

Concept Note

Melanesia - Coastal and Marine Ecosystem Resilience Programme (M-CMERP)

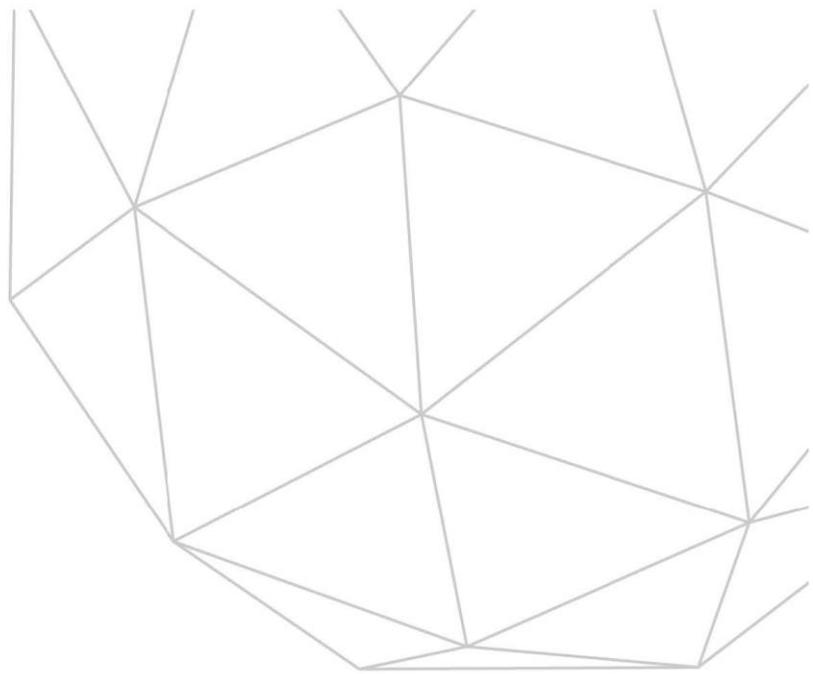
Papua New Guinea, Solomon Islands, Vanuatu | IUCN

20 September 2019





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Concept Note

The Green Climate Fund (GCF) is seeking high-quality projects or programmes.

The Accredited Entity is encouraged to submit a concept note, in consultation with the National Designated Authority, to present a project or programme idea and receive early feedback and recommendation.

Programme/Project Title: **Melanesia - Coastal and Marine Ecosystem Resilience Programme (M-CMERP)**

Country(ies): **Papua New Guinea, Solomon Islands, Vanuatu**

National Designated Authority(ies) (NDA): **Please Refer to PPF NOLs**

Accredited Entity(ies) (AE): **International Union for the Conservation of Nature (IUCN)**

Date of first submission/
version number: **[2017-10-10] [V.1]**

Date of current submission/
version number **08 August 2019**

Notes
<ul style="list-style-type: none"> The maximum number of pages should not exceed 12 pages, excluding annexes. Proposals exceeding the prescribed length will not be assessed within the indicative service standard time of 30 days. As per the Information Disclosure Policy, the concept note, and additional documents provided to the Secretariat can be disclosed unless marked by the Accredited Entity(ies) (or NDAs) as confidential. The relevant National Designated Authority(ies) will be informed by the Secretariat of the concept note upon receipt. NDA can also submit the concept note directly with or without an identified accredited entity at this stage. In this case, they can leave blank the section related to the accredited entity. The Secretariat will inform the accredited entity(ies) nominated by the NDA, if any. Accredited Entities and/or NDAs are encouraged to submit a Concept Note before making a request for Programme preparation support from the Programme Preparation Facility (PPF). Further information on GCF concept note preparation can be found on GCF website Funding Programmes Fine Print.

A. Programme / Programme Information (max. 1 page)			
A.1. Programme or Programme	<input checked="" type="checkbox"/> Programme <input type="checkbox"/> Project	A.2. Public or private sector	<input checked="" type="checkbox"/> Public sector <input type="checkbox"/> Private sector
A.3. Is the CN submitted in response to an RFP?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, specify the RFP: _____	A.4. Confidentiality¹	<input type="checkbox"/> Confidential <input checked="" type="checkbox"/> Not confidential
A.5. Indicate the result areas for the Programme/Programme	<p>Mitigation: Reduced emissions from:</p> <input type="checkbox"/> Energy access and power generation <input type="checkbox"/> Low emission transport <input type="checkbox"/> Buildings, cities and industries and appliances <input type="checkbox"/> Forestry and land use <p>Adaptation: Increased resilience of:</p> <input checked="" type="checkbox"/> Most vulnerable people and communities <input type="checkbox"/> Health and well-being, and food and water security <input type="checkbox"/> Infrastructure and built environment <input checked="" type="checkbox"/> Ecosystem and ecosystem services		
A.6. Estimated mitigation impact (tCO₂e_q over lifespan)	TBC via PPF	A.7. Estimated adaptation impact (number of direct beneficiaries and % of population)	157,500 direct beneficiaries (2%) 2.7 million indirect beneficiaries (29%)
A.8. Indicative total Programme cost (GCF + co-finance)	Amount: USD 50 M	A.9. Indicative GCF funding requested	Amount: USD: 40 M
A.10. Mark the type of financial instrument requested for the GCF funding	<input checked="" type="checkbox"/> Grant <input type="checkbox"/> Reimbursable grant <input type="checkbox"/> Guarantees <input type="checkbox"/> Equity <input type="checkbox"/> Subordinated loan <input type="checkbox"/> Senior Loan <input type="checkbox"/> Other: specify _____		

<p>A.11. Estimated duration of Programme/ Programme:</p>	<p>a) disbursement period: 2021-2026 b) repayment period, if applicable:</p>	<p>A.12. Estimated Programme/ Programme lifespan</p>	<p>5 years (first phase)</p>
<p>A.13. Is funding from the Programme Preparation Facility requested?²</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Other support received <input checked="" type="checkbox"/> If so, by who: USAID Climate Ready; Plan International ³</p>	<p>A.14. ESS category⁴</p>	<p><input type="checkbox"/> A or I-1 <input checked="" type="checkbox"/> B or I-2 <input type="checkbox"/> C or I-3⁵</p>
<p>A.15. Is the CN aligned with your accreditation standard?</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>	<p>A.16. Has the CN been shared with the NDA?</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
<p>A.17. AMA signed (if submitted by AE)</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If no, specify the status of AMA negotiations and expected date of signing:</p>	<p>A.18. Is the CN included in the Entity Work Programme?</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
<p>A.19. Programme/Programme rationale, objectives and approach of Programme/Programme (max 100 words)</p>	<p>Coastal and marine ecosystems and the services they provide are the basis for Pacific Island countries' (PICs) climate resilience, livelihoods, economic growth and cultural identity⁶. They are currently under threat from climate change and its interaction with other forms of environmental degradation⁷. A paradigm shift is needed from ad-hoc, stand-alone climate change adaptation initiatives that often focus on single issue, hard infrastructure adaptation responses, towards a holistic, long-term and integrated ecosystem-based system of resilient development.</p> <p>The objective of the Melanesia Coastal and Marine Ecosystem Resilience Programme (M-CMERP) is to “<i>Enhance the resilience and adaptive capacity of Melanesian Pacific Island people to climate change by protecting, restoring and managing coastal and marine ecosystems and the services they provide</i>”.</p> <p>M-CMERP will provide resource, technical and capacity support to enable holistic, long-term, effective and efficient climate resilient development planning, decision making and investments through:</p> <ul style="list-style-type: none"> a) Prioritisation and integration of ecosystem-based adaptation (EbA) in national planning and decision making, including long term (30-50 year) climate future climate impact and resilience scenarios and sharing information, best practices, and tools b) Grants (Melanesia Blue Impact Facility) for EbA and resilient development investments <p>It will be underpinned programmatically by the regional <i>Framework for Enhancing Coastal Resilience</i>, with national on the ground actions and investments developed during the PPF, informed and driven by national level contexts and priorities.</p> <p>Key project partners are IUCN (AE), SPREP (Executing Entity) and for each of the 3 participating countries, the national executing partners will be outlined in the separate country project proposals that emanate from the project preparation phase. Implementing and co-financing partners include the Pacific Community (SPC), USAID and PLAN International. Partnership discussions with other entities including National Development Banks and the World Bank Pro Blue multi donor trust fund, are currently under way or being planned.</p>		

B. Programme / Programme details (max. 8 pages)

B.1. Context and Baseline (max. 2 pages)

Climate change is threatening ecosystems which underpin community resilience for Pacific Islands:

Over the last 100 years the global climate has warmed by approximately 0.74°C and is expected to rise a further 1.3 to 1.8°C by the end of the century⁸. Corresponding with the rise in global temperatures are a host of changes in other climate and physical processes including changes in total and seasonal precipitation, altered ocean currents, and sea level rise. This projected rise is primarily in response to anthropogenic greenhouse warming. Across the Oceania Region, the average temperature is expected to rise by 0.80C by 2030 relative to a 1980 to 1999 baseline. Corresponding with the rise in global and regional temperatures are changes in other climate and physical processes

including more extreme rainfall days during the wet season and expected intensification of cyclones. In addition, the region can expect altered ocean currents and a rise in sea level of between 4 and 15 cm by 2030 and up to 0.7 m by the end of the century⁹.

The people and ecosystems of Pacific Island countries (PICs) are highly vulnerable to these effects due to an inherently high exposure as well as a relatively low adaptive capacity. The projected future rise in the severity of climate change impacts will result in physical changes to coastal landforms, endangering coastal populations and infrastructure, as well as threatening many coastal and marine ecosystems. For example, the combination of sea level rise and ocean acidification presents a dire threat to the survival of coral reef ecosystems and the biophysical and socio-economic benefits that they provide, not just to coastal communities but to entire countries through fisheries, tourism and coastal protection. This could also worsen existing developmental and sustainability challenges, and, in some cases, even threaten the long-term inhabitability of entire islands¹⁰. There is an urgent need to strengthen their adaptive capacity and improve their resilience to deal with these impacts.

Coastal and marine ecosystems¹¹ and the services they provide are the basis for Pacific resilience in terms of livelihoods, economic growth, and cultural identity¹². Many inhabitants live in rural areas along island coasts where there is an abundance of protein-rich marine food and fertile lowlands suitable for agriculture¹³ or within small coastal cities and towns. The health of marine systems is vital to many subsistence and artisanal fishing communities, and is a primary source of livelihood and protein for a majority of the population living in coastal rural communities, and increasingly as a source of food for growing urban populations, which now average more than 50% of Pacific island populations¹⁴. In the Pacific Islands the consumption of fish protein is almost 1.5 times the global average. As such, the fishery sector plays a critical role in the economic, social and cultural fabric of those communities. In 2010 the total economic value (TEV) of Pacific island coral reefs was estimated to be US\$3.8 billion per year, including about US\$1.3 billion contributed from indirect or non-use values. Similarly, the TEV of PICs mangrove forests were estimated to be worth US\$ 3.9 billion annually¹⁵. In 2014 coastal fisheries in Fiji were estimated at F\$73 million of GDP¹⁶ and in 2011 shark watching tourism contributed US\$42.2 million to the Fiji economy¹⁷. By 2009 the value of whale watching to the economy of Tonga had risen to US\$5 million per annum¹⁸. Coastal ecosystems, particularly intertidal wetlands and reefs, also play a critical role in reducing the vulnerability of rural and urban coastal communities through their multiple roles in wave attenuation, sediment capture, vertical accretion, erosion reduction and the mitigation of storm surge and debris movement¹⁹. Even under good management, coral cover is expected to decrease from the present-day maximum of 40% to 15-30% by 2035 and 10-20% by 2050, matching the rate of decline over the past 30 years as a consequence of climate change impacts²⁰. Changes to coral reefs and other fish habitats, and the direct effects of CO₂ emissions on fish and invertebrates, are likely to reduce harvests from small-scale, coastal fisheries by up to 20 percent by 2050, and by up to 50 percent by 2100²¹. A key strategy for mitigating fisheries losses due to climate change impacts is to ensure other threats to coral reefs are reduced to a minimum while simultaneously increasing the incentives for sustainable fishing so that over-fishing alongside coral reef decline does not completely destroy the fisheries sector. It is therefore essential to sustain healthy functioning coastal and marine ecosystems for as long as possible as a strategy for supporting the resilience of PICs in the face of increasing climate change impacts.

The Pacific Ocean is a vast area of 21 independent countries and territories spanning both poles and the coasts of Asia, North America, and South America. Within this vast basin the Pacific Island countries are made up of a diverse group of high islands, volcanic islands, atolls, reef islands and uplifted limestone islands. Marine and terrestrial species richness is generally considered to drop from global pinnacles in the western part of the Pacific to lower levels of richness but extremely high levels of endemism in the east. The largest landmasses are concentrated in the Melanesian countries of Papua New Guinea, Solomon Islands, Vanuatu, and Fiji. The countries of the Pacific are often linked through shared cultural affinities, including reverence for the Pacific Ocean and marine species. Politically, the Pacific Island countries are part of several regional organisations lead by the Pacific Islands Forum. Through the Forum, the countries share resources of several agencies (known at the Council of Regional Organisations of the Pacific (CROP)) including the Pacific Regional Environment Programme (SPREP), the Pacific Community (SPC), Forum Fisheries Agency (FFA) and the University of the South Pacific (USP). The countries are frequently divided into three subregions that reflect their proximity, cultural affinities, biogeography and size of islands.

The CMERP will work within the 3 subregions of Melanesia, Micronesia, and Polynesia on separate but similar and concurrent projects. These subregions are based primarily on ethnogeographic divisions linked to migration and settlement patterns by genetically distinct groups of people. While they all fall within the Central and Eastern Indo-Pacific biogeographic realms, they can be more finely grouped by marine biogeography into ecoregions that group coastal and marine areas in similar areas of marine biodiversity and ecoregions²². These include 2 ecological provinces comprising Melanesia, 2 ecological provinces comprising Micronesia, and 4 provinces comprising Polynesia. Melanesia is characterized by higher species richness and has larger and higher islands than either Micronesia and Polynesia, although all three subregions have the full range of island types and all are characterised by high levels of species endemism.

The participating PICs, although their geographic scales differ, share many general and specific criteria that underpin their priority focus for the project:

- Integrated and interdependent nature of their coastal and marine ecosystems

- Vulnerability to climate change of coastal and marine ecosystems and the food systems they support, e.g., increasing sea surface temperatures and ocean acidification impact on coral reefs
- Fisheries vulnerability to climate change
- Interest and commitment to capitalize on investment opportunities

Initial investment opportunities that can scale up ecosystem-based adaptation actions, identified through previous projects²³

At the instigation of the GCF, SPREP and IUCN engaged with PICs through the GCF regional dialogues, through other regional forums, and in numerous bilateral discussions, to develop the broad concept outlined here, an ambitious, regional, ecosystem-based adaptation approach to climate change adaptation, one that provides a paradigm shift from the existing piecemeal, sectoral, and largely 'grey infrastructure' focus in the region, to one that embeds an integrated, long-term, nature-based solutions approach.

Investing in ecosystem resilience is a key climate change resilient development strategy:

There is global recognition that healthy ecosystems help build societal resilience to climate change impacts²⁴. Healthy ecosystems deliver goods and services such as food, fuel, and clean water while also providing protection from a range of climate related impacts, disasters and hazards. Ecosystem-based approaches to adaptation and resilient development have a focus on valuing, utilising, and maintaining ecosystems for their provisioning, protecting and regulating functions.

The participating Melanesian PICs²⁵ all have significant coastal and marine resources and there is a general high-level of recognition in the region of the importance of EbA approaches. This is demonstrated by all participating countries having included EbA in their National Development Strategies, Nationally Determined Contributions (NDCs), Joint National Action Plans (JNAPs) and other sectoral policies. M-CMERP recognises these existing policies and programs and is focussed on complementing and enhancing these. A summary of the policy context for each country is attached (Appendix A) to this concept note.

In addition to strong policy frameworks at the national level the three participating countries have joined with the rest of the Pacific region to create a strong regional policy framework. The Forum Leaders Communiques, Framework for a Pacific Oceanscape, Regional Framework for Nature Conservation and Protected Areas 2014-2020, as well as sectoral policies such as the Regional Roadmap for Sustainable Pacific Fisheries and the New Song for Coastal Fisheries all recognise the role ecosystems play in climate change adaptation.

Most recently in 2016, following four years of extensive and inclusive engagement process with national and community stakeholders to regional and international level, the Pacific adopted the "Framework for Resilient Development in the Pacific: An integrated Approach to Address Climate Change and Disaster Risk Management (FRDP) 2017 -2030". Under the FRDP, the incorporation of ecosystem-based services and functions in resilience building is one of ten key principles to guide the implementation of the strategy. Another key principle is to strengthen and develop partnerships across countries and territories. The M-CMERP is designed to help many of the priority activities of Goal 1 (Strengthened Integrated Adaptation and Risk Reduction to Enhance Resilience to Climate Change and Disasters).

Underpinning the approach to be taken by the M-CMERP is the "Pacific Islands Framework for Enhancing Coastal Resilience" (Attachment B to this concept note) which was endorsed by the 26 SPREP Member countries and territories as a key framework for building resilience to climate change in the region.

There are also a number of existing and emerging related initiatives, aimed at supporting ecosystem conservation and resilience in the participating PICs, including:

- Pacific EU Marine Program (PEUMP), a €45 million investment in ecosystem and fisheries management, to support regional and national level activities (2018-2023)
- Pacific Ecosystem Based Adaptation to Climate Change Project (PEBACC) funded by the German International Climate Initiative integrating EbA into development, climate change adaptation and natural resource management policy and planning processes in Fiji, Vanuatu and Solomon Islands. (2015-2020)
- Critical Ecosystem Partnership Fund (CEPF), empowering civil society to protect the East Melanesian biodiversity hotspots (2013-2021)
- EU ACP Support Programme for ACP Small Island Developing States (SIDS) and Coastal Countries, Pacific component, focusing on coastal biodiversity conservation

M-CMERP will build upon, address gaps and integrate with these projects:

- M-CMERP will build on PEBACC work in Vanuatu and Solomon Islands (noting its finish in 2020), and will support additional countries to integrate EbA into climate adaptation policy and planning, and can provide funding support for EbA underpinned climate adaptation investments identified through PEBACC. Key lessons from the PEBACC in the Solomon Islands province of Choiseul with indicative examples of potential projects for the BIF can be found in Attachment 9.
- Integrate with the PEUMP's Key Result Area 5 on sustainable utilisation of the coastal and marine biodiversity, including its activities on coastal climate adaptation. It is noted that SPREP is the lead agency for this KRA of the

PEUMP thus facilitating integration. Given that the PEUMP covers 15 countries across the Pacific and 6 KRAs, it is anticipated that there will be limited areas of direct overlap with the M-CMERP.

B.2. Programme / Programme description (max. 3 pages)

M-CMERP supports the overall vision of the FRDP as agreed by Pacific Islands Leaders in 2016: “*We aspire for our Pacific People, our societies, economies, cultures and natural environment to be resilient to changing conditions and extreme events resulting from climate change, climate variability and geological processes, to enhance the well-being of our people and to promote their sustainable development*”. To support this vision the objective of M-CMERP is to: **Enhance the resilience and adaptive capacity of Melanesian people to climate change through Ecosystem-based Adaptation strategies to protect, restore and manage coastal and marine ecosystems and the services they provide**²⁶.

M-CMERP provides a paradigm shift from ad-hoc, stand-alone adaptation initiatives that often focus on single-issue, hard infrastructure adaptation responses, towards a holistic, long-term and integrated ecosystem-based system of resilient development as articulated under the FRDP. M-CMERP will deliver resilience benefits both for ecosystems and the community livelihoods and national economies that depend on them, as well as providing mitigation co-benefits which will be monitored and reported where appropriate²⁷.

M-CMERP will be underpinned programmatically by the regional *Pacific Islands Framework for Enhancing Coastal Resilience*, with tailored design and delivery for participating PICs, informed and driven by national level contexts. These country specific, national investment profiles will be defined during the PPF process, addressing key priorities aligned with country work programmes and other broader strategic needs, to ensure they maximise the benefits through the GCF support. Regionally, countries will benefit from regional exchanges, peer-to-peer learning, and learning networks.

M-CMERP will also focus strongly on complementing and building on existing projects, initiatives and planning processes. and is based around three broad components:

Component 1: National priorities and governance for ecosystem-based resilient development planning and decision making.

This component will deliver integrated holistic, long-term consideration of ecosystems and their services into planning and decision making at national and local levels. It will help safeguard vulnerable ecosystems that provide climate resilience (as well as other non-climate specific services), and more fully utilise ecosystems for their resilience value. This component:

- supports the availability and use of information about ecosystems
- determines the current and future climate vulnerabilities and associated opportunities
- prioritises and designs ecosystem-based resilience and climate adaptation investments,
- strengthens the governance system that influences how ecosystems are used and managed

Component 1 will facilitate a transformation in each country away from fragmented and reactive approaches to climate change adaptation planning and decision making to integrated holistic and long-term strategic approaches. The existing approach tends to focus on individual sectors, development agendas and thematic responses separately. The M-CMERP approach will focus on comprehensive analytical frameworks and scenario planning, appropriate to the dimensions of predicted future climate change impacts in each country, with a focus on ensuring proper consideration and integration of ecosystem services. Component 1 will be guided by the principles and methodology set out in the *Pacific Islands Framework for Enhancing Coastal Resilience*, to be applied in a tailored way for each participating country. The resulting impact of Component 1 activities will be to i) support and catalyse future and widespread enhanced planning and decision making for resilient development, across all sectors and levels of government (including local and traditional resource owners), and ii) provide a framework for the identification and delivery of high impact investments to be financed via the Blue Impact Facility (Component 2.) Component 1 will ensure that national and local governments, as well as local communities, have ready access to tools and methodologies and data to support optimised ecosystem-based resilient development decisions.

Outcome 1.1: Melanesian Governments and local communities have increased capacity to assess and map critical ecosystem services. The foundation of ecosystem-based adaptation rests on understanding the ecosystems within a country and their value and utility to the communities that depend upon them. There is some (but limited) capacity within the participating countries to identify and describe the ecosystems that are critical to supporting resilient development. This outcome will support relevant agencies and communities to strengthen existing and develop new ecosystem information mapping and information management capacities with a focus on understanding the ecosystems that are critical to their resilient development pathways. **Outputs would include: a) natural resource / ecosystem values and dependency map** (and mapping capacity) for each partner country (and at sub-national levels where possible) with associated details of key climatic and other pressures threatening the resilience of the systems, utilising the ecological and socio-economic resilience assessment mapping (ESRAM) approach developed in the SPREP

implemented PEBACC project; **b) development of the underpinning database**, including by supporting a limited number of monitoring initiatives; **c) training and supporting resources** to support sustained capacity to develop and generate mapping products, including collection of inputting data; and **d) new and or strengthened monitoring and database infrastructure and equipment**.

Outcome 1.2: Melanesian governments and communities have increased capacity to assess ecological and social vulnerabilities and opportunities. Ecosystems and their services to communities provide value and utility that is not fully realised by resilient-development planners and decision makers²⁸. This outcome will help planners and decision makers to **draw on available ecosystem and their resilient development value data and information** (Outcome 1.1), when considering all aspects of resilient development policy, planning and implementation, and empower them to interpret that information to make the most appropriate and cost-effective resilient development decisions. **Outputs may include producing** (and provide training and other capacity building support to produce) **ecosystem and community vulnerability and opportunity assessments**²⁹, integrating improved data and information from Outcome 1.1, to help planners, decision makers, and communities to identify opportunities to protect and restore critical ecosystems and their services through the lens of climate change resilience. A second output will be the identified opportunities to help inform applications for investments under the Blue Impact Facility (Component 2).

Outcome 1.3: Melanesian Governments have increased capacity to evaluate future (30-50 year) climate resilience scenarios. The ability to assess the vulnerability of ecosystems and societies to climate change over the medium-long term (30-50 years) is a critical element in being able to prioritise and determine planning and development decisions. The future vulnerability of a system to climate change is also determined by the interaction of other social, economic, and cultural factors. This Outcome will support countries, at national, provincial, and local levels, to develop their resilient development and planning capacity to take into account future climate scenarios, accommodating other social, economic, cultural factors and trends, thus optimising resilient planning options and resilient development pathways. Combined with other outputs and outcomes in Component 1, this will provide a basis for participating Melanesian stakeholders to make informed decisions about the planning and future use of their ecosystems, and the investment decisions associated with this. **Key outputs will include: a) collated existing and new potential climate scenarios** based on key drivers, including: extent and intensity of projected climate change impacts; predicted frequency of severe weather events and other natural disasters; accommodating social, economic and other pertinent trends, using participatory approaches and **b) scenarios assessed, evaluated and integrated into national and sub-national planning options**.

Outcome 1.4: Melanesian countries integrate ecosystem priorities into strategic planning and decision making for resilient development, including through strengthened national and sub-national policy, regulatory and legal frameworks. This Outcome will review, strengthen and harmonise the strategic planning and decision-making frameworks, including policy, regulatory and legal frameworks that support and bring effect to ecosystem management priorities and outcomes. Often, investments in ecosystem restoration, conservation and management are undercut by the regulatory settings across other sectors, or in neighbouring jurisdictions. Drawing from identified priority ecosystems and vulnerabilities (Outcomes 1.2-1.3) this Outcome will produce **a) review of relevant legislative, regulatory and other policy settings** which may undermine and/or can be strengthened to support ecosystem-based resilient development; **b) the design and implementation of a medium-long term regulatory, policy, legislative reform programme** designed in consultation with key government and non-government agencies at national and sub-national levels; and **c) support for the integration of coastal and marine ecosystems within key national planning documents and decision making processes**, including National Determined Contributions or similar complementary international policy frameworks to which countries are a party.

Outcome 1.5: Strengthened governance and institutional frameworks required to design and implement effective resilience and adaptive responses ecosystems. This Outcome will establish the broader governance and institutional settings required to support sustained uptake of Outcomes 1.1 to 1.4, as well as to provide a broader reaching strengthening and reform programme of support aimed at ensuring the vision, mandate and operational procedures of national, sub-national, and traditional bodies/institutions responsible for managing coastal and marine areas are strengthened. **The outputs will include a) training, education and awareness programmes on climate change risk** - understanding threats, options and responses designed and implemented with all relevant institutions and stakeholders³⁰. This will be directed towards key staff from government and non-government Institutions, observatories, local communities, and the private sector; **b) development and delivery of decision support tools and methodologies**³¹ with associated training to allow better decision making; **c) implementation of organisational operations and procedures** (internal governance) recommendations based on expert organisational review of key agencies.

Outcome 1.6: National Governments have ready access to tools and methodologies and data to support optimised ecosystem-based resilient development decisions. While there is increasing evidence for ecosystem-based adaptation and EbA Programmes are starting to proliferate³², it remains site specific and there is still much to learn about how best to approach design and implementation. In part this is because of fragmented and incomplete data and information, and in part this is because of a lack of awareness of, and access to tools and methodologies for, planning and undertaking EbA. Outcome 3.1 will provide complimentary and coordinated support to promote consistency in

approaches, will support the collation of existing sub-national and national level data to regional levels, and will support data collation at the regional level. This will provide benefits across the region, to better understand and integrate EbA into planning and decision making. It will also support south-south exchange, and the development of management and decision support tools and methods that can be adopted and used by all PICs to support on-going ecosystem-based approaches to resilient development. Outputs would include: **a) technical support** for the consolidation and further development of national and regionally based ecosystem **database management systems; b) a selection of monitoring and research activities** that further develop the underpinning **scientific and technical evidence base** needed to support ongoing decisions around ecosystem management for resilience and **c) a programme of regional knowledge sharing, awareness raising, and coordination** where possible tapping into existing regional platforms to help promote coherent and complimentary approaches (including technical and governance).

Component 2: Grants - Melanesian Blue Impact Facility

This component will deliver on-ground ecosystem-based adaptation and resilience building initiatives that conserve, restore and promote the sustainable management of priority ecosystems that are critical for enhancing resilience to climate change impacts. It will administer and support the delivery of small to medium sized grants to Melanesian governments, communities, private sector and regional partners. The Melanesian Blue Impact Facility (M-BIF) grants will make available much needed resources to support actions at national, sub-national and community levels that support the overall objectives of the M-CMERP, and that also align with GCF investment priorities. The development and operation of the M-BIF will draw on IUCN's existing granting capabilities, best-practice guidelines, and processes,³³ based on IUCN's and SPREP's granting accreditation from the GCF.

Importantly the investment of M-BIF resources will be informed and delivered within the strengthened national ecosystem-based resilient development priorities, framework and capacity established through Component 1 of the Programme, determined by national priorities within a broader programme context. Initial grants are planned to utilise existing national ecosystem priorities and recognised no-regret investments. Then, as they are developed, the more comprehensive and longer time-frame ecosystem priorities identified through the processes outlined in Component 1 will inform M-BIF investments. The strengthened institutional and policy frameworks established in Component 1 will also support the sustainability and success of the projects the M-BIF invests in.

Research has shown that the most effective and high impact proposals often originate through community and nationally based organisations in response to calls for proposals³⁴. M-BIF grants will focus on supporting a range of community, non-government and government actors to deliver high impact actions that will provide clear climate change resilience benefits such as:

- restoring priority mangrove, sea grass, coral reef and marine ecosystems
- the establishment or extension of protected or managed area systems (including community managed areas) as part of a climate resilience strategy
- the implementation of natural resource management enforcement mechanisms
- building a cohort of expertise in resiliency across all the participating countries.

The M-BIF will be designed and developed through the PPF process, and it is planned to incorporate the ability for co-contribution and investment from development partners, governments, international and national development banks and the private sector. The M-BIF will deliver the following outcomes:

Outcome 2.1 Priority, coastal and marine ecosystems and ecosystem services are conserved, sustainably managed and restored in order to enhance the climate resilience of communities. Specific objectives will be developed per country during the PPF process with expectations that they will include areas of key ecosystems managed or restored and measures of livelihoods strengthened to be climate proof. Investment and action, together with policy, is needed at local and multi-sectoral levels to deliver actions that conserve, protect and sustainably manage ecosystems to sustain livelihoods and provide adaptation options. Communities and local NGOs, particularly those focused on environmental management, often have a good understanding of local issues and the options to address the issues. The M-BIF will harness this local knowledge and mobilise the resources needed to undertake such actions. It will direct resources to areas, priorities and ecosystem types that have been identified (Component 1 and existing sources such as National Adaptation Plans and NBSAPs) as being particularly climate vulnerable and / or providing valuable climate resilience ecosystem services. Potential projects may include mangrove management and restoration, coral reef management and restoration, and beach vegetation management and restoration as well as livelihood projects that will reduce pressures on threatened ecosystem services or enhance ecosystem services. In some cases, invasive species are a major threat to ecosystems and biodiversity and may be the focus of the EbA project. Livelihood projects may include improved value chains for fisheries products that will ultimately reduce fishing pressures on coral reefs, or establishing women's savings clubs that provide support for small-scale enterprises that diversify family incomes and reduce dependence on threatened ecosystems.

Key outputs of this Outcome will include: **a) establishment of the M-BIF** with rigorous administrative and delivery arrangements in place, with a regional model delivering investments to national projects, similar to the Action Component of the EU funded BIOPAMA programme³⁵. This will include all M-BIF specific call-for proposals templates with associated

criteria, highly accessible submission processes; steering committee membership and ToRs established; all due diligence and probity assurance mechanisms in place; award mechanisms and processes in place; monitoring, compliance and evaluation mechanism in place; **b) a call for proposals followed by award of grants.** This is to be on a rolling basis or cyclical (to be determined through the PPF process) **c) delivery of grants** over the first 5 year phase of M-CMERP that will result in improved and restored coastal and marine ecosystems (coral reefs, seagrass, mangroves, mud flats, beaches, beach vegetation) as well as improved and climate-proofed livelihoods (Contributions to and collaboration with the M-BIF will be sought from other investors and partners, including international and national development banks, to support a second 5 year phase).

Outcome 2.2: Long-term Pacific resiliency capacity developed and ready to support governance in their countries. The University of the South Pacific's new Postgraduate Diploma in Islands and Oceans Stewardship (PGD IOS) is an outcome from the Pacific Islands Roundtable for Nature Conservation and Protected Areas and sits within the Pacific Centre for Environment and Sustainable Development and led by Dr Beth Holland. The group of students will study together to develop skills in EbA approaches. They will form the core of a group of Pacific Islanders who will continue the objective of this project. They will also contribute to, and assist with the regional exchanges and learning aspects of the project. Outputs would include: **a) a 2-3 scholarships** for each participating PIC to send a post graduate student to the USP PGD IOS; and **b) a cohort of 12-18 graduates** with skills to take EbA back to their countries and continue the objectives of the M-CMERP.

Outcome 2.3: Pacific Island CSOs, NGOs and Local Government have increased capacity to access and manage grants from the M-BIF. Drawing on IUCN's experience of designing and managing on-granting programs in the Pacific (> USD\$10M in grants)³⁶ and globally serious attention will be given in the design process to ensure the M-BIF can operate successfully in the Pacific context. This will also include the need for capacity development activities that support implementing partners to access grants and to efficiently and effectively deliver projects and activities. Given the challenging geography and varying levels of capacity of the participating PICs, this will be a critical enabling outcome to achieve M-CMERP's higher level goals. **Outputs would include: a) country tailored strategies** to facilitate and promote ongoing applications to the M-BIF; **b) targeted support including training and guidance tools for governments, civil society groups and the private sector** to develop grant proposals; **c) monitoring and evaluation technical support programme** established to facilitate effective M&E and reporting; **d) financial management team to support low capacity implementing partners** to manage and acquit grants.

B.3. Expected Programme results aligned with the GCF investment criteria (max. 3 pages)

Impact Potential: Given the dependency of PICs on coastal and marine ecosystems and their services, M-CMERP has the potential to provide a large, broad scale positive impact in terms of enhanced coastal ecosystem resilience and enhanced resilience of vulnerable coastal communities to climate change impacts. For example, an average of 27% of households in PICs derive their first or second income from coastal fisheries³⁷.

The specific number of beneficiaries will be calculated through the PPF, however it is expected that M-CMERP will support a significant percentage of the population within countries to increase their resilience. It is also anticipated that the majority of beneficiaries will be those most vulnerable to climate change, due the typically higher dependency on natural resources of the lower income, rural and coastal dwelling, women, and subsistence-based populations. The impact potential of a coastal and marine EbA Programme relative to the population will also be dependent upon the size of the island in relation to the length of exposed coastline and the proportion of that country that resides with the coastal zone. For example, approximately 30% of the population of Papua New Guinea live within the coastal zone, this figure rises as the land masses of countries gets smaller. Papua New Guinea, Solomon Islands and Vanuatu all have many communities on living on small islands with little access to land-based resources. The impact potential is enormous by Pacific Island standards and will be monitored, evaluated and reported against core GCF (and other) indicators as part of the monitoring, evaluation and learning of M-CMERP. Key GCF impacts that the Programme will contribute and report against include:

- **Increased resilience of approximately 157,500 direct beneficiaries³⁸**
- **Increased resilience for over 2.7 million indirect beneficiaries³⁹**
- **Increased resilience over 805,000 ha of coastal and marine ecosystems services valued at \$48,830,000⁴⁰**

While M-CMERP is focused on adaptation and resilience building, the design process will also ensure that where possible, the mitigation results will also be reported on as a co-benefit. It is envisaged that these mitigation results will increase as our capacity to monitor against them does. At present countries and donors are developing programmes that measure coastal "blue carbon", including the potential to generate carbon offsets. The tools and policies supporting mitigation outcomes, including mapping, measurement, reporting and verification systems, will also support ecosystem management and broader outcomes. As these programmes come on line, there could also be an opportunity to look at establishing a carbon credit/offset type aggregation and trading function as part of the M-BIF at a later stage.

Paradigm shift potential: M-CMERP will support a shift in the paradigm from the delivery of ad-hoc, stand-alone adaptation initiatives that have often focussed on single issue, infrastructure adaptation responses, towards a holistic, long-term and integrated system of resilient development as articulated under the FRDP. This new paradigm will focus not only on a more holistic adaptation response, but also on the co-benefits of sustainably using and conserving ecosystems and the services they provide. In this context, M-CMERP will help drive systematic changes in the planning, policy, regulatory, legal and decision-making frameworks to support resilient development, creating an enabling environment across and within regional, national, and local scales. In doing so M-CMERP will catalyse future, and more effective EbA interventions through the establishment of the necessary enabling environment.

Implementing EbA is part of a paradigm shift from a disproportionate focus on high capital cost, hard infrastructure approaches for “on ground” coastal adaptation responses that dominate in the Pacific Islands and elsewhere. To date EbA responses and investment in ecosystem resilience are a very small fraction of climate investment, with an estimated <3% of adaptation finance in the Pacific Islands spent on ecosystem protection⁴¹, and globally less than 4% of multilateral development banks (MDBs) adaptation funds are allocated to ecological resources⁴². This is despite EbA approaches often having much lower costs than “hard engineering” coastal protection approaches, plus numerous co-benefits. There are several reasons for this including the relative newness of EbA, with a smaller evidence base and a not usual reticence to adopt new techniques. Another is the currently relatively dispersed nature and small financial scale of most EbA programmes. Whilst lower costs are an obvious benefit, in practice the small financial scale of EbA programmes often means that they are too small to be easily managed by large funding bodies such as MDBs, or are overlooked when large (financial) adaptation programmes are considered. For major donors it is easier to issue a single contract for a \$10 million sea wall or a large-scale drainage program, than it is for the financial equivalent of over 100 spatially dispersed mangrove planting, reef protection and restoration activities.

However, a key purpose of M-CMERP is to develop and demonstrate a model that is applicable across the Pacific Islands and elsewhere, and that demonstrates that EbA approaches and resilience focused development planning can be implemented at all appropriate spatial, social and cultural at national, sub-national and local scales. For this to happen it must be incorporated into longer term and larger financial scale climate change adaptation strategies, and achievement of NDCs. While there are already pilot programs and site work across the Pacific Islands, M-CMERP through the M-BIF has the potential to scale EbA to a level that will also change the paradigm for our vulnerable coastal communities. The innovative implementation design will also see ongoing injection of funding for adaptation and resilience building initiatives at appropriate scales.⁴³

The M-CMERP will have a strong focus on learning and sharing. A series of regional exchanges centred around the outputs of Component 1 and supported by a cohort of regional post-graduate students will create a learning environment and network among Pacific Island Countries that will provide a sustainable mechanism for moving forward with EbA planning after the M-CMERP.

Sustainable Development Potential: Coastal and marine ecosystem-based approaches provide great social, economic, and cultural co-benefits and represent a no-regret option for resilience building in the Pacific Islands, and also address a number of the Sustainable Development Goals. For example, it is expected M-CMERP will support: **Economic growth and development** through safeguarding tourism and natural resource industries and livelihoods (agriculture, aquaculture, forestry, and fisheries); **Social sustainability** through environmental education and training, as well as through provision of healthy local environments and sustainable livelihoods; **Environmental sustainability** by safeguarding the ecosystems and their services for present and future generations; **Food security** through better managed natural resources with science to support adaptive management; Countries to be able to **collect data** and report against the SDGs; and capacity development at the national, sub-national, and community levels to raise **awareness of sustainable development approaches** in support of coastal and marine resource resilience. For these reasons, M-CMERP has a large sustainable development potential.⁴⁴

Through the focus on supporting strengthened, integrated and strategic policy, planning, decision making and governance more broadly, M-CMERP will exit with governments at national, sub-national and community levels having established, and operating at greater capacity and coordination, the ongoing delivery of ecosystem resilience decision making and a foundation for longer term ecologically sustainable development planning. By incorporating a culture and gender-sensitive approach from the outset, M-CMERP will also help to avoid exacerbating social inequalities, and will contribute to a more climate resilient future for men and women in the participating countries.

EbA delivers multiple benefits by providing many other ecosystem services including direct benefits such as improved fish production. For example, restoring upland wetlands can reduce downstream flooding but also improve water quality and food security, as well as potentially improving recreation and tourism. The construction of hard infrastructure on the other hand often leads to a degradation of many of those environmental services. The restoration of mangrove forest in the Nam Dinh Province of Vietnam was estimated to cost US \$166 per hectare, but the benefits included coastal shoreline protection and also co-benefits of timber and honey production and the maintenance of fish populations worth almost US \$630 per hectare⁴⁵. These co-benefits also improve the resilience of communities to deal with climate change.

M-CMERP will also generate significant new data and information through the knowledge management component. Inherent in this is an opportunity to collect the type of social and economic data that could support the development and spread of sustainable business and investment models that have ecosystem resilience and the payment for ecosystem services at their core.

Needs of the beneficiary countries: The participating PICs are all highly vulnerable to the impacts of climate change and have a high level of climate risk. The World Risk Index 2016 index has Vanuatu as the most and Tonga as the second most vulnerable countries, with both the Solomon Islands and PNG in the top 10. In the Notre Dame Global Adaptation Index all are listed as having high vulnerability, with Papua New Guinea and the Solomon Islands being the seventh and eighteenth most vulnerable nations respectively. A range of geographic, economic and social factors leave limited resources for Melanesian countries to mitigate the hazards associated with this exposure and sensitivity. The participating PICs considered, and have negotiated for, the GCF to deliver grant-based support to help build resilience to the impacts that come with a changing climate, a change for which they bear negligible responsibility.

The participating countries have also chosen to engage in M-CMERP because they recognise their economic, livelihood and cultural futures rely on the continued health and function of their ecosystems. Climate change threatens to weaken, if not destroy, these ecosystems and the services they provide. As noted previously in this proposal, subsistence-based livelihood and natural resource-based economic growth are defining features of Melanesian countries, and targeted interventions to protect ecosystems from climate impacts are critical. In most instances the services provided by ecosystems are public goods, from which a range of private goods and services can be derived. Protection and management of such public goods is typically the responsibility of government, and without coordinated actions and interventions, such public goods run the risk of being neglected or overexploited. Melanesian countries have limited resources and capacity to respond to accelerating climate change and the complex range of impacts that come with it. Additional support is needed if Melanesia is to successfully safeguard its ecosystems.

Country ownership: All participating countries were engaged in the genesis of the concept, and have confirmed their willingness to be part of M-CMERP through their Nationally Designated Authority (NDA). They have a strong desire to implement EbA adaptation responses, as is demonstrated by the alignment of M-CMERP with the EbA focus of national and regional policies, plans and frameworks that the participating countries developed and agreed to. Through the PPF process countries will be engaged closely, including the engagement of civil society and the private sector as appropriate. The success of M-CMERP relies on strong country buy-in and ownership; as such this will be a key focus of the PPF process and ongoing implementation.

M-CMERP will tailor the design and delivery for participating PICs, informed and driven by national level contexts and priorities. It is planned that these country specific, national investment profiles will be developed during the PPF process. Through Component 1, participating PICs will have the opportunity to assume full ownership of activities as Executing Entities (depending on their preferences and capacity), which will help ensure activities are designed, managed and delivered locally. Through the M-BIF granting component, local stakeholders will be supported to bring forward locally conceived and owned Programmes, which will also place a heavy emphasis on localised goods and services.

Effectiveness and efficiency⁴⁶: EbA solutions are often highly cost-effective in relation to other types of adaptation responses, as they are often of lower cost and use the “free goods” provided by biodiversity and ecosystem services. For example, a global study of natural versus engineered hazard reduction in coastal zones showed that reef restoration programmes are always significantly cheaper than hard solutions in tropical environments⁴⁷. Hard engineering responses on the other hand are expensive to build and maintain, static in nature and either need to be overdesigned to cope with future sea level rise or will need to be replaced or modified as climatic conditions change. EbA approaches have also proven to be highly effective. Studies have found that mangroves significantly attenuate waves and suggest wave height can be reduced by 13 to 66% over a 100-meter-wide mangrove belt, while wave height can be reduced by 50 to 100% over a 500-meter-wide mangrove belt; coral reefs naturally protect coasts from erosion and flooding by attenuating wave energy and supplying and trapping sediment found on adjacent beaches. Recent meta-analyses show that coral reefs reduce wave energy by up to 97%⁴⁸. Coral reefs, if they are maintained in a healthy state, also generate massive amounts of carbonate as they grow and are generally expected to be able to keep pace with sea level⁴⁹, although this needs to be qualified in the context of the impacts of ocean acidification. The latter highlights the importance of managing and sustaining coral reefs and associated ecosystems as part of broad scale EbA implementation strategies to limit all impacts on reefs.

M-CMERP represents an efficient way to promote and proliferate the use of EbA in mainstream resilient development strategies because a) it will require relatively low cost interventions to establish the enabling environment and capacity for ongoing EbA, b) it can deliver finance directly to communities who can to utilise resources in the most appropriate and efficient way to deliver lasting benefits against their priorities; and c) it will utilise existing engagement, coordination and delivery platforms and networks made possible through working with SPREP as a longstanding regional agency and the IUCN Oceania office, which can bring in international experience in grant delivery.

C. Indicative financing / Cost information (max. 3 pages)

C.1. Financing by components (max ½ page)

Please provide an estimate of the total cost per component and disaggregate by source of financing.

Component	Indicative cost (USD)	GCF financing		Co-financing		
		Amount (USD)	Financial Instrument	Amount (USD)	Financial Instrument	Name of Institutions
Component 1 (National prioritization and Governance)	24 M	19 M	NR Grant	5 M	TBC	TBC
Component 2 (Grant Facility)	26 M	21 M	NR Grant	5 (+) ⁵⁰ M	TBC	TBC
Indicative total cost (USD)	50 million ⁵¹	40 million		10 million		

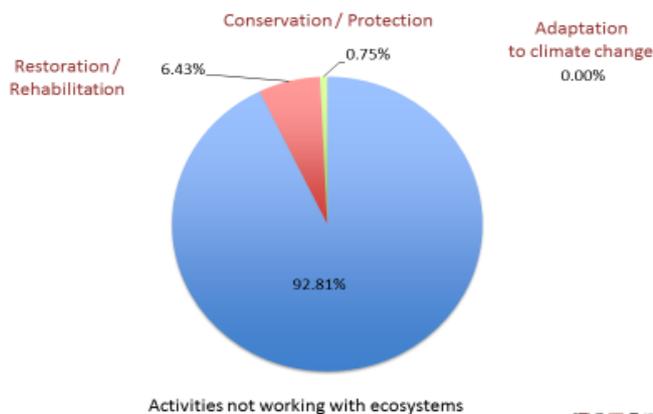
C.2. Justification of GCF funding request (max 1 page)

Despite the strong policy foundations and growing evidence demonstrating the immense co-benefits and cost efficiencies of EbA (including Community and Ecosystem-based approaches to Fisheries Management - CEAFM), there is still a relatively limited uptake of on ground EbA implementation in PICs, and no real attempt yet made to take these approaches to scale. Well-designed interventions can ensure that PIC coastal and marine ecosystems can contribute significantly, along-side other adaptation investments, to increased climate resilience, and can continue to provide livelihood, cultural and economic services.

CMERP aligns with the core GCF result area Ecosystems and Ecosystem Services. Further, regarding investment opportunities GCF notes that “EbA may offer flexible and cost-effective options to address risks that can also deliver co-benefits for mitigation, livelihood protection, and poverty alleviation” and that while “understanding of how EbA works is still evolving” and that “holistic investment in ecosystem services is complex ... the majority of [EbA] Programmes should be high-yielding investments” and finally that “focusing upon coastal ecosystems like coral reefs may be particularly relevant in SIDS, where they are threatened”⁵².

Climate finance for ecosystems: Adaptation Fund case study

Ecosystem activities as portion of total climate finance



Similar to the international trends in climate finance (see figure adjacent), there is little climate finance being allocated specifically to EbA. Of the finance approved by the GCF for the Pacific Islands there are no programs primarily addressing the adaptation results area “Ecosystems and Ecosystem Services”⁵³

The M-CMERP proposal is responsive to this priority and the absence to-date of coordinated and large scale investment in the natural environment as a basis of resilient development. IUCN and SPREP in partnership represent the leading global and regional environmental organizations respectively, and are well placed to work in partnership to support a coordinated, country owned and managed programme to scale up EbA for resilient development in the Pacific Islands.

GCF investment will be the much-needed catalyst to deliver a paradigm shift to a more holistic EbA and resilient development regime in PICs.

C.3. Sustainability and replicability of the Programme (exit strategy) (max. 1 page)

The GCF provides PICs with a unique opportunity to obtain the funding to create the large-scale adaptation financing that is vital to addressing the region’s very high vulnerability to climate change, which includes the high dependency of PIC

economies on coastal and marine areas where climate change impacts will be very great. The involvement of GCF will enable a long-term, predictable baseline investment for the region to support sustained efforts to strengthen the governance and institutional frameworks required.

The appropriate capacity (through training and capacity building in M-CMERP) and flexible, locally driven finance for EbA programmes and actions at a range of scales, will be offered to restore ecosystems in a sustainable manner so they provide long-term benefit. A key element of M-CMERP will be reinforcing the planning capacities of the region by providing countries and decision makers with a range of scenario assessment methodologies to determine the most appropriate responses to both short and long-term effects of climate change.

Through the focus on supporting strengthened, integrated and strategic policy, planning, decision making and governance more broadly, M-CMERP can exit with participating PICs having established (at national, sub-national and community levels), and operating at a greater capacity and coordination, the ongoing delivery of ecosystem resilience decision making and a foundation for longer term ecologically sustainable development planning

The M-CMERP investment will establish a flagship EbA Programme in the Pacific Islands, one that, through the regional purview and coordinating role of SPREP (and other Programme partners) and the global role and status of IUCN, will serve as a platform for attracting additional and on-going investments that contribute to the overall EbA objectives of the GCF. This includes, for example, strategic coordination with GEF investments and with on-going bilateral investments, opportunities for private sector and philanthropic investment through the M-BIF mechanism, and also the investments made by the participating countries themselves.

The initial proposal will be for a 5 year initiative (Phase 1) that will likely see a sequential approach to M-BIF grant access based on a) existing priorities and no-regret investments; and b) implementation of M-CMERP Components 1 and 2. To achieve this M-CMERP will provide targeted support to country stakeholders to identify opportunities and plans to access the M-BIF. Other (unprompted) applications will also be considered. It is envisaged that, pending evaluation of investment impact, IUCN and SPREP will seek opportunities to extend M-CMERP for a second Phase of 5 years. This will include a focus on identifying and attaining on-going financing of the M-BIF grants mechanism, and also opening up access and providing support to additional PICs. This may also include seeking further support from the GCF.

C.4 Engagement among the NDA, AE, and/or other relevant stakeholders in the country (max ½ page)

At the Pacific GCF structured dialogue in Suva in June 2016, PICs identified coastal and marine ecosystem resilience as a key priority to be taken forward in a coordinated manner, and as a region. This was reinforced and expanded at the 2017 dialogue in Tonga to include the need for multi-country, flexible and scalable, responsive climate finance. In response, two GCF AEs (SPREP and IUCN) committed to work with PICs and other partners to develop an innovative and high impact GCF multi-country Programme focused on building the resilience of Pacific Island coastal and marine ecosystems as a key strategy for long term and effective climate-resilient development.

To date engagement between the AEs and the NDAs has been based on:

- dialogue at the GCF Regional Pacific Meetings, including via bilateral meetings
- circulation of a Programme idea note for comment and input in March 2017
- circulation of an early draft Programme concept and PPF in May 2017 with follow-up bilateral teleconferences through June/July 2017
- Presentation of the concept at the 2017 Oceans Conference preparatory meeting in Fiji in May
- Presentation of the concept at the 2017 Ecosystem Based Adaptation Forum
- Presentation of the concept at the 2017 Direct Access Entities Workshop in Songdo
- Circulation of a first draft of the concept and PPF in August 2017
- Circulation of revised draft concept to NDAs (informed by two rounds of GCF written feedback plus formal discussions at the 2018 Direct Access Entities Workshop in Songdo)
- Endorsement of the revised draft concept by countries at the 2018 Pacific GCF Regional Dialogue in FSM (where Nauru and Palau expressed interest in joining the regional consortium, with NoLs to be confirmed)
- Discussions with GCF in July 2019 with decision to break the Pacific concept into 3 sub-regional concepts for Melanesia (M-CMERP), Polynesia (P-CMERP), and Micronesia (Mi-CMERP)

NDAs have been supported to ensure the consideration of the PPF and Concept through their structured appraisal and approval (no objection) processes. SPREP and IUCN have also been engaging other interested parties with a view to ensure integration and identify areas of potential collaboration and co-financing. Discussions are ongoing with US Climate Ready, SPC, OXFAM, Plan International, ADB and others.

D. Supporting documents submitted (OPTIONAL)

- Map indicating the location of the Programme/Programme
- Diagram of the theory of change ()
- Financial Model (to be developed via PPF)
- Pre-feasibility Study (to be developed via PPF)
- Evaluation Report of previous Programme (to be developed via PPF)

Self-awareness check boxes

Are you aware that the full Funding Proposal and Annexes will require these documents? Yes No

- Feasibility Study
- Environmental and social impact assessment or environmental and social management framework
- Stakeholder consultations at national and Programme level implementation including with indigenous people if relevant
- Gender assessment and action plan
- Operations and maintenance plan if relevant
- Loan or grant operation manual as appropriate
- Co-financing commitment letters

Are you aware that a funding proposal from an accredited entity without a signed AMA will be reviewed but not sent to the Board for consideration? Yes No

Appendix A: Policy review

Papua New Guinea's (PNG) National Climate Compatible Development Management Policy (2014) provides a focus on "Green Development" under which the government will support actions that preserve and manage natural assets in such a way that the natural assets can be sustained despite climate change impacts. It also has a focus on "Natural Asset Protection" under which important natural assets within communities and regions will be protected to both maintain their roles as "carbon sinks" and to enhance their long-term resilience to climate change impacts. The policy recognises the adaptive challenges ecosystems face and that the preservation of these ecosystems will require sophisticated management approaches that support transition to a new climate in future. In 2015 the Government submitted its INDC to the UNFCCC which noted that environmental sustainability and climate change was a strategic focus area for its 40 year development strategy: PNG Vision 2050. Under adaptation, the Government has placed emphasis on identifying the nine hazards related to climate impacts that require attention, including a) Coastal Flooding and Sea Level Rise and b) Damage to Coral Reefs. They also note that the country will need financial support, capacity building and technical support to face the uncertain future posed by climate change. Under the NCCDMP, the Partnership Strategies recognise the need to "promote recognition and respect of community rights, support for improved community climate change outcomes, and information sharing and collaborative partnerships for community climate risk management"; and to "ensure gender balance in all community, national and sub-national decision-making processes."

Solomon Islands' National Development Strategy (NDS) (2011-2020) notes the status of sustainable natural resource management and that the anticipated increasing need to address climate change related impacts will require a substantial increase in activities. Objective 7 relates to the Government's priority to effectively respond to both climate change and national disasters and the related management and protection of the environment and ecosystems. The NDS seeks to integrate national environmental issues in a holistic way so as to adapt to climate change and variability, as well as halt the deterioration of ecosystems, restore damaged ecosystems and ensure their survival for the long term to benefit Solomon Islanders. The Solomon Islands' Climate Change Policy (CCP) (2012-2017) which is linked to the NDS provides a policy framework for developing and describing ongoing and planned actions¹. The CCP states Government will build capacity, plan and implement ecosystem-based vulnerability assessments and adaptation programs and actions including protected areas legislation and marine ecosystem management. It also states Government will work with partners to promote and support the documentation and use of indigenous knowledge and scientific investigations and encourage their application

in enhancing the resilience of people and ecosystems to climate variability and climate change. One of the guiding principles of the CCP is for gender equity. The 2015 INDC communicated to UNFCCC notes adaptation projects have been grouped into thematic areas linked to the priority sectors established in the National Adaptation Programme of Action (NAPA) as well as some recently identified priorities, including coastal protection, fisheries and marine resources. It notes the high costs of required adaptation activities and expectation that a considerable portion of the necessary financing will be provided in the forms of grants from the Green Climate Fund, Global Environment Facility (GEF), Adaptation Fund, and from various bilateral climate change programs.

Vanuatu's National Development Strategy (2016 - 2030) articulates a vision that includes “ensuring the resilience and effective long term management of our natural, financial and human resources” and its stated development aspirations include “enhanced resilience and adaptive capacity to climate change and natural disasters”. Vanuatu's National Climate Change and Disaster Risk Reduction Policy (NCCDRRP) identifies five key adaptation strategic priorities and associated actions to further enhance the national adaptation efforts and build resilience across sectors, one of these is the need to take ecosystem based approaches. This document also recognises gender as a cross-cutting issue in climate and disasters and commits to women's participation in climate decision-making. The National Adaptation Programme of Action (NAPA) has five priorities: Agriculture and food security; Sustainable tourism development; Community based marine resource management; Sustainable forest management and Integrated water resource management – all which have related ecosystem based adaptation potential. The INDC submitted to the UNFCCC in 2015 does not set additional targets but provides an opportunity to reiterate the adaptation priorities as identified and prioritised in key national documents such as the NCCDRRP and the NAPA.

Regional. In addition to these strong policy frameworks at the national level these Pacific Island countries have come together with the region to create strong regional policy framework. The Forum Leaders Communiqués, Framework for a Pacific Oceanscape, the Regional Framework for Nature Conservation and Protected Areas 2014-2020, as well as sectoral policies such as the Regional Roadmap for Sustainable Pacific Fisheries and the New Song for Coastal Fisheries all recognise the role ecosystems play in climate change adaptation. Most recently in 2016, following four years of extensive and inclusive engagement process with stakeholders, from national and community to regional and international level, the Pacific adopted the Framework for Resilient Development in the Pacific: An integrated Approach to Address Climate Change and Disaster Risk Management (FRDP) 2017 -2030. Under the FRDP, the incorporation of ecosystem based services and functions in resilience building are one of seven key principles to guide the implementation of the whole strategy. Another key regional component is the support and input from the Tourism sector via the involvement of the South Pacific Tourism Organisation Climate Change Policy Division.

Appendix B: Pacific Islands Enhancing Coastal Resilience (PIECoR)

View at : www.sprep.org/attachments/2017SM28/Officials/English/WP%2012.1.3.Att.1-Pacific%20Island%20Coastal%20Resilience%20Framework%20.pdf

Endorsed by Pacific Islands Countries at the Twenty Eighth SPREP Meeting of Officials Apia, Samoa 19 – 21st September 2017.

Agenda item: www.sprep.org/attachments/2017SM28/Officials/English/WP%2012.1.3-Pacific%20Island%20Coastal%20Resilience%20Framework.pdf

Endorsement: www.sprep.org/attachments/Publications/Corporate Documents/report_28sm_eng2.pdf

Appendix C: References and notes

¹ Concept notes (or sections of) not marked as confidential may be published in accordance with the Information Disclosure Policy ([Decision B.12/35](#)) and the Review of the Initial Proposal Approval Process ([Decision B.17/18](#)).

² See [here](#) for access to Programme preparation support request template and guidelines

³ Both organisations have committed resources to the PPF process conditional on GCF approval of the PPF.

⁴ Refer to the Fund's environmental and social safeguards ([Decision B.07/02](#))

⁵ ESS risk thresholds associated with the M-BIF will be determined through the PPF process, but is expected to be restricted to Cat C projects.

- 6 As such each participating country recognised the potential for EbA in their National Development Strategies, intended Nationally Determined Contributions (INDCs), Joint National Action Plans (JNAPs), and other sectoral policies.
- 7 These factors include: deforestation and impacts on food security and water supplies; rising sea levels; heat stress; poor agricultural or land use practices; unsustainable fishing; damage to reefs and ocean acidification; removal of mangroves; natural disasters, poor waste management; increasing spread of invasive species and impacts on human health, food security and economic development.
- 8 Meehl et al., 2007 (A list of cited literature is included as Attachment D)
- 9 PACCSF 2014 (A list of cited literature is included as Attachment D)
- 10 Courchamp et al 2014 and Betzold 2015 (A list of cited literature is included as Attachment D)
- 11 Coastal and marine ecosystems in the Pacific context include inshore/coastal habitats such as littoral forests, salt marsh and estuarine environments, mangroves, sea grass, coral reefs and offshore habitats including the continental shelf, slope, seamounts, canyons and trenches.
- 12 Coastal, marine and terrestrial ecosystems are all highly interconnected (Silvestri and Kershaw 2010) and careful management of terrestrial systems such as catchment forests and freshwater wetlands are required. For example, coastal lagoons and nearshore waters are sensitive to the impacts of sediment inflow, waste and other sources of pollution from terrestrial areas. Therefore, it is important in a Pacific Island situation to consider the interconnections of terrestrial, coastal and marine systems when looking at an EbA approach
- 13 FAO, 2008 (A list of cited literature is included as Attachment D)
- 14 For example, in Choiseul Province of the Solomon Islands 86% of people are involved in subsistence capture of finfish (Solomon Islands Census 1999) and 70% of the fisheries production from coastal areas of the Pacific Islands is produced by subsistence fishing (Gillet 2011).
- 15 H Seidel and P Lal (2010). *Economic value of the Pacific Ocean to Pacific island countries and territories*. IUCN, Gland Switzerland
- 16 R Gillet, A Lewis and I Cartwright (2014). *Coastal Fisheries in Fiji*. Report to Ministry of Fisheries and Forests, Fiji.
- 17 GMS Vienna, JJ Meeuwig, D Pannell, H Sykes and MG Meekan (2011) *The socio-economic value of the shark-diving industry in Fiji*. Australian Institute of Marine Science. University of Western Australia. Perth
- 18 M Orams (2013) Economic Activity Derived from Whale-Based Tourism in Vava'u, Tonga, Coastal Management, 41:6,481-500
- 19 The impact of significant This protection from coastal hazards is particularly important for Pacific Island countries as highlighted in a recent study of 12 PICs in Oceania that showed that 57% of the assessed built infrastructure for the PICs is located within 500 m of their coastlines, amounting to a total replacement value of US\$21.9 billion. For nations such as RMI this figure can be as high as 98% and even in the larger islands such as those of the Solomon Islands the proportion was greater than 40% (Kuma & Taylor 2015) (Spalding et al 2014)
- 20 JD Bell et al. Mixed responses of tropical Pacific fisheries and aquaculture to climate change. *Nature Climate Change* Vol 3 June 2013
- 21 Impacts of Climate Change on Fisheries and Aquaculture, FAO 2018
- 22 Spalding, Mark D., et al. "Marine ecoregions of the world: a bioregionalization of coastal and shelf areas." *BioScience* 57.7 (2007): 573-583.
- 23 Such as the SPREP implemented Pacific Ecosystems-based Adaptation to Climate Change Project (PEBACC) and Pacific Adaptation to Climate Change (PACC) Programme (noting PACC activities are mostly hard infrastructure eg. roads, seawalls)
- 24 Munang et al., 2013. EbA also offers a valuable and effective tool for present-day management. Maintaining and enhancing coastal and marine systems will also support the continued provision of ecosystem services, including the provision of food, maintenance of coastal resource dependent livelihoods and the conservation of the unique biodiversity.
- 25 Papua New Guinea, Solomon Islands, Vanuatu
- 26 IPCC definitions (Parry et al., 2007): "**Resilience** is the ability of a social or ecological system to absorb disturbances while retaining the same basic structure and ways of functioning, the capacity for self-organization, and the capacity to adapt to stress and change." "**Vulnerability** is the degree to which a system is susceptible to, and unable to cope with, adverse effects of climate change, including climate variability and extremes. Vulnerability is a function of the character, magnitude, and rate of climate change and variation to which a system is exposed, its sensitivity, and its **adaptive capacity**..." "**Adaptive Capacity** is the ability of a system to adjust to climate change (including climate variability and extremes) to moderate potential damages, to take advantage of opportunities, or to cope with the consequences."
- 27 The Programme objective establishes the overarching direction of the Programme. Individual Country Programme Outcomes will be defined through the PPF process, drawing as much as possible on a consistent set of result indicators.
- 28 Further these values are diverse and the climate change threats to them are not evenly distributed, as some demographics within and across countries; communities and within households are impacted differently. Climate change can exacerbate existing social inequalities, as can poorly designed climate change responses. Different groups of people use the available natural resources in different ways, and so understanding and accounting for these different needs will be necessary to understand different vulnerabilities and design effective responses. For example, men and women use fisheries resources differently, have access to different levels of information and decision-making power, and often have distinct roles within a community. Men and women also have distinct skills and knowledge, which can be utilised to enhance positive adaptations and responses
- 29 Capacity support and training to synthesize the outcomes of the preceding assessment process and ESRM implementation to produce the ecosystem services and socio-economic vulnerability and opportunity assessments (ESSVOAs)
- 30 Delivered through tailored governance and capacity development initiatives, designed specifically for each country - each develop their own targets, needs and windows of opportunity to innovate and adapt. Each country will have its own evolving programme of work to achieve their relevant outcomes..
- 31 Eg. early warning and evacuation systems, Eco-DRR, Green Recovery and Reconstruction Toolkit, Improved Risk Sensitive Planning, Principles of building back better, erosion control, catchment resources management, protection of valuable flora and fauna, agroforestry for restoration
- 32 IUCN, for example, is implementing 58 EbA Programmes in 45 countries.
- 33 See Attachment C to this concept for summary of existing IUCN Oceania and Global on-granting programs
- 34 GCF Insights issue 1
- 35 The Biodiversity and Protected Areas Management Programme (BIOPAMA), implemented by IUCN and SPREP, includes a €6 Million granting program for "on the ground action" in countries across the region. www.biopama.org/
- 36 Critical Ecosystem Partnership Fund (CEPF); Biodiversity and Protected Areas Management Programme (BIOPAMA); Climate Change Mitigation and Risk Reduction Programme (CCMR)
- 37 SPC, Coastal Fishery Report Card 2017, Future of Fisheries.
- 38 This is calculated based on approximately 45 grants being delivered over the 5 years with an average of 3500 direct beneficiaries per grant. This to be further validated in PPF
- 39 This is calculated based on impact to 60% in Solomon Islands, and Vanuatu and 25% for PNG (target 50% most vulnerable) in the target countries. It would be evidenced by: Changes in expected losses of lives and income due to impact of extreme climate related disaster; value of built infrastructure protected by EbA measures; number of people benefiting from adoption of climate resilient coastal livelihood options (fisheries, tourism, other alternative); value of improved ecosystem services as a response to EbA measures e.g. fish stocks, improved water quality; number of Blue Impact Facility Programmes that support adaptation of fish stock migration and depletion
- 40 This is based on a 10-year program. Calculated assuming 100 000 ha of community based rehabilitation of coastal habitat at \$166 ha⁻¹ (Moberg & Ronnback 2003). 10 000 ha of restored/reconstructed marine and coastal habitat at \$2666 ha⁻¹ (Bayraktarov et al 2016) and 1 million hectares of MPA established and maintained at \$27 ha⁻¹ over 10 years (McCrea- stub et al 2011).
- 41 Atteridge et al 2017
- 42 World Bank, 2015
- 43 It is envisaged that by establishing a flagship EbA and CEAfM programme at scale, the GCF investment will attract additional partnerships and investments. As the regional coordinating body on ecosystem management in the Pacific, SPREP will serve to facilitate this, including from traditional donors, the private sector, foundations and philanthropic donors, while SPC will strengthen this with the CEAfM work to expand this to as many coastal communities as possible in the region.
- 44 . The design processes will undertake some research and analysis to help define the economic, social and environmental implications of the Programme, as well as define the counterfactual. The PPF will also define a monitoring and evaluation framework to support the collection and analysis of data and information which can be used to attribute Programme investments to economic, social, and environmental benefits.
- 45 Moberg & Ronnback 2003
- 46 An Economic Rate of Return (ERR) will be determined through the PPF process, but is expected to be very high in the Pacific context. The PPF will help establish a model to enable collection and analysis of data and associated information to demonstrate the ERR on an ongoing basis using real-time inputs. The proposed M-CMERP approach will ensure economic efficiency. The feasibility studies and assessments to be provided during the M-CMERP preparation phase will ensure the right options (through comparison of counterfactual scenarios) are chosen for implementation. Co-financing for public good investment and management can be difficult to secure, nevertheless M-CMERP will aim to leverage co-investment through local, national, and regional stakeholders. It is also expected that M-CMERP be established as a flagship for EbA in the region, with the potential to 'crowd-in' additional investment and partnership support.

⁴⁷ Rao et al (2012) compared the relative cost and benefits of ecosystem-based as opposed to engineering solutions for flood mitigation and storm surge protection for Lami town in Fiji. They found that although engineering solutions may have a greater potential to reduce overall damage they are generally less than half the benefit /cost ratio of EbA solutions. Likewise, in the Philippines, mangrove protection provided avoided damages for shoreline protection of USD 206,621, as compared to building a seawall, which provided avoided damages of USD 180,046 with a 10% discount rate. The cost of building a sea wall was estimated to be \$6010 -7268 USD while mangrove protection was estimated \$338 USD over a 20-year period.

⁴⁸ Ferrario et al. 2014

⁴⁹ Kench et al 2015, McClanahan et al. 2002

⁵⁰ The M-BIF grant facility is envisioned as a platform for on-going investments including for example strategic coordination with GEF investments, with on-going bilateral investments, opportunities for private sector and philanthropic investment through the M-BIF mechanism

⁵¹ Subject to the outcomes of the PPF

⁵² Elements 02 – Investment Opportunities for the Green Climate Fund November 2015

⁵³ Only 2 of the 7 Projects approved in the Pacific Islands indicate a contribution to the Ecosystems result area, and in both cases are a secondary focus of the project.