



Papua New Guinea POLICY ON PROTECTED AREAS

Lukautim abus, graun na wara b'long nau na bihain taim
Eda uda, tano bona davara naridia hari bona nega vaira

PAPUA NEW GUINEA POLICY ON PROTECTED AREAS

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THIS POLICY heralds
the beginning of a new era for
protected areas and conservation
in Papua New Guinea.

WE PRESENT a clear vision and guiding principles
for a PNG Protected Area Network, which includes Special
Management Areas, Community Conservation Areas,
Locally Managed Marine Areas and National Parks.

WE COMMIT to the protection of our unique biological and
cultural heritage that is supported by a new sustainable funding model,
based on Biodiversity, Payments for Environmental Services (PES), to
enable active management and capacity building throughout PNG.

WE RECOGNISE the pivotal role of our local
communities and the customary landowners. We propose ways
that the PNG Protected Area Network will help support their
sustainable livelihoods and protect PNG's unique biodiversity.

WE WELCOME partnerships in Protected Areas with all
levels of government, with non-government organisations and civil
societies, with industry and especially with local communities.

WE OUTLINE legislation that supports and enables
this Network, and provides governance and management
arrangements for Protected Areas across land and sea.

In this policy, the Government of Papua New Guinea recognises
the importance of natural ecosystems, biodiversity, conservation,
people, culture and sustainability. This policy re-affirms the
central role of protected areas and conservation in building
a society that is smart, fair, wise, healthy and happy.



GLOSSARY OF TERMS AND DEFINITIONS

Biodiversity: the variety of plant and animal life in the world or in a particular habitat, a high level of which is usually considered to be important or desirable.

Blue Economy: Dubbed the Green Economy 2.0, the Blue Economy places emphasis on access to necessities such as health and education by implementing a local system of production and consumption based on what you already have.

The Blue Economy acknowledges that some aspects of so-called "green living", such as buying organic food and using certain forms of renewable energy, can be economically out of reach for large sections of the population. The primary goal of the Blue Economy is to identify examples in nature where organic recycling or upcycling occurs and mimic these processes to find out where and how the waste that we generate can be innovatively used again

Cultural Heritage: is the legacy of physical artifacts and intangible attributes of a group or society that are inherited from past generations, maintained in the present and bestowed for the benefit of future generations.

Customary: according to the customs or usual practices associated with a particular society, place, or set of circumstances.

Ecosystem: a biological community of interacting organisms and their physical environment.

Ecosystem services: This grouped ecosystem services into four broad categories: provisioning, such as the production of food and water; regulating, such as the control of climate and disease; supporting, such as nutrient cycles and crop pollination; and cultural, such as spiritual and recreational benefits.

Green Economy: The green economy is defined as an economy that results in reducing environmental risks and ecological scarcities, and that aims for sustainable development without degrading the environment. It is closely related with ecological economics, but has a more politically applied focus.

Landowner: a person who owns land, especially a large amount of land.

Offset: a consideration or amount that diminishes or balances the effect of a contrary one. An offset against taxable profits.

Protected Areas: A clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values.

Trust Fund: a fund consisting of assets belonging to a trust, held by the trustees for the beneficiaries.





LIST OF ACRONYMS

CBD	Convention on Biological Diversity	NP	National Park
CBO	Community Based Organisation	NPART	National Protected Area Round Table
CCA	Community Conservation Area	PES	Payment for Ecological Services
CEPA	Conservation Environment Protection Authority	POWPA	Program of Work on Protected Areas (Program of the CBD)
DEC	Department Environment and Conservation	RPART	Regional Protected Area Round Table
GEF	Global Environment Facility	SMA	Special Management Areas
IUCN	International Union for Conservation of Nature	TCA	Tenkile Conservation Alliance
LMMA	Local Marine Management Area	TKCP	Tree Kangaroo Conservation Program
MS	Marine Sanctuaries	TMR	Torricelli Mountain Range
NCC	National Conservation Council	TNC	The Nature Conservancy
NEC	National Executive Council	UNDP	United Nations Development Programme
NGO	Non-Government Organisation	WWF	World Wide Fund for Nature
NHA	National Heritage Area	YUS	Yopno, Uruwa and Som Conservation Area

FOREWORD

Papua New Guinea (PNG) contains a wealth of biodiversity and is one of eighteen mega diverse countries of the world, which has a high total number of species. PNG contains more than 7% of the world's biodiversity in less than 1% of the world's land area. It is home to more than 18,894 described plant species, 719 birds, 271 mammals, 227 reptiles, 266 amphibians, 341 freshwater fish species, 600 species of coral and 3000 species of reef fish. Many species remain to be discovered and documented scientifically. In addition PNG has a remarkable cultural diversity, with more than 800 languages, associated with beliefs, dances, customs where 96% of the land is still held under customary ownership.

This biodiversity provides the materials, food resources and bush medicines for a large proportion of the population living in the rural areas of Papua New Guinea. However, it is under significant threat from major resource developments and a rapidly growing human population. Therefore, Papua New Guinea's biodiversity with its remarkable cultural diversity needs to be protected.

The Constitution, in particular the fourth National Goal and its Directive Principle, provides the mandate for this policy and the actions which will follow its adoption.

I am personally committed to the implementation of the Protected Areas Policy to protect Papua New Guinea's terrestrial and marine biodiversity, outstanding natural features and culture. I am also very keen to support the Provincial and Local Level Governments to protect areas of importance and value to their local communities. My priority is to identify and protect biodiversity areas significant at community, national and global levels.

The greatest impediment to protecting biodiversity in PNG is the lack of sustainable financing for Protected Areas. Landowners cannot be expected to give up rights over areas of land or water without seeing benefits in the form of service delivery or support for economic development and improved livelihood. Therefore, Protected Areas must be seen as the next best alternative option to resource developments in the forestry, agriculture, fisheries, mining and the petroleum sectors.

In our endeavour to encourage greater community participation the Protected Areas Policy sets the framework to explore the options of sustainable financing and biodiversity offset mechanisms. The establishment of the Biodiversity Trust Funds through Protected Areas, ecosystems services, green contributions, grants, global levies and donations will support the operations of the Protected Areas network and this policy. The Biodiversity Trust Fund will be an independent account system, which will be managed by reputable entities.

The Protected Areas Policy provides a roadmap for use by the CEPA, other Agencies in the National Government, other levels of Government, NGOs, CBOs and all Papua New Guineans to protecting PNG's unique biodiversity and cultural heritage.

The journey to achieve the goal of the Protected Areas Policy will have challenges but we should be brave and start to move forward together at this critical time in PNG's development if we want to conserve our rich biodiversity and cultural diversity for our future generations.



Hon. John Pundari,
CMG, MP

Minister for
Environment &
Conservation
and Climate Change



ENDORSEMENT

This is a very exciting time for Protected Areas in Papua New Guinea. As the Department of Environment transitions into a full statutory body known as the Conservation and Environment Protection Authority (CEPA), now is the time to gear up all our efforts to give conservation the importance it deserves.

Of course, the idea of Protected Areas is not a new one. Over thousands of years, communities all over PNG have been conserving nature for cultural and spiritual reasons, while pursuing traditional livelihoods in these landscapes and seascapes. From a handful of Wildlife Management Areas established in the 1970s, today we have 58 Protected Areas plus many yet to be gazetted. So far these cover 4% of the country's land surface and less than 1% of the seas, but we anticipate that within five years this figure will dramatically increase. In this time we will also establish effective management across our country, using our own unique systems of resource ownership and management.

This new Policy is at the heart of dealing with many of the biggest challenges facing our country today – including climate change, food and water security, and ultimately the challenge of achieving sustainable development for betterment of Papua New Guineans. It is truly a fundamental strategy to conserve biodiversity and ecosystem services, with multiple benefits to people. We believe that in the very near future, growth of Protected Areas will bring more good news stories of

community efforts halting biodiversity loss and replenishing the natural environment.

Establishing a Biodiversity Trust Fund will ensure funding coming from various sources will contribute towards improved and effective management of Protected Areas and their long-term sustainability. With the anticipated increased financial base, there is strong potential of making existing protected areas sustainable, expanding the number of Protected Areas, and allowing for the resource development sector to input towards the Biodiversity Trust Fund and offset schemes.

This new policy will guide our country's new legislation on Protected Areas, which will for the first time bring together all marine and terrestrial areas, with different objectives and levels of protection. The Policy will be reviewed in five years and at that time we will be able to reflect on a period of great progress and achievement.

Through this new Policy, we aspire to meet the challenges of looking for solutions and inspiring every one of us to take action with government to protect the remaining natural and cultural heritage!



A handwritten signature in blue ink, consisting of stylized initials and a surname.

Mr. Gunther Joku
Secretary
Department of
Environment and
Conservation



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EXECUTIVE SUMMARY

This Policy on Protected Areas (the Policy) has been developed by the Government of Papua New Guinea to support the development and management of a National Protected Area Network in Papua New Guinea (PNG). It will guide communities, organizations and agencies to harmonise their efforts in a structured and logical approach to the sustainability of existing and the development of new protected areas. The Policy offers a blueprint based on international and national obligations and international best practice – but tailored to the unique context of PNG.

The PNG Government's mandate for this Policy derives directly from the 4th Goal of the National Constitution and its Directive Principles, which states that:

"Papua New Guinea's natural resources and environment should be conserved and used for all and should be replenished for the benefit of ourselves and prosperity of the environment and its sacred, scenic and historical qualities for future generations".

A number of national policies provide part of the framework underpinning the Policy on Protected Areas, including the explicit commitment to environmental sustainability contained in PNG Vision 2050, the New Strategic Directions (2007) which provides for decentralisation of plans and strategies, The National Strategy for Responsible Sustainable Development for PNG (2014), the PNG Development Strategic Plan 2010-2030, the Environment Act (2000), Conservation Area Act (1978) and the Mid-Term Development Plan 2011-2015.

International agreements also influence this Policy. As a signatory to the United Nations Convention on Biodiversity (CBD), PNG has committed by 2020 to establish a "comprehensive, effectively managed and ecologically-representative national system of protected areas" including specific targets of coverage of land and sea by protected areas.

The vision for the PNG Protected Area Network is "Our protected area network across land and sea safeguards our precious and outstanding natural and cultural heritage. Together we manage these areas effectively for all the people of Papua New Guinea."

The Policy is built on five pillars for an effective protected area network:

1. Protected Areas, Governance and Management
2. Sustainable livelihoods for communities
3. Effective and adaptive biodiversity management
4. Managing the Protected Area network
5. Sustainable and equitable financing for Protected Areas

The pillars each have desired outcomes and objectives, and are supported by a foundation of the PNG constitution, its Goals and Directive Principles.

Guiding Principles for the Policy on Protected Areas are:

- The PNG Protected Area Network is designed and managed for and by the PNG people.
- Ecological design and management principles and practices are applied.
- A fair and thoughtful system of management gives benefits to all.





PILLAR ONE: PROTECTED AREAS: GOVERNANCE AND MANAGEMENT

Desired outcomes:

The PNG Protected Area Network consists of a range of protected area types, which form the cornerstone of an integrated approach to conserve nature and provide resilience to climate change on both land and sea.

The Network is established and governed to conserve the country's outstanding biodiversity and provide benefits for local communities, customary landowners and all our people.

The Network is built and managed with free prior and informed consent of customary landowners.

National, Provincial, District and Local Level Governments provide effective legislation, policy and institutional support and assist with capacity development and practical management for all protected areas.

Local, National and International partners assist with management, sustainable financial and practical support, including training and mentoring.

Objectives:

- Establish the legal and institutional framework for effective management and governance of the PNG Protected Area Network.
- Ensure this framework becomes fully operational with clear lines of responsibility and high standards of governance, accountability and reporting.
- Ensure effective arrangements are in place for national, provincial, district and local level governments, communities including customary landowners, on-ground protected area managers and other partners work in cooperation.
- Support customary landowners in their initiatives to establish effective protected areas on their lands.

- Ensure CEPA supports the PNG Protected Area Network with adequate funding and staff capacity, competent leadership structure, functioning policies and operational systems.
- Deliver improved scope and support for volunteers, mentors and partners to work with governments and communities in protected area management.

The PNG Protected Area Network will be comprised of two groups of protected areas:

- **National Protected Areas** including National Parks (NP), Marine Sanctuaries (MS), National Heritage Areas (NHA) and Special Management Areas (SMA). These areas will be gazetted under national legislation.
- **Regional Protected Areas** include Community Conservation Areas (CCA) and Locally Managed Marine Areas (LMMA). These areas will be gazetted through provincial government legislation.

PNG's new Protected Area Classification System (Table 1) reflects the IUCN category system tailored to suit the PNG context. It includes protected areas owned and managed by customary landowners, all levels of government, NGOs and private companies, and incorporates both marine and terrestrial areas. Recognizing the extensive customary ownership of land and near shore waters in PNG, protected areas of any type will be gazetted only after formal Conservation and Benefit Sharing Agreements with the 'on the ground' customary landowners are established.

International designations may include any kind of protected area entirely or may overlap with them. Subject to the wishes of the customary landowners, it is desirable that Ramsar sites, World Heritage Areas and the core area of any future Biosphere Reserves are covered by one or more of the protected areas listed in this policy.

Strong and accountable governance will rely on clear and effective institutional arrangements, and cooperation among government agencies at all levels. This is critical for the establishment and effective management of the Protected Area Network.

Table 1: Protected area classes for PNG

Class	IUCN category	Group
National Park (NP)	II	National
National Heritage Area (NHA)	III	National
Special Management Area (SMA)	IV	National
Community Conservation Area (CCA)	V	Regional
Locally Managed Marine Area (LMMA)	V	Regional
Marine Sanctuary (MS)	IV (with zones)	National

The Policy outlines roles and responsibilities for:

- National Executive Council (NEC)
- National Conservation Council (NCC)
- Conservation and Environment Protection Authority (CEPA)
- National Protected Area Round Table (NPART)
- Other government agencies
- Provincial, District and Local Level Governments
- Regional Protected Area Round Table (RPART)
- Protected Area Management Boards, Committees and working groups
- Civil society partners, inclusive of international environment NGOs
- Industry

Existing legislation facilitating the gazettal of terrestrial protected areas includes the Fauna (Protection and Control) Act 1966 and the Conservation Areas Act 1978 and the National Parks Act which was repealed in 2014. However, there is no legislation governing marine protected areas in the current Acts, and this Policy will provide the basis for a legislation that would cover all aspects associated with terrestrial and marine protected areas.

Revision as necessary of legislation listed below that currently deals with protected areas:

- Conservation Area Act (1978)
- Fauna (Protection and Control) Act 1966; and
- Environment Act (2000) and related regulations
- Resource Sector Acts (Mining, Petroleum & Energy, Fisheries, National Seas, National Maritime and Safety, Forestry, Lands, Agriculture, National Planning, Monitoring and Office of Urbanization, Ports, Harbours)
- Torres Straits Treaty and other International Border Treaties

Complementary legislation will also consider how declared and proposed protected areas are excluded from extractive resource activities and other incompatible uses.

Changes are recommended to the **Organic Law on Provincial Governments and Local-level Governments Act** to complement the new protected areas legislation, to enable provincial governments to declare and gazette regional protected areas.





PILLAR TWO: SUSTAINABLE LIVELIHOODS FOR COMMUNITIES

Desired outcome:

In recognition of the PNG Constitution, customary practices for enhancing and protecting the environment and traditional livelihoods are strengthened through protected area establishment and management.

The support and enthusiasm of customary landowners for protected areas are nurtured and encouraged through government recognition and through practical assistance.

Objectives:

- Ensure that local arrangements governing use of natural resources in protected areas are fair and sustainable, and continue to support traditional livelihoods.
- Build capacity, support and empower communities, customary landowners and protected area staff to sustainably manage the protected areas.

- Develop Conservation and Benefit Sharing Agreements with customary landowners for all protected areas

Governments (National, Provincial, District and Local), in collaboration with relevant stakeholders (e.g. NGOs and customary landowners) will develop transparent processes to establish Conservation and Benefit Sharing Agreements to enable the establishment of protected areas on customary lands. These agreements will take account of the biodiversity and the diversity of social and cultural practices. They will identify the roles and responsibilities of the customary landowners in the establishment, implementation and monitoring of the protected area.

Support will be built at the local level, and sufficient resources will be provided to customary landowners (by a range of stakeholders) to enhance community awareness of protected areas, their values and management.

The government, in collaboration with all relevant stakeholders, will develop procedures that avoid or minimise conflicts between and among stakeholders.





PILLAR THREE: EFFECTIVE AND ADAPTIVE BIODIVERSITY MANAGEMENT

Desired outcome:

Effective and adaptive biodiversity management supports the network and ensures that the values of the protected areas are maintained to the highest possible extent.

Objectives:

- Develop and apply policies for biodiversity management planning, monitoring and reporting, natural and cultural resource management, and law enforcement.
- Effectively manage activities on protected areas including biodiversity protection, compatible development, recreation, research and traditional use.
- Evaluate management effectiveness every three years to demonstrate the successes and challenges for each protected area PNG.
- Ensure protected area management is well resourced, efficient and effective, with capable, knowledgeable and helpful staff.

Maintaining natural integrity, cultural values and natural landscapes and seascapes across time is the highest priority of protected area management, along with delivering sustainable benefits to customary landowners.

Adaptive management will be developed and implemented with a robust information base for decision making, a national Protected Areas and Proposals database and reporting systems to ensure quality information, including spatial information.

Management effectiveness of protected areas will be evaluated regularly and improvements put into place based on assessment results.

Management planning plays an important role in PNG protected areas as part of an adaptive management system and for building consensus among stakeholders and managers. The emphasis will be on a good planning process. A requirement for planning will be built into legislation for protected areas. Different protected area types and zones will be managed on land and sea according to the values of management plans, zoning and conservation agreements for that area.



PILLAR FOUR: MANAGING THE PROTECTED AREAS NETWORK

Desired outcome:

The **PNG Protected Area Network** is relevant to the PNG people, represents the diversity of life, landscapes and seascapes, and forms a well-connected, adequate and resilient system.

Objectives:

- Establish a PNG Protected Area Network according to the guiding principles and the range of reserve types outlined in this Policy.
- Establish a relevant, comprehensive, adequate, representative and resilient PNG Protected area Network according to the range of reserve types and network design principles established in this Policy.
- Build upon traditional management and traditional ecological knowledge.
- Ensure a smooth transition from the 2014 protected area types to the updated Network, with no loss of values.

The development of the expanded protected area network in PNG will be guided by the following principles:

- Relevance to the customary landowners
- Representation of biodiversity
- Viability into the future.

A robust scientific basis will be used to define protected areas where investment priorities can be applied as well as consensus of community's priorities on land and marine planning.

An efficient and effective process will be developed for the legal establishment and gazettal of the National Protected Area Network, including the process for negotiating new protected areas with customary landowners and other stakeholders. This will include conversion of existing areas and establishment of new areas. It will allow for de-gazettal where existing areas do not meet the new standards. No new areas will become protected areas without the support

and agreement of the customary landowners. Support from NGOs will also be critical.

Within and across all protected area types, special zones may be declared to give greater flexibility and guidance. These can be declared by legislation on gazettal, by a management plan or by agreement signed between the customary landowners, the government and, if appropriate, other stakeholders. National Marine Sanctuaries will include statutory zones of categories II-V.



PILLAR FIVE: SUSTAINABLE AND EQUITABLE FINANCING FOR PROTECTED AREAS

Desired outcome:

Sustainable and equitable financing supports the Protected Area Network

Objectives:

- Develop and implement a Biodiversity Trust Fund to support the Protected Area Network through mechanisms such as biodiversity and ecosystem services offsets, Payment for Environmental Services (PES), green contributions such as levies and taxes, and donations and philanthropic contributions.
- Develop small grant programs to deliver funding directly to support local communities in the establishment and management of protected areas

Adequate and reliable financial resources will be needed for effective designation and management of protected areas in PNG.

Each protected area will require annual budgets for development and implementation of management plans (including capital and recurrent expenditure), and to support the customary landowners in their management of the protected areas.

Through a diversified mix of conventional funding sources (e.g., budgetary allocations, overseas development assistance) and innovative funding sources (e.g. payments for offsets and ecosystem services, trust funds and green taxes), PNG can achieve stable and sufficient long-term financial resources to support their conservation area networks. A sustainable financing mechanism for protected areas management should be developed that would include multiple strategies for acquiring funding, including budgetary support, grant funding, fines, and user fees for extractive and non-extractive use.

Work on an offsets policy and sustainable financing through a Biodiversity Trust Fund is being progressed and will complement and operationalize this policy. A coordinated and long-term investment strategy will support protected areas and their management, incorporating innovative and effective mechanisms for funding biodiversity conservation, such as market-based instruments.



I. VISION & PRINCIPLES FOR PNG'S PROTECTED AREAS

The vision for the PNG Protected Area Network is "Our protected area network across land and sea safeguards our precious and outstanding natural and cultural heritage. Together we manage these areas effectively for all the people of Papua New Guinea."

The vision supports the PNG 2050 vision for a smart, fair, wise, healthy and happy community.

The vision is supported by five pillars for an effective protected area system in PNG, with the Constitution as its foundation (Figure 1).

II. SUPPORTING PILLARS

The supporting pillars of the vision are briefly outlined here and are discussed in more detail in Sections one to five.

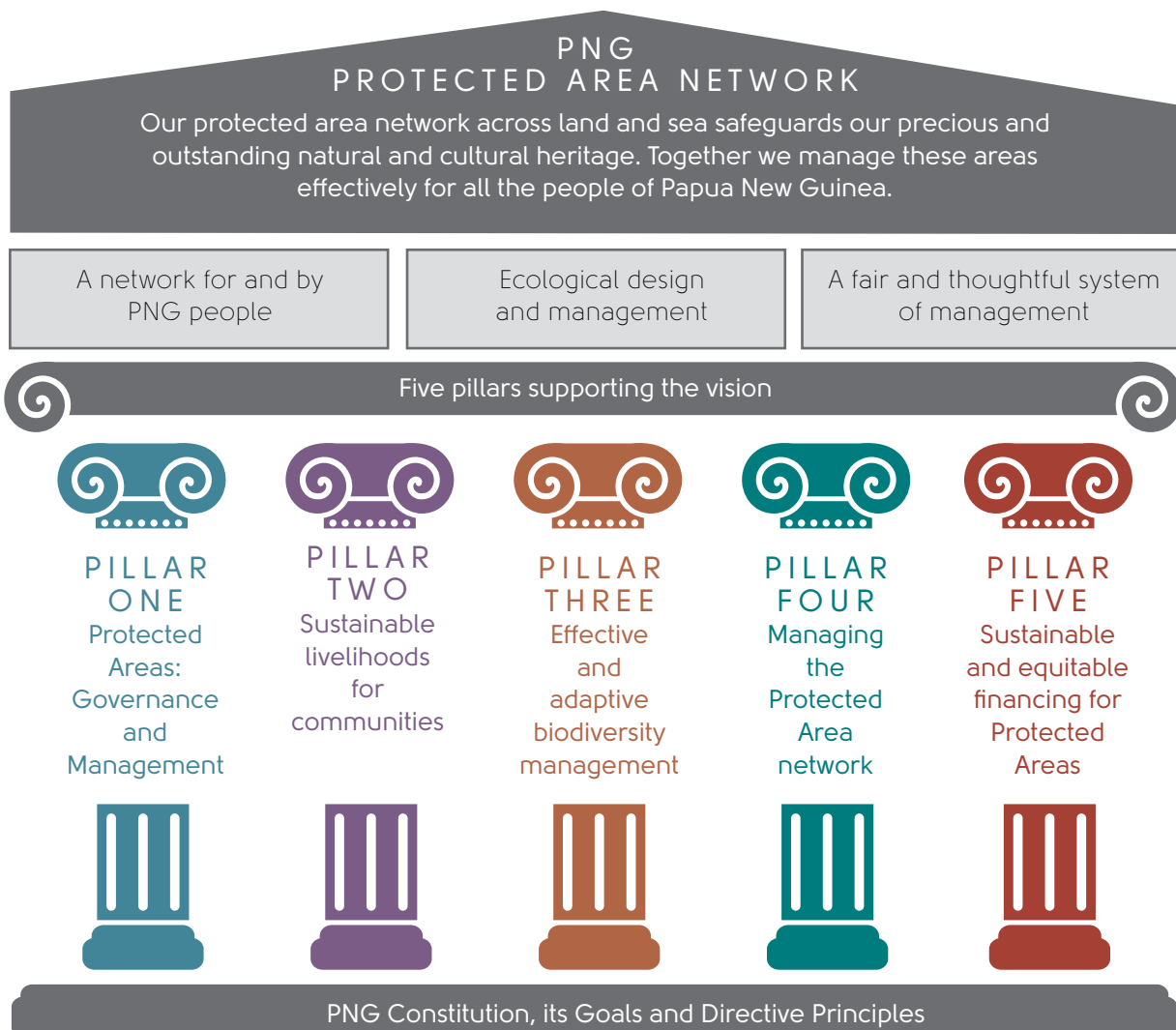
PILLAR ONE: PROTECTED AREAS: GOVERNANCE AND MANAGEMENT ARRANGEMENTS

Desired Outcomes:

The PNG Protected Area Network consists of a range of protected area types which form the cornerstone of an integrated approach to conserve nature and provide resilience to climate change on both land and sea.

The Network is established and governed to conserve the country's outstanding biodiversity and provide benefits for local communities, customary landowners and all our people.

Figure 1: Framework for Papua New Guinea's National Protected Area Network



The Network is built and managed with free prior and informed consent of customary landowners.

National, Provincial, District and Local Level Governments provide effective legislation, policy and institutional support and assist with capacity development and practical management for all protected areas.

Local, National and International partners assist with sustainable financial and practical support, including capacity building, training and mentoring.

Objectives:

Establish the legal and institutional framework for effective management and governance of the PNG Protected Area Network.

- Ensure this framework becomes fully operational with clear lines of responsibility and high standards of governance, accountability and reporting.
- Ensure effective arrangements are in place for National, Provincial, District and Local Level Governments, communities including customary landowners, on-ground protected area managers and other partners work in cooperation.
- Support customary landowners in their initiatives to establish effective protected areas on their land and seas .
- Ensure CEPA supports the PNG Protected Area Network with adequate funding and staff capacity, competent leadership structure, functioning policies and operational systems.
- Deliver improved scope and support for volunteers, mentors and partners to work with governments and communities in protected area management. Members of the Protected Area Network should include CEPA, NGOs, CBOs, in-situ and ex-situe developers/industry and representatives from existing Protected Areas.

PILLAR TWO: LIVELIHOODS FOR COMMUNITIES

Desired Outcomes:

In recognition of the PNG Constitution, customary practices for enhancing and

protecting the environment and traditional livelihoods are strengthened through protected area establishment and management.

The support and enthusiasm of customary landowners for protected areas are nurtured and encouraged through government recognition and through practical assistance.

Objectives:

- Ensure that local arrangements governing use of natural resources in protected areas are fair and sustainable and continue to support traditional livelihoods.
- Train, support and empower communities, customary landowners and protected area staff to sustainably manage the protected areas.
- Develop Conservation and Benefit Sharing Agreements with customary landowners for all protected areas to formalise the management arrangements and benefits.

PILLAR THREE: EFFECTIVE AND ADAPTIVE BIODIVERSITY MANAGEMENT

Desired Outcomes:

Effective and adaptive biodiversity management supports the network and ensures that the biodiversity of the protected areas are maintained to the highest possible extent. Biodiversity with traditional culture are imperative to the sustainability of any protected area within PNG. It is therefore essential that these elements make up the backbone of this policy i.e. are one of the policy's pillars.

Objectives:

- Develop and apply policies for biodiversity management planning, monitoring and reporting, natural and cultural resource management, and law enforcement.
- Effectively manage activities on protected areas including compatible development, recreation, research and traditional use.
- Evaluate management effectiveness every three years to demonstrate the successes and challenges for each protected area in PNG.

- Ensure protected area management is well-resourced, efficient and effective, with capable, knowledgeable and dedicated staff.

PILLAR FOUR: MANAGING THE PROTECTED AREAS NETWORK

Desired Outcomes:

The PNG Protected Area Network establishes strong rules and regulations, as part of policy and incorporated into the appropriate acts, for existing Protected Areas, proposed Protected Areas and areas wanting to become Protected Areas.

The PNG Protected Area Network is relevant to the PNG people, represents the diversity of life, landscapes and seascapes, and forms a well-connected, adequate and resilient system.

The PNG Protected Area Network will directly liaise with Protected Area groups, landowners and communities at the designated sites – not via representatives in Provincial Capitals or the National Capital.

Objectives:

- Establish an enabling technical unit to manage, monitor and report on the PNG Protected Network.
- Set strong rules & regulations through the PNG Protected Area Network on Protected Areas.
- The PNG Protected Area Network to meet regularly electronically & bi-annually
- Existing Protected Areas to be audited/checked, via the Criteria, every three years.
- Build upon traditional management and traditional ecological knowledge.
- New Protected Areas to be stringently assessed via field visits, stakeholder meetings, LLG, Provincial and National Government meetings. Criteria set and assessed once all the above have been approved. Establish a PNG Protected Area Network according to the guiding principles and the range of reserve types outlined in this Policy.
- Establish a relevant, comprehensive, adequate, representative and resilient PNG

Protected area Network according to the range of reserve types and network design principles established in this Policy.

- Ensure a smooth transition from the 2014 protected area types to the updated Network, with no loss of values.

PILLAR FIVE: SUSTAINABLE AND EQUITABLE FINANCING FOR PROTECTED AREAS

Desired Outcomes:

Sustainable and equitable financing supports the stakeholders of the Protected Areas and the Protected Area Network. Protected Areas should be regarded as a benchmark for Payment for Environmental Services (PES) and climate change. Protected Areas will provide ongoing results from research in terms of climate change trends and shifts whilst demonstrating the highest level for biodiversity offsets.

Objectives:

- Develop, implement and manage a Biodiversity Trust Fund to support the stakeholders of Protected Areas and the Protected Areas Network such as Biodiversity/Ecosystem offsets, Green and Blue contributions (levies & taxes), and donations
- Develop small, medium & large grant programs to deliver funding to support and build sustainability of the Protected Areas of PNG
- Incorporate Protected Areas into Government structures for funding projects and capacity building
- Work with the NGO (Local & International) sectors to gain support, recognition & assistance.
- A strong framework is essential for this policy to hold. This network should include staff from CEPA, DPI, Health etc. and members from NGOs, CBOs, corporate and Universities

III. GUIDING PRINCIPLES FOR THE PNG PROTECTED AREA NETWORK

This Policy recognises the following guiding principles.

a) The PNG Protected Area Network is designed and managed for and by the PNG people.

- The PNG Protected Area Network is a critical part of our nation's identity into the future, and the cornerstone of PNG's biodiversity conservation strategy. Its development and management are based on PNG's specific needs and circumstances, though we draw on international examples and guidance and meet international obligations.
- Approximately 92% of PNG is in customary land ownership and the customary landowners are managers and owners of most existing protected areas. We recognise and support the importance of biodiversity to traditional cultures, the experience and wisdom of landowners and communities in living sustainably on land and sea, and the values of the people's contribution to conservation. Customary landowners and communities are fully involved in all decisions relating to their lands and seas, with free prior informed consent.
- PNG's protected areas are a priceless resource for local communities and customary landholders, for the nation and for the world. Their protection is a shared responsibility. People and institutions that benefit from protected areas contribute to the costs of management and conservation, and pay for costs of degradation of these areas.
- Governments at all levels, communities and customary landowners, non-government organisations (NGOs) and industries are partners in protected area management and work together to sustainably manage their resources.
- Processes of selection and management of protected areas recognise the contribution, rights and roles of women, and ensure that the voices of women are

heard when decisions are made about the future of land.

- The needs of future generations are considered, and the capacity and awareness of young people are nurtured in the development of the enhanced protected area network.

b) Ecological design and management principles and practices are applied.

- Biodiversity is best conserved in its natural environment and by protecting nature at all levels: genetic, species and community. Preventing habitat loss and damage is the first priority and is much more cost-effective and less risky than recovery and restoration.
- All resource use and development on protected areas will be sustainable – that is, will remain within the capacity of the protected area to support and maintain these activities indefinitely.
- We will design and manage the PNG Protected Area Network to be resilient to the impacts of climate change and other threats. Research and monitoring being pivotal here.
- Protected areas are part of the wider landscape, seascape and flyways. Habitat connectivity is vital. We work to maintain ecosystem integrity and ecological process such as water flows and food chains across the land and sea.
- We make decisions based on science, evidence and information, including scientific data, results of scientific research, and traditional ecological knowledge. Where there is a lack of information, we strive to avoid or minimise the possibility of harm, especially where impacts could be serious or permanent.
- Ecological, economic, social and cultural conditions are constantly evolving, and policy and management responses will adapt to that change, through continuous improvement and innovation. Monitoring and evaluation is an integral part of implementing of this policy, and our management will be adaptive and responsive.

c) A fair and thoughtful system of management gives benefits to all

- Protected areas are managed to

enhance sustainable livelihoods of customary landholders and other community members.

- The values of protected areas and of the goods and services they provide are recognised by all, and are taken into account in the design and implementation of management arrangements.
- All partners including governments, communities and NGOs take all measures to ensure that this policy and its enabling legislation are adequately implemented and enforced
- Other relevant legislation, policies and instruments will be linked to and harmonised with the Policy on Protected Areas.
- There will be fairness, transparency and accountability in the formulation, adoption and implementation of this Policy.
- Currently clans manage their environmental resources with no outside funding usually. As custodians of the environment and not negatively impacting on the legacy of the future generations, future generations legacy they will leave things in as best shape as possible. Money needs to be invested into community development, education and capacity building before being considered to be disbursed to customary landowners and communities.
- The Foundation stone is establishing and maintaining responsible custodianship principles.



IV. THE PNG PROTECTED AREA NETWORK POLICY

“Papua New Guinea’s natural resources and environment should be conserved and used for the collective benefit of all and should be replenished for future generations”

4th Goal of the National Constitution

Well-governed and effectively managed protected areas are a proven method for safeguarding both habitats and populations of species and for delivering important ecosystem services. Particular emphasis is needed to protect critical ecosystems such as tropical coral reefs, sea-grass beds, deepwater cold coral reefs, seamounts, tropical forests, peatlands, freshwater ecosystems and coastal wetlands. Additionally, there is a need for increased attention to the representivity, connectivity and management effectiveness of protected areas”. see <https://www.cbd.int/sp/>

CEPA is committed to establishing the PNG Protected Area Network to conserve the country’s unique biological and cultural diversity and contribute to protection of local livelihoods.

a) What does the Policy do?

The Policy will guide PNG in the development of a legislative and institutional framework for this national network. It provides guidelines for selecting, designing and managing protected areas across PNG.

This Policy:

- Covers PNG’s entire terrestrial and marine environment including internal waters, the territorial sea (coastline to 12 nautical miles) and the exclusive economic zone (12 to 200 nautical miles).

- Directly addresses protection of historic or cultural heritage, and the non-extractive use and values as well as research or recreational opportunities using appropriate protected area models and regulations
- Includes World Heritage, Ramsar and other international declarations.
- Covers the processes through which government, at all levels, will declare new Protected Areas, which will be registered as part of the National Protected Areas Network.
- Complements other legislations' requirements for maintaining and sustaining biodiversity.
- Does not seek to manage the sustainable use of fisheries, forestry or other natural resources outside protected areas.

- Vision 2050, New Strategic Directions (2007) which provides for decentralisation of plans and strategies.
- The National Biodiversity Action Strategy and Action Plan (2007) that is a road-map to the sustainable use and management of the country's biological resources, and assists PNG in meeting some its obligations under the CBD.
- PNG Development Strategic Plan (DSP) 2010-2030 that elaborates how PNG can become a prosperous, middle income country by 2030.
- Medium Term Development Plan 2011-2015 that is five year rolling development plan providing a clear, accountable plan for investment and sets the sector strategies, targets, deliverables and their projected estimate cost to implement.
- The National Strategy for Responsible Sustainable Development for PNG 2014.

b) Where does the Policy fit in with international and national documents?

Apart from the clear mandate from the National Constitution, a number of national policies provide a supportive policy framework for this Policy on Protected Areas, including the explicit commitment to environmental sustainability contained in:

Figure 2: Relationship of the Policy on Protected Areas with other key policies and conventions

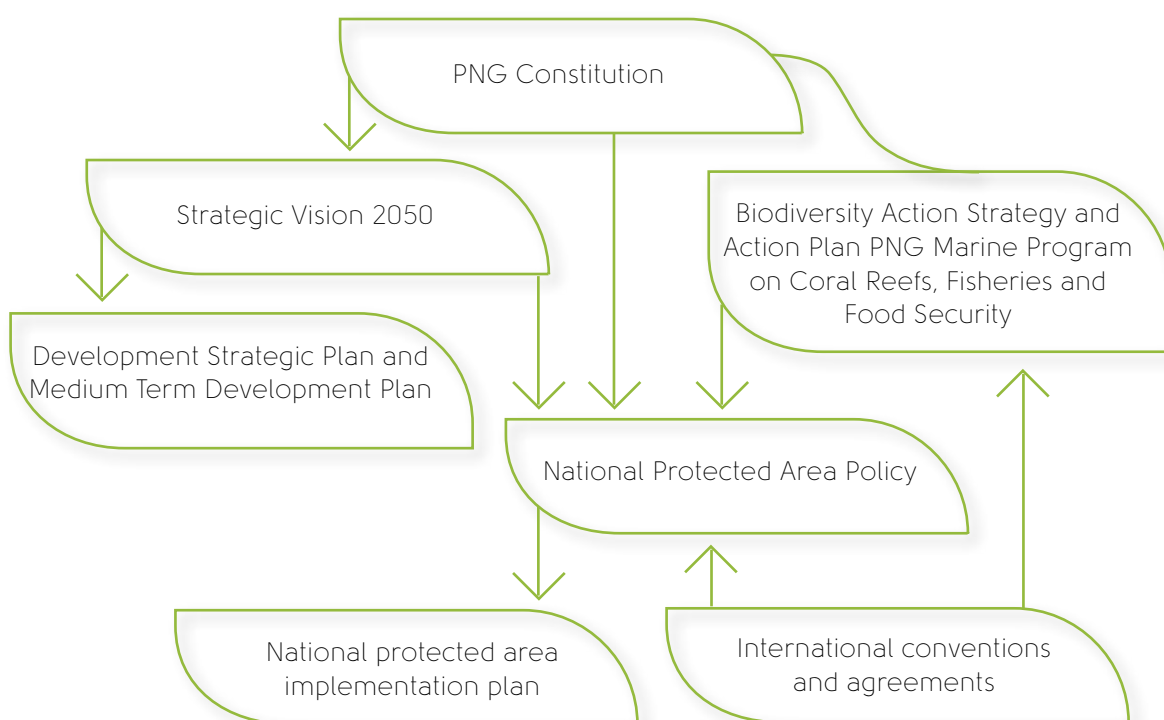


Table 2: National guiding strategies relevant to the Policy on Protected Areas

National Guiding Document	Objectives and strategies relevant to the Policy
PNG Constitution Fourth Goal: Natural resources and environment	<ul style="list-style-type: none"> • Wise use to be made of our natural resources and the environment in and on the land or seabed, in the sea, under the land, and in the air, in the interests of our development and in trust for future generations; • The conservation and replenishment, for the benefit of ourselves and posterity, of the environment and its sacred, scenic, and historical qualities; and • All necessary steps to be taken to give adequate protection to our valued birds, mammals, reptiles, amphibians, fish, insects, plants and trees.
Vision 2050 Pillar#5	<ul style="list-style-type: none"> • ‘Conserve and wisely use our natural resources and environment, language and cultural diversity for the collective benefit of the present and future generations’ • Conserve biodiversity at the current five to seven percent of the world’s biodiversity. • Establish up to 20 Protected Areas: Special Management Areas (SMA), Community Conservation Areas (CCA) and National Parks (NP) aiming for at least 17% of terrestrial environments protected. • Establish at least one million hectares of marine protected areas. • Conserve and preserve cultural diversity.
National Biodiversity Strategy and Action Plan (Government of Papua New Guinea 2007)	<ul style="list-style-type: none"> • To strengthen and promote institutional and human capacity building for biodiversity conservation, management and sustainable use • To strengthen partnership and promote coordination for conserving biodiversity • To strengthen existing protected areas and ensure that the protected areas for terrestrial species and marine species increase to 10% by 2010 and 2012 respectively. • Ensure a fair and equitable sharing of benefits arising out of genetic and ecosystem resources
DSP 2030 deliverables	<ul style="list-style-type: none"> • Development and implementation of National Criteria for Protected Area System (for both marine and terrestrial) in PNG which will leads to the development of a Protected Area Policy • Implement the plan and Guidelines for Protected areas • Undertake landscape and coastal bio-regional planning • Review Protected Areas legislation • Provide for new types of protected areas including REED+ forests and refuges for climate change • Develop biodiversity conservation initiatives with private sector, NGOs and Customary landowners. • Implement Terrestrial Protected Area Policy • Work through the Public Private Partnership to promote conservation of Terrestrial Protected areas • Implement Marine Protected Area Policy Develop management strategies for coastal and marine resource management
2011-2015 Mid -Term Development Plan Sector Goals	<ul style="list-style-type: none"> • Increase the land area protected to maintain and improve biological diversity from 3.83% to 4% by 2015 • Increase the marine area protected to maintain and improve biological diversity from .00047% to .047% by 2015
PNG Marine Program on Coral Reefs, Fisheries and Food Security National Plan of Action 2014-2017	<ul style="list-style-type: none"> • Provides an overarching framework for managing PNG’s marine environment, including targets and goals for establishment of the marine protected area network.

Table 3: International agreements influencing the Policy on Protected Areas

International Agreement	Points relevant to the Policy
Convention on Biological Diversity (CBD)	Article 8 on 'in-situ biodiversity conservation' commits PNG to establish and manage a system of protected areas, and to ensure that traditional lifestyles linked to the land are also protected.
Strategic Plan for Biodiversity 2010 -2020 was agreed to in 2010 (CBD COP 10 Decision X/2 2010)	Target 11 states that "By 2020, at least 17% of terrestrial and in land water areas and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services. These are to be conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscape and seascape."
Programme of Work on Protected Areas (PowPA)	<ul style="list-style-type: none"> • Institutionalise management effectiveness assessment towards assessing 60% of the total areas by 2015 and ensure that the results of the assessments are implemented • Complete the ecological gap analysis for identifying "ecologically representative areas (including unprotected important bird areas and key biodiversity areas or hotspots) and implement the result • Integrate protected areas into wider land and seascapes to show case mainstreaming of biodiversity with other sectors and ecosystem based approaches to adaptation to climate change adaptation and leading to mitigation through carbon sequestration • Recognise indigenous and community conserved areas including acknowledgement in national legislation or other effective means formal inclusion in the national systems and practicing of various governance types • Develop and implement of sustainable finance plans for protected area systems. Emphasising a bottom-up approach with communities.
Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (ABS) to the Convention on Biological Diversity	<p>The Nagoya Protocol create greater legal certainty and transparency for both providers and users of genetic resources by:</p> <ul style="list-style-type: none"> • Establishing more predictable conditions for access to genetic resources. • Helping to ensure benefit-sharing when genetic resources leave the contracting party providing the genetic resources <p>By helping to ensure benefit-sharing, the Nagoya Protocol creates incentives to conserve and sustainably use genetic resources, and therefore enhances the contribution of biodiversity to development and human well-being.</p>
United Nations Convention on Combating Desertification (UNCCD)	Protected areas of all types contribute significantly to preventing and reversing land degradation, which is the focus of the convention. Habitat restoration to be addressed.

Table 3 continued

International Agreement	Points relevant to the Policy
United Nations Framework Convention on Climate Change (UNFCCC)	Protected areas will play important roles in relation to climate change: in storing greenhouse gases and preventing further emissions through preventing of clearing (the focus of REDD+ schemes); and in buffering communities against the effects of sea level rise and increased climatic events. Data and information gathered for the establishment of Protected Areas are also highly useful to and compliment other key agencies involved in delivering PNG's UNFCCC obligations.
Convention on Wetlands of International Importance (The Ramsar Convention on Wetlands)	PNG has also been a party to the Ramsar Convention since 1993: two Wetlands of International Importance have been declared but there is potential for more to be designated with the expansion of the Protected Area Network. Ramsar is concerned not only with designated Ramsar sites but with "the conservation and wise use of all wetlands through local and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world". Wetlands include all kinds of permanent and temporary areas of inundation from peat swamps and highland streams to coral reefs and estuaries. As such many potential and existing Protected Areas should relate to the Ramsar Convention.
Convention Concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention)	<p>There is currently one existing World Heritage Area in PNG, while another seven proposed areas are on the "tentative" list.</p> <p>All properties inscribed on the World Heritage List must have adequate long- term legislative, regulatory, institutional and/or traditional protection and management to ensure their safeguarding. This protection should include adequately delineated boundaries.</p> <p>Similarly States Parties should demonstrate adequate protection at the national, regional, municipal, and/ or traditional level for the nominated property.</p>
Convention on the Protection of Natural Resources and Environment of the South Pacific Region (PNRESP)	As a signatory to this Convention, PNG is required under to protect and preserve rare or fragile ecosystems and depleted, threatened or endangered flora and fauna, as well as their habitat (Article 14). As part of this obligation PNG must establish and effectively manage protected areas.
Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI)	<p>The CTI-CFF is a multilateral partnership between the governments of Indonesia, Malaysia, Papua New Guinea, Philippines, Solomon Islands and Timor-Leste.</p> <p>At the Leader's Summit in 2009, these governments agreed to adopt a 10- year CTI Regional Plan of Action to safeguard the region's marine and coastal biological resources. The RPOA has five goals: strengthening the management of seascapes; promoting an ecosystem approach to fisheries management; establishing and improving effective management of marine protected areas; improving coastal community resilience to climate change; and protecting threatened species.</p>

V. BACKGROUND AND CONTEXT

The internationally accepted definition of a protected area developed by the IUCN after extensive consultation is “a clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values”

(Dudley 2008 p.8)

“The island of New Guinea supports an estimated 5-9% of the world’s terrestrial biodiversity in less than 1% of the land area (Mittermeir et. al. 1998, Myers et al. 2000). It contains the world’s third largest contiguous area of tropical rainforest and habitats ranging from alpine grasslands to cloud forests to lowland wet tropical forests, swamps and dry sclerophyll woodlands”

(Lipsett- Moore, Game et al. 2010).

c) What is a protected area?

The International Union for the Conservation of Nature (IUCN) recommends that all protected areas, of whatever type, should aim to:

- Conserve the composition, structure, function and evolutionary potential of biodiversity
- Contribute to regional conservation strategies (as core reserves, buffer zones, corridors, stepping-stones for migratory species etc.)
- Maintain diversity of landscape or habitat and of associated species and be of sufficient size to ensure the integrity and long-term maintenance of the specified conservation targets or be capable of being increased to achieve this end

- Maintain in perpetuity the values for which it was assigned
- Operate under the guidance of a management plan, and a monitoring and evaluation programme that supports adaptive management
- Possess a clear, effective and equitable governance system

d) Why are protected areas important for PNG?

The values and diversity of both natural and cultural systems of PNG are exceptionally high by international standards, and it is a global priority for conservation action. PNG’s Protected Area Network will be a critical component of the global protected area system for conservation of plant and animals communities on land and sea, and for protection of living cultures still linked to the natural world, and diversity of languages and traditions. Benefits to the world from assured conservation of a representative and well-connected and managed protected area system are clear.

Climate change is a major threat to livelihoods in PNG. Protected areas can contribute to the defence against climate change in many ways, such as:

- mitigating its effects through maintaining intact forests and thus storing carbon; and
- helping in adaptation, by providing a buffering effect from climatic extremes, and reducing the impact of sea level rise along coastlines by maintaining natural vegetation.

Protected Areas can be the basis of sustainable livelihoods for the customary landowners, through supported local land use planning which sets out and protects the landowners’ agreed areas for food production; access to forest, grassland, freshwater and marine resources; and conservation areas.

Protected Areas keep options open for future generations, by conserving samples of the landscapes and seascapes with their plants, animals and cultural stories intact. Once these places are lost or degraded it is very difficult and expensive – or impossible – to fully restore them.

PNG is part of the 'Coral Triangle' – centre of diversity for corals and other marine life. In PNG over 7000 square km of reef have been mapped, with more than 500 species of coral. The coral reefs and associated marine habitat are home to about 2800 species of fishes, about 10% of the world total

Some 44 species of mangrove have been recorded, providing vital breeding grounds for marine life.

Source: Coral Triangle Atlas

Through the protection and management of water catchments they provide long-term security of fresh and usable water. Other 'ecosystem services' include lessening the impacts of disasters such as floods, cyclones and tidal events.

Marine and freshwater Protected Areas can play a very important role in keeping fishing sustainable, by protecting nursery grounds and ensuring that harvesting of fish and other aquatic animals is sustainable and that at least some of the area is reserved for exclusive use by customary landowners.

Protected areas on land can also provide a long-term supply of foods and other resources to customary landowners. Livelihoods and economic development can also be developed based on conservation, research and tourism, especially in areas which are marginal in their ability to produce other goods and services. Employment in Protected Area management can provide meaningful work and a way of learning about and becoming connected to the land and sea, both for customary landowners and for support people in offices and cities.

Protected Areas could form the backbone of future research and university partnerships in PNG. Appropriate amendments to the issuing of research permits will mean a greater respect both the nature and the culture of the country.





PILLAR ONE: PROTECTED AREAS: GOVERNANCE AND MANAGEMENT

Desired outcomes:

The PNG Protected Area Network consists of a range of Protected Area types, which form the cornerstone of an integrated approach to conserve nature and provide resilience to climate change on both land and sea.

The Network is established and governed to conserve the country's outstanding biodiversity and provide benefits for local communities, customary landowners and all our people.

National, Provincial, District and Local Level Governments provide effective legislation, policy and institutional support and assist with capacity development and practical management for all protected areas.

The Network is built and managed with free prior and informed consent by customary landowners and communities.

Local, National and International partners assist with sustainable financial and practical support, including training, education, capacity building, community development and mentoring.

Objectives:

- Establish the legal and institutional framework for effective management and governance of the PNG Protected Area Network.
- Ensure this framework becomes fully operational with clear lines of responsibility and high standards of governance, accountability and reporting.
- Ensure effective arrangements are in place for National, Provincial, District and Local Level Governments, communities including customary landowners, on-ground protected area managers and other partners work in cooperation.
- Support customary landowners in their initiatives to establish effective protected areas on their lands.

- Ensure CEPA supports the PNG Protected Area Network with adequate funding and staff capacity, competent leadership structure, functioning policies and operational systems.

Deliver improved scope and support for volunteers, mentors and partners to work with governments and communities in Protected Area management.

1.1 THE PNG PROTECTED AREA NETWORK

Under this Policy and legislation to be developed, a world-class Protected Area Network will be established. The network will be based on international Protected Area principles, i.e. IUCN. Guidelines are to be applied and adapted to be appropriate, beneficial and workable in the social, cultural and political environment of PNG.

As 92% of PNG's land and 90% of near-shore marine areas are either owned or used by customary landowners, the PNG Protected Area Network can be built only with their full involvement, support and cooperation. Many customary landowner and communities in PNG – both men and women - are keen to establish and manage protected areas on their lands and waters, to ensure that future generations still enjoy the benefits of healthy and properly managed natural resources. All aspects of building the network will be in partnership with communities, thus ensuring that the network supports their livelihoods and natural resource sustainability.

A range of Protected Area types will make up the PNG Protected Area Network, as shown in Figure 3 and outlined in Table 4.

Legislative responsibility for the PNG Protected Area Network will be a shared responsibility among different levels of government and other sectors. The National Government will have primary legislative responsibility for some of the most critical and iconic areas, including World Heritage Areas, Ramsar sites, Special Management Areas, National Parks and National Marine Sanctuaries. Other protected areas will be managed under legislation created at Provincial, District and Local Level.

Protected Area types for PNG outlined in Table 4 will all be recognised in national legislation, and all Protected Areas created

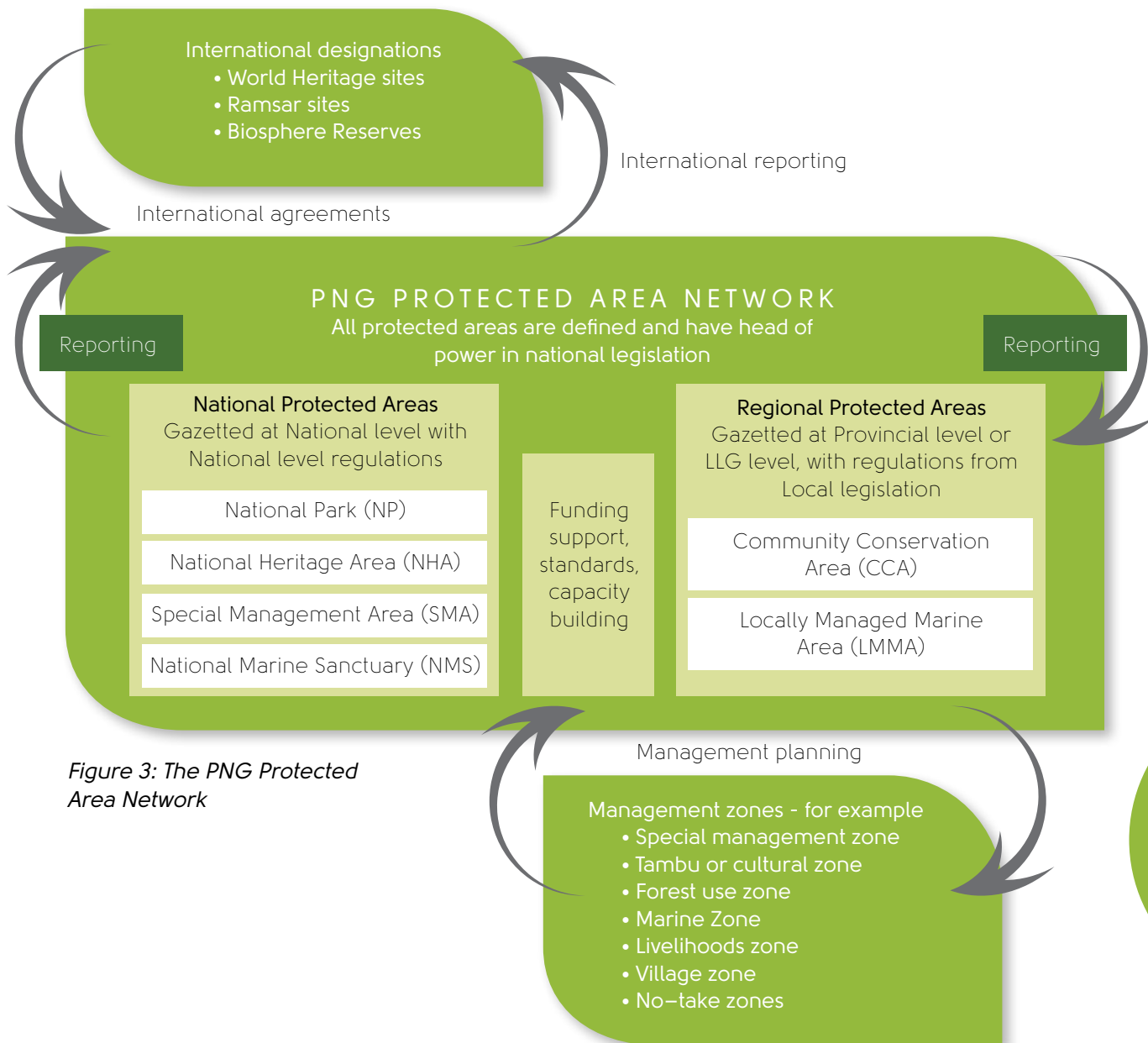


Figure 3: The PNG Protected Area Network

in these classes will be included in the PNG Protected Area Network Register.

The PNG Protected Area Network will thus be comprised of two groups of protected areas:

- **National Protected Areas** including: National Parks (NP), Marine Sanctuaries (MS), National Heritage Areas (NHA) and Special Management Areas (SMA). These areas will be gazetted under national legislation; and
- **Regional protected areas** include Community Conservation Areas (CCA) and Locally Managed Marine Areas (LMMA). These areas will be gazetted through provincial government legislation.

1.2 BUILDING BLOCKS FOR THE PNG PROTECTED AREA NETWORK

A Protected Area is “a clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values” (Dudley 2008 p.8)

The IUCN guideline states that “only those areas where the main objective is conserving nature can be considered protected areas; this can include areas with other goals as well, at the same level, but in the case of conflict, nature conservation will be the priority”...and that “Protected areas must prevent,

or eliminate where necessary, any exploitation or management practice that will be harmful to the objectives of designation” (Dudley 2008, p.10).

Therefore, not all areas important for conservation will be protected areas – for example well-managed forests, community gardens and reefs can play an important role in the landscape or seascape without official Protected Area status. A key factor in deciding whether an area qualifies as a Protected Area is that conservation and biodiversity is the most important purpose in managing the area. There must be a long-term agreement in place for management by communities and government. Other purposes may also be very important, but should not over-ride the needs for conservation over most of the reserve.

If an area is being managed sustainably then it is indeed being protected from over-exploitation. Spreading the blanket wide in terms of Protected Areas is essential. Encompassing all the land of villages as part of a Protected Area rules out compromise and possibilities of industry coming in and taking portions of land outside the specific Protected Area. Having all the land as a Protected Area brings communities together and decreases confusion and corruption.

Within the protected area definition there is great flexibility for Protected Areas to be designed and managed in ways that are appropriate to national and local circumstances. Modern Protected Area Networks consist of a flexible variety of Protected Areas, working together and with other natural and near-natural areas to create landscapes and seascapes that can protect and replenish ecosystem services, culture and biodiversity and sustain customary landowners and communities.

1.2.1 Classes of protected areas for PNG

The most recent **category** system for protected areas was established by IUCN in 2008 (full description in Dudley et al (2008)), after extensive consultation, and is designed to reflect the variety of needs and contexts across the world, including Marine Protected Areas (Day et al. 2012).

PNG’s new Protected Area Classification System shown in Table 4 reflects the IUCN category system and is tailored to suit the PNG context.

It includes Protected Areas owned and managed by customary landowners and communities, all levels of government, NGOs and private companies and will incorporate both marine and terrestrial areas. Recognizing the extensive customary ownership of land and near shore waters in PNG, Protected Areas of any type will be gazetted only after formal agreements outlining the management responsibilities with the customary owners and communities. An initial site inspection and meeting with the on the ground landowners and communities is an essential first step in establishing a new Protected Area.

In addition to the Protected Areas outlined above, the Policy and National legislation recognize international designations - World Heritage Areas, Wetlands of International Importance and Biosphere Reserves – and reflect PNG’s obligations under the relevant international Conventions. These international designations may include any kind of Protected Area entirely or may overlap with them. Subject to the wishes of the customary landowners and communities, it is desirable that Ramsar sites, World Heritage Areas and Special Management Areas are covered by National Legislation.

Existing Protected Areas such as the YUS Conservation Area (Established 2009) and the Torricelli Mountain Range (TMR) Conservation Area (first proposed in 2010; last submission 2013) are prime examples of successful Protected Areas in PNG. These Protected Areas, both looking to expand the size of their respective Protected Areas, provide solid guidelines and principles that need to be adapted by other Protected Areas across the country.



Table 4: PNG Protected area classes and international designations

Class	IUCN category	Description	
National Park (NP)	II	Iconic area of national importance with a high level of protection. Reserved primarily for protection of ecological processes, species and ecosystems and for compatible human use. Terrestrial and freshwater, and may extend into near-shore areas.	National
National Heritage Area (NHA) terrestrial or marine	III	Site of outstanding natural or cultural significance with high level of protection. Uses as appropriate to protect values.	National
Special Management Area (SMA) terrestrial or marine	IV	Area where special management is needed to protect particular species or ecosystems. I.e. Critically Endangered & Endangered Species.	National
Community Conservation Area (CCA)	V	Important landscape and seascape created by interactions with people through traditional management practices. Can include villages and gardens.	Regional
Locally Managed Marine Area	V	Defined near-shore protected area managed or co-managed by the local community for conservation and sustainable local use.	National
National Marine Sanctuary (NMS)	VI with zones of II, III, IV and V	Marine protected area – may be near-shore or off-shore – to be managed under national legislation. Statutory zones within NMS enable multiple use of varying intensity and type. Will include marine national park zones, as well as areas where most activities, including commercial fishing and shipping, can occur.	National

International designations – can be overlays used in addition to PA classes

World Heritage Area (WMA)	International designations which overlay other PA types	Areas containing universal natural and/or cultural values inscribed by UNESO under the World Heritage Convention. PNG currently has only one World Heritage Site (the Kuk Early Agricultural Site) but a further seven are on the 'tentative' list and these include a variety of outstanding natural sites (see section 4.8).
Wetland of International Importance (Ramsar Sites)		Wetlands of International Importance (known as Ramsar sites) under the Convention on Wetlands. PNG currently has two sites listed (Lake Kutubu and the Tonda Wildlife Management Area)
Biosphere Reserve		Biosphere reserves are areas of terrestrial and coastal ecosystems promoting solutions to reconcile the conservation of biodiversity with its sustainable use. Internationally recognized under the UNESCO Man and the Biosphere Program (not an international Convention). Core zone can be protected area – also includes sustainable use areas.

National Park (NP)	IUCN category II
Description and purpose	National Parks are iconic areas of National and International importance, where the customary landowners and communities agree to their declaration and management with a high level of protection. They consist of natural or near-natural terrestrial or freshwater areas or a combination of these, and may also extend into near-shore marine areas.
Permitted uses	A range of sustainable non-extractive activities can be undertaken, but the only agriculture or resource extraction should be relatively minor hunting, fishing and collecting by customary landowners and communities for their own use and subject to the conservation agreement.
Management and governance	National Parks will be gazetted under National legislation and managed by customary landowners and communities with support from CEPA and other governments or other stakeholders e.g. Universities or NGOs under a contract agreement. CEPA will set and monitor standards and will provide co-funding and capacity building. As the most iconic Protected Areas in PNG, National Parks require a high level of support and input from technical experts. National level legislation will ensure their protection from exploitation.
Criteria for selection	National Parks will be selected to contribute to a comprehensive and representative reserve system. The area will be of sufficient size, design and ecological quality to maintain ecological functions and processes that will allow the native species and communities to persist for the long term with minimal management intervention. The composition, structure and function of biodiversity will be to a great degree in a "natural" state or have the potential to be restored to such a state, with relatively low risk of large-scale invasions by non-native species.

National Heritage Areas (NHA)	IUCN category III
Description and purpose	Areas of outstanding natural or cultural significance with high level of protection. Features could include geological features (caves, cliffs, volcanoes), natural features such as an unusual reef or forest, tambu sites or places of special historic significance.
Permitted uses	A range of sustainable non-extractive activities can be undertaken, but the only agriculture or resource extraction should be relatively minor hunting, fishing and collecting by customary landowners and communities for their own use and subject to the conservation agreement.
Management and governance	National Heritage Areas (NHA) will be gazetted under National legislation. They may be managed by CEPA or customary landowners and communities, or contracted to another body e.g. an NGO
Criteria for selection	National Heritage Areas can be relatively small and focus on one or more prominent natural or cultural features.

Special Management Area (SMA)	IUCN category IV
Description and purpose	Special Management Areas (SMA) aim to protect particular plant or animal species or habitats and management reflects this priority. Critically Endangered and Endangered taxa are priorities of SMAs. Many of these areas will need regular, active interventions to address the requirements of particular species or to maintain habitats and biodiversity. They could be used for introductions or translocations of endangered species.
Permitted uses	A wide range of sustainable uses might be permitted as long as they contribute to the survival of the species or habitat for which the area was declared.
Management and governance	Special Management Areas will be gazetted under National legislation. Management must comprise customary landowners and communities, NGOs or CBOs and overseen by CEPA.
Criteria for selection	SMAs should be large in size containing Critically Endangered and/or Endangered taxa. Areas of SMAs may need habitat restoration. It is important that research, on many levels (biodiversity, climate change, culture etc.) is undertaken to maintain present biodiversity and culture and to replenish what has been lost.

Note: within Regional protected areas – i.e. Community Conservation Areas and Locally Managed Marine Areas, Special Management Zones may be created by either gazettal , a special regulation or management planning. If they are declared by legislation, they can be legally enforced and will be regarded as category IV areas.



Community Conservation Area (CCA)	IUCN category V
<p>Description and purpose</p>	<p>Community Conservation Areas conserve and sustain important landscapes and seascapes that people carrying out their traditional management of land and sea.</p> <p>These will be the most common protected areas in PNG, as they can incorporate villages and food gardens under sustainable use as well as less used forestlands and waters under customary land ownership. Wildlife Management Areas will be transferred into Community Conservation Areas (CCA).</p> <p>In near shore marine areas, CCAs can include reefs, estuaries and seas managed by and for customary landowners and communities for multiple purposes. Alternatively they might be adjacent to LMMAs and managed in conjunction with them.</p> <p>Within these areas can be zones of higher protection and zones of more intensive use.</p>
<p>Permitted uses</p>	<p>Community use for living on a traditional or semi-traditional life, including harvesting, and subsistence hunting and fishing. Recreation, education and scientific use as allowed by the customary landowners</p> <p>Commercial hunting and large-scale industry would not be permitted, but some commercial fishing for and by customary landowners is allowed.</p> <p>Community Conservation Areas could seek to maintain current practices, restore historical management systems, or to maintain key landscape values while allowing for modern development and change: decisions about this need to be made in management plans.</p>
<p>Management and governance</p>	<p>Commercial hunting and large-scale industry would not be permitted, but some commercial fishing for and by customary landowners is allowed.</p>
<p>Criteria for selection</p>	<p>Community Conservation Areas (CCA) are where people and nature have lived together over time to create places of significant ecological, biological, cultural and scenic value, and where safeguarding the integrity of this interaction is vital to protecting and sustaining the area.</p> <p>These areas contribute to a comprehensive, representative, adequate and resilient reserve system but do not need to demonstrate unique values to the same extent as iconic Special Management Areas (SMA). Where customary landowners and communities wish to create such areas and can demonstrate their values on a regional or National level, their establishment can be supported.</p>

Locally Managed Marine Area (LMMA)	IUCN category V
Description and purpose	Defined near-shore Protected Areas managed or co-managed by the local community for conservation and sustainable local use.
Permitted uses	As with Community Conservation Areas (CCA), the emphasis is on community use for traditional or semi-traditional uses. Some commercial use by customary landowners (e.g. fishing for local sales) can occur under management agreements, but commercial use by outside parties is restricted.
Management and governance	Managed by customary landowners assisted by local level, district and provincial government, NGOs or other bodies as required. LMMAs are recognized in national legislation but are enacted and managed under Provincial, District and Local Level Government laws.
Criteria for selection	LMMAs do not require NEC or other national –level approval for creation and management, but will be registered as part of the PNG Protected Area Network to give additional support and strength to their management. These areas are chosen by customary landowners. They contribute to the CARR system but do not need to meet set criteria for selection.

National Marine Sanctuary (NMS)	IUCN category VI, with statutory zoning areas of II, III, IV and V
Description and purpose	There are nationally important marine Protected Areas that conserve ecosystems and habitats, together with associated cultural values and traditional natural resource management systems. They are generally large, with most of the area in a natural condition, where a proportion is under low-level non-industrial sustainable natural resource management and where such use of natural resources compatible with nature conservation is seen as one of the main aims of the area. National Marine Sanctuaries (NMS) will include offshore areas in the exclusive economic zone, as well as territorial waters. Other marine Protected Areas such as LMMAs can be contained within National Marine Sanctuaries (NMS).
Permitted uses	Sustainable use of marine resources, with limitations according to the Zoning Plan. Large-scale commercial extractive industries such as undersea mining and oil extraction are not permitted. Shipping may be restricted to ensure that marine resources including coral reefs are not put at risk.
Management and governance	National Marine Sanctuaries are declared and managed under National legislation. As the most iconic marine Protected Areas in PNG, National Marine Sanctuaries (NMS) will have a high level of support and input from CEPA and technical experts. However, at local level management of near-shore areas will be by local communities.
Criteria for selection	The area should be of sufficient size and ecological quality to maintain ecological functions and processes that will allow the native species and communities to persist for the long term with minimal management intervention. The composition, structure and function of biodiversity should be to a great degree in a “natural” state or have the potential to be restored to such a state, with relatively low risk of successful invasions by non-native species.

To further explain how the different Protected Area classes are managed, Table 5 outlines how each can be used.

Zoning within the Protected Area, management plans, conservation agreements and the wishes of customary landowners and communities

will also influence where and when activities take place, and set standards and conditions. International designations are not included on this table: permitted uses will be determined by the underlying Protected Area type but also subject to management requirements and agreements under the relevant Convention.

Table 4: Permitted uses in PNG protected areas

Activity	NP	SMA	NHA	CCA	LMMA	NMS
Non-extractive traditional use	Y	Y	Y	Y	Y	Y
Traditional sustenance hunting and gathering	Z	Z	Y	Y	Y	Y
Traditional sustenance fishing and resource collection	Y	Y	Y	Y	Y	Y
Commercial fishing and marine resource collection by external groups	N	N	N	N	N	Y
Commercial fishing and marine resource collection by customary landowners	N	N	N	C	C	Y
Recreational fishing	Z	N	Z	C	C	Y
Research	Y	Z	Y	C	C	Y
Commercial agriculture and plantations	N	N	N	N*		
Community agriculture - gardens	Z	Z	Z	Y		
Renewable energy generation eg solar, micro-hydro	Y	Y	Y	Y	Y	Y
Commercial logging	N	N	N	N	N	N
Commercial mining and oi extraction	N	N	N	N	N	N
Mining and oil exploration	N	N	N	N	N	N

key

NP	Meaning	Notes
Y	Yes, unless zoning or specific regulation does not allow	Some activities will be subject to management plans and agreements, and may require permits or licences
N	Not allowed in this category	*May be allowed in special circumstances as non-conforming use if for community benefit and a smaller proportion of area
C	According to wishes of customary landowners	Will be allowed subject to management plan or other agreement with customary landowners
Z	Only where zoning or specific regulation or agreement allows	Will only be allowed where specified in management plan, regulation or special zone

1.3 INSTITUTIONAL ARRANGEMENTS FOR THE PNG PROTECTED AREA NETWORK

The clan-based resource ownership structure is one of the most important features of natural resource management and conservation in PNG.

Protected areas will only be established with the support and agreement of the legitimate customary landowners.

Key elements to consider when establishing governance arrangements include:

- Respect for rights and the rule of law
- Promotion of positive negotiations and discussions
- Fair access to information
- Accountability in decision making
- Fair resolution of disputes and conflicts.

1.3.1 A network built on cooperation

The PNG Protected Area Network will be successful only with clear and effective institutional arrangements, and with high levels of cooperation among governments, civil society and customary landowners.

The high-level arrangements for management of Protected Areas are known as governance. Four broad options for governance of Protected Areas have been recognized by IUCN and the CBD (Borrini-Feyerabend, Dudley et al. 2013). These are:

- Governance by government (in PNG this includes the National, Provincial, District or Local Level Government)
- Shared governance by various rights holders and stakeholders together (e.g. joint management by a customary landowners and NGOs)

- Governance by communities and organisations
- Governance by Indigenous peoples and/or local communities (e.g. by customary landowners in PNG)

Due to the fact that most lands and near-shore marine areas are owned by customary landowners, governance in the PNG Protected Area Network will include roles for governments at all levels, but also critical roles for customary landowners, other community members, and partners who support them. In addition, industry and civil society will be key players in governance of some of the areas.

Any of the governance types discussed above can be applied in any category of Protected Area and thus the PNG Protected Area Network, as a whole will consist of a variety of models of ownership, governance and management styles. This offers opportunities to establish and manage Protected Areas that are genuinely suitable and adapted to national priorities and to local conditions.

The PNG Protected Area Network will bring all recognised Protected Areas in the country under one broad umbrella. National legislation will provide the head of power for governance, management and enforcement for both terrestrial and marine protected areas outlined above.

The PNG Protected Area System will be comprised of two groups of protected areas:

National Protected Areas including: Special Management Areas (SMA) National Parks (NP), Marine Sanctuaries (MS) and National Heritage Areas (NHA). These areas will be gazetted and managed under National legislation.

Regional Protected Areas include: Community Conservation Areas (CCA) and Locally Managed Marine Areas (LMMA). These areas will be gazetted through Provincial government legislation.

Free prior informed consent of customary landowners and communities will be the basis for the entire Network.

Roles of agencies and institutions in the PNG Protected Area Network are outlined below.

1.3.2 Role of National Government

The role of the **National Government** is to provide strong leadership and direction for the development and implementation of the national protected areas network.

It is mandatory for CEPA to develop and implement a strong working structure and ethic. CEPA's lead in the implementation of this policy is critical to the success of Protected Areas in PNG.

The **National Executive Council (NEC)** as the major decision making body of the Government of the day, **approves and supports this Policy for Protected Areas and endorses its effective and timely implementation as a priority in achieving the 2050 vision.** The NEC, in line with the Constitutional requirements and international obligations, will ensure that the establishment and management of the Protected Area Network are given priority and receive full consideration along with other national interests.

The endorsement of the NEC is essential for gaining recognition and commitment to delivering on the policies objectives and for establishment of the Protected Area Network.

1.3.3 National Conservation Council

The National Conservation Council (NCC) will review proposals and associated documentation for new Protected Areas before these are submitted to NEC. Arrangements will be put in place to ensure these reviews occur in a timely fashion and with the appropriate people – the customary landowners and the communities.

Specific functions with respect to this Policy are to:

- Endorse the criteria for areas to be recommended as Protected Areas.
- Consider and endorse proposals (as outlined above) for the establishment of National Protected Areas prior to forwarding to the Minister.
- Advise the Minister on the formulation of legal instruments necessary to implement this Policy.
- Endorse the annual report of the CEPA concerning the outcomes in implementing this Policy prior to forwarding to the Minister.

1.3.4 Conservation and Environment Protection Agency (CEPA)

As mentioned above, CEPA is recognised as the lead agency for protected areas in PNG. Though on-ground management is conducted by customary landowners and other partners, CEPA sets the standards, provides overview and support, and coordinates the complex array of activities. CEPA ensures that Protected Areas are managed as an effective and cohesive network rather than a number of independent reserves.

CEPA will have a proactive role in prioritising, identifying and declaring National Protected Areas (Special Management Areas (SMA), National Parks (NP), Marine Sanctuaries (MS) and National Heritage Areas (NHA)) and provide an advisory role to other levels of government for the declaration and management of Regional Protected Areas.

CEPA will also establish a Biodiversity Trust Fund to support the establishment and management of Protected Areas across the country.

CEPA will seek the advise and expertise of existing successful Protected Areas in PNG i.e. TMR and YUS

1.3.5 National Protected Area Round Table (NPART)

The role of the NPART is to evaluate proposals for National Protected Areas, and to provide technical advice to the NCC on a range of Protected Area matters. The NPART will comprise senior CEPA officials, representatives from conservation NGOs, and at least one representative with strong ecological and protected area background such as an academic. Women must be represented adequately in the NPART.

The draft Terms of Reference for the NPART will be developed by CEPA, and approved at the first meeting of the NPART. The NPART will meet four times per years, and will be chaired by a Deputy Secretary from CEPA.

The NPART will make recommendations to the NCC for declaration of National Protected Areas, based on assessment of proposals in the light of national priorities, customary landowner and community support and capacity for effective management. Supporting information will include the draft conservation and benefit agreement with customary landowners and communities.

1.3.6 Other government departments and agencies

The resource sector agencies (e.g. Mineral Resources Authority (MRA), National Fisheries Authority (NFA) and PNG Forest Authority (PNGFA) the Department of Agriculture & Livestock (DAL), the Department of Mineral Policy and Geohazards (DMPGH), Department of Petroleum & Energy (DPE) and the Department of National Planning & Monitoring (DNPM)) are key partners in the successful establishment of the PNG Protected Area Network. It is important these agencies are co-operative and enabling in the delivery and implementation of the Policy.

CEPA will provide information briefings to the agencies about this Policy, and identify champions within the agencies to ensure understanding and consistency in approach.

Relevant agencies and departments will be consulted about each nomination for National Protected Areas.

Land use planning to include the PNG Protected Area Network is essential. Key biodiversity areas identified as existing or potential future Protected Areas will be excluded from new agreements and commitments for alternative land uses, especially mining, logging and clear-felling for large-scale agriculture or development, until the best use of the land has been determined. Conflicts between land and resource uses will be resolved through negotiation and respect for agreed outcomes. Importantly, the customary landowners and communities will have the final say in the use of their lands.



1.3.7 Role of Provincial, District and Local Level Government

Provincial, District and Local Level Governments play a critical role in the establishment of Regional Protected Areas and in the management of both National and Regional Protected Areas.

They support customary landowners through capacity building, development of agreements and the practical on-ground management of the Protected Areas. Dedicated Protected Area Network staff from the Provincial and District Governments will act in cooperation with CEPA to provide technical support, training and an on-ground presence to support customary landowners and communities in their management.

Provincial Governments will assist with the implementation of this policy by supporting establishment and management of Protected Areas when developing their five-year development plans, annual budgets and land use plans. They will develop legislation (reflecting the National legislation) to gazette regional Protected Areas, implement the gazettal process, and provide details of all regional protected areas to CEPA for inclusion on the National register.

District and Local Level Governments will implement local projects and activities related to Protected Areas. These Governments oversee the implementation of the five-year plans, data collection and reporting. Local level Government also has the power to make laws regarding the local environment.

Local Level Government (LLG) will consider Local Level laws that support the management of Protected Areas in their region. Nothing in this policy prevents LLGs implementing conservation actions under their own legislation, providing they are not inconsistent with the National legislation and Policy. CEPA will work closely with these levels of government to establish and manage the PNG Protected Area Network.

1.3.8 Regional Protected Area Round Table

The Regional Protected Area Round Tables (RPART) will mirror the National Protected Area Round Table at regional level. The RPARTs will make recommends to Provincial Governments

concerning proposals for declaration of regional Protected Areas, based on assessment of proposals in the light of regional priorities, customary landowner and community support and capacity for effective management

The RPART will comprise government officials responsible for Regional Protected Areas, CEPA officials, Regional members from other relevant government agencies, representatives from conservation NGOs working in the region, and at least one representative with strong ecological or Protected Area background such as an academic. Women must be represented adequately in the RPART, reflecting their important roles in management of land and sea.

The draft Terms of Reference for the RPART will be developed by CEPA, and be approved at the first meeting of the RPART. The RPART will meet four times per year, and will be initially chaired by a senior government official.

1.3.9 Working groups at Protected Area level

A Protected Area advisory working group should be formed at the beginning of negotiation process for each Protected Area. The group will consist of:

- Customary landowners and communities including both men and women;
- Other stakeholders with an interest in the land or sea or adjacent areas, including private enterprise;
- Non-government organisations interested in the area;
- CEPA representatives; and
- Local-level and provincial Government representative.

Over time, more than one working group may be required with different roles – for example one group may be needed just for proper representation of customary landowners and communities. This advisory group would oversee Protected Area planning and operations including:

- Negotiation of management arrangements;
- Management planning process, including contacting all relevant customary landowners and communities, organising

and facilitating stakeholder and public input into the planning process, approving the draft and final plan and calling for periodic review;

- Overseeing appointment of staff and ensuring that working conditions and training opportunities are fair and adequate;
- Ensuring that benefits and opportunities are equitably distributed to customary landowners and communities; and
- Periodic assessment of management effectiveness.

1.3.10 Protected Area Management Boards and Committees

Management oversight of each National and Regional Protected Area will be by a Board or Management Committee comprised of relevant customary landowners and community members, Provincial and Local Level Government representatives, NGOs and CEPA as appropriate for the particular Protected Area.

The Protected Area Board or Management Committee will be responsible for the development of the management plans, any work plans and the allocation of resources. A Board may be responsible for more than one Protected Area.

1.3.11 Civil Society partners

Because of the outstanding importance of biodiversity and cultural life in PNG, civil society including many NGOs, universities, individuals and funding bodies are willing to contribute to Protected Area management and establishment here, especially if they can see clear outcomes for their investment of time and in some cases money. There is also potential for Protected Area specialists, students, helpers and scientists from other countries to contribute through volunteerism, exchanges and specific assignments.

Partners in PNG's Protected Area management can play a range of roles, including:

- Technical advice and assistance;
- Training and capacity building including on-site and off-site training, mentoring and

staff exchanges;

- Provision or support of on-ground staff Investment, donations, loans or grants – supplying money or equipment either as a one-off donation or as a continuing funding source; and
- Research and monitoring programs.

Many of the activities undertaken by local and international NGOs and technical bodies could not be undertaken by government as effectively, even if the capacity existed. For example, NGOs are particularly skilled at activities relating to public education and awareness and developing relationships with customary landowners and communities. NGOs are often seen as neutral and supportive parties. They also provide support to the customary landowners in the development of legal agreements and management plans for protected areas, implementation of the key actions in management plans and evaluation of management effectiveness. These are critical roles, which NGOs are well placed to undertake, and past contributions have been vital in achieving protected area outcomes to date. A good example of this is the NGO the Tenkile Conservation Alliance (TCA), which works with 50 villages to protect the Torricelli Mountain Range (TMR) – some 200,000 hectares. The TMR holds four critically endangered mammals and two endangered bird species. This NGO has been a success story for Protected Areas in PNG.

Universities and research organisations have unique capacity to conduct research and monitoring activities on land and sea. Their involvement is critical in monitoring success of Protected Areas.

There are risks that activities conducted by partners can raise expectations for customary landowners that cannot be filled in the long term. A lack of sustainability is particularly an issue where programs are funded by short-term grants.

The challenge for partners is to work together so that there is cooperation across the Protected Area Network, management is sustainable, and their efforts are as effective as possible for conservation and for strengthening the capacity of custodians. Some of the most successful conservation initiatives have been built from the ground upwards and it is critical that government

helps to encourage and facilitate such initiatives and in some cases help direct the efforts, rather than inhibit their effectiveness. New structures and oversights must assist and not make progress more difficult.

This policy looks towards already successful models such as the TMR and YUS.

1.3.12 Industry

Institutions in the private sector as development partners, must be socially and ethically responsible in the conduct of their business, for the collective good of the nation.

Vision 2050

The resource development sectors, in particular forestry, agro-forestry, fishery, mining and agriculture, require access to large areas of land and sea for resource extraction and management. They are partners of the PNG Government in supporting economic development, poverty reduction and improved livelihoods. The early engagement of these industries to obtain their views on establishment of Protected Areas, and where necessary their direct involvement in avoiding disturbance of priority sites, will be essential to minimise conflict. This does not imply that Protected Areas can be established only where there are no commercial interests.

Industry partners can play an important role as partners and supporters at both local and national level. They can contribute to Protected Area establishment where land set aside as reserves within their leases is suitable as Protected Area – there are opportunities for companies to assist in both establishment and continuing management of such areas.

They can also assist management through direct contributions, support of communities and customary landowners. For example, large resource companies often have strong capacity in areas such as asset management, infrastructure development, financial management and workplace health and safety. Direct capacity building with communities and protected area staff could be a very

efficient type of contribution, as would design and construction of community facilities.

Industry requires the PNG Government to approve of their activities as well as the minimum requirements of land area to be protected under present legislation and PNG law.

1.4 LEGISLATIVE CHANGES AND AMENDMENTS

The revision, development and declaration of supporting legal instruments (laws and regulations) will be required to effectively implement the National Protected Areas Policy and to achieve harmonization with the existing legislative framework. New legislation may be part of an amendment to existing legislation, or may be a stand-alone piece of legislation dealing specifically with Protected Areas.

The new national legislation will include the following:

Provision for the role of the National Conservation Council with respect to this policy;

Definition of classes of Protected Areas, including their management principles, which indicate activities that are encouraged or prohibited in each class of Protected Area;

Governance responsibilities, and management planning and reporting requirements for all classes of Protected Areas;

Provision for the transitional arrangements for existing Protected Areas and potential for de-gazettal of areas where necessary;

Recognition of a landowner legal entity to manage each Protected Area in accordance with the management plan and to receive and expend funding for the Protected Area;

Governance arrangements of a board to oversee management and allocation of resources for each Protected Area;

Mechanisms, processes and principles for coordination and stakeholder participation in Protected Area management;

Establishment of the process for the designation of Protected Areas;

- Provision for licenses, permits, enforcement notices, cessation orders, user fees (including fees paid by beneficiaries of ecosystem services), incentives and fines;

- Establishment of an appropriate structure of fines and other penalties which will serve as a deterrent to inappropriate use of Protected Areas or activities contrary to the Policy;

- Provision for sustainable financing mechanisms for Protected Areas, including user fees and payments for ecosystem services schemes to ensure adequate funding is available for management and customary landowner and community aspirations, as well as capacity to withhold funds for non-compliance of management;

- Revision as necessary of legislation listed below that currently deals with Protected Areas:

- ~ Conservation Area Act (1978)

- ~ Fauna (Protection and Control) Act 1966

- ~ Environment Act (2000)

Revision as necessary of legislation listed below that currently deals with protected areas:

- ~ Conservation Area Act (1978)

- ~ Fauna (Protection and Control) Act 1966; and

- ~ Environment Act (2000) and related regulations

- ~ Resource Sector Acts (Mining, Petroleum & Energy, Fisheries, National Seas, National Maritime and Safety, Forestry, Lands, Agriculture, National Planning, Monitoring and Office of Urbanization, Ports, Harbours)

- ~ Torres Straits Treaty and other International Border Treaties

- To ensure there is nothing inconsistent in these Acts with the new protected areas legislation. Complementary legislation will also consider how declared and proposed Protected Areas are excluded from extractive resource activities and other incompatible uses; and

- Changes required to the Organic Law on Provincial Governments and Local-level Governments Act to complement the new Protected Areas legislation, to enable Provincial Governments to declare and gazette Regional Protected Areas.





2 PILLAR TWO: SUSTAINABLE LIVELIHOODS FOR COMMUNITIES

Desired outcome:

In recognition of the PNG Constitution, customary practices for enhancing and protecting the environment and traditional livelihoods are strengthened through protected area establishment and management.

The support and enthusiasm of customary landowners for Protected Areas are nurtured and encouraged through government recognition and through practical assistance.

Objectives:

- Ensure that local arrangements governing use of natural resources in Protected Areas are fair and sustainable and continue to support traditional livelihoods.
- Train, support and empower communities, customary landowners and Protected Area staff to sustainably manage Protected Areas.
- Develop Conservation and Benefit Sharing Agreements with customary landowners and communities for all Protected Areas to formalise the management arrangements and benefits.

In accordance with the Constitutional recognition of PNG ways, customary practices for enhancing and preserving the environment will be strengthened. Landowners often have a cultural obligation to ensure the benefit of future generations, while supporting the goal of sustainable development.

(PNG Strategic Plan 2010- 2030)

2.1 INTRODUCTION

PNG has high levels of customary landownership, where resources are owned collectively, rather than by individuals or families, and decisions are made by consensus

rather than consultative processes (DEC 2010). This social structure means that Protected Area establishment and management can only be achieved through comprehensive, early and ongoing consultation with landowners and communities, together with the engagement of all levels of government and the non-government sector.

This policy recognises the importance of customary landowners and communities managing their land and sea, and of their management activities being seen as gainful employment. It is essential to explore ways to provide benefits to the communities in to support these livelihoods. Positive and successful models now exist i.e. YUS and TMR with benefits including employment as Protected Area wardens, support for health and local education, provision of community facilities such as water supplies and resource centres.

Establishment and continuing management of the Protected Area Network will require a sustained long-term commitment from customary landowners and communities. It is essential that individuals, families, clans and villages are well informed and have the capability to make decisions concerning the future use and management of their resources. Important activities will include education and awareness raising, capacity building, developing effective benefit sharing arrangements and establishing robust conflict resolution procedures.

2.2 COLLABORATION WITH CUSTOMARY LANDOWNERS AND COMMUNITIES IN PROTECTED AREA ESTABLISHMENT

Protected Areas of all classes will be gazetted only with the formal agreement and support of customary landowners and communities. As shown in the process for establishing Protected Areas (Figure 8), villages may submit a preliminary proposal for a new Protected Area as a group and in conjunction with partners such as NGOs, CBOs and National, Provincial, District and Local Level Governments.

Legitimate owners and users of the land and sea must be clearly identified. Male and female representatives from each village must confirm their Protected Area commitment. Groups of

villages owning an area of significance need to work together to achieve the common goal of establishing a Protected Area. Community needs, Social mapping and censuses must be recorded in conjunction with a brief on the biodiversity and the threats to the intended Protected Area. Once established Protected Area groups will need to work with CEPA and others to officially gazette the Protected Area.

As part of the development and finalisation of a Protected Area proposal, a formal Conservation and Benefit Sharing Agreement will be written for endorsement by customary landowners and communities involved in the Protected Area.

Local cultures within PNG have a long tradition of addressing land allocation, usage rights and traditional resource management. The effective negotiation of these arrangements is crucial to local culture and social and economic wellbeing. Thus we recognise the importance of agreed benefit sharing arrangements that clarify all relevant aspects of Protected Area establishment and management.

The Conservation and Benefit Sharing Agreement will enable customary landowners and communities to receive benefits for managing their land and sea resources for conservation. These benefits are not restricted to funding the management of their Protected Area, but can be used for alternative purposes, which improve the quality of life and wellbeing of the customary landowners. Preference will be given to benefits, which will support community wellbeing, education and health. Community needs will be prioritised and addressed.

These agreements will take account of the diversity of social and cultural practices within PNG to ensure that they reflect the interests of the community. This process will include:

- Identification of clan representatives who will negotiate on behalf of the customary landowners and provide for a two-way exchange of information;
- Clear identification of who is included in the benefit sharing arrangement;
- Effective incorporation of the views of all customary landowners (including women);
- Clear specification of where community development, or other benefits received

will be invested in the community;

- Monitoring and reporting procedures;
- Conflict resolution procedures ;
- Clear specification of the roles and responsibilities of each level of government, the non-government sector and customary landowners; and
- Agreed arrangements for future management of the Protected Area.

2.3 COLLABORATION WITH COMMUNITIES IN PROTECTED AREA MANAGEMENT

Once Protected Areas are established, clan groups will make decisions about their management based on their customary practices and processes, within the scope of the Conservation and Benefit Sharing Agreement and the legislation applying to the Protected Area. This recognises the right of customary landowners to use their biological resources in accordance with their traditional cultural practices, while ensuring the conservation and sustainable management of their resources. Such an approach will ensure the supply of basic natural resources to support local community economic and human development in both the current and future generations.

Communities have extensive traditional knowledge and understanding of their land and seascapes. They are skilled managers of their customary lands.

Communities at the local level, in consultation with government and the non-government sector, will develop Protected Area management plans, including the important step of identifying management zones for different levels of use. This process can take some time and may involve a number of landowner groups, especially for a large Protected Area.

Communities will then be responsible for the management plan's implementation and the achievement of its goals and objectives, in partnership with government and non-government sectors. The balance of responsibilities will depend on the type of Protected Area and the local situation: National Government will have a high level of responsibility and involvement in National Protected Areas (such as Special Management Areas (SMA)) but less involvement

in Regional Protected Areas (such as Locally Managed Marine Areas (LMMA)).

Improved capacity of community members is needed in most situations to fully take on these responsibilities. They will be supported by government, non-government organisations and industry partners to build capacity to participate fully in the development of Protected Area agreements and in the establishment and on-going management of the Protected Areas. This will enable customary landowners and other community members to:

- Clarify their vision for their Protected Areas;
- Understand the benefits of managing their land for conservation and sustainable use;
- Negotiate, establish, and implement participatory management arrangements, including the conservation and benefit sharing agreement;
- Develop or provide input into management plans, including the design of zoning plans to cater for their needs as well as for conservation ;
- Manage Protected Areas both on a strategic and a day-to-day level; and
- Engage with visitors and be fully involved with the research of the biodiversity and climate change.

"I want the environment my Babu had when they were pikinini":

Some aspirations of customary landowners at consultation meeting for this Policy, 2014

2.4 COMMUNITY AWARENESS AND SUPPORT

To consider and negotiate Protected Areas on their lands, customary landowners and communities need to understand the diverse potential benefits as well as responsibilities, costs and challenges. Providing information and raising awareness in communities is a responsibility of all levels of government, non-government organisations and industry partners. In addition, it is important that these organisations listen to the customary

landholders to fully understand their perspectives and needs. Communication with women as well as men is essential and may in some cases require separate processes.

- Support for customary landholders and community groups may include:
- Supporting local champions who can galvanise support for conservation;
- Fostering customary landowner conservation initiatives;
- Promoting information exchange between customary landowners and communities to overcome issues of isolation and remoteness, which limit the extent of collaboration;
- Implementing professional development for government staff to better work with customary landowners;
- Assisting communities to develop local initiative to increase their livelihoods in a sustainable manner; and
- Training community members in practical aspects of Protected Area management and monitoring.
- Promoting integrated approaches to conservation. The village and clan-based nature of PNG communities, in conjunction with their isolation and remoteness, has limited the extent of collaboration between and among customary landowners and communities in the past. New approaches are required that facilitate support for Protected Areas and conservation across landscapes. More integrated landscape approaches to conservation will facilitate inter-generational equity and ensure that customary landowners will have more sustainable futures.

2.4.1 Education systems and environmental education

The establishment and management of the PNG Protected Area Network will provide a strong foundation for formal and informal education, research, and incorporation of traditional knowledge.

Collaboration between government agencies (e.g. CEPA and Education Department) will be improved to ensure that all levels of primary

and secondary school curricula incorporate environmental education and awareness raising including the values of Protected Areas. Government, non-government and industry sectors are encouraged to partner with the university sector to develop and expand degree and course offerings in Protected Area management.

The government and other stakeholders will develop and implement communication strategies and awareness raising initiatives (e.g. sponsored advertising) targeted at diverse sectors including decision makers at all levels, government staff at all levels (e.g. through continuing professional development), industry and customary landowners. This will require the use of a range of suitable communication media, which may include radio, television, newspaper, internet, film and billboards, and well-considered strategic long-term approaches.

2.4.2 Research

The conservation of terrestrial and marine ecosystems will provide a basis for scientific research to better understand PNG's biodiversity and to ensure its effective management. We recognise the importance of developing and implementing collaborative research programs involving government, non-government organisations, industry, educational sectors and customary landowners. In addition, it is essential to develop cost-effective and culturally sensitive mechanisms for sharing and publishing information among stakeholders and partners.

2.4.3 Traditional Ecological Knowledge

We recognise the importance of improved understanding of Traditional Ecological Knowledge and sustainable cultural uses and practices and the incorporation of this knowledge into Protected Area planning and management. This depends on the willingness of the customary landowners to share their knowledge.

Collaboration among stakeholders is required to ensure that the environmental values of Protected Areas are interpreted to the

customary landowners and other stakeholders, including visitors to the Protected Areas.

2.5 CONFLICT RESOLUTION

Due to the many different stakeholders, with sometimes conflicting perspectives and interests, who are involved in the establishment and management of Protected Areas, conflict may arise in relation to: landowner rights to land and sea resources; benefit-sharing arrangements; land uses within the Protected Area; financial issues; human interactions; and lack of transparency and accountability in management. However, conflict will be minimised through the use of transparent criteria and a process of broad consultation.

In order to achieve the vision and objectives of this policy the Government, in collaboration with all relevant stakeholders, will identify and implement conflict resolution procedures that avoid or minimise conflicts between and among stakeholders.

Local level governments have an important role to play in establishing local level laws that foster sustainable community based resource use and management. The institutional framework within the Organic Law on Provincial and Local Level Governments 1998 (the Organic Law) provides a strong basis for communal and locally-based management. The Organic Law is the foundation for a system of bottom-up provincial planning mechanisms that seek to improve the delivery of rural services, increase participation in government at the community and local levels, and decentralise power and responsibility to local level government. Management and planning of Protected Areas must work in concert with the Organic Law and seek to enable and support local government processes. These laws should incorporate a range of infringement penalties (e.g. monetary and traditional) to minimise conflict in relation to resource use.



PILLAR THREE: EFFECTIVE AND ADAPTIVE BIODIVERSITY MANAGEMENT

Desired outcome:

Effective and adaptive management supports the network and ensures that the values of the Protected Areas are maintained to the highest possible extent.

The success of Vision 2050 is contingent upon the competencies of the country's workforce. A well educated, healthy, appropriately skilled, and honest work force that is committed, proactive and innovative is the kind of workforce required to implement Vision 2050.

Objectives:

- Develop and apply policies for biodiversity management planning, monitoring and reporting, natural and cultural resource management, and law enforcement of the Protected Area.
- Effectively manage activities on Protected Areas including compatible development, recreation, research and traditional use.
- Evaluate biodiversity management effectiveness every three years to demonstrate the successes and challenges for each Protected Area in PNG.
- Ensure Protected Area management is well resourced, efficient and effective, with capable, knowledgeable and dedicated staff.

Improving the effectiveness of biodiversity management across the Protected Area Network is a critical commitment of this Policy. While there are now examples and models of excellence, much improvement is needed to reach good levels throughout the country, as reported in the rapid assessment of PNG's Protected Areas in 2005 (Duguman 2006).

Important aspects that will be improved include the development of a diverse yet cooperative

Protected Area workforce, and the development and implementation of an adaptive management and research systems with practical management planning and evaluation.

3.1 THE PNG PROTECTED AREA NETWORK WORKFORCE

A workforce to manage Protected Areas in PNG will consist of people from diverse organisations – including government agencies, NGOs, industry and local community groups - as well as individual customary landowners. However, over time, this Policy encourages and supports the development of a nation-wide Protected Area Workforce community, where this diverse group has some common training, standards and access to a common support network of information and resources such as internet-based systems.



This workforce now and in its future development is a critically important resource for effective management and presentation of Protected Areas. The success of the Protected Area Network depends on the skills and commitment of land and sea managers, and on the support they are given to perform their tasks.

Their knowledge, skills and dedication ensure that conservation work is carried out well. Their actions and achievements are underpinned by working with customary landowners and all levels of government.

The PNG Protected Area Network Workforce will:

- Be transparent and accountable in management by implementing sound decision making processes and systems;
- Respond to the needs of the customary landowners in building and managing the Protected Area Network;
- Develop and encourage all its members with the necessary skills, resources and capability to implement the Protected Area Policy;
- Build leadership and management capability; and
- Safeguard workplace health and safety.

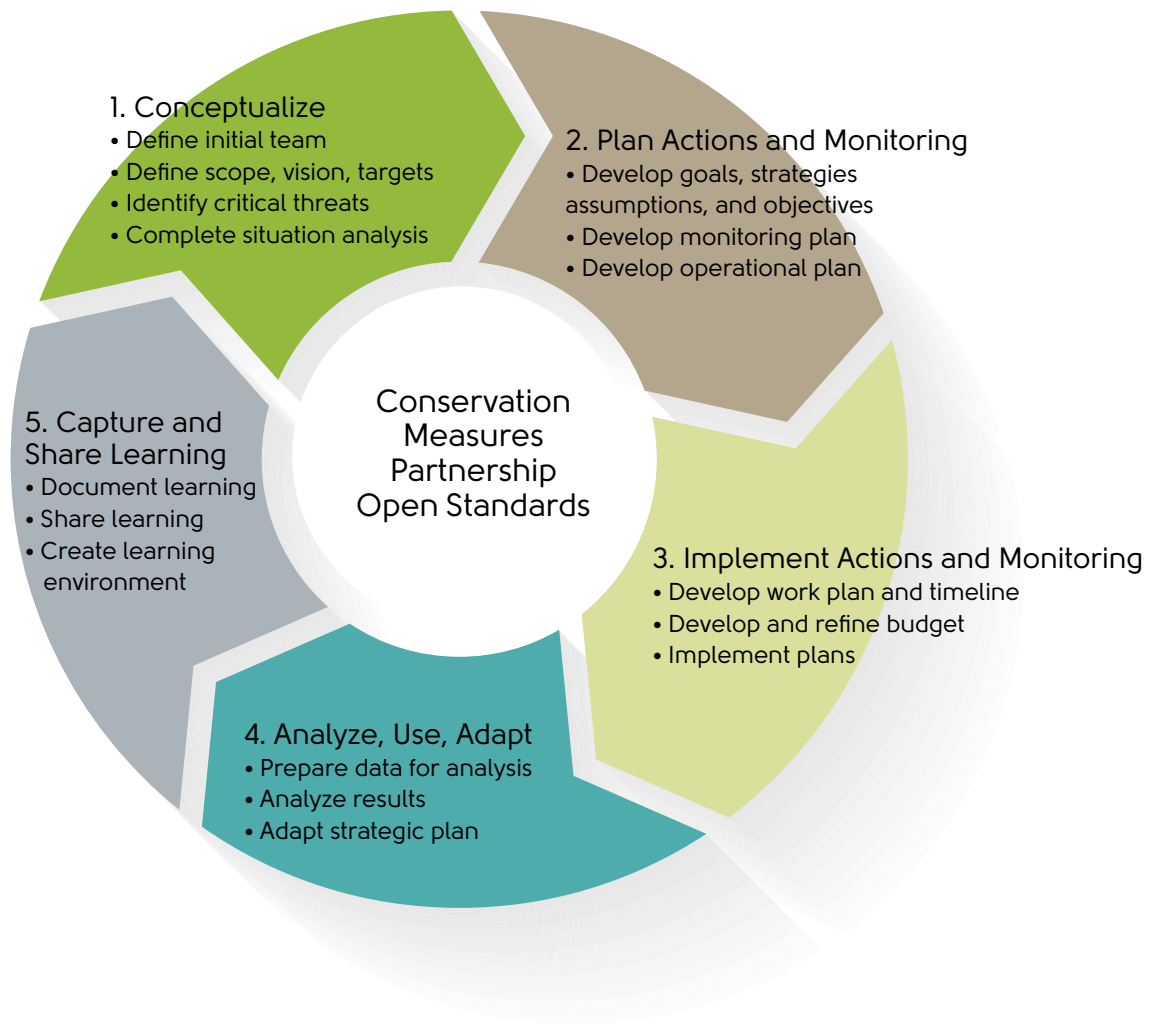
3.2 ESTABLISHING ADAPTIVE MANAGEMENT SYSTEMS

In PNG, where there is such a diverse range of governance, it is both essential and challenging to share information and some common standards. National government and other partners need to support on-ground managers by providing information, standards, policies, training and assistance for many aspects of Protected Area management.

On the ground customary landowners and other Protected Area managers must be flexible and able to respond quickly to new circumstances.

Adaptive management on Protected Areas follows the broad adaptive management cycle illustrated by the Conservation Measures Partnership, which is used by many governments and NGOs across the world (Figure 4). This cycle attempts to clearly link planning and actions with a process of reflection and learning, so that management builds on its past successes, learns from its mistakes and can adapt to new circumstances, while still following a clear strategic direction.

Figure 5: Adaptive management cycle. Source: (Conservation Measures Partnership 2013)



A core requirement of this adaptive management framework is developing a good and shared understanding of the natural and cultural values of Protected Areas. Managers also require an understanding of ecological processes, and how threats and interventions affect both specific values and ecological processes. As well as the current situation, it is important to consider the effects of climate change and other potential future impacts.

Thus a critical element of adaptive management is a robust information base for decision-making. Information can be derived from traditional ecological knowledge, academic studies, records from monitoring or other activities, and the wealth of experience, knowledge and information from experts and community members. This information needs to be effectively collected, stored and shared.

This information is used for management planning, for evaluation and to guide day-to-day activities. The values-based approach to planning, evaluation and management focuses on positive aspects, and is open to dealing with new threats and opportunities as they arise.

To establish the adaptive management system the following activities will be undertaken:

- An adaptive and integrated management and evaluation system will be the core of Protected Area operations: this will be developed cooperatively and made available to all Protected Area partners. This system will include clear connections between management planning, business planning, resource allocation, on-ground implementation, evaluation and adaptation.
- The knowledge and experience of all Protected Area partners will be used to inform and implement an adaptive, evidence-based and flexible approach to protected area management. Innovation, learning and continual improvement in protected area management will be encouraged.
- A National Protected Areas and Proposals database and reporting system will be established and shared to ensure that quality information, including spatial information, is easily available to support management decisions.
- Management effectiveness of Protected Areas will be regularly evaluated on a national basis, and improvements will be

put into place based on assessment results. Where Protected Area effectiveness or wildlife populations and health are shown to be declining or at risk, causes will be investigated and corrective measures rapidly implemented.

- A practical management planning process will be adopted to ensure useful plans with appropriate details are available to guide management of Protected Areas.
- Clear standards and policies for management of Protected Areas will be developed to guide and integrate the diverse system of Protected Areas across the country.

3.3 MANAGEMENT PLANNING

Adaptive management provides a platform for using both scientific and local or traditional information in management actions. It is a structured way to periodically consider feedback and revise these actions. This gives the best possible chance of delivering successful outcomes.

Protected Area management plans are considered across the world as key indicators of successful management and are a legal requisite in many Protected Area systems. However, producing useful and applicable management plans for all Protected Areas that are approved at high level and make a difference on the ground is a challenge that few Protected Area agencies have overcome successfully.

Successful management planning in PNG requires cooperation of many partners and leadership or full participation of customary landowners. The rewards of undertaking a good process are considerable: apart from producing good guidelines for future actions, the planning process provides a structured opportunity for capacity building and dialogue among all the partners involved.

One of the keys is for planning to be seen as a positive process of adaptive management and an opportunity for building a shared understanding, rather than a legal requirement to be fulfilled as quickly as possible. Good examples of this positive planning in the

context of community-based protected areas can be seen in Australian Indigenous Protected Areas (Hill, Walsh et al. 2011), the Tenkile Conservation Alliance Annual Report (2012) and in the YUS Landscape Plan (Tree Kangaroo Conservation Program 2012).

Management planning plays an important role in PNG Protected Areas as part of an adaptive management system and for building capacity and consensus among customary landowners and other stakeholders or managers. The emphasis will be on a good, inclusive and dynamic planning process rather than on lengthy plans.

- A requirement for planning will be built into legislation for Protected Areas, with
- A Management Advisory Group to oversee the planning process
- Consensus among all stakeholders will be given a high priority and an appropriate facilitation and conflict resolutions process supported where necessary.
- All stakeholders, including women, having a voice in the planning process.
- For National Protected Areas, a requirement for CEPA and Ministerial consideration of the draft management plan within three months of submission.
- Five-yearly reviews of planning documents including management plans and monitoring plans, which do not need Ministerial approval
- Yearly review of business plans tied to management plans.
- Funding and approval for activities, infrastructure and services will be dependent on applicants demonstrating how these are applicable to management planning recommendations.

The planning process will include development of guidelines for sustainable use of resources.

The development sector cannot override management plans without approval from the Management Advisory Group and the CEPA executive.

3.4 ZONING

Within and across all reserve types, management zones can be declared in any of three ways: by legislation (regulation) on gazettal or following approval of a management plan – these become statutory zones;

- In a management plan signed by customary landowners, communities and government (non-statutory zones); or
- By agreement signed between the customary landowners, communities, the government and if appropriate other stakeholders (non-statutory zones).

All zones can be permanent, temporary (for example, to allow for recovery after a disaster) or seasonal (for example, seasonal closures of fishing on some reefs).

In each case, the zones can only be changed by the same mechanism that created them. Statutory zones will be specified in national legislation and will only apply in national marine sanctuaries. The names and types of non-statutory zones will be specified in the Management Planning Guidelines, but additional zones can be defined as needed in local situations.

An example of a zoning plan developed in a management plan by customary landowners with external assistance is given in figure 3 and table 6.

Figure 6: Zoning for one ward of the YUS Conservation Area.

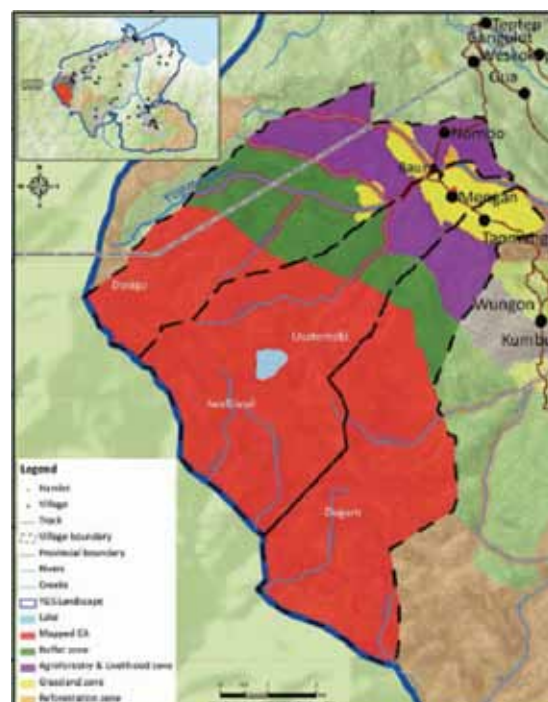


Table 6: Summary of the Zoning used in the YUS Landscape Plan. Source: Tree Kangaroo Conservation Program (2012).

Zone	Application and Meaning
Conservation Area	The purpose of the Conservation Area is to protect and conserve the natural ecosystems and wildlife there. This includes both forest and reef. These areas are therefore off limits to any kind of hunting, clearing, and gardening, or any kind of activity that might destroy or reduce the health and size of the ecosystems.
Forest for Use Zone	The zone acts as a buffer between the CA and the village and livelihoods areas. The purpose of this zone is to reduce the exposure of the edges of the CA to damaging human impacts from fire, forest clearing, invasive species, and animal hunting and trapping.
Reforestation Zone	The purpose of the Reforestation Zone is the designation of land for the explicit purpose of planting and growing trees for use.
Grassland Zone	The purpose of the Grassland Zone is to provide a sustainable source of kunai and pit pit and land for burning and hunting (of, for example wild pigs) for local collection and use. Importantly all activities, except for village-based services and construction, are allowed in the Grassland Zone.
Livelihoods and Agroforestry Zone	The purpose of the Livelihoods and Agroforestry Zone is to provide space for current and the expansion of gardening, animal husbandry, or any other livelihoods or processing activities.
Village Zone	The Village Zone is principally the place for houses, stores, schools, churches, and airstrips and any other village service or construction. The key activities not permitted in this zone are lighting kunai and setting traps.
Marine Zone	The Marine Zone is the open water outside of reefs. All activities are permitted in this Zone. The purpose of this Zone is to ensure that customary landowners have access to marine resources, passage and transport.
Reef Zone	The Reef Zone is the area of reefs along the YUS Landscape scope. These reefs are used to sustain local needs and sustenance, and are a place where people can fish and collect marine resources. These are sensitive ecosystems and therefore no large ships or boats can pass over this zone.

In most cases, categories are associated with whole protected areas, though different management zones within them may have different permitted activities. However, it is also possible for IUCN categories to be assigned to zones within a Protected Area, **provided that the mechanism for creating zones is equivalent to the way that the Protected Area is created.** For example, national marine sanctuaries will be category VI, but regulatory zones within them will include no-take zones recognised as category II and customary use zones (category V).

3.5 MANAGING NATURAL INTEGRITY ON PROTECTED AREAS

Healthy natural ecological processes will be maintained in the face of threatening processes such as invasive species, population growth and climate change. Maintaining natural integrity, cultural values and natural landscapes and seascapes across time is the highest priority of Protected Area management, along with delivering sustainable benefits to customary landowners. Different Protected Area types and zones will be managed on land and sea according to the management principles, values and conservation agreements for that area.



Protected Area management will aim to:

- Maintain the full range of natural biological diversity across the Protected Area Network;
- Maintain natural ecological processes in the landscape and seascape such as nutrient cycling and water flows;
- Maintain the dynamic nature of landscapes and seascapes; and
- Anticipate potential impacts of climate change and boost resilience of all Protected Areas where possible.

A high standard will be set by Protected Area managers by following best practical processes and by avoiding or minimising environmental impacts of all protected area operations, including fire management, pest management, and resource use.

Training, guidelines and the requirements for proper equipment will be developed by CEPA in achieving these standards.

Protected Area management at all levels, but especially through National and Provincial Governments, will actively engage with other government institutions and industry to ensure that policy, legislation and development approvals are compatible with protection of natural integrity on Protected Areas.

The importance of connectivity across the entire landscape and seascape will be recognised when establishing and managing Protected Areas.

3.6 ADEQUATE AND WELL MAINTAINED INFRASTRUCTURE, FACILITIES AND EQUIPMENT

In many countries across the world, lack of adequate and appropriate infrastructure and equipment, and a lack of adequate maintenance, is a major factor hampering Protected Area management. Acquiring and managing these assets are even more challenging when there is a diversity of management structures and partners.

Often external funding and grants provide equipment or infrastructure for Protected Areas, but this funding may not continue over the life of the asset. Important issues include safety of all partners, and the need to pro-actively fund regular inspections, repair and replacement of all assets so their value and usefulness is maintained. Training and enforced policies may be needed.

Sustainable financing is needed to regularly maintain, repair or replace all equipment and infrastructure, so its value and usefulness are maintained. Peoples' safety is the highest priority, and unsafe equipment or practices will not be allowed. An asset management system will assist with auditing and maintaining Protected Area facilities and equipment.



PILLAR FOUR: MANAGING THE PROTECTED AREAS NETWORK

Desired outcome:

The PNG Protected Area Network is relevant to the PNG people, protects the diversity of life, landscapes and seascapes, and forms a well-connected, adequate and resilient system.

Objectives:

- Establish a PNG Protected Area Network according to the guiding principles and the range of reserve types outlined in this Policy.
- Establish a relevant, comprehensive, adequate, representative and resilient PNG Protected area Network according to the range of reserve types and network design principles established in this Policy.
- Ensure a smooth transition from the 2014 Protected Area types to the updated Network, with no loss of values.

4.1 INTRODUCTION

The National Protected Area Network will consist of existing and new protected areas brought together under new legislation. The aim is for a protected area network that is **Relevant and CARR**

- **Relevant** to all PNG people,
- **Comprehensive and representative** of the diversity of life, landscapes and seascapes; and
- **Adequate, resilient and viable** into the future to withstand and recover from stresses including climate change.

The CARR network is based on the CAR (comprehensive, adequate and representative) Protected Area system concept developed in Australia, but with an increased emphasis on the relevance to the community and on developing resilience to climate change. Guidelines for the development of the CARR Protected Area network in PNG area are outlined below (see Figure 6). It should be noted that guidelines and priorities will be applied with different emphasis to different types of Protected Area: for example National Parks (NP) and Special Management Areas (SMA) will be selected with priority for biodiversity conservation, but Community Conservation Areas will have an emphasis on relevance to customary landowners and communities.

Figure 7: Summary of the CARR system for building the Protected Area Network

<p>Relevant to all PNG people</p> <ul style="list-style-type: none"> • Support and involvement of customary landholders and other community members • Protection of cultural values and places • Benefits from ecosystem services • Local livelihoods respected • Potential social and economic benefits 	<p>Comprehensive and representative of the diversity of life, landscapes and seascapes</p> <ul style="list-style-type: none"> • Comprehensive at ecoregion and ecosystem level • Representative of ecosystems across their range, of species especially threatened or endemic, and of geological features, wetlands and freshwater ecosystems 	<p>Adequate, resilient and viable into the future</p> <ul style="list-style-type: none"> • Adequate - well-designed PAs and network (size, shape and connectivity) • The protected area network as a whole, as well as individual protected areas, will be designed to maximise resilience • Managable • Available: PA declaration can be negotiated with CLOs, resource sectors and all stakeholders
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Lack of information and of a completely mapped classification system on land and sea is not a reason to delay action on the development of the Protected Area network. The priority should be to establish areas that have already been identified as high priority, where there is willingness from customary landowners. As further information on biodiversity and cultural values becomes available, this data will be incorporated into future reserve planning.

4.2 GUIDELINES FOR THE BUILDING OF THE CARR PROTECTED AREA NETWORK

Protected Areas selection will be relevant to the community

1. Support and involvement of customary landowners is essential. People are an integral part of the PNG landscape and seascape, and nature is the basis of culture. Thus Protected Areas must be seen to be relevant and acceptable to customary landowners, other stakeholders and the nation as a whole. Local level, District and Provincial Governments also play an important role in decision-making relating to new Protected Areas.

a) Protected Areas will be designed and established **with the agreement and full involvement of local customary landowners**, with consideration for their local needs and resource uses.

b) Where possible, boundaries of Protected Areas will take into account **language and cultural groupings**.

c) Where customary landowners take the initiative to propose new Protected Areas or to strengthen existing Protected Areas, the area should be assessed and their efforts supported even where the area is not a national priority for reservation for its biodiversity values.

2. Cultural values and places will be protected.

Protected Areas will be selected where possible to be culturally relevant and to provide protection to places of cultural and historic importance, including tambu areas of significance to customary landowners.

3. Benefits from ecosystem services will be maximised. Protected Areas will be selected

and designed to maximise protection of ecosystem services and resource sustainability for landowners, villages and towns, and to protect settlements from natural disasters. A host of ecosystem services can be derived from Protected Areas including buffering against the impacts of natural disasters (e.g. mangroves buffering against sea level rise events, safeguarding and providing clean water (fresh water security), providing bush and sea foods (food security) and stabilizing local climate.

4. The need for sustainable rural livelihoods will be respected

Most Protected Areas in PNG will continue to supply customary landowners and other community members with their basic needs for food, water, building materials and other resources. This continued supply will be necessary to allow continued occupation and management of the land and sea. Protected area types, management plans, zonings and management regimes will respect the needs of customary landowners.

5. Potential social and economic benefits will be sought. The REDD+ Framework for PNG (Reduced Emissions from Deforestation and Degradation) and emerging markets for Payments for Ecosystem Services (PES) such as Carbon, Biodiversity and Water Credits create opportunities for payments to landowners who protect and manage their customary lands. In addition to these, conservation compatible business enterprises can be considered. Potential employment opportunities through research assistance and Protected Area management will be maximised.

The Protected Area Network will include the diversity of life, landscapes and seascapes

6. The Protected Area Network will be comprehensive in conserving the range of ecosystems. The Protected Area Network will to be developed with the primary focus of including as much of PNG's landscape and biological diversity as possible.

a) Comprehensiveness will be achieved first through conserving examples of the full range of natural terrestrial, freshwater and marine habitats and ecosystems, based on a consistent national approach to bioregional and ecosystem classification. This classification will include representative geophysical settings that are the basis for

regional biodiversity regardless of climate. This will help PNG maintain the capacity to support a diversity of life in the future, even if habitats are altered by climate change.

b) Until such time as a more thorough classification of terrestrial ecosystems is available, the Conservation Priority Areas identified through the analysis of land systems, forest inventory management units and restricted range endemic species with consideration of climate change refugia (Lipsett-Moore, Game et al. 2010) will be used to guide priorities for establishing terrestrial Protected Areas.

c) In the marine environment, the marine representative system should be used as a basis for setting priorities.

d) Rare and restricted habitats and ecosystems should be included in the Protected Area network wherever possible.

7. The Protected Area Network will be representative. Representativeness is the sampling of the full range of biodiversity at a finer scale than comprehensiveness, within the units of classification and including more specific elements of natural systems.

a) Within broad habitats and bioregions, the protected area system will include the greatest possible diversity of plants and animals, especially where they occur across climatic gradients.

b) Special consideration will be given to endemic, rare and threatened species, and efforts will be made to prevent extinctions of populations and species. Priority will be given to places where concentrations of threatened and endemic species occur, to centres of endemism and to important places for migratory species including flyways.

c) The Protected Area system will, as far as practical, include representation of the variety of geological features, freshwater ecosystems and wetlands. In addition to ecosystems and species, the Protected Area system will include examples of landscapes including geological features (such as cliffs, sand-dunes, caves, peaks, rock formations and fossils) and of freshwater and wetland systems (such as rivers, lakes, freshwater and saline wetlands, ephemeral swamps and springs).

Protected Areas and the Network as a whole will be viable into the future

8. Individual Protected Areas and the Network as a whole will be adequate in area and design to be sustained in the long term. Adequacy in the Protected Area Network will be ensured at two levels:

a) Across the whole network and within bioregions, adequate areas of each ecosystem will be conserved to allow for the survival and plants and animals which depend on these habitats. The Protected Area Network will be well connected and will maximise the natural connections used by plants and animals

b) Individual Protected Areas will be adequate in size and be designed using good design principles wherever possible, as summarised in Table 7.

9. The Protected Area Network as a whole, as well as individual Protected Areas, will be designed to maximise resilience to climate change impacts and other threats, by recognising new threats to the system, by increasing connectivity at both local and broad scales, and by identifying and protecting refugia areas.

a) Potential wildlife refugia against climate change. Climate change can be on a large scale, such as high mountain ranges, or a small scale, such as a small caverns and rocky slopes. Protected Areas should where possible include:

- Ecological refugia, such as where it is higher, cooler or wetter than surrounding lands, or where species can shelter in rocks, caves or deeper water
- Evolutionary refugia, where many endemic species continue to survive as the surrounding landscape and seascape changes
- Human-induced refugia, areas of natural habitat where surrounding areas have been cleared or altered
- "Trigger points", habitats from which climate-adapted species may spread in the future.

Table 7: Design guidelines for Protected Areas

	General guidelines for protected area design – More desirable	Less desirable	Application in PNG
1	Larger	Smaller	No lower size limit will be set, but in general larger areas have better conservation potential. Balance with other considerations including costs and logical boundaries.
2	Includes whole catchment	Much of catchment in areas outside PA management control or influence	Including the catchments of waterways means that managers have more control over water quality and also over invasive species.
3	Boundaries coincide with natural boundaries eg rivers, mountain ranges	Boundary is in a place that is difficult to mark or recognised	Natural boundaries are easier to manage and save money in boundary marking. Balance with guideline below.
4	Boundaries coincide with cultural and administrative boundaries	PA includes a large number of different customary land owner groups, especially where relationships are not cooperative	In PNG the boundaries of customary owner groups or larger clan groups may be logical PA boundaries enabling easier negotiations and management
5	Shape is closer to round than linear	Shape is long and thin or with a very convoluted boundary.	The boundary to area ratio should be as low as possible to reduce 'edge effects' of invasive plants and animals. However, this is balanced with principles 3 and 4.
6	Roads and other infrastructure are outside PA, so there is minimal internal fragmentation	Natural areas are highly fragmented by internal roads and communication facilities	In PNG many Pas will include villages and local roads, and local communities aspire to better access and communications. Some access tracks are also desirable for management. However, major roads can cause high rates of road kill, prevent natural wildlife movement, and allow invasion of weeds, and are not desirable within protected areas.
7	Most of the area is in good to very good condition	Most of the area is in poor or fair condition, requiring major rehabilitation works	Ratings according to standard terminology. Exceptions where rehabilitation is desirable or where some area used for community gardens or hunting areas.
8	High level of connectivity to other natural areas	Isolated from other natural areas; no ability for wildlife to move in natural patterns	Includes flyways as well as terrestrial, freshwater and marine environments.

b) Restricted Range Endemic species - those species with limited geographic and climatic ranges most vulnerable to climate change – will be given special consideration.

c) The Protected Area Network will strive to maintain where possible continuous connectivity along natural gradients across climatic zones, montane slopes, river basins, and from offshore to onshore and tidal areas.

d) Protected Areas with similar habitats and wildlife will be duplicated where possible to reduce the risk of species extinctions at a single site and to provide 'insurance' against natural and manmade disasters.

10. Protected Areas and the network will be manageable and available. Preference will be given to selecting Protected Areas where management can be practical, culturally appropriate and affordable. Where possible, a clear capacity for future management has been negotiated between customary landowners, governments and other partners such as NGOs and donors. The declaration of the Protected Area must be able to be negotiated with customary landowners, communities and with other sectors such as the mining, forestry and plantation industries.

4.3 TARGETS FOR THE PROTECTED AREA NETWORK

PNG is a signatory to the CBD, and the Program of Work for Protected Areas. Target 11 of the CBD Strategic Plan states that "By 2020, at least 17 per cent of terrestrial and in land water areas and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscape and seascape" (CBD COP 10 Decision X/2 2010).

The Terrestrial Programs of Works on Protected Area (PoWPA) (Lipsett-Moore, Game et al. 2010) worked with targets of 10% of ecosystems for biological representation and 20% to add better climate change resilience. When software solutions were used to plot this representation across all vegetation types and land systems and to include the restricted range species,

about 15% of the country would be needed to reach the 10% representation, the area needed will be approximately 22% of the country for the 10% coverage, and 33% for the 20% coverage. These figures will be higher when the needs of the community and administrative boundaries are taken into account.

While these aspirational targets are important for biodiversity conservation, it will be very challenging for PNG to reach them in the timeframe, and this Policy does not support the reservation of areas solely to meet the target, without proper consideration of their values and of the wishes of the customary landowners. Aspirational targets for the Protected Area Network are listed in Table 8.

4.4 METHODOLOGY AND ECO-REGIONS FOR SELECTING, ASSESSING AND PRIORITISING PROTECTED AREAS

A detailed methodology for the selection and assessment of new Protected Areas, and evaluation of existing Protected Areas, will be developed based on the principles in section 4.2.

The bases of terrestrial reserve planning in PNG are discussed in detail in Lipsett-Moore et al (2010). In this document the primary division of biodiversity elements is comprised of nine eco-regions (Table 9).

In 2010 a gap analysis conducted by DEC and TNC defined the level of protection of PNG's terrestrial ecosystems and restricted range endemic species as shown in table 12. This process also defined the critical marine and terrestrial areas for conservation, as shown in the report to the CBD (Government of Papua New Guinea 2010).

At this stage three marine bioregions have been defined as part of the Coral Triangle (1 to 3), with a further two unclassified regions (4 and 5) in PNG (Table 11).

In addition, areas of outstanding marine values have been recognised (Figure 4) regionalisation that includes five eco-regions and 21 shallow water bioregions, where the outer boundaries of the external eco-regions are concurrent with the outer boundary of PNG's Economic Exclusive Zone (EEZ).

Table 8: Targets for Protected Areas in PNG

	Target	Notes
1	CBD targets as above are supported noting that they include areas under effective management not necessarily within formal Protected Areas.	Other forms of protection such as restrictions on clearing primary forests (e.g. under the Forestry Act) and ensuring sustainable fishing will complement the formal Protected Area Network.
2	10% of territorial waters and the coastline within a variety of marine protected areas by 2025 (CBD targets). Minimum of one million ha (2050 vision)	Much of catchment in areas outside PA management control or influence
3	25% of target 2 (ie 2.5% of territorial waters) under a combination of no-take zones and zones which allow fishing only by customary landowners for subsistence use by 2025	Needs of local community fishing to be taken into account, but to be protected from outside exploitation of resources.
4	10% of offshore areas outside territorial waters but within the EEC will be included in national marine sanctuaries by 2025.	To be managed in cooperation with neighbouring countries to maximise conservation of turtles and other marine life.
5	Any priority identified terrestrial and wetland areas that are not subject to resource use by customary landowners to become National Parks (NP) by 2020, along with other high montane areas considered of value to the CARR system.	To maintain connectivity and increase their value, establishment of Community Conservation Areas (CCA) adjacent to these National Parks (NP) may be of particularly important.
6	At least one major, well-managed NP in each of the nine terrestrial eco-regions by 2025. These should be adequate in size and should include some of the most valuable areas of endemism and biodiversity in the country. Priority identified areas to be given preference. Twenty national reserves, wilderness areas and national parks (2050 vision)	Depending on the resource use and aspirations of the customary landowners, NPs may not be an appropriate Protected Area type in all bioregions, and SMAS and CCAs with some high protection zones will be an acceptable alternative.
7	80% of all identified vegetation types and landforms to be included in Protected Areas to at least a 5% level by 2020 and a 10% level by 2025.	A variable level of protection is acceptable as small (rare) ecosystems will require a higher proportion within Protected Areas. This related to the CBD target of protected areas being ecologically representative.
8	All rare and threatened and restricted range vertebrate species have at least 30% of their habitat in some form of Protected Area by 2025.	

Table 9: Terrestrial ecoregions of PNG

	Ecoregions	Size (Ha)	% of land	Source WWF Ecoregion
1	Manus Island	208,505	0.5	132. Admiralty Islands
2	North-eastern Islands	4,699,775	10.2	111. New Britain/New Ireland Lowlands 112. New Britain/New Ireland Uplands
3	Bougainville Island	939,137	2.0	119. Bougainville Island
4	Northern New Guinea	9,482,056	20.5	107. Huon Range 115. North New Guinea Lowlands 116. North New Guinea Uplands
5	Central Range	11,821,294	25.5	105. Central Range
6	Southeast Peninsula	7,457,004	16.1	120. Southeast Peninsula
7	Trobriand Island	432,689	0.9	125. Trobriand Island
8	Louisiade (Southeastern Island)	181,395	0.4	110. Louisiade Archipelago
9	Southern New Guinea	11,053,974	23.9	121. Southern Wetlands 122. Southern Plains 708. Trans-fly
	TOTAL	46,275,829	100%	

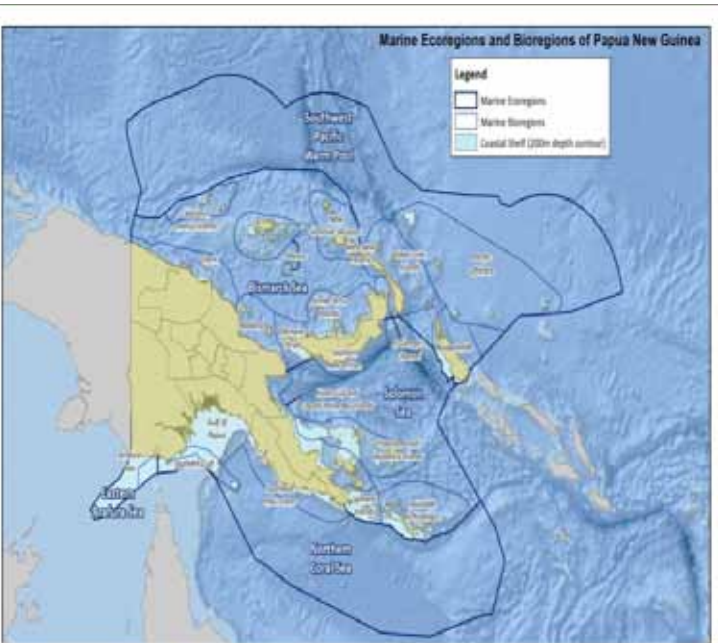
*Table 10: Gap analysis of terrestrial Protected Area system.
Source: Government of Papua New Guinea (2010)*

Measure	Total Number	Protection criteria	Number meeting threshold
Land System Types	59	>10% in PAs	10
Vegetation Types	57	>10% in PAs	6
Restricted range endemic reptiles and amphibians	123	>10% of their defined habitat in PAs	17
Restricted range endemic mammals	37	>10% of their defined habitat in PAs	7

Table 11: Marine bioregions of the PNG

1	Bismarck Sea	Including the island of Manus, New Britain, New Ireland and north coast of the Momase region.
2	Milne Bay Area	Including the areas Lae to Milne Bay Province excluding the south east of the province
3	Southeast PNG	Including the southeast coast line from Port Moresby to the further east to Sudest Island in the Milne Bay Province.
4	Bougainville Island	In the Solomon Seas
5	Southwest PNG	Far west of Port Moresby including the Gulf of Papua and the Torres Strait area.

Figure 8: Areas of outstanding marine values “priority seascapes” in PNG. Source: CEPA (2010).



Any Marine Protected Area which is recognised within PNG will be considered also as part of the Coral Triangle System of MPAs (CTMPAS), with four levels of recognition depending on the importance of the area and the management effectiveness achieved (Coral Triangle Initiative on Coral Reefs 2013, Walton, White et al. 2014). These are outlined in Table 12.

In early 2000, the Minister for Environment & Conservation declared the PNG EEZ as a whale sanctuary. Scientific researches confirms that the Bismarck Sea is migratory and breeding ground for arctic whales passing through PNG waters, in particular the sperm whale. This Policy will provide the basis to gazette protection for threatened marine species.

Informed judgment with existing data is adequate to achieve representation of many ecosystems, habitats and communities that are currently without formal protection.

The methodology will combine ‘bottom-up’ proposals based on customary landowner priorities with ‘top-down’ proposals based on scientific reserve planning methodology, as shown in Figure 8.

While the top-down planning and proposals emphasise complementarity of proposals and seek to conserve samples of all marine and terrestrial eco-regions, the bottom-up process is driven by customary landowner wishes, and may include areas, which have not been identified as top priority by scientists.

A Protected Areas Proposal database of potential priority sites will be developed, including both spatial and non-spatial components (i.e. a database linked to a spatial layer). As a first step, the database will include priority conservation areas identified in the previous assessments and other historical proposals.

From this database, spatial analyses can generate some further information and a list of national priorities will be generated for addition to the network over a five year period. This list will be reviewed annually or as more information becomes available.

The potential priority sites will be further investigated (through on-ground research) to ensure the mapped values are present and the land is in suitable ecological condition, and most importantly to ascertain whether landowners are willing to negotiate.



Table 12: Levels of sites accepted in the Coral Triangle regional protected area system. Source: (Coral Triangle Initiative on Coral Reefs 2013)

CTMPA level	Description
Flagship Sites	These include large, already effectively managed sites that have regional ecological, governance or socioeconomic importance.
Priority Development Sites	These are sites of regional ecological, governance or socioeconomic importance that are not yet effectively managed and thus need additional assistance to achieve their full potential, or new high priority sites that are added to the CTMPAS as recommended by the regional gap analysis because they make a specific contribution to the regional system as a whole.
Effectively Managed Regional Sites	These sites meet the agreed minimum criteria for design and management effectiveness specified in the CTMPAS Framework
Recognized CTMPAS Sites	These are sites that meet the minimum data requirements and are included in the CT Atlas

New Protected Areas may be initiated in several ways, as shown in Figure 8

- Government initiates further investigation by approaching other partners (Universities, NGOs or private industry) to support assessment, negotiations and management arrangements in identified sites of high priority.
- Customary landowners, local level government, NGOs or other stakeholders approach CEPA with a proposal to establish a new Protected Area, or to formalise an

existing Protected Area which does not yet have formal national protection.

- Private industry offers to support the establishment of a new Protected Area as an offset to a planned or existing development: this would then require them to support partners in the negotiation process and to offer sustainable benefits to the customary landowners.

Progress could be made quickly in some remote areas where priority habitats and ecosystems can be protected with insignificant

impact on existing users and on any relevant obligations. For example, a number of Proposed Priority Conservation Areas are located in areas with very little habitation or use by customary landowners, though there are still strong links between the people and their land and sea.

4.5 PREPARATION OF PROPOSALS

A standard Protected Area proposal will be completed for each proposed new Protected Area, regardless of whether it is proposed by CEPA, NGO, customary landowners or another body. As this will take considerable resources to prepare, the process shown in Figure 8 may in practice be broken into two phases:

- an outline proposal or concept may be presented and discussed at the relevant Protected Area Round Table
- the more detailed proposal is developed.

This will be particularly relevant when customary landowners and communities seek support to develop a proposal and do not have the resources to compile the information. While the proposal phase is important, it should not be prohibitively expensive or difficult and customary landowners and communities should not be discouraged from submitting proposals. For example, information about known species should be included, but exhaustive fauna surveys are not required. Maps of approximate boundaries are essential, but formally surveyed boundaries are not necessary as surveys are too costly and take too long to complete.

The proforma for the proposal developed by CEPA will include topics shown in Appendix One.

Assessment of proposals

While all Protected Areas in this Policy are part of the PNG Protected Area Network, not all require national-level approval for their gazettal. Therefore the assessment paths for the two groups differ, though both require the same proposal proforma to be completed.

Assessment of proposals for National Protected Areas (National Parks (NP), National Marine Sanctuaries (NMS), Special Management Areas (SMA) and National Heritage Areas (NHA)) are conducted at National level. CEPA staff will prepare some of these proposals. Other

proposals are submitted to CEPA by Provincial or Local Level Governments, NGOs, academic organisations and other stakeholders.

Within two months of receipt of a completed proposal, a National Protected Area Round Table (NPART) rates and evaluates it according to the principles outlined in this Policy. Additional advice and information can be sought as necessary. As discussed above, a concept-stage proposal may be evaluated before a full proposal is prepared. The NPART either supports the proposal as a National Protected Area, requests further information and evidence, or recommends that Provincial and Local Level Governments evaluate it as a potential Regional Protected Area. Reasons for each decision are clearly documented.

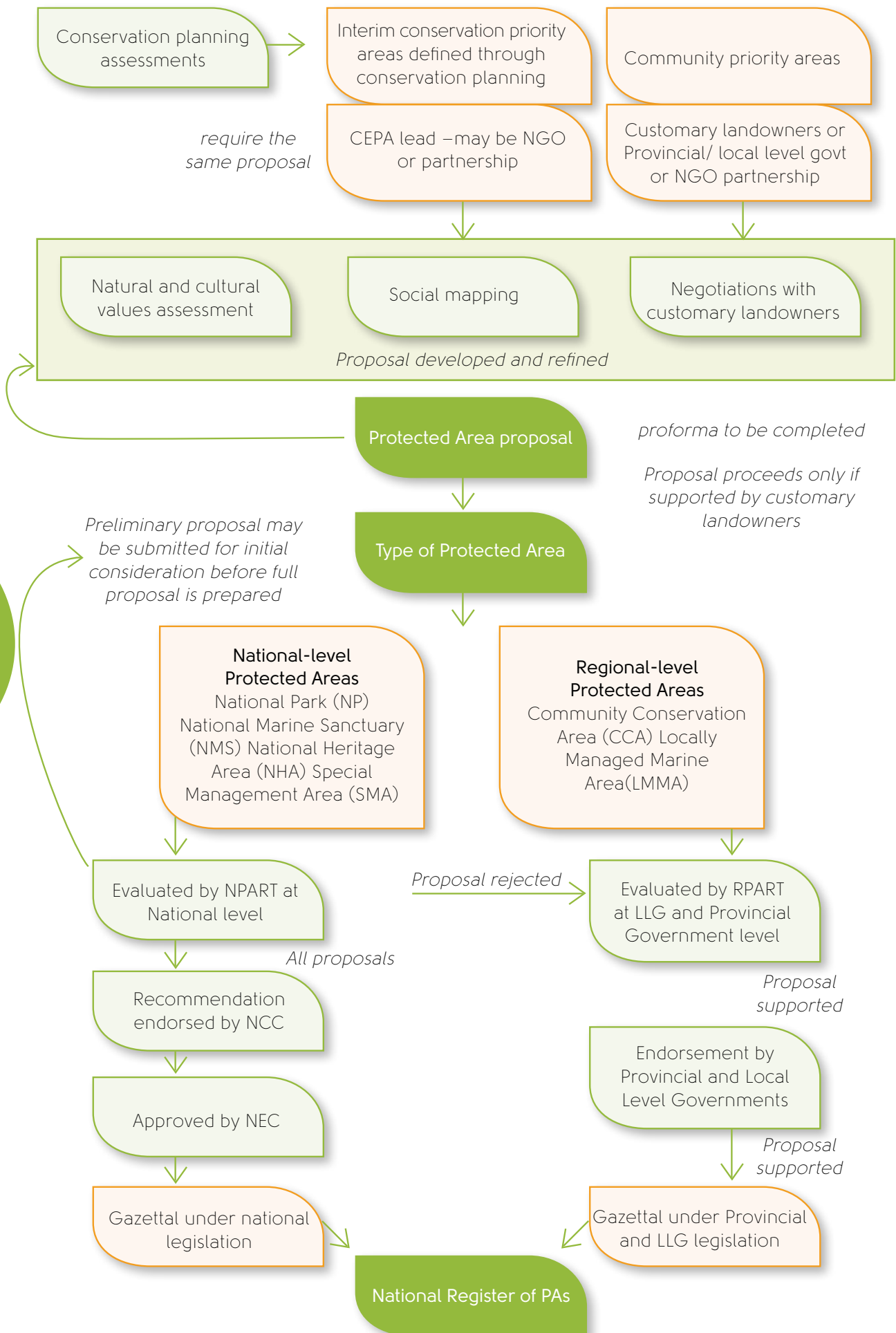
CEPA then seeks support for proposal from other relevant government sectoral agencies, recognising the implications for future resource development. Negotiations with other sectors can be undertaken at any stage. Where such support is not given, the proposal should still proceed to a final decision at NEC level.

Both approved and rejected proposals are then presented to the NCC, with full information about consultation and recommendation. The NCC reviews proposals on a quarterly basis and may where necessary request additional information.

Where a proposal has been rejected for a National-level Protected Area, the proponent and the relevant Provincial Government is informed. The proposal can then be considered for further evaluation as a potential regional-level proposal. The proponent of the proposal has the right to appeal and resubmit a revised proposal directly to the NCC at any stage.

Where endorsed by the NCC, the proposal and Conservation and Benefit Sharing Agreement are finalised, signed by the customary landowners and communities, and prepared for sign-off by the NEC and gazettal. Upon gazettal, all parties including customary landowners, community representatives and provincial and local level governments are notified immediately. The area will then be entered into the National Register of Protected Areas.

Figure 9: Process for preparing and evaluating Protected Area proposals



Provincial and Local Level

Regional Protected Areas are approved and gazetted through Provincial legislation. As it is not possible to replicate capacity to assess Protected Area proposals in each of the 22 provinces, the four regions commonly recognised in PNG will be established as hubs for this purpose.

Proposals are prepared and submitted to the Regional Protected Area Round Table (RPART) by customary landowners, NGOs, academic organisations and other stakeholders. Within two months of receipt of the completed proposal, the RPART rates and evaluates it according to the principles outlined in this Policy in conjunction with relevant Provincial, District and Local Level Governments. Additional advice and information can be sought as necessary. The RPART either supports the proposal as a Protected Area, recommends that the proposal be resubmitted, or rejects the proposal. Reasons for each decision are clearly documented.

The Provincial and Local Level Governments with the assistance of CEPA where necessary seek support for proposal from other relevant government sectoral agencies, recognising the implications for future resource development. Negotiations with other sectors can be undertaken at any stage.

Where endorsed by the RPART, the proposal and conservation and benefit sharing agreement are finalised, signed by the customary landowners and community representatives, and prepared for sign-off and gazettal by the Provincial and Local Level Governments. Where necessary, additional regulations are passed at Provincial and Local Level to enable management of the new Protected Area.

Upon gazettal, all parties including customary landowners, Provincial and Local Level Governments and CEPA are notified immediately, and the area is entered into the National Register of Protected Areas.

4.6 CONVERSION OF EXISTING AREAS: THE TRANSITION PERIOD

The PNG Protected Area Network Register and Database will be established immediately, and all existing Protected Areas in PNG will be registered. Upon implementation of the new legislation and the new PNG Protected Area Classification System, transitional arrangements will come into place for a period of five years. During this period:

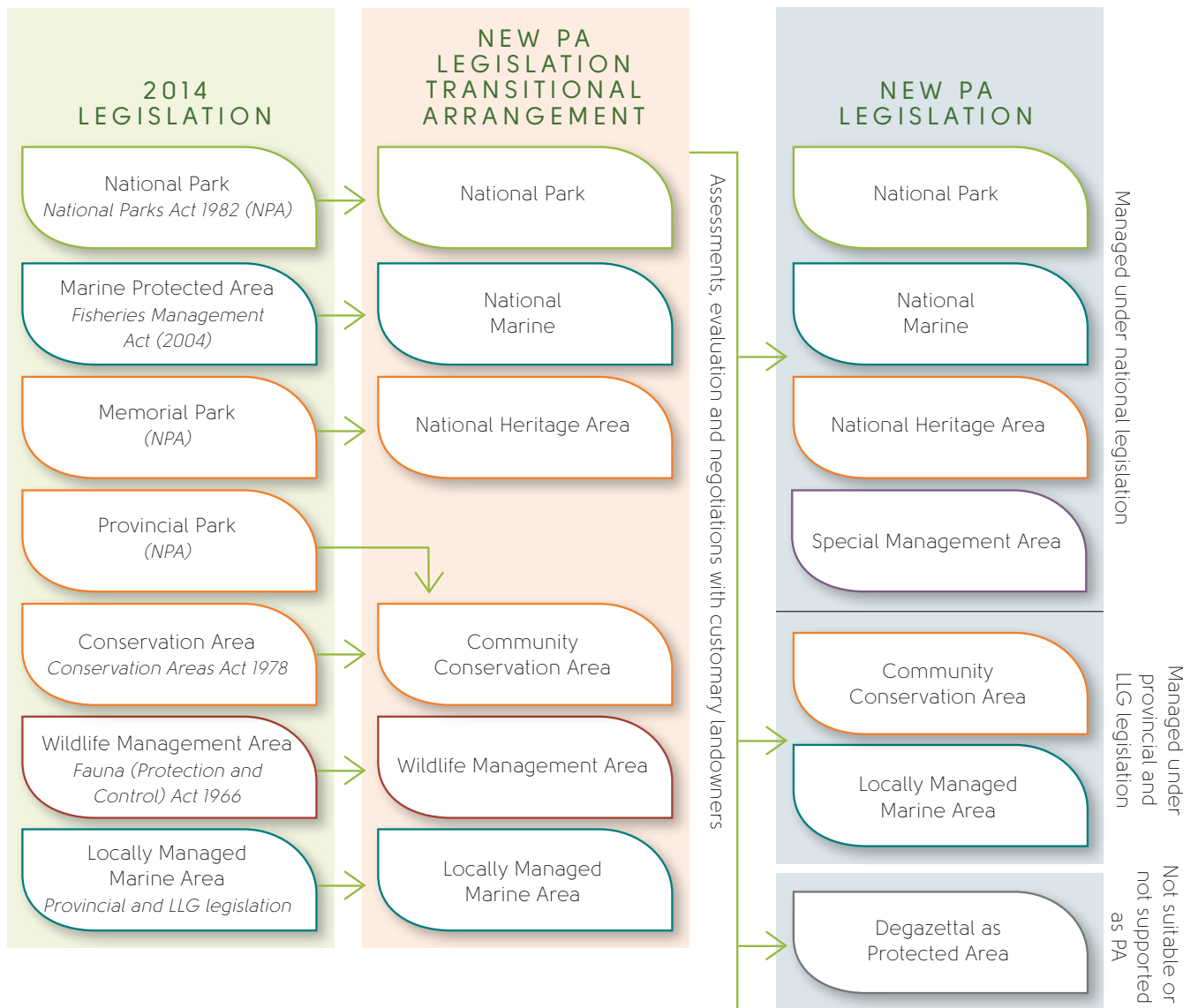
- Former National Parks (NP) will become NPs under the new legislation;
- Existing WMAs will be placed in a transitional class of Protected Area under the new legislation (also called WMA) with provisions holding over from the existing legislation but with greater powers of enforcement. No new WMAs will be created;
- Existing Conservation Areas will become Community Conservation Areas;
- Locally Managed Marine Areas under any existing legislation or arrangement will be listed and recognized as LMMAs.

Within five years, in full consultation with relevant stakeholders, CEPA will review the customary landowners' wishes and the values of the existing Protected Areas, using an abbreviated process of the Protected Area proposal evaluation, and will either:

- Confirm the Protected Area in the Protected Area type to which it was originally transferred (will not apply to WMAs); or
- Transfer existing Protected Areas to a suitable categories in the new classification system; or
- Recommend degazettal as Protected Area.

Existing boundaries may be altered as appropriate during this process.

Figure 10: Transitional arrangements for existing protected areas



4.7 SETTING PRIORITIES FOR NEW PROTECTED AREAS

CEPA will first address the backlog of Protected Area proposals to add these to the Protected Area Proposal Database and to determine which proposals correspond to Conservation Priority Areas and have supportive customary landowners. This will allow CEPA to take immediate steps to strengthen the establishment of the Protected Area Network.

Where existing industry proposals for resource extraction or development coincide with and conflict with Conservation Priority Areas, negotiations will be needed. If the area is developed, biodiversity offsets will be required in similar ecosystem or habitat types. In the case of new industry proposals, careful consideration will be required and approval given only where no net harm can be ensured.

While national priorities for the most critical Protected Areas will be established, the values of initiatives from the ground up are also recognised. Such initiatives will

be supported, provided they are within the broad framework of the future protected area network. Table 13 indicates priorities for support and investment in protected area establishment and for subsequent management by CEPA and by partners such as NGOs and other levels of government.

4.8 DEGAZETTAL

In exceptional cases national or community priorities may warrant the use of a Protected Area or part thereof in a manner that is inconsistent with this Policy. Permanent or temporary de-reservation of any Protected Area or part thereof, will require approval from NEC and national stakeholders, with transparent criteria and a process of broad consultation. This process will include the establishment of compensation and/or restoration requirements.

Table 13: Priorities for investment

Customary landowner priorities and interest in protected area				
CEPA scientific priorities	Area has very little habitation or use by CLOs	Initiative shown by CLOs	CLOs are potentially interested in a PA	CLOs are not supportive of a PA
Critical	Highest priority for reservation as national protected area (CEPA)	Highest priority for reservation as national and/or regional	Negotiations to discuss options – conducted by CEPA or NGO Negotiations to discuss options – conducted by CEPA or NGO	Other conservation options discussed (NGO or CEPA)
Very high	Very high priority for reservation as national protected area (CEPA)	Very high priority for reservation as national and/or regional NGO priority	Negotiations to discuss options – conducted by CEPA or NGO	Other conservation options discussed (NGO or CEPA)
High	Possibility for reservation as national protected areas (CEPA)	Support declaration as regional protected area	Options may be discussed as a lower priority	Other conservation options discussed (NGO or CEPA)
Medium to low		Approve declaration as regional protected area		

4.9 PAPUA NEW GUINEA TENTATIVE WORLD HERITAGE SITES

Seven properties have been on the World Heritage Tentative list since 2006, and this policy will support the Government of Papua New Guinea to proceed with the nomination of these sites in conjunction with stakeholders, especially the customary landowners. The site descriptions can be seen on the World Heritage (UNESCO) website <http://whc.unesco.org/en/tentativelists/state=pg>. The properties on the PNG tentative list are shown in Table 14.

Table 14: World Heritage Sites Tentative List

Site name	Province
Upper Sepik River Basin	East and West Sepik
TransFly Complex (grasslands and savannahs)	Western Province
Kikori River Basin / Great Papuan Plateau	Gulf, Western and Southern Highlands
Kokoda Track and Owen Stanley Ranges	Central and Oro
Milne Bay Seascape (Pacific Jewels of Marine Biodiversity) Samarai Island	Milne Bay
Huon Terraces - Stairway to the Past	Morobe
The sublime Karst of Papua New Guinea	New Britain, Western, Southern Highlands-Enga-Sepik Border

An example of proposed NHA:

TransFly grasslands and Savannas, Western Province, PNG

The property is a mixed cultural and natural site straddling the international border of Papua New Guinea and Indonesia.

TransFly cultures retain land use practices and traditions with an ancient lineage. These are experiencing dramatic change, particularly in areas close the border. A World Heritage listing will assist to document, revitalise and promote a pride in these traditions. Natural systems remain in remarkable good condition with only a few limited areas of human habitation and impacts such as invasive species or mine waste affecting only limited areas.

4.10 PROPOSED PROTECTED AREA: TORRICELLI MOUNTAIN RANGE

The Torricelli Mountain Range (TMR) within Sandaun and East Sepik Provinces, is an area of high endemism and biodiversity significance. The TMR is the last refuge for four critically endangered mammals (IUCN red list). They are:

- Tenkile Tree Kangaroo (*Dendrolagus scottae*)
- Weimang Tree Kangaroo (*Dendrolagus pulcherrimus*)
- Northern Glider (*Petaurus abidi*)
- Black-spotted Cuscus (*Spilocuscus rufoniger*)

This area, greater than 200,000 hectares of lowland and mid-montane tropical rainforest is being protected by the traditional landowners and communities in partnership with the NGO Tenkile Conservation Alliance (TCA). A bottom up approach has provided education, training, employment and community development in conjunction with establishing a conservation area. Local villages have established conservation area management committees who are responsible for enforcing the protected area rules and penalties.

This program consists of 50 villages comprising of approximately 12,000 people. The TMR stretches across two provinces, three districts and five local level governments.



The TCA, through successful grants and other funding sources has successfully provided rural service delivery to various stakeholders including the establishment of 350 water tanks, alternative protein sources, family planning, education programs and staff capacity building to ensure the long-term sustainability and management of TCA's programs.

TCA has after 12 years become an internationally renowned and award winning conservation and development program. TCA are working with the PNG Government to establish the TMR as a Protected Area.



PILLAR FIVE: SUSTAINABLE AND EQUITABLE FINANCING FOR PROTECTED AREAS

Desired outcome:

Sustainable and equitable financing supports the Protected Area Network and established Protected Areas

Objectives:

- Develop and implement a Biodiversity Trust Fund to support the Protected Area Network and established Protected Areas through mechanisms such as biodiversity and ecosystem services offsets, green contributions such as levies and taxes, and donations and philanthropic contributions.
- Develop small grant programs to deliver funding directly to support local communities in the establishment and management of Protected Areas

5.1 INTRODUCTION AND BACKGROUND

Adequate and reliable financial resources will be provided for effective management of Protected Areas in PNG. Each Protected Area requires an annual budget for development and implementation of management plans (including capital and recurrent expenditure), and to support the customary landowners and local communities in their management of Protected Areas.

Through a diversified mix of conventional funding sources (e.g. budgetary allocations, overseas development assistance) and innovative funding sources (e.g. payments for offsets and ecosystem services, trust funds and green taxes) PNG can achieve stable and sufficient long term financial resources to support the Protected Area Network and established Protected Areas.

Work on an offsets policy and sustainable financing through a Biodiversity Trust Fund is being progressed and will complement and operationalise this policy. A coordinated and long-term investment strategy will support Protected Areas

and their management, incorporating innovative and effective mechanisms for funding biodiversity conservation, such as market-based instruments. A detailed financing strategy to support Protected Areas will be developed within 12 months following the approval of this Policy.

The development of a clear Protected Area Policy with prioritisation of areas for conservation as outlined in Pillar 1 will optimize the use of funding, and enable funding bodies including international donors to include these priorities in their investment planning and strategy processes.

A detailed financing strategy to support protected areas will be developed within 12 months following the approval of this Policy.

5.2 FINANCING OPTIONS

International sources of funding for Protected Areas include multilateral banks, bilateral development cooperation agencies, foundations, International NGOs, Carbon Offset programs, Global levies (e.g. air travel levies, Global Environmental Facility and cultural funds) and philanthropic contributions.

National level mechanism include green taxes, levies, surcharges and tax incentives, tax deduction schemes, private foundation grants, national environmental funds, debt swaps, national and provincial lotteries, and public-good service payments.

Site level mechanisms include user fees, cause-related marketing, adoption programs, corporate donations, individual donations, planned giving, site memberships and 'friends' schemes. This contributes to payment of ecosystem services.

The range of alternative funding sources continues to grow and extends from innovative fiscal measures taken nationally to self-generated revenue from conservation sites. In addition, there is funding from the Global Environmental Facility (GEF), as well as domestic and international donors.

A Biodiversity Trust Fund will be established to provide an accountable and transparent mechanism to support the PNG Protected Area Network. The Trust Fund will incorporate a range of approaches to funding, including:

- Endowment Trust Funds;
- Payment for Ecosystem Services;
- Local Economic Development;
- Conservation Incentive Agreements; and
- Small Grants Programs.

5.3 PRINCIPLES FOR A SUSTAINABLE FINANCING OF PROTECTED AREAS

To ensure the development of mechanisms for the sustainable financing of Protected Area management, the Government, in collaboration with all relevant stakeholders, will:

- Ensure harmonisation of incentives for Protected Area management with other fiscal policies (e.g. taxation and subsidy schemes);
- Provide adequate annual budgetary allocations to the CEPA;
- Take advantage of opportunities offered by new global environmental markets (e.g. carbon trading), whenever they are relevant and potentially beneficial to PNG;
- Take advantage of multilateral and bilateral donor grant funding, whenever they are relevant and potentially beneficial to the development and management and sustainability of Protected Areas in PNG. Donors will be aware of and understand the Protected Area Policy, particularly in regard to building the Protected Area Network, and the role on customary landowners and local communities.

Provincial Governments will consider this Policy when developing their five-year plans, and include appropriate allocations to support customary landowners and communities in the implementation of the Protected Area Policy.

5.4 PROTECTED AREA GRANTS PROGRAM

The Protected Area Grants Program will work with communities, NGOs, Provincial and local level governments to assist with the establishment and management of Protected Areas in PNG.

Applications for either a full grant or a planning grant can come from community-based organisations and customary landholder groups with or without partners such as NGOs or academic institutions.

Funds will be available to assist in the development of proposals for all Protected Areas, for example funding for social mapping to identify customary landowners, work to assess the natural and cultural values of the proposed area, identification and negotiation of workable boundaries and zones, workshops to develop the management principles for the Protected Area, and development of benefit sharing arrangements.

Funds will also be available once an area has been gazetted as a Protected Area to assist with planning, implementation of the management plan, undertaking reporting, and capacity building to enable local management of the area.

Allocation of funds will be dependent on the area proposed for Protected Area status being recognised as a priority area at either the National or provincial level. Templates and guidelines will be developed by CEPA to assist organisations in applying for the grants.

5.5 CONSERVATION AND BENEFIT SHARING AGREEMENTS

Funding from the Biodiversity Trust Fund will be made directly to the legally recognized customary landowners, communities, NGOs and CBOs to achieve outcomes for Protected Areas under the terms identified in the Conservation and Benefit Sharing Agreements. In addition to funding for the establishment and management of the Protected Areas, facilities and services relating to health, education, conservation and community services will be prioritised.

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APPENDIX 1:

PROTECTED AREA PROPOSAL OUTLINE

Introductory material

- Type of Protected Area being proposed and evidence of support by customary landowners and community representatives. Evidence that the identified villagers are entitled to speak on behalf of the land or sea will be required before a proposal is finalised.
- Details of consultation and support (or otherwise) by other resource users and key stakeholders. Negotiations with resource sectors and other government departments are not necessary at the proposal stage.
- Maps of the proposed area and descriptions of the approximate boundaries, overlain with the Conservation Priority Areas and habitat classification schemes where possible. Note that final boundary agreements will be needed before gazettal but are not necessary at the initial proposal stage.
- Draft conservation and benefit sharing agreement with indicative acceptance by customary landowners. This may be developed after the initial proposal has been endorsed.
- Information about existing and potential competing interests such as mining interests, plantations or commercial fisheries. Negotiations with resource sectors and other government departments are not necessary at the proposal stage.

Relevance to the community

- Social and cultural assessment of the customary landowners and their willingness to negotiate a Protected Area on their land.
- Assessment of the likely costs and benefits to the customary landowners and resource users from the Protected Area, including research, employment, carbon trading, fisheries benefits.
- Assessment of ecosystem services to be delivered by the area, such as water delivery and tsunami and flood mitigation (and the possible implications if alternative development is supported).
- Cultural and historic values of the proposed Protected Area.

Importance to biodiversity conservation and the CARR system

- A brief description of the land, freshwater and marine systems, habitats and ecosystem types, including geological features. Maps of features are useful, including maps by customary landowners of features traditionally known as significant.
- An assessment of the area's significance as an addition to the CARR Protected Area Network, including its complementarity to other areas and its irreplaceability or unique character.
- Lists of known priority species and their significance, and an estimation of other species likely to occur in the area.
- Discussion of its contribution to climate change resilience.

Viability into the future

- Assessment of the connectivity of the proposed Protected Area with other natural or semi-natural areas.
- Extent to which the proposed area meets design principles or will be physically manageable in the long term.
- Assessment of current condition and threats to the area, including maps where necessary.
- Proposed governance and management arrangements including proposed structure and membership of board and advisory committee, and the responsibility for day-to-day management.
- Need for capacity building and other support from external sources.
- Proposed long-term sustainable financing and benefit sharing arrangements.
- Potential for recreation and research opportunities, where appropriate.

The lead role of NGOs and Universities in assisting customary landowners preparing these proposals will be welcomed.

APPENDIX 2: EXISTING PROTECTED AREAS IN PNG

There is no distinction between terrestrial and marine – managed areas. However, WMAs covers both terrestrial and marine. In the past, there has been no legislation governing Marine Protected Areas.

Approximately 4% of PNG’s terrestrial area and about 6% of the global total coral reefs found in the country are under protection and management and has at least 57 areas that covers 2.3 million hectares (Table 15).

Wildlife Management Areas

The Fauna (Protection and Control) Act 1966 allows for the protection, control, harvesting and destruction of fauna. Fauna are protected primarily through the declaration of Wildlife Management Areas.

The level of protection provided by WMAs is low, primarily because the Fauna (Protection and Control) Act provides no effective powers for the Government to enforce appropriate management of these areas, or even to prevent them being used for exploitative purposes such as mining or commercial forestry.

WMAs have been declared over both land and sea.

Conservation Areas

The Conservation Areas Act 1978 is to provide for the preservation of the environment and of the national cultural inheritance by: (i) the conservation of sites and areas having particular biological, topographical, geological, historic, scientific or social importance; and (ii) the management of those sites and areas.

There is one gazetted Conservation Area, YUS in Morobe Province.

Table 15: Terrestrial and Marine Protected Areas in PNG. Source: CEPA Database 2014

Reserve designation	Number	Area (ha)
Locally Managed Marine Area	12	159,259
National Park	8	28,013
Protected Area	2	20,245
Conservation Area	3	75,000
Protected Seascape	3	39,609
Provincial Park	2	210
Ramsar Site, Wetland of International Importance	2	594,924
Reserve	2	126
Sanctuary	4	36,006
Wildlife Management Area	32	1,348,357
TOTAL	72	2,441,689

There is a proposed Conservation Area, TMR in Sandaun and East Sepik Provinces.

The Conservation Areas Act provides for more effective protection of biodiversity through the powers provided to the Minister for Environment and Conservation under the Act. For the Minister to utilise these powers it is likely that the Government would need to develop some form of conservation and benefit sharing agreement with landowners so they directly benefit through allowing the Government to influence the use of their customary lands.

National Parks ¹

The National Parks Act 1982 provides for the preservation of the environment and of the national cultural inheritance by (i)

the conservation of sites and areas having particular biological, topographical, geological, historical, scientific or social importance, and (ii) the management of those sites and areas, in accordance with the fourth goal of the National Goals and Directive Principles.

The Act provides for the establishment of an area that has been reserved for: (a) the recreation and amusement of the public; (b) a national park; (c) a botanical or zoological garden and (d) a reserve or sanctuary for the protection of flora or fauna.

There are currently eight national parks in PNG, comprising one percent of the land area.

¹ National Parks Act has been repealed.



APPENDIX 3: ROLES OF CEPA

Policy and Oversight

- Implement this Policy in conjunction with customary landowners and communities, Provincial and Local Level Government and other partners.
- Develop an implementation plan for this Policy including consideration of institutional arrangements and financial needs for effective implementation.
- Set standards for the Protected Areas Network, including standards for management and management plans for all Protected Areas.
- Establish and maintain a Protected Areas and Proposals Database and Register, which includes details of the values, management plans, and conservation and benefit sharing agreements for all Protected Areas.
- Develop templates for conservation and benefit sharing agreements and management plans that can be used by

all levels of government for all Protected Area categories.

- Establish and implement sustainable financing arrangements and guidelines to support the management of Protected Areas.
- Facilitate and lead the development of Protected Area proposals for National Protected Areas.
- Ensure the proposed management plans for National Protected Areas meet standards
- Chair the National Protected Area Round Table (NPART)

Consultation and partnerships

- Develop partnerships with stakeholders for the implementation of this Policy.
- Negotiate agreement for the declaration of National Protected Areas with other government agencies at all levels of government.
- Ensure the effective and efficient co-



ordination with other government agencies to minimise conflicts through multiple demands on land use.

- Consult with external stakeholders including industry and NGOs before recommendations concerning national protected areas are made to the NCC.

Reporting and Monitoring

- Develop an adaptive and integrated management and evaluation system to be used at the national and regional scale to assess management effectiveness across PNG
- Ensure compliance of the management plans of National Protected Areas through a comprehensive monitoring and evaluation process.
- Undertake a five yearly assessment of the compliance of management plans for Regional Protected Areas
- Report regularly to the NCC and NEC on progress towards achieving the policy's vision.

5.1 FACILITATING AND OVERSEEING PARTNERSHIPS

Facilitating, overseeing and coordinating partnerships in Protected Area establishment and management is an important role, and requires a dedicated capacity with expertise in administration and accounting, database management, facilitation and community work. This role will be undertaken at national level by a specialist group established within CEPA in conjunction with the PPART, and at regional level by the RPART.

The roles of partnership coordination at national level will include:

- Facilitating establishment of partnerships and investments
 - ~ Keeping a register of investment opportunities, partnership needs, and of potential partners and investors;
 - ~ Establishing national priorities for assistance;
 - ~ Helping to match opportunities with partners – for example by advising NGOs, private enterprise, industry and funding bodies of

the needs and of where custodial landowner groups were willing to enter into negotiations, or requesting research organisations to undertake specific monitoring programs;

~ Conducting a basic vetting where potential partners wish to establish an on-ground presence in PNG;

~ Where needed, providing introduction and facilitation services to help establish partnerships;

~ Recording information about investors and partners for entry on the Protected Area and Partnerships database;

~ Keeping a register of negotiations and agreements; and

~ Providing and promoting models and examples of successful agreements and processes.

- Periodic auditing of financial and other arrangements

Overseeing yearly audits of finances, equipment and maintenance, staff welfare and administrative systems related to the management of the Protected Area

- Assessing management effectiveness

Reviewing management effectiveness and monitoring reports submitted every three years



PAPUA NEW GUINEA POLICY ON PROTECTED AREAS

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