5 (USD)	TOTAL	Budget #
Component 2: Strengthening the capacity of the state and local communities to cooperatively manage protected area sites	TCA	62000	GEF	71200	International Consultants	50,000	50,000	50,000	50,000	50,000	250,000	22
				71300	Local Consultants	30,000	30,000	30,000	30,000	30,000	150,000	23
				71400	Contractual Services - Individuals	175,000	175,000	175,000	175,000	175,000	875,000	24
				71600	Travel	40,000	40,000	40,000	40,000	40,000	200,000	25
				72200	Equipment and furniture	45,000	45,000	5,000	5,000	5,000	105,000	26
				72300	Materials and Goods	125,000	125,000	125,000	105,000	105,000	585,000	27
				74200	Audio Visual & Print Product Costs	25,000	25,000	25,000	25,000	25,000	125,000	28
				72500	Supplies	10,000	10,000	10,000	10,000	10,000	50,000	29
				74100	Professional Services	60,000	60,000	60,000	60,000	59,037	299,037	30
TOTAL TCA SUB-COMPONENT 2						560,000	560,000	520,000	500,000	499,037	2,639,037	

Summary of Funds:	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
GEF	560,000	560,000	520,000	500,000	499,037	2,639,037
UNDP-TRAC	0	0	0	0	0	0
TOTAL	560,000	560,000	520,000	500,000	499,037	2,639,037

Budget Notes	
Component 2	
22	40% of salary of Technical Site Coordinator (annually US\$ 40,000 over 5 years), responsible for project management and implementation oversight and reporting on GEF activities at TCA, also responsible for most trainings and outreach (international staff); technical advisor for gazettal, ILUP and CA application (Output 2.3); An Environmental and Social Impact Assessment Consultant with experience in Invasive Alien Species to conduct Risk/ESI Assessments on using potential non-native species for alternative protein support projects (US\$ 50,000).
23	Employment of 3 staff (S\$ 10,000 p.a. each, over 5 years) to facilitate CA gazettal, preparation of CA application, implementation of biodiversity / key species monitoring program, staff training and community outreach (Output 2.3)
24	Contractual services: (i) 110 casual staff (10 research officers at US\$ 2,000 p.a. per person, and 100 rangers – 2 per each village at US\$ 1,000 p.a., per person) (Output 2.3); (ii) GIS expert (up to US\$ 80,000 over 5 years); gender analysis and training (US\$ 20,000 lump sum) allocated across all years(Output 2.3); (iii) expert community trainers: domestic animal farming (1 officer) , fish farming (2 officers), gardeners/ horticulture experts (2 officers), each at +/- US\$ 7,000 annually support for implementing alternative protein activities (incl. fish farming, home gardens) and trainings (Output 2.4)
25	(i) Travel (road, air,) and DSA field activities, including community allowances, TCA management meetings (bi-annually) required for CA registration process (\$15,000 across 5 years under Output 2.3) and also transport for materials and goods, all travel to project sites and community visits, including for trainings (\$150,000 across 5 years under Output 2.4); (ii) Travel and allowances for workshops; trainings for staff and community members in support of improved TMR CCA Management, implementation of biodiversity monitoring, application of ILUP and mapping (\$17,500 across 5 years under Output 2.3) and (iii) Travel for peer learning and award purposes; esp. site visit to YUS to learn about community lead ILUP and mapping (\$17,500 across 5 years under Output 2.4)
26	(i) Support for TCA office, and TMR community, building of and furniture for 16 ranger stations; computers, cell phones and other communication equipment for all ranger stations (\$45,000 across 5 years under Output 2.3); (ii) Equipment such as binoculars, uniforms incl rubber boots, patrolling equipment incl. bed rolls and other needed to equip field staff;; bio-monitoring equipment e.g. for radio tracking tree kangaroos; investment into SMART (ranger) software and Trimble Nomad handhelds for data capture and transfer (\$30,000 in first two year under Output 2.3); and (iii) One project vehicle (4x4; up to US\$ 30,000 to be based at Lumi office).
27	(i) Monitoring tools, conservation access points signposting denoting the CA; support to publishing and printing TMR management plan; office maintenance and supplies of materials and good needed for all offices and outstations (Lumi office, ranger stations) (\$75,000 across 5 years under Output 2.3); (ii) Implements for alternative protein activities: domestic animal protein farming: purchased of animals and transported, materials for cages and transport (\$30,000 per year for first three years then \$25,000 per year for last two years under Output 2.4), reaching out increment to 50 beneficiary villages, starting with 18 from this project and other through co-financing); (iii) Implements for alternative protein activities: Integrated aquaculture & poultry farming: materials for fish pond building, fingerlings, chicks, mash, solar lights, (\$50,000 per year for first three years then \$40,000 per year for last two years under Output 2.4., reaching out increment to 50 beneficiary villages, starting with 18 from this project and other through co-financing)); and (iii) Implements for alternative protein activities: Home gardens: gardening tools and seeding materials; materials for shading and irrigation as needed; (\$30,000 per year for first three years then \$25,000 per year for last two years under Output 2.4, reaching out increment to 50 beneficiary villages, starting with 18 from this project and other through co-financing)

PNG: Strengthening the Management Effectiveness of the National System of Protected Areas

28	Production of learning and awareness outreach, information materials, printing, other production; esp. publication and dissemination of TRM management plan ; also production of lessons learnt materials and training materials for all community members (Outputs 2.3 and 2.4)
29	Office supplies and consumables , including vehicle maintenance and fuel
30	Expert support: Gender analysis and training, NARI technical support for all production systems, including travel, Support for animal health and other such issues (up to US\$ 60,000 per year across 5 years under Output 2.4)

Annex 5: Project Cooperation Agreement between UNDP and TCA (DRAFT)