

**PAPUA NEW GUINEA MARINE PROGRAM ON
CORAL REEFS, FISHERIES AND FOOD SECURITY**



National Plan of Action 2010-2013



PNG Marine Program on Coral Reefs, Fisheries and Food Security

2010 – 2013



**Department of Environment
and Conservation**



NATIONAL FISHERIES AUTHORITY
Papua New Guinea

FOREWORD

In recent years the sustainable capacity of the marine ecosystems and its habitats that continues to support the country's coastal population, has come under enormous threat as the country's rapidly growing population, imposes greater demands on these natural resources. There are also other threats to the ecosystems which include climate change and sea level rise, natural disasters, anthropogenic waste and sewage runoffs.

Papua New Guinea's coral reefs are currently under threat in localized areas. Areas of global importance as realized in various studies undertaken are vitally important to the local people as a primary source supporting their traditional culture and sustainable livelihoods. Coral reef fisheries are a vital source of food and income for many coastal communities. The Coral Reefs are important feeding and nursery habitats for many marine species. They provide a physical barrier to ocean swells and storm surges, protecting the shoreline against erosion. Behind the reefs, the sheltered reef lagoons provide habitats for a variety of important coastal species, notably seagrass beds and mangrove stands, which further stabilise the shoreline by anchoring the sediments.

The National Constitution of Papua New Guinea under the 4th Goal and Directive Principles states “*Papua New Guinea's natural resources and environment to be conserved and used for the collective benefit for us all, and to be replenished for the future generations*”.

More than one organisation has the responsibility in the use and protection of the marine environment in PNG. These institutions are; Department of Environment and Conservation, National Fisheries Authority, Office of the Climate Change and Development, National Maritime Safety Authority, and all maritime Provincial Authorities through the Organic Law on Provincial and Local Level Governments.

The Department of Environment and Conservation is mandated to protect the physical environment and also ensuring the protection and sustainability of its biodiversity through current relevant legislative provisions contained in a number of legislations including Environment Act 2000, National Parks Act 1984, Conservation Areas Act 1978, Fauna (Protection and Control) Act 1966, and the International Fauna and Flora Trade Act 1978. Hence DEC's jurisdiction covers both the terrestrial, freshwater, wetlands, coastal and marine environment.

One of the main objectives in DEC's current Corporate Plan, is to develop policies, indicators and a reporting framework to ensure effective implementation of the Governments Environmentally Sustainable Economic Growth (ESEG) Initiative. This Initiative promotes mainstreaming environmental sustainability into all resources sectors including fisheries. Fishery is viewed as a valuable renewable resource, and is capable of creating sustainable wealth for the country.

The PNG Marine Program incorporates priority actions from all responsible agencies in an integrated manner to manage our marine habitats and resources sustainably so that these resources will continue to sustain our coastal population now and into the future. And as such, this National Plan of Action is timely and that all concerned stakeholders are encouraged to use it to address thematic issues to effectively and sustainably manage our marine and coastal environments.

The PNG National Fisheries Authority is a statutory authority and is mandated to economically develop the marine resources and to ensure the sustainability of these commercial marine species is wisely exploited and economic well-being of the communities is achieved. NFA has widened its scope to also support Locally Managed Marine Areas at the community level in promoting small scale coastal fishery for livelihood and promote ecosystem approach to fisheries management.

The waters of Papua New Guinea is world renowned for its rich and diverse fishery, from sedentary marine resources to reef fish and extending out to pelagic waters entailing rich tuna fishery. The National Fisheries Authority has the jurisdiction over all commercial fisheries and is at the forefront in managing these rich fisheries resources. NFA also has jurisdiction over all fisheries in the Exclusive Economic Zone of PNG.

NFA is mandated to implement government policies for managing and developing fisheries as a national asset. Currently NFA is implementing its Corporate Plan 2008-2012 that strategically places its vision on effectively managing the fisheries and marine resources for sustainable and equitable benefits.

The Department of Environment and Conservation and The National Fisheries Authority recognize the rights of the coastal resource owners. The PNG Marine Program would ensure the customary needs of coastal communities are recognized and respected in all transactions affecting the resources or the area in which they operate.

Hence both the DEC and NFA are working in collaboration to ensure the Coral Triangle Initiative (CTI) is well and truly implemented in partnership with public, private and non-government agencies in Papua New Guinea, with full support from notable political and donor partners and with various government support in-country. The DEC with close collaboration with NFA will join other major stakeholders in implementing the actions stipulated in the NPOA as part of PNG's Marine Program.



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Dr Wari Lea Iamo
Secretary
DEC



A handwritten signature in black ink, appearing to read 'Sylvester Pokajam', with a horizontal line underneath.

Mr. Sylvester Pokajam
Managing Director
NFA

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Acronyms

ADB	Asian Development Bank
BSSE	Bismarck Solomon Sea Eco-region
CBD	Convention on Biological Diversity
CBFM	Community based fisheries management
CBO	Community based organization
CCDP	Climate Compatibility Development Plan
CFDDP	Coastal Fisheries Management and Development Project
CI	Conservation International
CT6	Six members of the Coral Triangle region
CTI	Coral Triangle Initiative
CTSP	Coral Triangle Support Program
DAL	Department of Agriculture and Livestock
DEC	Department of Conservation
DFA	Department of Foreign Affairs
DOE	Department of Education
DPLLGA	Department of Provincial and Local Level Government Affairs
DPM/ NEC	Department of Prime Minister and Secretariat to NEC
EAFM	Ecosystem approach to fisheries management
ESEG	Environmentally Sustainable Economic Growth
FAO	Food and Agriculture Organisation
GEF	Global Environment Facility
GoPNG	Government of PNG
LTDS	Long Term Development Strategy
MDG	Millennium Development Goal
MDG7	Millennium Goal Number 7
MoA	Memorandum of Agreement
MTDS	Medium Term Development Strategy
NBSAP	National Biodiversity Strategy and Action Plan
NCC	National Coordination Committee
NDC	National Disaster Center
NEC	National Executive Council
NFA	National Fisheries Authority
NGO	Non Government Organisation
NPoA	National Plan of Action
NWS	National Weather Service
OCCD	Office of Climate Change and Development
PGK	PNG Kina
PNG	Papua New Guinea
REDD	Reduced emissions from Deforestation And Degradation
RETA	(ADB) Regional Technical Assistance
RPoA	Regional Plan of Action
Seascope	Large marine area
SMED	Sustainable Marine Environment Division
SWOT	Strength, weaknesses, opportunities and threats (assessment)
TNC	The Nature Conservancy
UNFCC	United Nations Framework Convention on Climate Change
USAID	United States aid agency
WWF	World Wide Fund for Nature

1. Introduction

Coral Reefs, Seagrass beds, mangroves, sand and mud shore and intertidal flats, Barrier dunes and their associated lagoons, deltaic floodplains and estuaries, rocky shorelines, reef walls and drop-off areas, sea mounts form the complex marine habitats of PNG. Marine organisms associated with this array of habitats are important components of the rich marine biodiversity of Papua New Guinea.

Coral diversity is typically very high in Papua New Guinea's reefs and this is globally significant. In Kimbe Bay of West New Britain, a total of 345 species of coral were reported. This number compares favourably to that of other detailed surveys conducted in Australia, Japan, Indonesia, the Philippines and elsewhere in Papua New Guinea and at the time was amongst the highest ever reported from such a small area. Two thirds of the coral reefs surveyed had high levels of live reef cover (greater than 50 %), and many individual sites had extensive areas of very high coral cover (greater than 75 %) indicating the near pristine state of the coral reefs at those locations.

In Madang, biodiversity of reef fish fauna within the Locally Managed Marine Areas network is of global, national and local importance. In Milne Bay over 429 species of coral fauna, including 10 new species, were recorded during Rapid Assessment Program surveys carried out by Conservation International during 1998.

The above information clearly indicates the global significance of Papua New Guinea's coral reefs, but these reefs are also vitally important to the local people as a primary resource supporting their traditional culture and sustainable livelihoods. Coral reef fisheries are a vital source of food and income for many coastal communities. They are important feeding and nursery habitats for many marine species. They provide a physical barrier to ocean swells and storm surges, protecting the shoreline against erosion. Behind the reefs, the sheltered reef lagoons provide habitats for a variety of important coastal species, notably seagrass beds and mangrove stands, which further stabilise the shoreline by anchoring the sediments.

For some marine habitats and associated marine resources, especially within the vicinity of urban areas, human population pressure and urbanization related development activities have been impacting on them over the years to an extent that the habitat have been reduced to rubbles littered with anthropogenic wastes.

The PNG Marine Program will specifically address marine related issues and impacts.

The overarching purpose of the PNG Marine Program is to provide a framework for Government, the community and the business sector, in partnership, for managing PNG's marine environment and resources for sustainable long term use and protection.

1.1 Marine Habitats and Species Distribution

Mangroves, seagrass beds, and coral reefs are located in all Maritime Provinces of PNG. Mangroves and seagrass beds are more prominent in the southern PNG mainland especially in the Gulf and the Western Provinces while coral reefs begin from the Central province and extend to the Milne Bay Provinces, round the northern PNG main Land and to the New Guinea Islands. For commercial fishery species, the barramundi and prawn fisheries are located mostly in the Western and Gulf

Provinces while the tuna fishery is mainly located in the Bismarck Sea. Beche-de-mere Fisheries are located in all Maritime Provinces predominantly in the Western, Milne, and Manus Provinces.



Kimbe Fish Market, Photo Courtesy of TNC

1.2 Traditional Ownership and Customary Knowledge and Management

Over 90% of coastal and near shore resources are under customary ownership. In the past, customary knowledge was applied in the day to day management of these marine resources. However due to the increasing demand for communities to participate in the cash economy as oppose to the subsistence economy, increasing pressure has been exerted on the marine resources.

Communities must be made aware and be well informed of any development projects that will have an impact on their lives and their resources.

1.3 Threats

Marine habitats and species biodiversity face various threats and there are number of important issues relating to their effective conservation, management and sustainable use.

1.3.1 Excessive Direct Take

Direct harvesting of marine resources includes overharvesting and destructive fishing methods. These pose a serious threat to the marine resources. By-catch is also a serious issue from a number of different fisheries.

1.3.2 Climate Change

Climate change is potentially a high threat to the marine species and their habitats in PNG through the potential disruption of ocean circulations, changes in the amount and distribution of fish populations, changes in salinity, temperature and acidity, and other parameters. Current climate change models include a wide range of potential scenarios.

1.3.3 Habitat Destruction

Habitat destruction includes coastal development, sedimentation of coastal waters, nutrients and other habitat impacts. The most significant habitat destruction are localized point source activities especially in urban areas, coastal roads and infrastructure development for logging ponds, mining activities and large scale agriculture developments.

1.3.4 Pollution

Anthropogenic debris, toxic chemicals, land-based sources of pollution such as sewage, sedimentation, nutrient loads etc that are being dumped into the sea are major causes of pollution in PNG. These pose a series threat to marine habitats and species.

The PNG Marine Program will address current and potentials threats to minimize impacts on the coastal and marine habitats and associated resources and adopt as its major organizing principle “that management of marine resources must be for creation of jobs, economic growth” leading to the provision of poverty reduction and food security outcomes.



Mangrove seedlings planting at a local community- Photo Courtesy of DEC

2. Linkages to Government Policy Initiatives

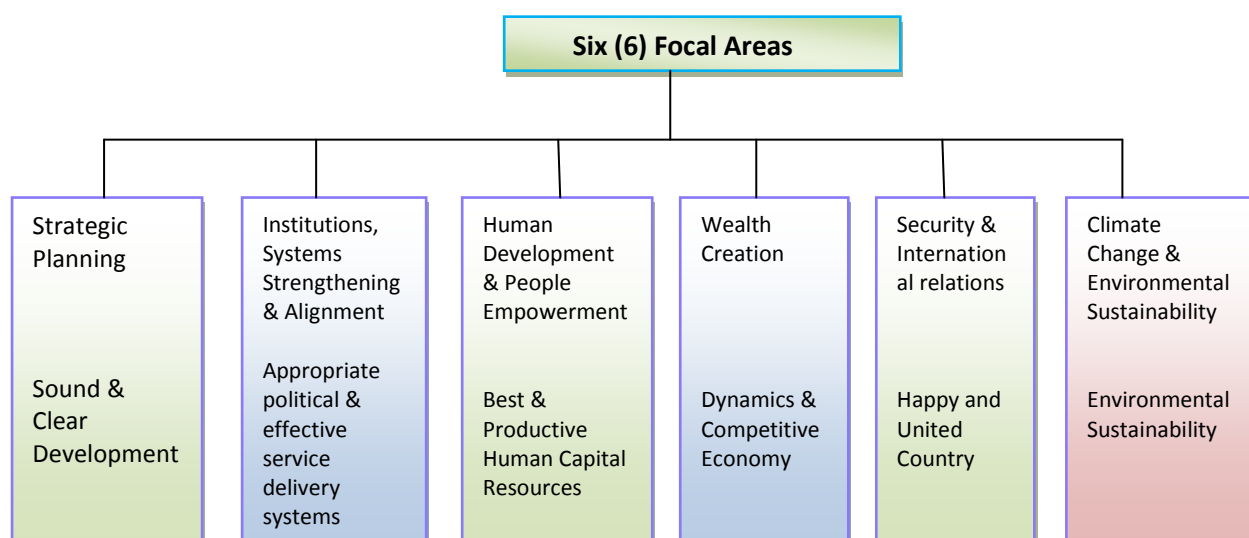
The PNG Marine Program is aligned to PNG Government development strategies and policy initiatives such as the Medium Term Development Strategy, Environmentally Sustainable Economic Growth and the PNG Vision 2050. Regional conservation and management Initiatives and action have also been taken into consideration in formulating the PNG Marine Program.

2.1 National and Provincial Development Strategies

The GoPNG is committed to a new *Environmentally Sustainable Economic Growth (ESEG)* policy initiative which aims to assist all development sectors in the country, including the informal rural subsistence sector, to move towards a sustainable development pathway. DEC is the responsible agency for overseeing the ESEG. The ESEG policy initiative also compliments the Medium Term Development Strategy. The MTDS is PNG's overarching plan for social and economic development. The primary role of the MTDS is to translate the government's program for recovery and developments into a series of broadly defined policy interventions that are soundly based mutually supporting and affordable. The MTDS serves as the government's apex planning, policy and resource allocation framework focusing on sectors such as agriculture, forestry fisheries and tourism and supported by mining, petroleum and gas and manufacturing. It also compliments the Millennium Development Goals (MDGs), and provides support to MDG 7 which focuses on environmental sustainability. These initiatives are also influenced by the development of PNG Vision 2050, the National Strategic Plan, which will shift PNG's economic development from non renewable like mining and energy sectors to renewable development in agriculture, forestry, fisheries, eco-tourism and manufacturing. This is further outlined under Pillar 6 on Environmental Sustainability and Climate Change.

2.2 National Strategic Plan (2010 – 2050)

The National Strategic Plan 2010 – 2050 commonly referred to as: PNG Vision 2050 has a Shared Mission: *"We will mobilize to create wealth through smart innovative ideas, quality services and equitable distribution of benefits for all citizens"*



Pillar six (6) calls for the country to ensure the natural resources and environment is conserved and used for the collective benefit of all. This statement is embedded in the National Constitution of Papua New Guinea as Goal 4.

2.3 Papua New Guinea National Biodiversity Strategy and Action Plan

The National Biodiversity Strategy and Action Plan (NBSAP) is the roadmap to the sustainable use and management of country's resources and provide the initial response to the Convention on Biological Diversity in which PNG is a party to. The NBSAP has nine thematic areas that range from Policy and Legislation to Monitoring, Evaluation and Adaptive Management of NBSAP.

The PNG marine program addresses the thematic areas under the NBSAP relevant to marine and coastal habitats and resources management, including biodiversity conservation.

2.4 Papua New Guinea's Climate - Compatible Development

The PNG government has recognised climate change as the foremost global and national challenge of the 21st Century and is leading efforts to address this. In its efforts the GoPNG has created the Office of Climate Change and Development (OCCD) who will be leading the efforts in ensuring that climate adaptation and mitigation is part of the future development in PNG. This office will play the important role of coordination while the existing agencies will implement the programs. It is also anticipated that planning steps to adaptation to increased risk and natural hazards and ecosystem changes experienced by climate change in the country would be strengthened. PNG is therefore moving towards climate change compatible development, combining economic development imperatives with climate change mitigation and adaptation measures.

Under PNG's Climate – Compatible Development, Sea Temperature increase and acidification and its consequent effect on PNG extensive coral reef systems has been identified as one of the 6 most serious hazards and adaptation measures are currently being developed under this initiative.

The PNG marine program is linked to the PNG's Climate Compatible Development, and would be implementing its activities consistent with the Interim Action Plan for Climate-Compatible Development especially under Goal 4 of this program.

2.5 Institutional Arrangements

In support to progress the ESEG and the MTDS initiatives, both DEC and NFA have developed new Corporate Plans: the DEC Corporate Plan 2009 – 2012 and the NFA Corporate Plan 2008 – 2012.

The DEC Corporate Plan 2009-2012 places its objectives on establishment of a new effective department, improved administrative performance, effective implementation of GoPNG's Environmentally Sustainable Economic Growth agenda, improved environmental regulatory processes and demonstrated on-ground improvement in both environment and economic outcomes through implementing large scale pilot projects in partnership with other levels of government and external stakeholders

The NFA Corporate Plan 2008 – 2012 strategically places its vision on effectively managing the fisheries and marine resources for sustainable and equitable benefits. Under the Fisheries Management Act 1998, NFA is "responsible for the management and development of fisheries sector in accordance with the provisions of the Act under the overall policy direction of the Minister" and "shall perform and exercise its functions and powers on behalf of PNG".

The PNG Marine Program will align its activities into achieving outcomes pertaining to the marine environment and resources as stipulated under the Corporate Plans of the National Departments mandated by the GoPNG.

2.6 National Coordination Committee (NCC)

Successful implementation of the PNG Marine Program depends on an effective National Coordination Committee. As a requirement under the Regional Plan of Actions Section IV calls for the six (6) governments to establish, catalyse, and strengthen coordination mechanisms and implementation partnerships at country level beside the Regional set-up. The intention for such a Committee is lead multi-stakeholder processes to coordinate and promote country-level implementation of the national actions. This Committee was established as part of NEC Decision No: 62/65 2009 that endorsed the establishment and its representation. Being a government driven program, the Committee is initially made up of all relevant Government Departments and Offices. The composition of the Committee is currently reviewed and in future, the NGOs and donor partners will be represented on the Committee.

The NCC is made up of the following agencies:

Department of Environment and Conservation:	Secretariat, Focal Point and Chair
National Fisheries Authority:	Co-chair
Department of National Planning and Monitoring:	Member
Office of Climate Change and Development:	Member
Department of Provincial and Local Level Government:	Member
Department of Foreign Affairs, Trade and Immigration:	Member
Prime Minister's Department:	Member

Non-Government Organisations and donor partners are invited in as and when required for meetings at present depending on the agenda.

2.7 Regional Arrangements - *The Coral Triangle Initiative*

The Coral Triangle Initiative (CTI) is a new multi-lateral partnership aimed at sustainable management of the marine and coastal biological resources of the Coral Triangle region. It comprises all or parts of the exclusive economic zones of six countries: Philippines, Malaysia, Indonesia, Timor-Leste, PNG and Solomon Islands. The area spans 5.7million km² making up only 1.6% of the planet's oceanic area. The CTI Region is globally significant in marine life abundance and diversity including 76% of all known coral species, 37% of all known coral reef fish species, 53% of the world's coral reefs, has the greatest extent of mangrove forests in the world, and spawning and juvenile growth areas of the world's largest tuna fishery.



The Coral Triangle Region

These ecosystems and natural resources directly support the livelihoods of over 120 million people and provide indirect benefits for millions more across the globe.

These ecosystems and natural resources are being seriously threatened by over-fishing, destructive fishing practices (including cyanide and blast fishing), coral bleaching and ocean acidification due to climate change, pollution, and sedimentation from coastal development. To address these threats through a regional approach, a proposal for the CTI was mooted by Indonesia in August 2007 and readily accepted by all member countries. This is significant to PNG in terms of its location in the region.

The CTI arrangements was formally endorsed through a Leaders declaration by the Rt. Hon. Grand Chief, Sir Michael T Somare, GCL, GCMG, CH, CF, KStJ, MP on the 15th of May 2009 in Manado, during the CT6 CTI Leaders summit (Annex 2).

The Declaration included the adoption of a Regional Plan of Action (RPOA) based on nine Guiding Principles and aimed at achieving five goals and associated targets (see Table 1 below). These principles and goals are outlined in detail in Annex 3. Each country was required to develop a National Plan of Action (NPOA) to address priority domestic marine resources management issues that will contribute towards the achievement of the five regional goals. Prior to the Leaders Declaration, the respective Ministers responsible for marine affairs from CT6 countries got together in Port Moresby and signed a Joint Ministerial Statement that acknowledged, emphasized and recognized the need to sustainably develop marine and coastal biological resources, built around a four-part, over-arching vision towards coral reefs management, food security, fisheries and adaptation to climate change.

The PNG Marine Program is a response to the CTI's call for a National Plan of Action.



CTI Leaders Meeting. Manado, Indonesia Photo Courtesy of DEC

3 PNG Marine Program Overview

PNG’s marine resources will continue to support the subsistence livelihood of coastal communities, augment income generation at the local level and fetch substantial revenue in the international market place as long as the threats posed by pollution, over-harvesting, destructive fishing and climate change are dealt with through a concerted effort by all stakeholders. In addition to fishing, the country’s unique marine environment and unmatched biodiversity presents numerous opportunities for nature based eco-tourism as well as responsibly managed commercial tourism providing diving, surfing and game fishing activities for national and overseas visitors.

The PNG Marine Program will provide a plan of action for all stakeholders to work towards in achieving poverty reduction and food security through sustainable management and utilization of marine resources. DEC will oversee and coordinate the implementation of the PNG Marine Program, with support from all concerned stakeholders including NFA, OCCD, provinces, districts, local level governments and coastal communities. Implementation will take into account the three main outcomes for CTI: coral reefs, fisheries and food security. Stakeholder consultations and involvement in the PNG Marine Program are outlined in section 5 of this document.

Table 1. The PNG Marine Program: Goals and targets

Goals	Targets
<p>1. “Priority Seascapes” designated and effectively managed.</p>	<ul style="list-style-type: none"> • “Priority Seascapes designated, with investment plans completed and sequenced • Marine and coastal resources within all “Priority Seascapes” are being sustainably managed
<p>2. Ecosystem approach to management of fisheries (EAFM) and other marine resources fully applied.</p>	<ul style="list-style-type: none"> • Strong legislative, policy and regulatory frameworks in place to achieve an effective Ecosystem Approach to Fisheries Management (EAFM) • Improved income, livelihoods and food security in an increasingly significant number of coastal communities across the country through a new sustainable coastal fisheries and poverty reduction initiative (“COASTFISH”) • Effective measures in place to help ensure exploitation of shared tuna stocks is sustainable, with tuna spawning areas and juvenile growth stages adequately protected • A more effective management and more sustainable trade in live reef fish and reef-based ornamentals achieved
<p>3. Marine Protected Areas (MPAs) established and effectively managed.</p>	<ul style="list-style-type: none"> • Region-wide Coral Triangle MPA System (CTMPAS) in place and fully functional •
<p>4. Climate change adaptation measures achieved</p>	<ul style="list-style-type: none"> • Region-wide early action plan for Climate Change Adaptation for the near-shore marine and coastal environment and small island ecosystems developed and implemented • Networked national centers of excellence on climate change adaptation for marine and coastal environments are

established and in full operation

5. Threatened species status improving

- Improved status of sharks, sea turtles, seabirds, marine mammals, corals, seagrass, mangroves and other identified threatened species



Night's Catch of Kimbe Reefs. Photo courtesy of DEC

3.1 Challenges

There are a number of challenges facing DEC in undertaking its role and mandate in the Marine Program. In particular these challenges include;

- building of national, provincial and local institutional and human capacity to deal with the wide range of issues faced by Papua New Guinea in managing its marine environment;
- developing the necessary legislative tools and capacity to support implementation of initiatives;
- establishing and developing information and data management systems (similar to the terrestrial data management system PNGSIMS) to support decision-making on marine and related issues; and
- development of marine related policies (e.g. an overall marine policy and a policy framework to establish a system of marine protected areas) to provide the framework and structure for interventions and activities.

The structure of the action plan has been designed to ensure that there is a logical implementation of activities. There should be a critical pathway of activities where there are obvious dependencies of some activities on other activities occurring first. Unless such logic is practiced then the outcomes will be undermined. For example, the development of marine protected areas (MPA) needs to follow a logical process of information and data gathering, policy development, legislation development, development of MPA approach and methodology including selection of candidate areas and then implementation.

It will also be of critical importance that each of the activities are included in annual work programs in accordance with the logic of critical pathways of activities and resourced accordingly to ensure that they are capable of being undertaken and objectives met within program timeframes.



Sunset in Kimbe Bay. Photo Courtesy of TNC.

4. Program Coordination.

DEC's key mandated functions are to protect the environment, conserve PNG's biodiversity and promote mainstream sustainable development and responsible natural resource management. Hence, DEC through its Sustainable Marine Environment Division (SMED) will oversee and coordinate the Program as and when required under current legislative arrangements such as the Environment Act 2000, National Parks Act 1984, Conservation Areas Act 1978, Fauna Protection and Control Act 1996 and the International Fauna and Flora Trade Act 1978. .

PNG has also committed itself to implementing several related activities stipulated under a range of Regional and International conventions, listed in Annex 5.0. The most notable of these are the CBD, Ramsar (Wetlands) and UNFCCC. The program will meet relevant outputs as required under these regional and international agreements and treaties. In addition, as part of its Corporate Plan for 2009 to 2012, DEC will be meeting its required Plan outputs.

4.1 Role of Sustainable Marine Environment Division

The Role of the Sustainable Marine Environment Division (SMED) is to demonstrate the achievement of successful environment and economic outcomes in the marine sector through appropriately scaled pilot projects in partnership with a wide range of relevant stakeholders including provincial and local level governments as well as local communities. The SMED will be the key implementing unit for PNG CTI within DEC and serve as the secretariat to the National Coordinating Committee (NCC). The NCC has been established to provide cross-government coordination of PNG's involvement in the CTI program.

4.2 DEC Corporate Plan priority actions

The priority actions for Sustainable Environment Division per the DEC Corporate Plan are stated below.

- (i) Ensure delivery and achievement of environmentally sustainable economic growth in the marine sector through the identification, design and implementation of demonstration projects.
- (ii) Identify and develop sustainable environment management strategies for marine eco-systems.
- (iii) Implement the Coral Triangle Initiative on coral reefs, fisheries and food security in partnership with key government and non-government stakeholders.

The corresponding key results set for the division are listed below.

- (i) PNG CTI underway and strongly supported by government and external stakeholders.
- (ii) Marine protected area policy and updated legislation in place.
- (iii) Model for sustainable marine use planning developed as a tool for supporting the ESEG initiative.
- (iv) Policy framework developed for sustainable financing of protected areas to improve living standards of landowners and strengthen protected area management.

5 Program Implementation

The Program will be collaboratively implemented by Government agencies, international and national NGOs and various institutions. Major collaborators in the plan are the DEC, NFA, and OCCD. Maritime Provinces will also play major roles in carrying out relevant activities under the NPoA. Other key non-government stakeholders include WWF, TNC, CI and the PNG CLLMA.

5.1 Department of Environment and Conservation

The Department of Environment and Conservation is the Focal Point therefore under the Program, DEC will be coordinating the program. DEC will take lead on activities related to Goals 1, 3, and 5. DEC will work with relevant stakeholders to formulate projects to achieve the targets set for under these goals. A detailed scoping of work will be carried out to determine what needs to be done, identify realistic outcomes, the resources required and stakeholders who can assist in achieving outcomes. Stakeholders will include donor partners, NGOs, CBOs, provincial and local level governments as well as local communities. Based on the nature and scale of the work involved, actual project implementation may be undertaken by a contracted party through a MoA with DEC.

5.2 National Fisheries Authority

The National Fisheries Authority (NFA) will take the lead in the implementation of Goal 2 under the Program. The NFA is charged with the responsibility of enforcing the Fisheries Management Act 1998. This legislation provides for the promotion of the fishing industry and the sustainable management of the nation's fisheries. Fisheries are recognized by the government as valuable renewable resources that can provide sustainable revenue for individuals and the country. Amongst the key objectives of the legislation, one which relates directly to the CTI is: the optimum utilization and long term sustainable development of marine resources to achieve economic growth, human resources development, employment creation and sound ecological balance.

NFA, in relation to Ecosystem Approach to Fisheries Management (EAFM), has been carrying out similar exercises over the last several years in conjunction with ADB and FAO. NFA will continue to build on what has transpired to date with the additional input of external funding, expertise and increased participation of stakeholders. The CTSP project will focus on Goal 4 and formulate its activities to support NFA's EAFM activities. This project will also incorporate aspects relating to marine protected area management and climate change adaptation within the framework of EAFM. Details of this project will be publicized soon. Other stakeholders are invited to support the implementation of activities relating to this goal in partnership with NFA.

5.3 Office of Climate Change and Development (OCCD)

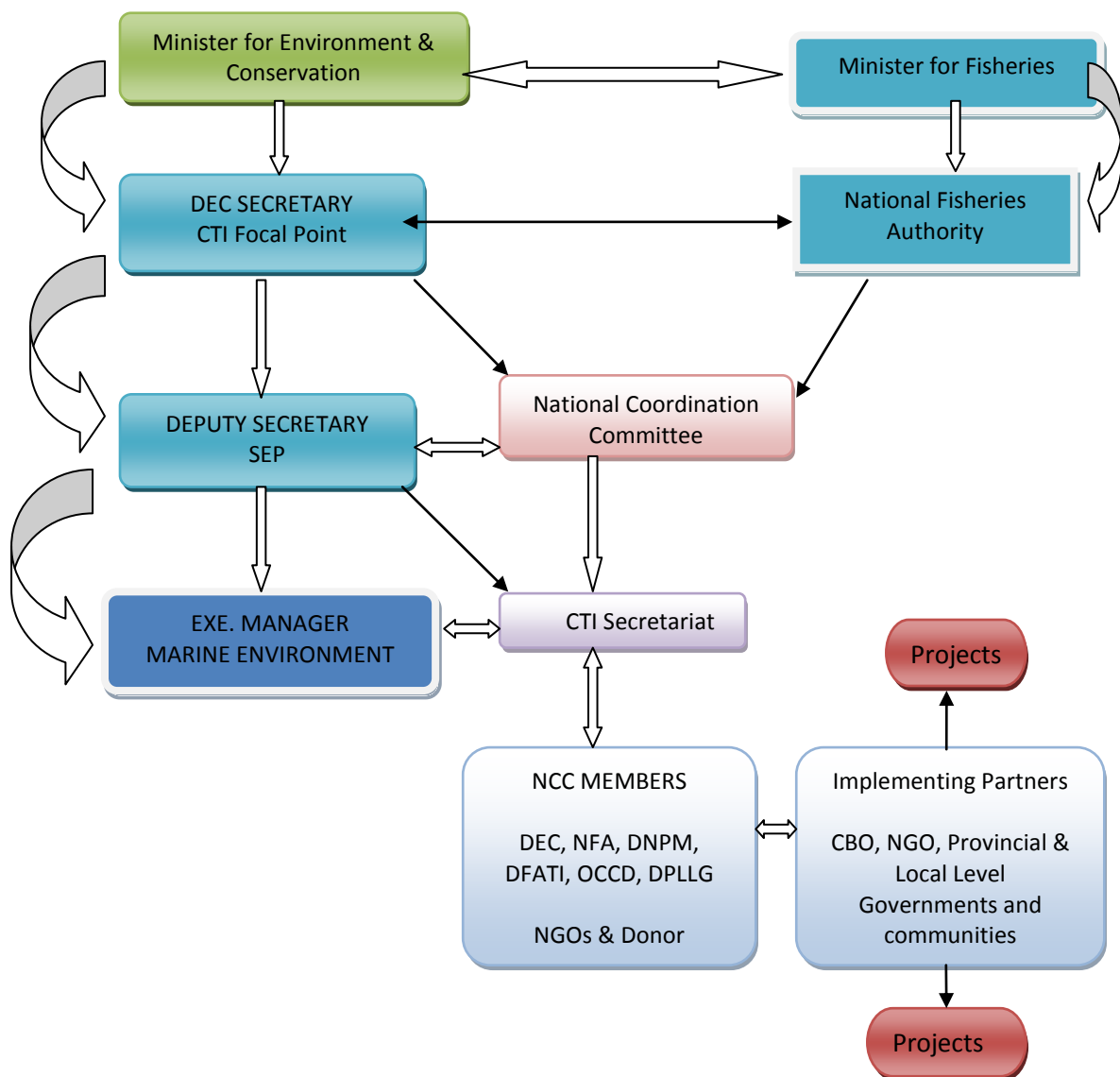
OCCD has been set up by the government to oversee climate change mitigation, vulnerability assessment and adaptation within PNG. It has therefore been assigned the lead role for Goal 4 relating to climate change adaptation in coastal areas and the marine environment. OCCD will work with stakeholders and donors to design projects to achieve the targets specified for this goal. It will also participate in other projects which are likely to incorporate aspects of climate change adaptation.

5.4 Other Stakeholders

All stakeholders in the marine sector are invited to contribute wherever possible towards the timely, effective and successful implementation of the Marine Program. This applies to government agencies, multi-lateral and bilateral donor agencies, research and academic institutions, NGOs, CBOs, provincial and local level governments, local communities and the private sector. The projects that will be designed to carry out activities in the Marine Program will, as much as possible, include stakeholders from all sectors and at all levels. It is essential that these entities are organized and register their intentions with the NCC secretariat.

The participation and support of local communities will be vital for the successful implementation of the NPoA. To a large extent, the onus for ensuring the sustainability of the nation's marine resources rests with the resource owners and users. They therefore need to be educated and empowered to satisfactorily handle this responsibility.

PNG Marine Program Implementation Process



6. Program Support and Financing

The Marine Program will be drawing support from all its international and national donors and development partners including through bilateral arrangements.

The CT6 countries have agreed to involve United State of America and Australia as its political partners through the implementation of its respective programs and be referred to as the CT6 + 2. Out of this understanding, the government of United State is providing funding support through an NGO consortium known as the Coral Triangle Support Program while Australia will be providing its support through the Department of Environment, Water, Heritage and the Arts (DEWHA).

International donors and technical support such as the Global Environment Facility (GEF), United Nations Development Programme (UNDP), UNEP and Asian Development Bank (ADB) have also been part of the CTI since its inauguration in Bali in 2007. The GEF has allocated funds under RAF 4 to the biodiversity focal area for Papua New Guinea to implement projects. Some of these funds were further allocated to implement marine biodiversity management programs. The ADB was selected as the Implementing Agency to assist in developing the marine project proposal for the GEF Secretariat to consider in 2009.

The PNG Marine Program has direct links with the CTSP and the ADB Regional Environmental Technical Assistance Program (ADB-RETA) on CTI.

Other projects will be developed with GoPNG funding through DEC, NFA and OCCD. The PNG Marine Program will be implementing the existing programs therefore will be aligned with approved activities by identified implementing partners and would require endorsement by the National Coordinating Committee (NCC) on PNG CTI. The NCC will monitor progress of projects and the work of sub-committees and furnish reports periodically to the CTI secretariat and the Focal Point. The main aim during the implementation of the Marine Program is to maximize positive impacts with the available resources so that these effects can be replicated and sustained over the long term and to promote an integrated approach to marine resource management.

6.1 Coral Triangle Support Program

CTSP is a consortium made up of NGO's comprising World Wildlife Fund (WWF), The Nature Conservancy (TNC) and Conservation International (CI) with funding support from USAID. The CTSP has developed its work plan in close consultation with PNG's CTI implementing partners to be consistent with the RPoA and the PNG Marine Program. The CTSP will follow CTI guiding principles to develop actions on all goals but will focus work in PNG on Goal 4 in close collaboration with the NFA in implementing the Ecosystem Approach to Fisheries Management (EAFM) activities. The project will also incorporate aspects relating to marine protected area management and climate change adaptation and resilience within the framework of EAFM.

6.2 ADB RETA on CT Pacific PNG

The Regional Technical Assistance on CT Pacific phase is funded by the GEF under the GEF-RAF4 allocation. The ADB is the implementing agency to assist Solomon Islands, Timor Leste, PNG plus Fiji and Vanuatu.

The project is titled: Coastal & Marine Resources Management in the Coral Triangle of the Pacific. It is expected that this RETA will provide a response to key issues on coastal and marine resources

management in the Pacific countries in or bordering the Coral Triangle within the framework of ADB’s Pacific Region Environmental Strategy and Pacific Operational Business Plan. This RETA is also consistent with the CTI to stimulate action to address threats to the Coral Triangle’s valuable biological and economical resources (AIDE MEMOIRE was signed by all countries).

The project is expected to begin in late 2010 or early 2011. The RETA will also address legislation and policy, governance and management as well as institutional and capacity development (both national and local) issues through demonstrations sites and climate change adaptation activities.

6.3 UNEP Ecosystem Based Management (EBM)

The United Nation Environment Programme (UNEP) commenced into a short demonstration project in Ecosystem Based Management (EBM) in early 2010. The project will focus on the management of land-based activities that are impacting on coastal waters. The EBM project will focus on Kimbe Bay in order to provide a platform of data availability that could be used in the CTI demonstration project while at the same time provide awareness to communities who will be participating in the demonstration project.

The long term objectives of the project will be to demonstrate how to cope with multiple competing human uses of ecosystem services and the impact of those uses on ecosystem service delivery.

6.4 Program Funds

ADB RETA CT Pacific – PNG and CTSP are funded by GEF and USAID through ADB and the NGO Consortium respectively. The EBM project is directly funded by UNEP. It should be appreciated that all projects funded by GEF requires country co-funding component where the government puts up the money at 3:1 ratio. The co-funding from the government of PNG will kick start the CTI project process while waiting for the GEF to endorse the ADB proposal. Support in-kind will come from DEC, NFA, OCCD, Kimbe Administration, communities and relevant stakeholders to ensure the program fulfills the PNG marine Program objectives through our own funding sources.

Table 2. Financing Plan.

Program	Donor	Amount (USD)	Duration	Fund Managers
ADB-RETA	GEF	6, 622,425	4 years	Contracted to a firm
CTSP	USAID	1, 400,000	4 years	NGO Consortium
DEWHA	Australia	xxx	3 years	DEWHA
Marine Program	GoPNG	3,000,000	4 years	DEC

The PNG Government through DEC, NFA, and OCCD have indicated financial support in the 2010 national budget and also for the following 2 years.

7. PNG Marine Program 2010 – 2015

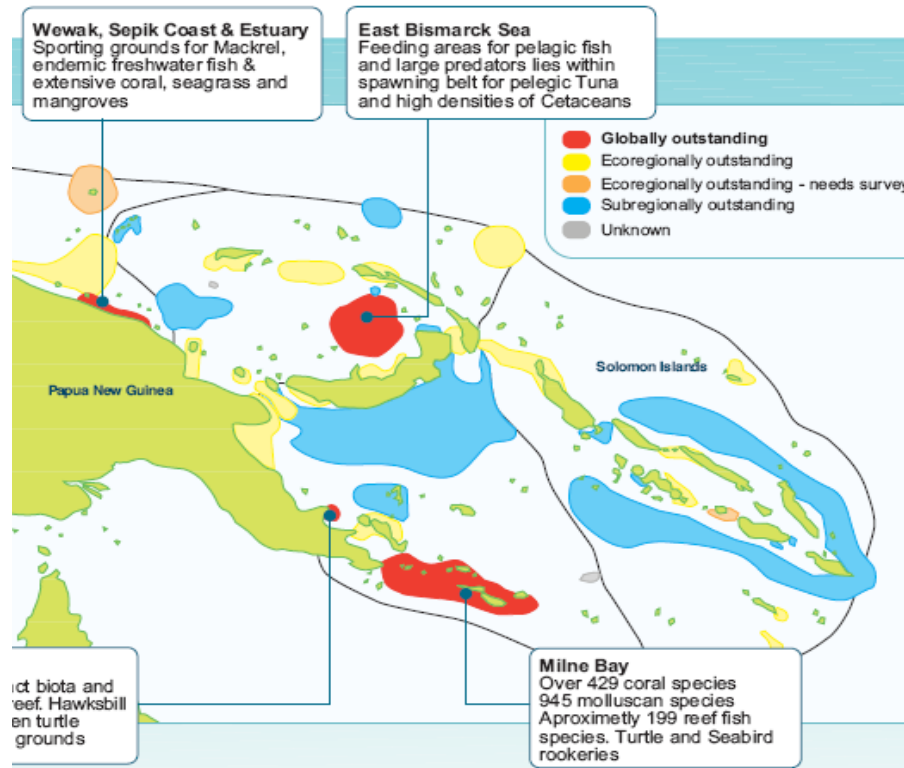
Goals, Targets, Activities and Timeframes

The following PNG Marine Program 2010-2015 has been developed based on commitments given in the RPoA, inputs from stakeholder consultation and program obligations for Government Departments involved in implementation of the Marine Program. Key performance indicators (KPI) have been developed to allow for review and evaluation of program performance.

The mission of the Marine Program is *“to effectively and efficiently manage, monitor and utilize the nation’s marine ecosystems and resources in an environmentally sustainable manner for current and future generations”*.



Goal # 1: “Priority Seascapes” Designated and Effectively Managed.



Seascapes in PNG context are defined in planning and land/marine use contexts as a combination of adjacent coastal, nearshore and offshore within an area, defined by a mix of coastal-sea indivisibility character assessment with major marine areas forming divisional points between one seascape area and the next.

The Admiralty and Bismarck Archipelagos and the northern coasts of PNG mainland are part of the Bismarck Solomon Seas Ecoregion initiative and perhaps one of the last tropical marine ecosystems that remains relatively unaffected by human activities.

The BSSE is defined by biogeography oceanographic geophysical and climatic boundaries and is geologically active and physical diverse marine environments.

NGOs such as WWF, TNC, CI and WCS have programs currently going on these areas that include, research, conservation (MPAs, LMMAs) which are contributing to priority seascape conservation initiatives in PNG.

Target # 1: “Priority Seascapes” designated, with investment plans completed and sequenced.

Large scale marine areas as priority seascapes across Papua New Guinea territorial and archipelagic waters are designated to serve as geographical focus for major investment and development for PNG. Seascape Investment Plans for priority seascapes are completed, along with arrangements for sequencing investments in line with the PNG Vision 2050

Activities	Lead agency	Main implementing partners	Time Frame	Key Performance Indicator (KPI)
1.1.1 Develop a legal reform roadmap for coastal and marine policy development and implementation and commence review of legislation and development of appropriate legislation to support Marine Program outcomes (also see 3.1.1)	DEC	NFA, CI, WWF, TNC	Begin 2010 Completed 2012	<ul style="list-style-type: none"> Roadmap developed Legislative review completed Legislative development program commenced Legislative development program completed
1.1.2 Develop a marine policy to support integrated marine environmental management for environmental sustainability and economic growth through a coordinated ‘whole of government’ approach for integrated planning and development based on quality information, participation by key stakeholders and partnerships between industry, government and community, in accordance with the ESEG	DEC	NFA, CI, WWF, TNC	Begin 2010 Completed 2012	<ul style="list-style-type: none"> Project proposal prepared and funded Project commenced Draft policy prepared and circulated for comment Final policy submitted for approval
1.1.3 Undertake capacity building enhancement project for national, provincial and local level organizations	DEC	NFA, CI, WWF, TNC	Begin 2010 Completed 2015	<ul style="list-style-type: none"> Capacity assessment of organizations undertaken and program developed Annual review against program
1.14 Coordinate the collation and review of available scientific and socio-economic information on marine areas and develop a data and management information system (MIS) to support decision-making in the marine environment.	DEC	NFA, CI, WWF, TNC	Begin 2010 Ongoing	<ul style="list-style-type: none"> Literature review completed GIS in place MIS in place

1.1.5 Oversee the identification, delineation and prioritization of large scale marine areas for systematic management in conjunction with activity 3.1.2.	DEC	NFA, CI, WWF, TNC	Begin 2011 Completed 2015	<ul style="list-style-type: none"> Process and program developed Implementation commenced on completion of relevant policies
1.1.6 Facilitate the determination of customary ownership rights, customary user rights and other non-customary stakeholders.	DEC	NFA, CI, WWF, TNC	Begin 2010 Completed 2012	<ul style="list-style-type: none"> Project design for facilitation completed Project commenced
1.1.7 Develop investment plans for all identified priority seascapes, including any joint investment plans for those seascapes involving two or more countries.	DEC	NFA, CI, WWF, TNC	Begin 2010 Completed 2015	<ul style="list-style-type: none"> Investment plans for identified Priority Seascapes commenced Annual review of progress Investment plans for identified Priority Seascapes completed
1.1.8 Coordinate stakeholder awareness, consultation and engagement.	DEC	NFA, CI, WWF, TNC	Begin 2010 Completed 2015	<ul style="list-style-type: none"> Stakeholder consultation and awareness program designed and approved Annual progress review

Target # 2: Marine and coastal resources within all “Priority Seascapes” are being sustainably managed.

Marine and coastal resources within all identified priority seascapes are sustainably managed (as measured by agreed criteria and progress made toward establishing quantitative targets), with significant contribution to environmentally sustainable development benefitting coastal communities and other broader economies dependent on these resources.

Activities	Lead agency	Main implementing partners	Time Frame	Key Performance Indicator (KPI)
1.2.1 Oversee SWOT and feasibility analysis on establishment of a managed seascape at an identified and selected location.	DEC	NFA, CI, WWF, TNC	Begin 2012 Completed 2013	<ul style="list-style-type: none"> SWOT analysis designed SWOT analysis completed
1.2.2 Coordinate development of management plans, including implementation schedules and budgets, for priority seascapes.	DEC	NFA, CI, WWF, TNC	Begin 2012 Completed 2015	<ul style="list-style-type: none"> Planning processes are developed for each priority seascape as they are identified and approved Planning processes evaluated on completion

1.2.3 Mobilise financial resources necessary to support “priority seascape” programs (based on Seascape Investment Plans).	DEC	NFA, CI, WWF, TNC	Begin 2011 Completed 2015	<ul style="list-style-type: none"> • Funding strategies developed for each priority seascape as they are identified and approved • Seascape Investment Plans implemented successfully and ongoing
1.2.4 Strengthen governance mechanisms and financial sustainability of BSSE and other priority seascapes.	DEC	NFA, CI, WWF, TNC	Begin 2011 Completed 2015	<ul style="list-style-type: none"> • Strategy or plan developed • Implementation commenced • Implementation successfully completed
1.2.5 Undertake a review of the Torres Strait Treaty	DEC	NFA, CI, WWF, TNC	Begin 2010 Completed 2012	<ul style="list-style-type: none"> • Agree Terms of Reference • Ongoing participation in accordance with Terms of Reference • Treaty review completed successfully

Goal # 2: Ecosystem Approach to Fisheries Management (EAFM) and other Marine Resources fully applied



Local Fisherman. Photo Courtesy of Selan Kaluwin, WWF



The Ecosystems Approach to Fisheries (EAFM) is an improved approach to developing and managing coastal fisheries and aquaculture. It takes into account the broader effects of fishing on the environment, as well as the effects of other sectors on fisheries and the ecosystems within which they occur.

Conventional fisheries management aims to manage human activity in a way that maximizes fisheries production, economic benefits, employment or national revenues. The EAF focuses not only on these aspects, but also on ensuring a broader range of ecosystem services and functions. This in turn provides a greater array of human benefits, maintains alternative development options, guarantees long-term resource sustainability, and ensures that coastal ecosystems are resilient enough to withstand other stresses.

Many aspects of the EAFM are highly appropriate to PNG, and fit better than “conventional” fisheries management, which emphasizes the role of communities, custom, area based management and user-rights.

The National Fisheries Authority with support from the CTSP Coalition (WWF, CI TNC) is taking the lead in the application of the EAFM approach on selected demonstration sites after having put a nation-wide closure on the harvest and production of beech-de -mere for 3 years. NFA has begun work with the Manus Province and will move to the New Ireland Province and later to Madang and Milne Bay Provinces.

Target # 1: Strong legislative, policy and regulatory frameworks in place for achieving an Ecosystem Approach to Fisheries Management (EAFM)

A strong national legislative, policy and regulatory framework is in place for achieving an Ecosystem Approach to Fisheries Management (EAFM), designated to plan, develop and manage fisheries in manner that addresses the multiple needs and desires of societies, without jeopardizing the options for future generations to benefit from the full range of goods and services provided by the marine ecosystems (in accordance with the UN FAO 2003 definition of EAFM).

Activities	Lead agency	Main implementing partners	Time Frame	Key Performance Indicator (KPI)
2.1.1 Conduct a stakeholder and SWOT analysis in relation to EAFM.	NFA	DEC, OCCD, DAL, PNGFA, CI, WWF, TNC		<ul style="list-style-type: none"> • Project proposal approved • Analysis commenced • Final results received
2.1.2 Review and strengthen decentralization arrangements in relation to coastal fisheries management.	NFA	DEC, OCCD, DAL, PNGFA, CI, WWF, TNC		<ul style="list-style-type: none"> • Project proposal approved • Review commenced • Final report • Commence strengthening initiatives
2.1.3 Evaluate and strengthen linkages between national, provincial and local level government laws, in line with MTDS, LTDS & MDGs.	NFA	DEC, OCCD, DAL, PNGFA, CI, WWF, TNC	Begin 2010 Completed 2011	<ul style="list-style-type: none"> • Commence evaluation • Evaluation completed • Commence linkage strengthening initiatives

2.1. 4 Critically assess the improvement of enforcement capacity at the provincial and local levels.	NFA	DEC, OCCD, DAL, PNGFA, CI, WWF, TNC	Begin 2010 Completed 2011	<ul style="list-style-type: none"> Methodology and approach approved Review commenced Review completed
2.1.5 In view of the above, revise and incorporate EAFM amendments to the Fisheries Management Act 2000.	NFA	DEC, OCCD, DAL, PNGFA, CI, WWF, TNC	Begin 2010 Completed 2012	<ul style="list-style-type: none"> Proposed amendments drafted Propose amendments implemented
2.1.6 Explore feasibility of re-investing a portion of tuna revenue to fund small grants and loans for local fishermen to fund activities in relation to EAFM.	NFA	DEC, OCCD, DAL, PNGFA, CI, WWF, TNC	2010	<ul style="list-style-type: none"> Discussion paper prepared Discussion paper circulated Analysis and presentation of comments and options

Target # 2: Improved income, livelihoods and food security of an increasingly significant number of coastal communities across the region through a new sustainable coastal fisheries and poverty reduction initiative (“COASTFISH”).

Through a new, collaborative *Sustainable Coastal Fisheries and Poverty Reduction Initiative* (COASTFISH), designed to apply to EAFM, there will be a significant improvement achieved in the incomes, livelihoods and food security of millions of people living in targeted coastal communities.

Activities	Lead agency	Main implementing partners	Time Frame	Key Performance Indicator (KPI)
2.2.1 Implement Coastal Fisheries Management and Development Project (CFMDP) in Milne Bay, Morobe and New Ireland.	NFA	DEC, OCCD, DAL, PNGFA, CI, WWF, TNC	Commenced 2009 Completed 2013	<ul style="list-style-type: none"> Implementation commenced Annual review of progress Project completed

2.2.2 Implement community-based fisheries management (CBFM) models.	NFA	DEC, OCCD, DAL, PNGFA, CI, WWF, TNC	Begin 2011 Completed 2013	<ul style="list-style-type: none"> • Project and program design completed • Implemented commenced • CBFM models adopted by communities
2.2.3 Mobilise significant new financial investments to support “Coastfish”	NFA	DEC, OCCD, DAL, PNGFA, CI, WWF, TNC	Begin 2011 Completed 2015	<ul style="list-style-type: none"> • Develop Coastfish Investment Plans • Commence implementation of Plans • Annual review of progress
2.2.4 Through National Fisheries Authority, channel funding to National Development Bank targeted towards promoting micro- and small-scale fisheries.	NFA	DEC, OCCD, DAL, PNGFA, CI, WWF, TNC	Begin 2011 Completed 2013	<ul style="list-style-type: none"> • Policy proposal developed • Proposal endorsed • Implementation commenced
2.2.5 Upgrade Kavieng Fisheries College.	NFA	DEC, OCCD, DAL, PNGFA, CI, WWF, TNC	2011	<ul style="list-style-type: none"> • Approval for upgrade • Upgrade commenced • Upgrade completed
2.2.6 Build Mariculture Research Station in Kavieng.	NFA	DEC, OCCD, DAL, PNGFA, CI, WWF, TNC	2011	<ul style="list-style-type: none"> • Proposal developed and approved • Construction completed
2.2.7 Improve marketing of marine products, including diversifying and expanding markets.	NFA	DEC, OCCD, DAL, PNGFA, CI, WWF, TNC	Begin 2010 Completed 2013	<ul style="list-style-type: none"> • Marketing strategy commenced • Marketing strategy completed • Strategy implementation commenced • Strategy in place
2.2.8 Conduct quantitative assessment of by-catch (prawn, tuna, others).	NFA	DEC, OCCD, DAL, PNGFA, CI, WWF, TNC	Begin 2010 Completed 2013	<ul style="list-style-type: none"> • Project design completed • Commence assessment • Annual assessment of progress • Assessment completed

Target # 3: Effective measures in place to help ensure exploitation of shared tuna stocks is sustainable, with tuna spawning areas and juvenile growth stages adequately protected.

Effective measures, developed using an ecosystem-based approach to fisheries management, will be in place to ensure (through appropriate mechanisms) that exploitation of shared tuna stocks is sustainable, with tuna spawning areas and juvenile growth stages adequately protected. Such measures will help ensure long-term contributions of tuna fisheries to economic growth, incomes, employment and food security.

Activities	Lead agency	Main implementing partners	Time Frame	Key Performance Indicator (KPI)
2.3.1 Build a sustainably managed tuna industry and maximize economic benefits.	NFA	DEC, OCCD, DAL, PNGFA, CI, WWF, TNC	Begin 2009 Completed 2013	<ul style="list-style-type: none"> Tuna Fisheries Management Plan in place Annual review of plan implementation Annual assessment of economic performance
2.3.2 Conduct tuna stock assessments and research on the socio-economics of the tuna fishery.	NFA	DEC, OCCD, DAL, PNGFA, CI, WWF, TNC	Begin 2009 Completed 2013	<ul style="list-style-type: none"> Project design completed Stock assessments conducted Annual reporting of assessment results
2.3.3 Implement Vessel Monitoring System (VMS) for tuna fisheries.	NFA	DEC, OCCD, DAL, PNGFA, CI, WWF, TNC	Begin 2009 Completed 2013	<ul style="list-style-type: none"> VMS designed VMS implementation commenced Annual review of implementation VMS system in force
2.3.4 Conduct diagnosis and analysis of current situation and opportunities.	NFA	DEC, OCCD, DAL, PNGFA, CI, WWF, TNC	Begin 2009 Completed 2013	<ul style="list-style-type: none"> Survey designed Diagnosis and analysis process commenced Draft report Final report

2.3.5 Create a learning network group to lead the analysis and clearly define partners' roles with greater civil society involvement (Church, development agencies etc.)	NFA	DEC, OCCD, DAL, PNGFA, CI, WWF, TNC	Begin 2009 Completed 2013	<ul style="list-style-type: none"> • Learning network designed • Learning network process commenced • Annual reporting on performance of network
2.3.6 Build capacity for all local fishermen to understand tuna fishery including protection of juveniles.	NFA	DEC, OCCD, DAL, PNGFA, CI, WWF, TNC	Begin 2009 Completed 2013	<ul style="list-style-type: none"> • Program designed • Program commenced • Annual reporting of performance • Final report
2.3.7 Promote and encourage protection of key spawning tuna fishery areas. (e.g.: Former Mogardo square,)	NFA	DEC, OCCD, DAL, PNGFA, CI, WWF, TNC	Begin 2009 Completed 2013	<ul style="list-style-type: none"> • Areas identified • Program for protecting sites developed • Program Implemented • Annual reporting of success • Final report

Target # 4: A more effective management and more sustainable trade in live reef fish and reef-based ornamentals achieved.

A more effective management and more sustainable trade in live reef fish and reef-based ornamentals is achieved, with the following objectives:

- A substantial reduction, across the CTI implementation area, of destructive fishing practices linked to the live reef fish (LRF) and ornamental trade compared to an agreed baseline year, and
- For identified LRF and ornamentals priority areas that provide significant supply for international trade, an increasing of these priority areas will achieve viable population levels for selected target species (species to be determined).

Activities	Lead agency	Main implementing partners	Time Frame	Key Performance Indicator (KPI)
2.4.1 Develop a national management plan for the ornamental fishery.	NFA	DEC, OCCD, DAL, PNGFA, CI, WWF, TNC	Begin 2009 Completed 2013	<ul style="list-style-type: none"> • Management plan prepared • Plan implementation commenced • Annual review of plan performance • Final evaluation
2.4.2 Update the national Live Reef Food Fish (LRFF) management plan.	NFA	DEC, OCCD, DAL, PNGFA, CI, WWF, TNC	Begin 2009 Completed 2013	<ul style="list-style-type: none"> • Review process commenced • Review completed • Management Plan updated
2.4.3 Conduct analysis of current situation and opportunities.	NFA	DEC, OCCD, DAL, PNGFA, CI, WWF, TNC	Begin 2009 Completed 2013	<ul style="list-style-type: none"> • Survey designed • Diagnosis and analysis process commenced • Draft report Final report
2.4.4 Create a learning network group to lead the analysis and define partners' roles with greater civil society involvement. (Church, development agencies etc.)	NFA	DEC, OCCD, DAL, PNGFA, CI, WWF, TNC	Begin 2009 Completed 2013	<ul style="list-style-type: none"> • Learning network designed • Learning network process commenced Annual reporting on performance of network
2.4.5 Educate and train fishermen to understand LRFF trade and ornamental fish.	NFA	DEC, OCCD, DAL, PNGFA, CI, WWF, TNC	Begin 2009 Completed 2013	<ul style="list-style-type: none"> • Education program designed • Education Program implemented • Annual review of performance • Final report on evaluation of program
2.4.6 Promote and encourage protection of spawning areas for species target by ornamental and LRFF.	NFA	DEC, OCCD, DAL, PNGFA, CI, WWF, TNC	Begin 2009 Completed 2013	<ul style="list-style-type: none"> • Strategy developed • Strategy implemented • Annual review of strategy performance • Final evaluation of strategy performance

Goal # 3: Marine Protected Areas (MPAs) Established and Effectively Managed.



Network of Marine Protected Areas, Kimbe Bay. TNC©



The term Marine Protected Area (MPA) has been applied in PNG to protected areas whose boundaries include some area of ocean/sea. It has been used as an “umbrella term” that describes a wide range of marine areas that restrict human activity to protect living and cultural resources. Protections in various areas range from limits on development, fishing gear types, fishing seasons...etc.

Marine Protected Area is not clearly defined in various conservation legislation in PNG. While protected areas systems have been applied especially to terrestrial protected areas, application to marine protected areas is not so clear under conservation legislation. Reviewing of the legislation and developing a marine policy will be a major activity under this goal.

PNG is using the IUCN guidelines for applying protected area management categories in its various MPA programs/projects.

Current MPA projects/programs includes DEC’s work on reviewing all existing MPA’s established under the Fauna protection and Control Act (1978) as Wildlife Management Areas and reviewing of marine Policy. NGO’s are also currently running programs in Bismarck Sea area (WWF, TNC, WCS) Madang (WWF), and Milne Bay (CI) emphasizing on the following factors

- Adequacy – ensure success of selected species
- Represent ability – protection of biological processes.
- Resilience – resistance to natural disaster
- Connectivity – maintaining population links across nearby MPAs.

Target # 1: National MPA System in place and fully functional.

A comprehensive, ecologically representative and well-managed MPA system is in place, composed of prioritized individual MPAs and networks of MPAs that are connected, resilient and sustainably financed and designed to (i) general significant income, livelihoods and food security benefits for coastal communities; and (ii) conserve the nation’s rich marine biological diversity, in accordance with emerging scientific consensus.

Activities	Lead agency	Main implementing partners	Time Frame	Key Performance Indicator (KPI)
3.1.1 Engage a legal consultant to review and propose amendments to legislation for MPAs.	DEC	NFA, CI, WWF, TNC	2010	<ul style="list-style-type: none"> TOR for review prepared Review undertaken Report of review submitted
3.1.2 Seek parliamentary support and enactment of revised or new legislation on MPAs in accordance with 3.1.1.	DEC	NFA, CI, WWF, TNC	Begin 2010 Completed 2013	<ul style="list-style-type: none"> Legislation submitted to Parliament Parliamentary approval of legislation
3.1.3 Seek stakeholder and NEC endorsement and compile revised legislation in accordance with 3.1.1.	DEC	NFA, CI, WWF, TNC	2010	<ul style="list-style-type: none"> Submit legislation review report to NEC and stakeholders Subject to review responses, commenced legislative revision
3.1.4 Develop a MPA policy as an outcome of the marine policy process and as a component of a broader Protected Area Policy to guide development of a system of MPAs	DEC	NFA, CI, WWF, TNC	Begin 2010 Completed 2011	<ul style="list-style-type: none"> Policy scoping paper prepared Policy review commenced Draft policy circulated for comment Draft final policy Submit to NEC for endorsement
	DEC	NFA, CI, WWF, TNC		

3.1.5 Based on development of a MPA policy (see 3.1.2), establish a MPA program, which should include support for the Locally Managed Marine Ares (LMMAs) Network	DEC	NFA, CI, WWF, TNC	Begin 2011 Ongoing	<ul style="list-style-type: none"> Review MPA program models Draft proposed MPA program approach MPA program approach approved and endorsed Commence MPA program
3.1.6 Identify and mobilize sustainable financing for MPAs	DEC	NFA, CI, WWF, TNC	Begin 2010 Ongoing	<ul style="list-style-type: none"> Develop Financial Plan Commence implementation of Plan Annual review of progress
3.1.7 Establish Working Group for engaging private sector e.g tourism industry in supporting the MPA program, including investigation of private sector financial and in-kind support for MPAs	DEC	NFA, CI, WWF, TNC	Begin 2010 Ongoing	<ul style="list-style-type: none"> Develop terms of reference for Working Group Working group established Annual review of progress
3.1.8 Coordinate awareness and engagement of stakeholders on the MPA system.	DEC	NFA, CI, WWF, TNC	Begin 2011 Completed 2015	<ul style="list-style-type: none"> Stakeholder consultation plan developed Consultation commenced
3.1.9 Coordinate implementation of the MPA system with stakeholders addressing critical aspects such as capacity building, community engagement, funding and collaborative partnerships.	DEC	NFA, CI, WWF, TNC	Begin 2011 Completed 2015	<ul style="list-style-type: none"> MPA implementation strategy developed Implementation strategy commenced and annually evaluated
3.1.10 Develop appropriate management plans in accordance with the adopted MPA policy and program, incorporating governance, institutional and financial components in collaboration with stakeholders.	DEC	NFA, CI, WWF, TNC	Begin 2012 Completed 2015	<ul style="list-style-type: none"> Format and style for management plans developed Plans prepared as required Consultation processes undertaken Plans approved and implemented
3.1.11 Establish partnerships with provincial governments, local level governments, research institutions, management agencies, local communities and NGOs to effectively manage MPAs.	DEC	NFA, CI, WWF, TNC	Begin 2011 Completed 2015	<ul style="list-style-type: none"> Partnership arrangements for each MPA identified MoA developed and agreed
3.1.12 Develop and implement an effective networking and coordination mechanism for MPAs.	DEC	NFA, CI, WWF, TNC	Begin 2011 Completed 2015	<ul style="list-style-type: none"> MPAs established in accordance with the MPA Policy and Strategy MPA managers network established MPA managers meet annually

Goal # 4: Climate Change Adaptation Measures Achieved.



Salt water Intrusion on Ahus Islands, Manus. Photo Courtesy of Selan Kaluwin, WWF.

Many People in Papua New Guinea are today vulnerable to the vicissitudes of the natural environment. Coastal flooding, inland flooding, landslides and droughts are taking a severe toll on the people and the economy.

Coastal flooding and sea level rise is already a serious and regular phenomenon experienced along the coastal areas of PNG and especially on low lying islands of PNG. Coral reefs are also being affected through bleaching, drowning and acidification that are linked to climate change.

The PNG government through the National Executive Council (NEC) recently endorsed the main elements of "Interim Action Plan for Climate Compatibility Development". This document forms the basis of principles, themes, and intended actions. The PNG marine program will be linked to this action plan.

PNG's Climate Change Action Plan for the next 3 years will look at Institution and Capacity Building, Strategy and Policy development, MRV, benefit Sharing Mechanism, Consultation and Communication, Funding.

Apart from the PNG Government's response to Climate Change, NGOs such as WWF, TNC, and CI are also developing marine related programs that also address the Climate Change and Sea Level Rise.

Target # 1: Region-wide Early Action Plan for Climate Change Adaptation Programs and Activities for the near-shore marine and coastal environment and small island ecosystems developed and implemented.

A national Early Action Plan for Climate Change Coastal Adaptation for the near-shore marine and coastal ecosystems is developed and implemented to address economic and livelihood needs of coastal PNG communities heavily dependent on marine and coastal resources, and biodiversity conservation objectives.

Note. The following actions should be coordinated with climate change adaptation actions under the ADB RETA for CTI project and the PNG National Adaptation Plan of Action on Climate Change (NAPA).

Activities	Lead agency	Main supporting agencies/entities	Time Frame	Key Performance Indicator (KPI)
4.1.1 Based on the hazards based- approach, assess and map the vulnerability of PNG marine and coastal environment as a result of climate change impacts (storm surges, sea level rise and elevated seawater temperature).	OCCD	DEC, NFA, CI, WWF, TNC, ADB RETA, NWS, NDC, UPNG	Early Start 2010 Ongoing for the sake of updating data	<ul style="list-style-type: none"> To have an updated data base on coastal and marine areas heavily impacted by climate change
4.1.2 Build coastal defense and protection mechanisms.	OCCD	DEC, NFA, CI, WWF, TNC, ADB RETA, NWS, Provincial governments	Early Start 2011 Early Finish 2015	<ul style="list-style-type: none"> Implement three of the first pilot projects in the priority areas to be protected
4.1.3 Establish early warning systems for climate change impacts to facilitate planning and adaptation activity.	OCCD	DEC, NFA, CI, WWF, TNC, ADB RETA, NWS, NDC	Early Start 2012 Early Finish 2014	<ul style="list-style-type: none"> Bismarck sea to be covered by one major pilot early warning system At least one response centre is established
4.1.4 Protection of Coral Reefs	OCCD	DEC, NFA, WWF, TNC, WCS, CI, RETA, ADB	Early Start 2010 Early Finish 2015	<ul style="list-style-type: none"> Main and scale up on the two existing pilot projects (Manus and Kimbe)
4.1.5 Carry out associated education, awareness and capacity building at national, provincial and local levels.	OCCD	DEC, NFA, CI, WWF,	Early Start 2010 Ongoing	<ul style="list-style-type: none"> First Climate Change Communication Network to be developed

		TNC, ADB RETA, DOE		<ul style="list-style-type: none"> • The first National Adaptation Curriculum to be introduced in schools
4.1.6 Embed climate resilience into national and local government policy planning	OCDD	DEC, NFA, CI, WWF, TNC, ADB RETA	Early Start 2011 Early Finish 2012	<ul style="list-style-type: none"> • Policy scoping paper developed • Draft policy prepared • Final policy accepted and endorsed • Draft legislation prepared • Legislation approved by Cabinet



Traditional Fishing Canoe, Huon Coast. Photo Courtesy of DEC.

Goal # 5: Threatened Species Status Improving.



Leatherback Turtle Conservation Project, Madang. Photo Courtesy of Makata Inc.

Threatened Species in PNG waters include all marine turtle species, dugong and whales and dolphins. Marine habitats such as seagrass and mangroves are also being threatened.

Under this Goal, programs and activities are being developed to address the threatened status of these species.

DEC, the University of PNG, and partner NGOs such as WWF, TNC and CI have ongoing programs that are addressing the threatened species. Through activities listed below, the efforts of each institution will be coordinated to achieve overall Goal whereby status of this threatened species are improved and outputs measured.

Recently, Community Based Organisations have become involved in protection of nesting turtles such as the Kamiali Leatherback turtle project and the Karkum Leatherback turtle Project. DEC is supporting such projects.

Target # 1: Improved status of sharks, sea turtles, seabirds, marine mammals, corals, seagrass, mangroves and other identified threatened species

Populations of sharks, sea turtles, marine mammals, corals, seagrass, mangroves and other threatened marine species on the IUCN Red List of Threatened Species (or listed under CITES) will no longer be declining by 2015, followed by a clear trend towards an improved status by 2020, as key steps for preventing species extinction and supporting healthier overall marine ecosystems.

Activities	Lead agency	Main implementing partners	Time Frame	Key Performance Indicator (KPI)
5.1.1 Carry out a critical examination of the current status of threatened species in relation to International Fauna and Flora Trade Act, Fauna Protection and Control Act , CITES and other international obligations.	DEC	NFA, CI, WWF, TNC	Ongoing	<ul style="list-style-type: none"> Annual reporting of assessments
5.1.2 Assist in the development of provincial and local level capacity to enhance the management of threatened species.	DEC	NFA, CI, WWF, TNC	Ongoing	<ul style="list-style-type: none"> Annual reporting of progress
5.1.3 Facilitate formulation of management plans to support the recovery of threatened species and promote their sustainable utilization.	DEC	NFA, CI, WWF, TNC	Ongoing	<ul style="list-style-type: none"> Annual reporting of progress
5.1.4 Promote conservation of threatened species and where applicable, their migratory routes including international border crossings.	DEC	NFA, CI, WWF, TNC	Ongoing	<ul style="list-style-type: none"> Annual reporting of results
5.1.5 Participate in the review and implementation of the BSSE Tri-National Agreement on Leatherback turtles.	DEC	NFA, CI, WWF, TNC	Ongoing	<ul style="list-style-type: none"> Annual reporting of results

8. Monitoring, Evaluation and Adaptive Management

The CTI Secretariat has established a Monitoring and Evaluation Working Group to finalise the monitoring and evaluation plan for the overall CTI Program. The draft plan will be reviewed and approved by the six Coral Triangle countries.

To determine the success or otherwise of progress in implementing the NPoA activities in PNG it will be important to monitor and evaluate each of the commitments made in this plan. Key performance indicators (KPI's) have been developed as part of implementation arrangements for each Target. Regular performance evaluation of these indicators will allow for measurement of progress of the targets and consequently, the goals of the NPoA. This in turn will provide a sound programmatic basis for adapting and modifying targets as necessary to allow for achievable outcomes.

A more detailed monitoring and evaluation plan, consistent with Section VI of the Regional Plan of Action for the CTI should be developed once the Marine Strategy has been approved.

The review and evaluation will also form the basis for preparation of the PNG Marine Program 2015 – 2020.



A pod of Dolphin in Kimbe Bay. Photo Courtesy of DEC.

Annex 1. CT6 CTI Leaders Declaration, Manado 2009

CORAL TRIANGLE INITIATIVE LEADERS' DECLARATION ON CORAL REEFS, FISHERIES AND FOOD SECURITY

Manado, Indonesia, 15 May 2009

We, the Leaders of Indonesia, the Philippines, Timor Leste, Papua New Guinea, Solomon Islands, and Malaysia:

ACKNOWLEDGING the vast marine, coastal and small island ecosystems and the unique biodiversity of the Coral Triangle region of the Indo Pacific, which provide invaluable livelihood and food security benefits for our people;

RECOGNIZING the urgent need to address the poverty afflicting our people, particularly our coastal communities, and to meet relevant internationally agreed development goals, including the achievement of the Millennium Development Goals;

EXPRESSING concern over the increasing level of degradation of marine, coastal, and small island ecosystems within the Coral Triangle region;

REAFFIRMING our common understanding to establish a cooperative arrangement to sustainably manage the marine, coastal, and small island ecosystems in the Coral Triangle region and to ensure that these efforts contribute effectively to strengthening food security, increasing resiliency, and adaptation to climate change;

REAFFIRMING ALSO our commitments to promote the sustainable management of our marine and coastal resources, and acknowledging the need for further action;

RESOLVING to take up the challenges of safeguarding the Coral Triangle's vast marine and coastal resources for present and future generations of our people;

DO HEREBY DECLARE:

1. **TO OFFICIALLY LAUNCH** the Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF) to address threats to the marine, coastal, and small island ecosystems within the Coral Triangle region, through accelerated and collaborative action, taking into consideration multi-stakeholder participation in all of our six countries;

2. **TO AGREE** that the Coral Triangle Initiative primarily focuses on areas of cooperation in relation to coral reefs, fisheries, food security, and adaptation to climate change;
3. **TO AFFIRM** the Joint Statement of the first Ministerial Meeting of CTI-CFF, held in Port Moresby, Papua New Guinea on 10 March 2009;
4. **TO ADOPT** the CTI Regional Plan of Action, a living and non-legally binding document to conserve and sustainably manage coastal and marine resources within the Coral Triangle region, that takes into consideration laws and policies of each country, as endorsed by the first CTI Ministers' Meeting in Port Moresby;
5. **TO RECOGNIZE** that the implementation of the CTI-CFF is a voluntary cooperation and without prejudice to the sovereignty, territorial integrity, sovereign rights of the six countries respectively over their marine resources, and the position of each state on the on-going and future negotiation on delimitation of maritime boundaries between the countries;
6. **TO EMPHASIZE** that cooperation of CTI-CFF shall be subject to the laws; regulations; national policies and priorities of the respective countries; and the application of relevant sustainable development principles to transboundary management, conservation and development within the Coral Triangle region; as well as taking into consideration the relevant multilateral, regional and bilateral environmental agreements;
7. **TO TASK** our relevant Ministers to formulate the implementation modalities of CTI-CFF with a view to enhancing the cooperation;
8. **TO ESTABLISH** a secretariat for CTI-CFF to service the ongoing CTI-CFF implementation process;
9. **TO CALL** for the mobilization and effective allocation of sustainable financial resources needed to implement the CTI Regional and National Plans of Action;
10. **TO EXPRESS** our appreciation to CTI-CFF Partners for their continuing support towards the successful implementation of CTI-CFF programs in the region, and welcome participation by new partners;

11. **TO CONVENE** the next CTI Summit when deemed necessary, on a date mutually agreed by the CTI countries, to help ensure that a high level of political commitment continues to be dedicated in furthering the attainment of the goals of CTI-CFF.

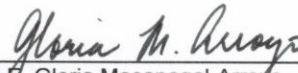
Signed on 15 May 2009 in Manado, Indonesia by:

Government of the
Republic of Indonesia



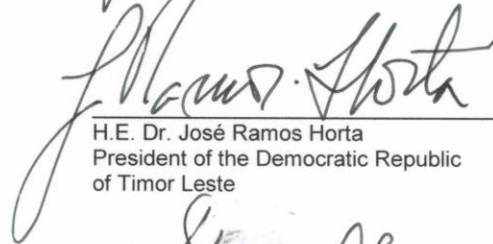
H.E. Dr. H. Susilo Bambang Yudhoyono
President of the Republic of Indonesia

Government of the
Republic of the Philippines



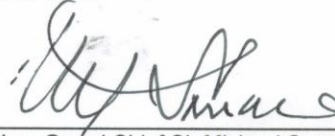
H.E. Gloria Macapagal-Arroyo
President of the Republic of the Philippines

Democratic Republic
of Timor Leste



H.E. Dr. José Ramos Horta
President of the Democratic Republic
of Timor Leste

Government of
Papua New Guinea




Rt. Hon. Grand Chief Sir Michael Somare
Prime Minister of Papua New Guinea

Government of
Solomon Islands



Hon. Dr. Derek Sikua
Prime Minister of Solomon Islands

Government of Malaysia



H.E. Dato' Sri Mohd Najib Tun Abdul Razak
Prime Minister of Malaysia



coral triangle initiative

JOINT MINISTERIAL STATEMENT

**CORAL TRIANGLE INITIATIVE
ON CORAL REEFS, FISHERIES AND FOOD SECURITY**

- (CTI-CFF)

**Endorsed at the first Ministerial Meeting
Port Moresby, Papua New Guinea**


(10 March 2009)

1. The first Ministerial Meeting of the Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security took place in Port Moresby, Papua New Guinea on 10 March 2009, represented by relevant ministers and representatives of the governments of Indonesia, Malaysia, Papua New Guinea, the Philippines, the Solomon Islands, and Timor-Leste.
2. The Ministers expressed their appreciation for the generosity of the government of Papua New Guinea in hosting this Ministerial Meeting, and the superb organizational efforts carried out to ensure a productive and successful event.
3. The Ministers recognized the uniqueness, diversity and richness of the coral reefs and related living resources in the waters within the national jurisdiction of each CT6 country of the Coral Triangle region, as defined in the CTI Regional Plan of Action (Section I, subsection I of RPoA).
4. The Ministers emphasized that the coastal and marine resources in the Coral Triangle region provide profound benefits to the people of the CT6 countries, including livelihoods, income and other benefits, and accelerate progress toward the achievement of the Millennium Development Goals (MDGs), particularly for coastal communities.
5. The Ministers further recognized the persistent threats to the uniqueness, fragility and vulnerability of marine, coastal, and small island ecosystems within the Coral Triangle region resulting from land-based and sea-based pollution, transportation, unsustainable fishing practices, unsustainable coastal development, and climate change, among others.
6. The Ministers reaffirmed the importance of coordinated management of coastal, marine, and small island ecosystems in ensuring long-term benefits and food security for the people of the Coral Triangle region, through implementation programs and projects of "The Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF)" and their respective National Plans of Action.
7. The Ministers emphasized that the implementation of the CTI-CFF is without prejudice to the sovereignty, territorial integrity, and sovereign rights of the CT6 states over their marine resources, or the position of each CT6 state on the on-going delimitation of maritime boundaries between CT6 countries with opposite and adjacent coasts.
8. The Ministers recognized that the CTI Regional Plan of Action is a living and non-legally binding document, to be reviewed and updated as necessary, and that its implementation takes into consideration the different settings and prevailing laws and policies of each CT6 country, and therefore is subject to the level of existing capacities and available resources.

9. The Ministers endorsed the Port Moresby Draft of the CTI Regional Plan of Action and recommended to their leaders to adopt this Regional Plan of Action at their Summit as a blueprint for CT6 governments to sustainably manage coastal and marine resources for the long-term benefit and welfare of the citizens of the region, taking into consideration contributions of stakeholders.
10. The ministers announced the adoption of their respective National Plans of Action and other pioneering programs that elaborate each country's commitments to mark the successful implementation of CTI-CFF and to contribute significantly to achieving its objectives.
11. The Ministers expressed their appreciation for the work of the interim secretariat in Indonesia and agreed that the interim secretariat should continue to serve the CTI-CFF process until a proper secretariat is formally established.
12. The Ministers welcomed and expressed their appreciation for the continued support for CTI-CFF rendered by partners and welcomed further announcements of contributions by partners.

Signed on 10 March 2009 in Port Moresby, Papua New Guinea by:

Government of Indonesia



H.E. Freddy Numberi
Minister
Ministry of Marine Affairs and Fisheries

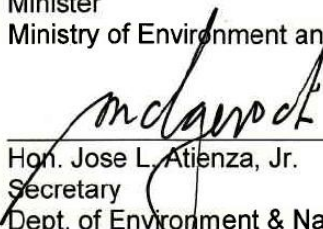
Government of Malaysia

Government of Papua New Guinea



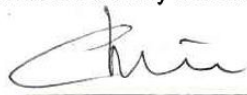
Hon. Benny Allen, MP
Minister
Ministry of Environment and Conservation

Government of Philippines



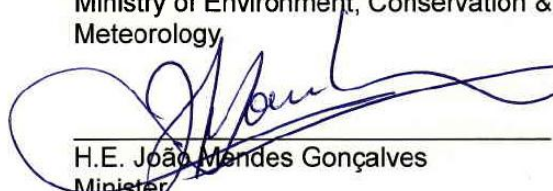
Hon. Jose L. Atienza, Jr.
Secretary
Dept. of Environment & Natural Resources
Represented by:
Undersecretary Manuel D. Gerochi

Government of Solomon Islands



Hon. Gordon Darcy Lilo
Minister
Ministry of Environment, Conservation &
Meteorology

Government of Timor Leste



H.E. João Mendes Gonçalves
Minister
Ministry of Economy and Development

Annex 3. Chronology of events leading to the PNG Marine Program

1. A CTI Coordination Committee (technical working group) composed of representatives from each country was set up and charged with developing a NPOA.
2. Between January and August 2008, intensive consultations were conducted in each country.
3. The first meeting of the CTI Coordination Committee (CCC1) was held in Jakarta, Indonesia from 22 to 24 May 2008
4. The second meeting of CTI Coordination Committee (CCC2) was held in Honiara, Solomon Islands from 8 to 10 September 2008.
5. The third meeting of the CTI Coordination Committee (CCC3) was held in the Philippines from 21 to 22 October 2008.
6. The fourth meeting of the CTI Coordination Committee (CCC4) was held from 28 to 30 January 2009 in Jakarta, Indonesia. The final draft of the Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF) Regional Plan of action (RPoA) was reviewed for adoption. The RPoA was recommended to Ministers in all six countries for approval.
7. The second meeting of SOM (SOM2) was hosted by the Philippines on 23 October 2008.
8. The third meeting of SOM (SOM3) was held from March 9 to 10 2009 in Port Moresby, PNG.
9. The first ministerial meeting (MM1) was held in Port Moresby, PNG on 11 March, back to back with SOM3.
10. During the World Ocean Conference held in Manado, Sulawesi, Indonesia in May 2009, the CTI Leaders Summit (15 May 2009) adopted the RPoA. Announcements were also made on specific programs in each country to translate the plan into tangible action through respective National Plans of Action.
11. Work is in progress to finalise a National Plan of Action (NPOA), establish administrative, management and networking arrangements as well as design projects for the implementation of the NPOA. In PNG's case it is pursued as the PNG Marine Program

Annex 4. CTI Guiding Principles

GUIDING PRINCIPLES

There are nine principles for the implementation of CTI

- Principle #1: CTI should support people-centered biodiversity conservation, sustainable development, poverty reduction and equitable benefit sharing.
- Principle #2: CTI should be based on solid science.
- Principle #3: Should be centered on quantitative goals and timetables adopted by governments at the highest political level.
- Principle #4: CTI should use existing and future forums to promote implementation.
- Principle #5: CTI should be aligned with international and regional commitments.
- Principle #6: CTI should recognize the trans-boundary nature of some important marine natural resources.
- Principle #7: CTI should emphasize priority geographies.
- Principle #8: CTI should be inclusive and engage multiple stakeholders.
- Principle #9: CTI should recognize the uniqueness, fragility and vulnerability of island ecosystems.

Annex 5 International Environmental Conventions relevant to PNG

The list below shows: (a) international Conventions that have been ratified by PNG and are being observed and implemented, and (b) new Conventions that have not been ratified but bilateral and multilateral funding has been provided to DEC for implementation.

1. Convention on Biological Diversity (CBD, 1993)

This Convention aimed at protecting the Earth's biological diversity was ratified in 1993.

2. Convention to Combat Desertification (CCD, 2000)

This Convention is aimed at addressing land degradation and supporting sustainable development at the community level.

3. Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES, 1973)

This Convention is aimed at regulating trade in endangered species within PNG and abroad. It was ratified in 1975.

4. Convention on Wetlands of International Importance, especially as Waterfowl Habitats (RAMSAR, 1971)

This Convention was ratified by PNG in 1993. It promotes the sustainable use of wetlands and associated flora and fauna.

5. Convention for the Protection of the World Cultural and Natural Heritage, (1972)

PNG ratified this Convention in 1997. In 1999, a National World Heritage Committee was formed to select sites as World Heritage Areas based on the criteria and guidelines of this Convention.

6. Basel Convention on the Trans-boundary Movement of Hazardous Wastes and their Disposal (1989)

This Convention is aimed at regulating international movement of hazardous wastes.

7. Protocol on Biosafety (Cartagena Protocol)

The Protocol seeks to protect biological diversity from the potential risks, posed by living modified organisms resulting from modern biotechnology

8. Stockholm Convention on Persistent Organic Pollutants (POPs Convention)

This Convention is aimed at controlling the importation and/or exportation of twelve (12) identified persistent organic substances.

9. Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (Rotterdam Convention)

The aim of the Convention is to promote shared responsibility and cooperative efforts among Parties in the international trade of certain hazardous chemicals in order to protect human health and environment degradation.

10. Vienna Convention for the Protection of the Ozone Layer (1985)

This Convention is an agreement for member countries to protect the protection of the ozone layer.

11. Montreal Protocol on Substances that deplete the Ozone Layer

The Montreal Protocol is a supporting agreement to the Vienna Convention focusing on the phasing out of potential Ozone Layer depleting substances

12. Convention to Ban the Importation into Forum Islands Countries of Hazardous Wastes and Radioactive Wastes and Control the Trans-boundary Movement and Management of Hazardous Wastes within the South Pacific Region (Waigani Convention)

Objective of this Convention is to prohibit the-importation of hazardous and radioactive wastes into the Pacific Islands Developing country parties

13. Convention on Conservation of Nature in the South Pacific Region (Apia, 1996)

This Convention was ratified in 1996 and promotes the conservation of nature in the South Pacific Region.

14. Convention for the Protection of the Natural Resources and Environment of the South Pacific Region and related Protocols (SPREP, 1986)

This Convention forms the basis for the establishment and operation of SPREP.



Hon. Minister, Ben Semri, Dr. Wari IamO – Secretary for DEC and Hon. Benny Allen, Minister for Environment and Conservation. CTI Ministers Meeting, Port Moresby. Photo Courtesy of DEC.

Annex 6 Development Partners Inventory

<i>Stakeholder</i>	<i>Stakeholder Representative</i>	<i>Stakeholder's main activity in relation to CTI PNG?</i>
Government		
Department of Environment and Conservation	Secretary or appointed officer	Government department charged with ensuring environmental protection and nature conservation.
National Fisheries Authority	Managing Director or appointed officer	Government entity charged with sustainable fisheries management.
Office of Climate Change and Environmental Sustainability	Executive Director or appointed officer	Government entity charged with facilitating the effective management of the impacts of climate change and promoting environmental sustainability.
Department of Health	Secretary or appointed officer	Government department charged with provision of health services and promoting healthy living.
Department of Agriculture and Livestock	Secretary or appointed officer	Government department charged with promoting and facilitating agriculture as well as livestock development.
Department of National Planning	Secretary or appointed officer	Government department charged with overall development planning and effective delivery of goods and services nationwide.
Mineral Resources Authority	Managing Director or appointed officer	Government entity charged with regulating mineral exploration and extraction.
DMPGM	Secretary or appointed officer	Government department charged with formulating and enforcing mineral policies as well as managing geo-hazards.
Department of Provincial Government and Local Level Government	Secretary or appointed officer	Government department charged with ensuring effective provincial and local level government.
Department of Petroleum and Energy	Secretary or appointed officer	Government department charged with regulating petroleum exploration and development as well as management of energy sources.
Department of Education	Secretary or appointed officer	Government department charged with provision of education and professional development services.
Department of Transport	Secretary or appointed officer	Government department charged with regulation of marine transportation.
PNG Ports	Chief Executive Officer	Government entity charged management of seaports and provision of seaport services.
Prime Ministers Department	Secretary of Appointed officer	Government entity charged with management of Prime Ministers affairs.
Academia and Research		
University of Papua New Guinea	Vice Chancellor or nominee	Government funded institution providing tertiary education and research in science, medicine, law, arts and humanities.
Papua New Guinea University of Technology	Vice Chancellor or nominee	Government funded institution providing tertiary education and research in applied sciences, agriculture, engineering, surveying, business management, communication, architecture and appropriate technology.
Vudal University	Vice Chancellor or nominee	Government funded institution providing tertiary education and research in agriculture, fisheries, environment and natural resources management.
University of	Vice Chancellor or	Government funded institution providing tertiary education and research

Goroka	nominee	in science, education and environment management.
National Research Institute	Director or appointed officer	Government funded social, economic and environment research and policy analysis institution.
Aid and Donor agencies		
United Nations Development Program	Resident Representative or appointed officer	Cross-sectoral aid provision entity including environment protection, biodiversity conservation and sustainable development.
Food and Agriculture Organisation/Department Agriculture Livestock	DAL Secretary or appointed officer	UN entity facilitating food security in agriculture and fisheries.
World Bank	Resident Representative or appointed officer	Cross-sectoral aid provision entity including environment protection, biodiversity conservation and sustainable development.
Asian Development Bank	Resident Representative or appointed officer	Cross-sectoral aid provision entity including environment protection, biodiversity conservation and sustainable development.
United Nation Education Science Cultural Organisation	Resident Representative or appointed officer	UN entity facilitating natural resources assessment and management.
USAid	OIC	Cross-sectoral aid provision entity including environment protection, biodiversity conservation and sustainable development.
NZAid	OIC	Cross-sectoral aid provision entity including environment protection, biodiversity conservation and sustainable development.
European Union	Head of Delegation	Cross-sectoral aid provision entity including environment protection, biodiversity conservation and sustainable development.
Private Sector		
Fishing Industry Authority	Executive Officer or nominee	Private entity promoting the fishing industry.
RD Tuna	Managing Director or nominee	Tuna fishing and canning company.
Frabelle Tuna	Managing Director or nominee	Tuna fishing and canning company.
PNG Sustainable Development Program	CEO	Private entity promoting sustainable development and currently undertaking a major <i>barramundi</i> restocking programme in the Western Province.
PNGCMP	Executive Director or nominee	Private industry entity promoting mining and petroleum development.
Lihir Gold Ltd	Managing Director or nominee	Island based gold mining company with marine tailings outfall.
Ramu Nickel	Managing Director or nominee	Coastal nickel extraction and processing company with marine tailings outfall.
Oil Search	Managing Director or nominee	Petroleum extraction and processing company.
ExxonMobil	Managing Director or nominee	Petroleum extraction and processing company.
Nautilus Ltd	Managing Director or nominee	Seabed mineral exploration and extraction company.
Environment and Conservation NGOs		
WWF	Country Manager	International NGO promoting biodiversity conservation and sustainable development.

Conservation International	Country Manager	International NGO promoting biodiversity conservation and sustainable development.
The Nature Conservancy	Country Manager	International NGO promoting biodiversity conservation and sustainable development.
Greenpeace	Country Manager	International NGO promoting biodiversity conservation and sustainable development.
Conservation Melanesia	Manager	National NGO promoting biodiversity conservation and sustainable development.
Village Development Trust	Manager	CBO promoting biodiversity conservation and sustainable livelihood.
Live and Learn	Manager	CBO promoting biodiversity conservation and sustainable livelihood.
Mahonia Na Dari	Manager	CBO promoting biodiversity conservation and sustainable livelihood.

