



# Papua New Guinea International Waters Ridge to Reef Project

By: Conservation and Environment Protection Authority (CEPA)



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# Preface

The IW R2R PNG Project is part of the Regional IW R2R (child) Project implemented in 14 PICs by the SPC with funding support from the GEF. The CEPA is the implementing Agency. The other fifteen (15) STAR R2R child projects which includes the PNG STAR R2R project is executed by the UNDP Country Office in Port Moresby.

PNG STAR R2R project supports the Yus Conservation Area, the Tenkile Conservation Project and the Variarata National Park (VNP) focussing on the terrestrial component. It is closely collaborating with the IW R2R supporting the marine (coastal) component at Tuna Bay along the Bootless Bay, complementarily achieving a Ridge to Reef approach.

PNG IW R2R Project focuses on addressing Biodiversity Protection and restoration and is overseen by the Project Steering Committee (PSC) instituted by CEPA as a governance arrangement comprising key agencies such as the National Fisheries Authority (NFA), University of PNG (UPNG), National Capital District Commission (NCDC) and relevant Government Agencies with support and collaboration from NGOs/CBOs, and the Private Sector involving Landowners and settlers as main beneficiaries in this Project.

PNG IW R2R Project selected Tuna Bay Area as its demonstration site working hand-in-hand with the CEPA-JICA Project across the Bootless Bay spanning the Central Province and the National Capital District (NCD).

The Tuna Bay Area covers approximately 220 ha of land and sea area and lies in one of the iconic waterfronts of Port Moresby's main CBD area. The area comprises iconic Biodiversity as well the historical Tuna spawning area and hosts the last remnants of the cultural heritage of the Motu-Koita people living in Pari and Tuna Bay/Taurama Villages.

Tuna Bay has been under immense threat from settlement increase, Land-Grabbing and other competing industrial activities whereby this iconic site is fast experiencing environmental degradation facilitated by weak governance and landowners' thirst for quick cash.

The objective of the PNG Project is to test out the Papua New Guinea Policy on Protected Areas in ensuring sustainable livelihood development for local communities from the Tuna Bay and the Bootless Bay Areas to deliver PNG's very first Marine Protected Area.

This report covers the final Project Closing Report stipulated in the Project MOA, covering Project results, summary of achievements, financial summaries and progress ratings until the 30<sup>th</sup> June 2021. The report also discusses the Project's contribution to Regional R2R outcomes in line with the GEF Focal Areas and the UNDP Sustainable Development Goals.

**Gunther JOKU** 

Managing Director & Country Focal Point Conservation and Environment Protection Authority Government of Papua New Guinea

## Acronyms

FAO Food and Agriculture Organization
GEF Global Environmental Facility

GEM Geoscience, Energy and Maritime Division

IW International Waters

IWRM Integrated Water Resource Management

M&E Monitoring and Evaluation
MYCWP Multi-Year Costed Work plan

R2R Ridge to Reef

RPCU Regional Programme Coordination Unit

SPC The Pacific Community

UNDP United Nations Development Programme

UNE United Nations Environment
WFP Work and Financial Plan
PSC Project Steering Committee

CEPA Conservation and Environment Protection Authority

NCDC National Capital District

NGOs Non-Government Organizations CBOs Community Based Organizations

JICA Japanese International Cooperation Agency

CBD Central Business District
MOA Memorandum of Agreement
RapCA Rapid Coastal Assessments

TOR Terms of Reference

JCU James Cook University

PGC Post Graduate Certificate

PGD Post Graduate Diploma

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# Basic Project Data

Ridge to Reef – "Testing the integration of Water, Land Coastal Management to Preserve Ecosystem Services, Sto Project Title Improve Climate Resilience and Sustain Livelihoods in Pa Countries"	
Project Site/ Location	Tuna Bay, Port Moresby, NCD
Project Objectives	Implementing a Ridge to Reef Approach to Protect Biodiversity and Ecosystem Functions in the Bootless Bay/Tuna Bay Area

	Contract number	5217
	Original Project Duration	2016 – 2020
	Contract Extension (if applicable)	January 1 <sup>st</sup> 2021 to June 30 <sup>th</sup> 2021
Control	Contracting Party	Conservation and Environment Protection Authority (CEPA)
Information	Contracting Party Signatory Mr. Gunther JOKU	
	Contract Amount (SPC-R2R)	USD 200 000
	Counterpart (Agency, Department)	USD 100 000
	Counterpart of other partners (e.g., development partners, NGOs, CSO, Academic, etc.)	N/A

# **Executive Summary**

This report covers summary of achievements and challenges of the PNG IW R2R Project at Tuna Bay since signing of the Project MOA in September 2016. The project was implemented by the CEPA with funding support from the GEF and coordinated through the SPC and UNDP. The project ended on the 30<sup>th</sup> of June 2021.

The objective of this project was to test the mainstreaming of 'ridge-to-reef' (R2R), climate resilient approaches to integrated land, water, forest and coastal management in the PICs through strategic planning, capacity building and piloted local actions to sustain livelihoods and preserve ecosystem services. The PNG Project ensured sustainable livelihood development for local communities from the Tuna Bay and the Bootless Bay Areas in the Central and NCD Provinces as a pilot to test the PNG Protected Area Policy and anticipated to deliver PNG's first Marine Protected Area by:

- (i) Establishment of Partnerships in sustainable coastal areas management (Governance and Partnerships);
- (ii) Mainstreaming R2R Conservation Principles into national development planning; and
- (iii) Sustainable water, land and coastal areas use adopted.

The Project (Tuna Bay) Area is located in one of the prime waterfronts of Port Moresby City, close to the Boroko CBD area. It has become a hot spot for land-grabbing for commercial expansion, settlement increase and random and uncontrolled waste dumping. These activities are disturbing and categorised as major threats to environmental degradation which the project, through support from the PSC have been diligently addressing.

The PNG Project ensures Biodiversity Conservation, focusing on habitat restoration through Environmental Stress Reductions and Catchment Management with Capacity Building as priority ensuring a Community to Cabinet approach contributing directly to the Regional R2R Programme goals.

Since inception in 2016, the project was successfully concluded on 30<sup>th</sup> of June 2021, noting few reporting requirements that continued past the closing date. The project expended over USD\$ 200, 000 of its allocation f and more than USD 100, 000 in-kind support contributed by CEPA. All risks have been carefully mitigated therefore rated a low in the overall risk factors.

Consequently, the project successfully delivered its stress reduction targets and overarching objectives with support from key partners through the PSC. The highlights on deliverables include the development of the Waste Management Strategy, the Local By-Law and the Mangrove Management Plan, including the Rapid Coastal Assessment and the Island Diagnostic Assessment (IDA) Reports, the Project Stakeholder Engagement Plan and the Communications Strategy ensuring the PNG Policy on Protected Areas is implemented.

# Introduction

#### Overview

Papua New Guinea is one of the megadiverse regions in the world containing about 7% of the world's biodiversity in less than 1% of the World's landmass. The conservation of PNG's valuable biodiversity resources was paramount to the sustenance of 87% rural based population who depended on them for their livelihood. However, these natural resources are under immense pressure from competing demands from agriculture, mining, settlements and rapid unsustainable harvesting of natural resources spurred by population growth. In PNG, only 4% of land and less than 1% of marine area are included in formal protected areas and of this, only a small fraction is under effective PA management.

The Government of Papua New Guinea (GoPNG) has made a renewed commitment to support a viable and sustainable protected area system, working in partnership with community landowners, non-government conservation organizations, private sector and local administrations through the PNG Protected Areas Policy 2014.

PNG IW R2R project was designed to help strengthen the government's operational capacity to effectively manage PNG's Protected Area systems, including efforts to strengthen the government's enforcement capabilities to address threats within its national Protected Area Systems, complimenting the GEF-supported integrated water resources management (IWRM) initiative and the current R2R demonstration work on integrated coastal management (ICM) while ensuring coordination, learning, and knowledge management among the national projects.

The PNG Project ensures Biodiversity Conservation, focusing on habitat restoration through Environmental Stress Reductions and Catchment Management as a priority ensuring a Community to Cabinet approach contributing directly to the Regional R2R Programme goals.

#### Situational Analysis, project issues, needs

Tuna Bay Area lies in one of the iconic waterfronts of Port Moresby close to the Boroko main Central Business District (CBD) area in the Moresby South Electorate. The area comprises iconic Biodiversity as well the historical Tuna spawning area and hosts the last remnants of the cultural heritage of the Motu-Koita people living in Pari, and Tuna Bay/Taurama Villages.

Landowners from the Idaro Idibana Clan were the only inhabitants of the bay, feeding off from the Marine resources provided by the bay. However, in the last seven (7) years, settlements have increased exerting pressure on the limited resources, which in turn largely impacting on livelihoods and the indigenous communities there.

Tuna Bay Area comprise approximately 220 Hectares of land and sea area, which generally covers savannah grassland on the hillsides and falls into the Bay Area forming Estuaries, created by seasonal and non-season streams, and succeeded by a healthy mangrove forest surrounding the bay.

Due to its imposing economic value, the area has been under immense threat from land-grabbing for commercial expansion, illegal settlement, and other competing industrial activities whereby this iconic site is fast experiencing environmental degradation facilitated by weak governance, and landowners' thirst for quick cash.

The Tuna bay area however host significant biodiversity which includes more than 16 Mangrove species, 3000 species of fish among marine mammals, and reptiles therefore is worth the effort (Rapid Coastal Assessments Report (IPNG)

The villagers (locals) of Tuna Bay Area are from the Idaro Idibana Clan of the Motu-Koita people living in the National Capital District, and predominantly lead a rural lifestyle living off the bay through catches of Fish, especially the seasonal Yellow-Fin Tuna which are caught in abundance from April to October every year.

# **TUNA BAY PROJECT MAP**



Figure 1: Map of Tuna Bay area reflecting current situation - Settlement and Environment Degradation

The CEPA through support from JICA has initiated a Marine Conservation Area spanning the whole of Bootless Bay and anticipates delivering PNG's first Marine Conservation Area along with the IW R2R Tuna Bay Project.

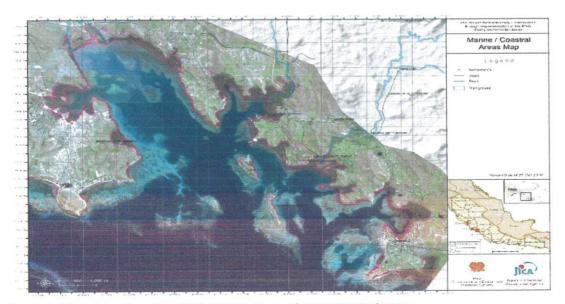


Figure 2: Map of Bootless Bay CEPA-JICA Project with Tuna Bay inclusive.

## Project Scope, components and anticipated results

The PNG IW R2R Project had a comprehensive Log Frame developed by the CEPA Project Technical Team focussing on multi-focal areas, however zoomed down to 3 Components focussing on Partnerships in integrated Environmental Management, Strengthening Community Livelihoods and resilience through sustainable R2R Coastal Areas and Ecosystem Services Preserved through Rehabilitation and Conservation Programmes (including promoting and preserving traditional conservation knowledge), specifically focused on Marine Ecosystem Management contributing to Biodiversity Conservation of the UN Focal areas.

Using the table below, enumerate the key components and anticipated outcomes.

Key Component	Component	Expected Outputs	Anticipated Outcomes
1. Improving	1. Provincial	1.3.1 Partnerships with	1.3.1.1 Stakeholder engagement
Community	partnerships in	Provincial and Local level	Plan Developed
Access to and	integrated	authorities in Central and	1.3.1.2 Communication Strategy
understanding	environmental	NCD enhanced	Developed
of technical	management		1.3.1.3 Institution of the Project
information on	(sustainable		Steering Committee with
climate and	coastal areas		TOR Developed and
hazard	management)		implemented
vulnerability	(Governance		1.3.1.4 MOA/MOUs
	and		Established with key
	Partnerships)		stakeholders eg,
			Easement Agreement
			Drafted and exhaustive
			discussions held with
			Idaro Idibana ILG Group.
3. Strengthening	2.	3.2.1 Conservation Area	3.2.1.1 Conducting Baseline
Community	Mainstreaming	Management Plan	Biodiversity and Water Quality
Livelihoods and	R2R	developed and endorsed by	Assessments through the Rapid
resilience	conservation	CA Management	Coastal Assessments (Baseline
through	principles into	Committee in Tuna bay and	Data Established)
sustainable R2R	National	Bootless Bay in Central	2.2.4.2. 2.4
Coastal Areas	Development	Province	3.2.1.2 Mangrove Management
	Planning		Plan Developed and Implemented with Mangrove nursery
			with Mangrove nursery established generating seedlings
			established generating seedings
,			3.2.1.2 Waste Management Plan
			Developed and Implemented with
			regular awareness and cleanup
			conducted with support of Project
			Stakeholders and Local
			Communities and residents.
-	3. Sustainable	3.3.1 Protected Areas Policy	3.3.1.1 Fish Catch Survey and
	Water, land and	Implementation Plan and	Livelihood Options Study
	coastal areas	Protected Areas Bill feature	Conducted
	use adopted	traditional conservation	
		knowledge.	3.3.1.2 Social Mapping Studies of
		3.3.1.1 Identify and	Landowning Communities of
		document traditional	•
		ecological knowledge and	tracing of their genealogy
		sustainable cultural	1
		practice to support Tuna	
1	1	Bay Management Plan	]

	3.3.1.3 Ongoing Biodiversity
3.3.1.2 Formulation of By-	Capacity Training and Awareness
Laws at LLG Level on	Conducted involving Project
sustainable practices	Landowners, business enclaves
	and settlers and Schools

<sup>\*</sup>Components as per the PNG Work Plan

## **Project Organization and Management**

The CEPA through the Environment Act 200, CEPA Act 2014, the International Trade (Fauna and Flora) (Amendment) Act 2014 and other related Acts and by virtue of the 4<sup>th</sup> National Goal and Directive Principles of the Constitution of PNG, has been charged with the mandate to ensure PNGs natural Environment with its 800+ different Cultures preserved to sustain its population into the future.

The Project is funded by the GEF through SPC as the regional programme coordinator, and the CEPA as the implementing partner through the Managing Directors Office. The CEPA had formally instituted a PSC whereby key stakeholders with similar interest in the Tuna Bay area have been invited to oversee the implementation of the IW R2R PNG Project, with specific roles and responsibilities outlined in the Terms of Reference of the Project Steering Committee (PSC). The Project is managed by the Project Manager attached with the Special Projects and Donor Coordination wing within CEPA, and is supported by CEPA Technical staff, and the Director of Special Projects as Chairman of the PSC representing the Managing Director.

The NCDC and UPNG are key stakeholders among other government agencies through the Motupore Island Research Centre (MIRC) owned by UPNG, and the Project Area (Tuna Bay) which falls under the jurisdiction of the NCDC, and of course, the Landowners who customarily own the Project Area by virtue of the Land Act (1996) and the ILG Act (2017).

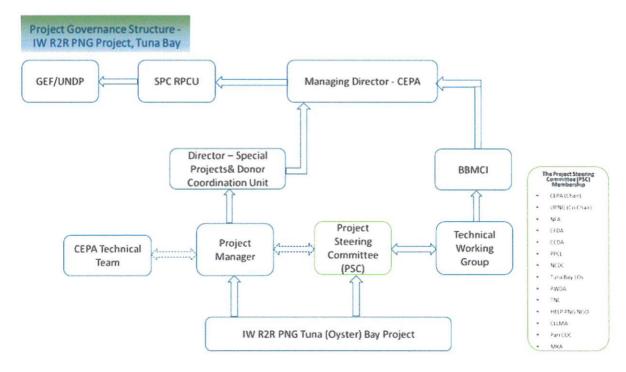


Figure 1: IW R2R PNG Project Governance Structure

## Project Stakeholders and Engagement

A Stakeholder Engagement Plan has been developed for the project, with key stakeholders identified and mapped out. Consultation ensued with the CEPA initiating discussions on the Tuna Bay Project. Different stakeholders had different interests, however, key stakeholders such as UPNG, NCDC and the CEPA-JICA Project and Landowners formed the core Project stakeholdership.

Regular Engagement of Stakeholders is paramount for the success of the project, supported by regular communication of Project activities carried out utilizing the Communication Strategy. Communications and regular consultations maintained among project landowners through the Pari Women's Development Association (PWDA) based in Pari Village, through one-on-one consultations with key landowners, and through workshops, seminars and clean-a-thon involving everyone living within the Project vicinity. All men, women and children attend Project sponsored activities are documented.

The Project target audiences are mainly Local Landowners and settlers to be beneficiaries of the Project, delivered by CEPA in collaboration with relevant government agencies, Industry and Civil Society (NGOs) as partners in the project connected by their individual interests, and driven by their organizational aspirations and desired outcomes through the Tuna Bay Project as categorized in the table below.

No	Government Agency	Private Sector	NGOs/CBOs	Partners
1	Conservation and Environment Protection Authority (CEPA)	Pacific Energy	Pari Women's Development Association (PWDA)	University of PNG (UPNG)
2	National Fisheries Authority (NFA)	PNG Dive Centre??	The Nature Conservancy (TNC)	CEPA-JICA Project
3	Coastal Fisheries Development Agency (CFDA)	PPCL??	HELP PNG NGO	GEF STAR R2R Project
4	Climate Change Development Authority (CCDA)	Lamana Development Corporation (LDC)	Centre for Locally Managed Marine Areas (CLMMA)	Tuna Bay Landowners (Beneficiaries)
5	National Capital District Commission (NCDC)			Settlers/General (Beneficiaries)

Table # 2. Project stakeholders as identified

### **Project Results and Achievements**

In 2016 the Tuna Bay Project location was selected because its location is within the Bootless Bay area and the new IW R2R project will compliment and add value to the results of an existing CEPA-JICA Project.

Most land area around the bay were already sold by landowners to settlers, which justifies the attention to better manage and protect ecosystem goods and services there.

After the successful inception workshop, CEPA invited key stakeholders to participate as members of the Project Steering Committee (PSC), with a ToR that provide regular response and support to the Project. The landowners supported the establishment of the PSC and follow through with regular consultations. The project encounters operational challenges impact on progress of implementation, the Project made huge strides in achieving its outcomes.

Several key outcomes achieved by the PNG IW R2R project are given below:

## i. Stakeholder Engagement Plan.

Stakeholder mapping and identification was crucial for such a Project. All stakeholders were carefully identified, their interests and influence mapped out and formulated into the PSC with specific roles and responsibilities highlighted through the Terms of Reference for the Project Steering Committee. The PSC is functional and provides regular feedback, responses and support to the Project.

#### ii. Communication Strategy

A communication strategy was developed for the Project. Regular communication and consultation were paramount for a challenging Project as such, comprising Stakeholders with varied interests. Utilizing different communication mediums, such as phones, numerous Stakeholder Consultation meetings, emails, one-on-one consultations etc., the project stakeholders were kept involved. As part of the Communication Strategy, several billboards were installed at the Project site projecting key messages on Mangrove Protection, Waste Management, and activities affecting the Water Quality of the Tuna Bay Area. Several Brochures with posters were designed for awareness, with school visits and clean-a-thon conducted as part of general awareness of the Project.

#### iii. Baseline Assessments

The School of Natural and Physical Sciences Biology Department at UPNG was contracted to conduct the Biodiversity and Water Quality Assessments with Creel Surveys for the Project. The surveys were conducted as part of the Regional Programmes Rapid Coastal Assessments (RapCA) deriving vital baseline data for the Project. The UPNG team conducted the Baseline Studies and presented the results to the Project Management Team. This important study ensured important baseline data and other related results required for the Project are readily available to inform policy decisions in ICM planning.

## lv. Waste Management Plan

Due to the close proximity of the project Site, waste management was one of the key factors causing environmental degradation at the project site. Other factors include land grabbing and settlement increase. A waste audit was conducted in 2018 whereby results were alarming and therefore a Waste Management Plan was developed, approved and partially implemented within the period of the project. There were regular beach and roadside clean up conducted with support from project Stakeholders. It is imperative that this waste management plan is implemented through a holistic approach tying it in with local by-laws.

#### v. Local By-Law

The By-Law was an important output for the project, a first its kind, created for the project and implemented by sub-national Governments of the NCDC and or the MKA. All illegal activities in the area would be investigated and charged for breach of by-laws. The successful use of by-laws formulated with broad participation of local population is a testimony of implementing the Community to Cabinet approach.

#### vi. Mangrove Management Plan

The Mangrove Management Plan was developed for the project as a strategic policy intervention to address after the indiscriminate destruction of mangroves. This is generally the result of a broader issue connected to 'land-grabbing' for settlement and other commercial expansion. Before the project was initiated, landowners already sold parcels of land around the bay to settlers. After several consultations and awareness-raising, a gradual change of behaviour was observed amongst the local population. At the same time, the mangrove patches remaining were already potentially reduced. The mangrove assessments conducted for the Project identified 16 mangrove species with 2 endemic species recorded in Tuna Bay alone. The assessment details and results are set out in the RapCA report and key highlights captured in the Mangrove Management Plan.

The Mangrove Management Plan ensures safe protection of the remaining vulnerable wetlands (e, g, mangroves, seagrass and coral reefs) in the Tuna Bay. These habitats are traditional dominant nursery and spawning sites for several key fish and invertebrate commercial species, thereby requiring protection and management.

One of the key action is supporting restoration and rehabilitation efforts of degraded habitats through Seedling Propagation through the Nursery. The seedlings would be replanted back into the Area and, further support for ongoing management of human activities through awareness and implementation of the Waste Management Strategy and the Local By-Law.

In case an activity was postponed, state the rescheduled period and provide reasons for the delay. The results can best be presented following the results logic.

Component 1	COMPONENT1: Establishment of Provincial partnerships in sustainable coastal area management (Governance and Partnership)		
Output 1	Partnerships between government agencies, private sector, NGOs and CBOs, and local government established, functional and generating effective assessments and responses	Completed, Stakeholder Engagement Plan and Communication Strategy Developed and Implemented, PSC established through TOR providing regular responses and support, and Technical Team Meets ongoing	
Activity 1	Establishment of project Steering Committee (PSC) and Project technical Team	Completed	
Activity 2	ToR developed for PSC highlighting Roles and responsibilities	Completed	
Activity 3	Develop Stakeholder Engagement Plan with Stakeholder Analysis	Completed	
Activity 4	Develop Communication Strategy	Completed	
Activity 5	Conduct regular Technical Team and PSC Meetings	Completed	
Activity 6	Establish MOA/MOU with key Partners	Project Easement Drafted and Consulted with Landowners, formalities pending	

Component 2	Mainstreaming R2R conservation development planning	n principles into national
Output 1	Capacity Building and Institutional Strengthening for local landowners and stakeholders of Tuna (Oyster) Bay	
Activity 1	Landowners Training on Biodiversity	Several trainings conducted so far by UPNG and the Project,

Activity 2	Training of Project Manager and Project Technical Team at JCU	Completed PGC and PGD Anderson Anjo completed
Activity 3	Local By-Laws Developed at Provincial/LLG Level	Completed, By-Law Published and uploaded on R2R Website

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Component 2	Mainstreaming R2R conservation development planning	principles into national
Output 2	Community outreach and training programs supported and integration into PA Policy Implementation Plan	
Activity 1	Community Awareness, School Visits, Radio Messaging and awareness	Several Awareness conducted
Activity 2	One-on-one Consultations with key stakeholders	Several one-on-one consultations conducted with Landowners and other Stakeholders based on specific issues
Activity 3	Clean-a-thon involving community	Over 8 x done over the Project period
Activity 4	Awareness on sps conservation	Over 10 conducted with Landowners and stakeholders
Activity 5	Billboard installation at Project site	8 billboards mounted at Project Closing, 3 were removed by NCDC road contractors for bypass road, and 1 vandalized
Activity 6	Project Video	Completed
Activity 7	Awareness brochures, posters created	Posters and brochures created and circulated

Component 3	Sustainable water, land and coastal areas use adopted		
Output 1	Improvement of Water quality of Tuna Bay for Marine Ecosystems and Domestic Use		
Activity 1	Water Quality Assessment as Baseline	Baseline assessment Conducted, and report published	
Activity 2	Purchase Water Quality Monitoring Equipment	Not supported by SPC	
Activity 4	Risk Mitigate Plan of Water Quality for Tuna Bay	Pending regular Water monitoring	
Activity 5	Ongoing monitoring of Water Quality and Mangrove, Reef and Sea grass Habitats	No Monitoring Equipment	

Component 3	Sustainable water, land and coastal areas use adopted		
Output 2	Marine Habitats restoration and Protection		
Activity 1	Baseline studies of marine habitats conducted with UPNG including flora and fauna sps count	Baseline Assessment conducted and report Finalized and Published	
Activity 2	Rapid Mangrove, sea grass and reef health assessment (RapCA)	RapCA conducted by UPNG, and final Report published	
Activity 3	Creel Surveys	Conducted as part of JCU course	
Activity 4	Impacted areas and areas of special interest identified and mapped	Mangrove Management Plan captures all these	
Activity 5	Mangrove Management Plan Developed	Completed and published	
Activity 6	Develop Waste Management Strategy for the Tuna Bay with NCDC	Waste Management Strategy Developed and Published	

# **Financial Summary**

# SPC-R2R Financial Contribution

Total Amount Planned for June 2016 - June 2021	Total Amount Requested for Years June 2016 – June 2021		Utilization Rate <sup>1</sup> (in Percentage)
200, 000	269, 400. 00	270, 696. 82	100.48

# **Materialized Co-financing**

Status of the contributions of the Partner Organization/s (e.g. Agency, department, etc.), and other stakeholders. Both cash and monetized in-kind contributions should be reported.

Name of Co-financer	Type of Co-financing <sup>2</sup>	Amount <sup>3</sup> (USD)
Conservation & Environment Protection Authority	In kind	100, 000+

S 15 15 1 S 2

<sup>&</sup>lt;sup>1</sup> Amount spent divided by amount budgeted/planned multiply by 100.

<sup>&</sup>lt;sup>2</sup> Grant or In-kind

# **Implementation Progress Ratings**

A brief and concise assessment of the results and achievements of the project from the perspective of the recipient. The assessment should endeavour to respond to the following assessment areas:

1. **Inputs**: To what extent have the planned inputs been supplied? Based on your financial plan, provide an assessment whether the planned inputs (such as technical and/or policy advice, and financial contributions) as indicated in the approved project document has/have been timely and sufficiently delivered. Provide 2-3 sentences describing the inputs delivery.

Input delivery has been on par with the project schedule and approved workplan. In fact, more resources have been committed towards the project by all key stakeholders, SPC, CEPA, UPNG, NCDC, Landowners and others. The implementation of the project activities has been derailed by administrative processes within CEPA and SPC, but this discrepancy has been ironed out, and all funding due for the Projects have been released. The challenges experienced in providing and complying with timely and quality reporting requirements including quarterly and annual reports delayed financial contributions to progress project implementation. There were alternative efforts provided to assist with progress through virtual mentoring and country visits but achieve little to addressing root causes of the problems.

2. Outputs: To what extent have the planned outputs been produced? An assessment about the degree to which the envisaged outputs have been produced and whether the quality and timing were satisfactory. Provide 2-3 sentences describing the status of planned outputs.

Key outputs as per the Project Document have been achieved, although with some delays due to circumstances beyond controls of the Project. The consultants were not able to produce timely reports leaving the RPCU to complete and finalise the reports for publications. The circumstances brought about by COVID-19 coupled with the other operational constraints potentially affected the project and therefore late completion and submission of final products.

Nonetheless, the extension granted to the project provides the opportunity for the RPCU to work closely with the country team to implement the activities and produce the results/outputs thereby delivering on the outcomes and overarching project goals. The Project is proudly closing with delivery of its key outputs.

3. Objectives: To what extent have the outputs contributes to the achievements of the project objectives? If not achieved, what is/are the reason/s for non-achievements and how this can be remedied? Provide 2-3 sentences describing the status of whether the objectives will be achieved or not. If not, what do you recommend as remedial measure/s.

A total of 13,867 ha of terrestrial and marine areas comprising mangroves, estuaries, grassland, rocky shores and sea areas covering seagrass, mudflats and reefs have been secured under the Bootless Bay National Marine Sanctuary which is now a National Government Project under the Sustainable Environment Programme (SEP) under CEPA.

CEPA is seeking potential donors/partners the next phase R2R to advance the implementation of the BBNMS Management Plan for the next 5 years.

PNG IW R2R project revised stress reduction target is 220 ha of area conserved and protected. By end of its life, this target was achieved, and the project activities were largely completed and strategic policy and legislative frameworks were published online. The Tuna Bay Mangrove Management Plan complements Bootless Bay National Marine Sanctuary which covers 300 ha. Action plan outlined such as the establishment of Mangrove Action Committee, Monitoring and Enforcement Programs, Legal framework for mangrove ecosystem management contributes to this SRT.

It is important that the policies and legislations are implemented and monitored into the future appropriately. This is crucial in order to realise genuine impacts on the rehabilitation of degraded habitats, which in turn supports the biodiversity much needed to improve livelihoods.

4. Sustainability of the project results: To what extent will the intended results of the activity be sustainable? What are the sustainability elements (such as technical, policy, financial, etc.) that have been considered? Provide 2-3 sentences describing your efforts of securing and sustaining the project results.

This Project is now a National Government Project with CEPA as the Lead agency recognising that the entire Bootless Bay area including Tuna Bay has been approved as the National Marine Sanctuary by the National Executive Council (NEC) in 2017. The CEPA is now into its next phase Project working with donors for further support through GEF 8 Resources, GCF and EU.

5. Risks/Assumptions/Conditions: To what extent were the previously identified conditions, assumptions and its accompanying risks has been addressed? Indicate whether the original risks and assumptions are still valid, and whether the conditions are complied and/or dealt with?

Context	Specify the identified Conditions, Assumptions and Risks	Provide your assessment in this column
Conditions	Stakeholders interest to pursue/support the Project	There is positive interest for the Project especially by key stakeholders, NCDC, UPNG and Landowners.
Assumptions	Resources (funding, expertise etc) are sufficient to ensure Project outcomes are achieved	Support from GEF/SPC is on par with agreed project outputs. Expertise within CEPA, NCDC and UPNG do exist however, some gaps exists in terms of proper equipment etc to do ongoing assessment and monitoring.
Risks	Competing interests of Government Agencies, Private Sector and CSOs including Landowners	This risk has been addressed through one-on-one consultations with key landowners, and relevant key stakeholders has been helpful in securing their consent and support for the Project, given the Project Area to be of Commercially Prime area

Also, assess the overall risk factors (internal or external) to the project which may affect implementation or prospects for achieving project objectives. Use the following scale in rating the risks:

High Risk (H)	There is a probability of greater than 75% that assumptions may fail to hold or materialize, and/or the project may face high risks.	
Substantial Risk (S)	There is a probability of between 51% and 75% that assumptions may fail to hold and/or the project may face substantial risks.	
Modest Risk (M)	There is a probability of between 26% and 50% that assumptions may fail to hold or materialize, and/ or the project may face only modest risks.	
Low Risk (L)	There is a probability of up to 25% that assumptions may fail to hold or materialize, and/ or the project may face only modest risks.	

# 6. Overall Implementation Progress Rating

The Project implementation has been smooth among challenges faced. Table below depicts rating against project outcomes.

Component	Outcome	Rating	Comment
1 Establishments of Partnerships in sustainable coastal areas management	<ul> <li>Stakeholder         Engagement Plan         and         Communication         Strategy in Place         and implemented,</li> <li>PSC instituted         overseeing the         Project</li> <li>Activity based         MOAs/MOUs         Pending</li> </ul>	HS	Stakeholders duly identified, instituted into PSC and providing regular response and guidance to the project. Pending MOUs/MOAs based on activities which needs to be identified
2. Mainstreami ng R2R principles into national developmen t planning	- Capacity Building/Institutio nal strengthening of local landowners and key stakeholders	HS	Over 7 Capacity Building and training More needs to be identified and trainings conducted. Successful completion of JCU Programs.
	Community outreach, training and awareness programs	HS	A lot of time and resources were expanded on this, and everyone with interest in the Project have been reached through the implementation of the Communication Strategy, and the Stakeholder Engagement Plan.
3. Sustainable Water, land and coastal areas use adopted	-Baseline Assessments Conducted	HS	Baseline Surveys conducted by UPNG, and final report delivered and published on SPC R2R Website
	Rehabilitation activities	MS	A lot of Awareness done including Mangrove Nursery and replanting. Mangrove Management Plan Developed with Local By-Law and Published on SPCR2R Website.
	Waste Management Plan	MS	Waste Assessment and Waste Management Plan Completed and implemented through regular Clean ups conducted.

Provide an overall rating of the implementation progress. Also, provide (in 1-2 sentences) the basis of your rating. For the rating, use the following rating definition:

The Project was a high risk at first given the Areas' proximity to Boroko CBD area with competing interest and threats highlighted. However, with positive interest and motivation from key stakeholders through regular consultations with them and joint project activities, key project activities have been successful, therefore the outcomes so far.

Highly Satisfactory (HS)	Implementation of all components is in substantial compliance with the original/formally revised implementation plan for the project. The project can be presented as "good practice".
Satisfactory (5)	Implementation of most components is in substantial compliance with the original/formally revised plan except for only few that are subject to remedial action.
Moderately Satisfactory (MS)	Implementation of some components is in substantial compliance with the original/formally revised plan with some components requiring remedial action.
Moderately Unsatisfactory (MU)	Implementation of some components is not in substantial compliance with the original/formally revised plan with most components requiring remedial action.
Unsatisfactory (U)	Implementation of most components is not in substantial compliance with the original/formally revised plan.
Highly Unsatisfactory (HU)	Implementation of none of the components is in substantial compliance with the original/formally revised plan.

# Summary of the Project Contributions to the R2R Program Outcomes

This Chapter provides a snapshots of the national project contributions to the Regional Ridge to Reef program components such as:

- 1. National demonstration to support R2R ICM/IWRM approaches for island resilience and sustainability. Specifically, an account of the status of:
  - 1.1 Successful pilot projects testing innovative solutions involving ICM, IWRM and CCA (linked to the STAR via larger Pacific R2R network).

The identified innovations should lead to reduction of stresses and improved catchment management.

The Project was a trial for the PNG PA Policy to deliver PNG's first Marine Conservation Area along with the Bootless Bay CEPA-JICA Project, focussing on Biodiversity Protection, Environmental Stress Reduction, and Catchment Management, over 200ha of land and sea area, and includes the entire Bootless Bay directly contributing to the Regional R2R Programme outcomes.

1.2 National Diagnostic analysis for ICM conducted for prioritizing and scaling-up key ICM/IWRM reforms and investments.

Indicate the status of the conduct of diagnostic analysis for priority coastal areas establishing the environmental state and socio-cultural information.

An Island Diagnostic Analysis was conducted for the Project by SPC on the ICM approaches. Key baseline data was created for the Project by UPNG through the Rapid Coastal Assessments (RapCA).

1.3 Multi-stakeholder leader roundtable networks established for strengthened 'community to cabinet' ICM/IWRM.

Provide information on how the local leaders and local government engagement/ participating in multi-stakeholder dialogue and roundtable networks.

A Project Stakeholder Committee was established by CEPA through the Project and actively provides guidance and support to the project, involving community members to key members of government agencies. Key activities are initiated through the wider stakeholdership, which is an important learning for the project. Key deliverables such as Local By-Laws and Waste Management Strategy represent good examples of Community to Cabinet approach.

- 2. Island-based investments in human capital and knowledge to strengthen national and local capacities for R2R ICM/IWRM approaches, incorporating climate chance adaptation
  - 2.1 National and local capacity for ICM and IWRM implementation build to enable best practice in integrating land, water, forest and coastal management and climate change adaptation.

Provide information about the post-graduate training course and account how it contributes to the enhancement of R2R ICM/IWRM management capacities.

Capacity Building is an important aspect of the Project. Capacity of local custodians are built with training provided by UPNG, and at the National Level, PGC and PGD training provided by JCU has become handy in IWRM/ICM R2R management.

2.2 Incentive structures for retention of local R2R expertise and inter-governmental dialogue on human resource needs for ICM/IWRM initiated.

In relation to 2.1 and the other capacity building activities conducted by this project, provide an account whether national human capacities in R2R have improved.

The Trainings have positively contributed to National Human Capacity enhancement, through the Project Technical Team contribution. Local custodians have become part of the project day to day monitoring through habitat restoration activities.

- 3. Mainstreaming of R2R ICM/IWRM approaches into national development planning
  - 3.1 National and regional strategic action frameworks for ICM/IWRM endorsed nationally and regionally

Provide an information about the functioning of the Inter-Ministerial Committee, particularly the implementation of agreements and strategic action framework on land, water, forests and coastal management, including the use of the 'State of the Coasts/ Islands' reports as basis for decision making and R2R investments.

The Inter-Ministerial Committee or the PSC in the IW R2R PNG project's case is spearheading two important frameworks which in the long run will be policy revolutionary for PNG. The Project initiated Waste Management Strategy eventually will be utilized to develop a Waste Management Policy and ACT for PNG, overseen by the CEPA and implemented by various stakeholders such as the City Authorities and Industry. The project Developed a Local By-Laws to Protect Mangroves and Water catchments areas, to be implemented by the MKA could also be useful for relevant institutional Policy information. More importantly is the capacity building and institutional arrangements the Government of PNG will benefit from through this project.

3.2 Coordinate approaches for R2R integrated land, water, forests and coastal management and climate change adaption

Provide a description of the networks of national R2R inter-ministerial committees and its linkage and coordination with existing and other IWRM committees. Indicate whether the coordination has improved and whether the improvement is attributable to the national project interventions or activities.

The IW R2R PNG Project comprise key partners, focussed on the project who are also members of the Bootless Bay CEPA-JICA Project representing a wider stakeholdership with vast connection and experience. Some are also on the STAR R2R Board which has been loosely connected to the IW R2R Project, however the intention of the Projects was complementary, and need to realize synergies for improved impact.

# Summary of the project contributions to the GEF Focal Areas, SDGs including Special Themes

This Chapter provides the snapshots on the contribution of the national demonstration projects contributes to the GEF Focal Areas such as International Waters, Biodiversity Conservation, Land Degradation, Sustainable Forest Management, and Climate Change Adaptation. Provide response only to the appropriate GEF Focal area/s where your project contributes to. Delete those that are not applicable or relevant.

#### **GEF Focal Areas**

## 1. Biodiversity Conservation

The IW R2R PNG Project at Tuna Bay focusses on habitat restoration and management addressing GEF Focal Area on Biodiversity Conservation, and contributes to a range of UN Sustainable Development Goals described in the table below. The project has been selected as a pilot testing the implementation of the PNG Policy on Protected Areas, along with the Bootless Bay CEPA-JICA Marine Conservation Project. Its activities mainly focused on stress reduction.

The Tuna Bay area lies in the prime waterfront of the Port Moresby CBD area and boasts imposing economic value. Threats to environmental degradation include land grabbing for settlement and other commercial expansion. The area however is a perceived yellow-fin Tuna spawning area and hosts the last cultural remnants of the Motu-Koita people of the NCD, who predominantly live off the bay for their livelihood.

The project is focussed on restoration activities working along with key stakeholders such as NCDC, UPNG and the Landowners through regular and consistent consultation and awareness. Biodiversity and Water quality baseline assessments have been conducted and final reports published.

#### Sustainable Development Goals (SDGs)

This section captures the plausible contribution of the national projects to the relevant Sustainable Development Goals, otherwise known as the Global Goals. The project is expected to contribute to the 11 of 17 SDGs. These are SDG 1 – No poverty, SDG 2 – Zero hunger, SDG 3 – Good health and well-being, SDG 4 – Quality education, SDG 5 – Gender equality, SDG 6 – Clean water and sanitation, SDG 12 – Responsible production and consumption, SDG 13 – Climate action, SDG 14 – Life below water, SDG 15 – Life on land, SDG 17 – Partnerships for the goals.

Please use the table below to briefly (2-3 sentences) indicate your project's contribution to the relevant SDGs. Please respond only to the appropriate SDG where your project is contributing to.

SDG	Project contributions
SDG 1 — No poverty	Livelihood support and Business Plan created for the Project through the Fish Catch Survey. Conservation initiatives support poverty alleviation through sustainable catch to market.
SDG 2 – Zero hunger	Restoration of Habitats will increase fish stock, therefore achieve this Goal. Also, benefits created through the project will enable landowning communities put food on the table for their families
SDG 3 – Good health and well-being	Improved livelihood will then improve health and wellbeing of people at Project vicinity
SDG 4 — Quality education	With improved economic activities of people, they will be able to access quality education
SDG 5 – Gender equality	Awareness created through the Gender Strategy ensures Gender responsiveness
SDG 6 – Clean water and sanitation	Through the Project, NCDC our key Project partner has undertaken to provide Waste and Sanitation Services
SDG 12 — Responsible production and consumption	Awareness of Creel surveys enabled responsible harvesting and consumption of marine resources
SDG 13 – Climate change	Mangrove, Sea grass and Coral Reef Habitat restoration and management will ensure climate mitigation, and the ensuing adaptation and resilient approaches for communities at the project site
SDG 14 – Life below water	Marine habitats will be restored and managed
SDG 15 – Life on land	Mangrove habitats restored and managed and people acting responsibly towards use of the resources.
SDG 17 – Partnerships for the goals	Partnerships created through the Stakeholders Engagement Strategy ensured each stakeholders aspirations are met

## **Special Themes**

#### 1. Gender Mainstreaming

Provide a summary on the processes for ensuring that equal opportunities for men, women, elderly and children to participate in the project implementation and in decision-making, including and most especially access to benefits and incentives.

Gender Mainstreaming is pertinent to achieving project results. Our approach is "where there is people, there is always men, women and children including the disadvantaged and the elderly and the disabled". Our project activities cater for special needs of people in the project vicinity, and keep gender segregated data.

Men, women and children are involved in the project and benefit from it, example the clean-a-thon involved men, women and school aged children. Our main contact with the landowners is not only through the Chieftaincy, but through the Pari Women Development Association (PWDA), a recognized CBO constituted by women of Pari Village who own the land at Tuna Bay.

# **Lessons Learned (Innovations and Catalytic Impacts)**

A short account of the innovative aspects and catalytic impacts of the project. This section will mainly contain the summary or highlights of the lessons learned as indicated in the lessons learned template. The detailed lessons learned template should be attached as an annex to this report.

### Innovative aspects

What are the lessons and new learnings drawn from the implementation of the project? This should be in the areas of Strategy, Cooperation (internal and external cooperation), Processes (whether the project has contributed to a more streamlined process which leads to efficiency, etc.), and Steering (how the project has been steered towards achieving its objectives). For example, it could be highlighted in this section the strengthened coordination between the STAR and IW R2R projects towards achieving wider development impact — following the programmatic approach — in integrated water resources management (IWRM).

Some important lessons have been learnt through implementation of the Project.

- i. For a challenging Project such as the IW R2R PNG Project based in a very challenging location, regular, consistent and timely consultations were paramount, recognizing the needs of people involved, but also involving them in Project activities as important interventions. Informing and involving them generates unforeseen benefits money cannot buy. This was achieved by not raising peoples' expectation, but creating awareness of other benefits they already enjoyed through provision of the ecosystem services.
- ii. Stakeholder participation and their roles and responsibilities highlighted to them and being focussed. The was an important aspect of stakeholder motivations. Getting Stakeholders understand their roles and responsibilities ensured their utmost support with focussed attention towards the Project.
- iii. This was a Trial Project CEPA initiated with support from GEF/SPC and the JICA across the Bootless Bay trialling out the PNG PA Policy. The Project was basically at its initial stages of Stakeholder Engagement, Awareness and restoration activities. Advance stages of a Business Plan and sharing of benefits are far beyond the scope of this project, which CEPA is working to secure with support from GEF 7 resources and may be others.

The foundation of a successful Project begins small with engagements, awareness and Baseline activities, which must be done right through this Project. The development of Waste Management Strategy and By-Laws for Provincial and Local Level governments thrives on good Stakeholder Model.

### Catalytic impacts

In not more than 500 words, provide examples of where the national demonstration project has helped catalyse change, e.g. capacity development, investment from other donors/ development partners, stimulated need for reform of policy and planning. For example, you could provide information to highlight the contribution of the project for enhanced coordination, synergies, and harmonized implementation among agencies not only for integrated water resources management (IWRM) but also the wider natural resource management and climate change adaptation and mitigation (CCA/M) interventions.

Again, Stakeholder Engagement was an important aspect that created the catalytic impact. The project focussed on Biodiversity Conservation, however, there were issues intermittent with it. Those issues were amicably addressed through mapping out stakeholder with expertise and connection, whereby everyone benefitted from each other's strengths. That included Capacity building of local and national staff, resources mobilization for training and project activities, and relevant policy reforms the project initiated through the Waste Management Strategy and the PA Policy.

The intention of the programme was for collaboration between STAR R2R and CEPA-JICA Projects as complementary Projects to deliver a Model Conservation Project implementing the PA Policy; however lacked collaboration due to lack of synergies. This needs to be rectified in future Programmes.

# **Annexes**

Provide as annexes all materials, report of the technical studies conducted, reports of surveys conducted, proceedings or highlights of meetings with its corresponding signed attendance sheets, pictures of major activities and monitoring visits, major/important communications, and the communications strategy and/or plan, stakeholder engagement, gender action plans, etc. Also include the accomplished GEF templates such as Lessons Learned, IW Results Notes, etc.

Please also attach the list of consultants and personnel involved in the implementation.

Finally, the list of equipment (inventory) procured during the reporting period.

Annexes	Title of the document
Annex 1	Stakeholder Engagement Strategy
Annex 2	Communication Strategy
Annex 3	Terms of Reference for the Project Steering Committee (PSC)
Annex 4	Tuna Bay Rapid Coastal Assessment (RapCA) Report
Annex 5	Tuna Bay Project Map
Annex 6	Taurama/Tuna Bay Local Development Plan (NCDC)
Annex 7	Bootless Bay Marine Areas Map
Annex 8	Inception Workshop
Annex 9	Landowner Consultation Workshop Report
Annex 10	PSC Meeting # 2
Annex 11	Tuna Bay Waste Management Plan
Annex 12	Tuna Bay Local By-Law
Annex 13	Tuna Bay Mangrove Management Plan
Annex 14	IW R2R Multi Year Costed Work Plan (MYCWP)
Annex 15	Tuna Bay Awareness Brochure







