

REPÚBLICA DE MOÇAMBIQUE MINISTÉRIO DA ECONOMIA E FINANÇAS GABINETE DE DESENVOLVIMENTO DO COMPACTO II

Notice of Program Partnership Solicitation

Amendment

Integrated Climate Management and Coastal Development Project (ICMCDP)

The Compact II Development Office (GDC-II) - created through the Decree 27/2020 of the Council of Ministers on the 8th of May 2020, supervised by the Minister who oversees the sectors of Economy and Finance - as a supplement to the aforementioned announcement published on the 6th and 09th of May, which deadline for submission of proposals was June 10, 2022 at 5 pm , the GDC-II hereby informs the public in general as well as the potential candidates in particular that the closing dates has been changed to the following:

Closing Date and Time: 17:00 hours (GMT + 2): June 29, 2022

Information regarding the Compact and its related documents can be found on the websites of the Gabinete (http://www.mef.gov.mz/) and MCC (www.mec.gov).

Interested applicants may request the full Program Partnership Solicitation document by sending an email indicating the name of the organization (or individual), address, and key contact details (name, phone number, e-mail) of the person requesting the document. These requests should be sent to GDCcoastaldevelopment@gmail.com

All other clauses and conditions of the tender remain valid.

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REPÚBLICA DE MOÇAMBIQUE MINISTÉRIO DA ECONOMIA E FINANÇAS GABINETE DE DESENVOLVIMENTO DO COMPACTO II

Program Partnership Solicitation

Notice of Funding Opportunity No: 01
Integrated Climate Management and Coastal Development Project
(ICMCDP)

Issue Date: May 5, 2022

Closing Date and Time: 17:00 hours (GMT + 2), June 29, 2022

The Government of Mozambique, acting through the Gabinete de Desenvolvimento do Compacto – II, Ministério da Economia e Finanças, (the Gabinete) is pleased to launch this Program Partnership Solicitation opportunity to collaborate with the Gabinete in the realization of economic development objectives described herein.

The United States of America acting through the Millennium Challenge Corporation (MCC) has approved the development of the second compact for the country of Mozambique. The first compact for Mozambique closed in September 2013 and focused interventions in the northern region of the country. The compact funded the rehabilitation of water supply, drainage systems, and roads, as well as provided support for land tenure and farmer support services. The Government of Mozambique is now in the early stages of its second compact development which will likely focus interventions on Agriculture, Rural Roads and/or Logistical Infrastructure and an Integrated Climate Management and Coastal Development Project.

The purpose of this Program Partnership Solicitation is to identify partners whose resources, experience in the Mozambican Swamp Coast, and expertise will complement MCC funding support for the Integrated Climate Management and Coastal Development Project and thereby increase the sustainability of the project during and after the MCC funding period.

The Government, acting through the Gabinete and its eventual successor, to be known as the Mozambique Millennium Challenge Account (Mozambique MCA), intends to apply a portion of the MCC funding for the Integrated Climate Management and Coastal Development Project to eligible disbursements under an Award (a Grant) for which this Program Partnership Solicitation (PPS) is issued. Any disbursements made under the proposed Award will be subject, in all respects, to the terms and conditions of the Compact and related documents, including restrictions on the use and distribution of MCC Funding. No party other than the Government and the Gabinete or its successor will derive any rights from the Compact or have any claim to the proceeds of MCC funding.

Information regarding the Compact and its related documents can be found on the websites of the Gabinete (http://www.mef.gov.mz/) and MCC (www.mec.gov).

The purpose of this PPS is to disseminate information to prospective applicants so they may develop and submit applications to the Gabinete for a grant supported by MCC funding. The PPS facilitates a co-creative process to scope, design and launch partnerships that leverage the capabilities of the Gabinete or its successor and external entities. Through this PPS, the Gabinete or its successor and eligible external organizations may discuss their respective objectives and goals, determine how those interests align, and jointly identify ways to leverage and combine resources via partnership.

This PPS describes eligibility conditions and requirements that must be met by applicant(s), as well as application instructions, application evaluation criteria and standard agreement terms. Issuance of this PPS does not constitute a binding commitment on the part of the Government to issue an award. The Gabinete solely reserves the right to fund any or none of the applications submitted under this PPS.

We hope you will consider responding to the partnership opportunity contained in this PPS.

Sincerely

Higino Marrul

National Coordinater, Gabinete de Desenvolvimento do Compacto – II, Ministério da Economia

e Finanças

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1. ABBREVIATIONS AND DEFINITIONS

Throughout this document, the following terms may be used:

- "Accountable Entity" refers to the statutory entity [Gabinete de Desenvolvimento do Compacto II, Ministério da Economia e Finanças (the Gabinete) and its eventual successor, to be known as the Mozambique Millennium Challenge Account (Mozambique MCA)] established under the laws of the Republic of Mozambique.
- "Applicant" refers to the organization responding to the Program Partner Solicitation. Applicant may partner with other entities to strengthen their proposal.
- "Award" is used throughout the document to refer to a Grant, as governed by the MCC Program Grants Guidelines.
- "Award Manager" refers to the Gabinete staff person who will be responsible for liaising with the Partner and other relevant stakeholders in the partnership and who has responsibility to ensure compliance with the terms of the Cooperation Agreement.
- "Awardee" is the organization receiving an Award through the form of a Cooperation Agreement. In this document, the Awardee is also referred to as the Partner.
- "Co-financing" means the amount of financing an Awardee contributes to the proposed Project. Co-financing can be comprised of Cost-Share or Leverage.
- "Cooperation Agreement" is the legal instrument pursuant to which the assistance described herein will be provided and which will set forth the terms and conditions of such assistance, including a collaborative governance structure and co-financing.
- "Cost Share" means the resources an Awardee directly contributes to the total cost of the Project. Cost-share must be accounted for in the award budget and is auditable.
- "Discussions" mean a process of dialogue between the Gabinete and an Applicant aimed at improving the entity's subsequent submissions. Discussions provide feedback on an entity's submission so that the entity can, acting on its own, improve its subsequent submissions.
- "Grant" is a transfer of financial assistance in cash or in-kind from the grantor to an eligible grantee for a public purpose in furtherance of an MCC-supported program.
- "Key Personnel" refers to individuals with particular technical and/or management expertise whose qualifications form part of the evaluation of the Applicant. Once a Cooperation Agreement is signed, replacement of Key Personnel (Key Personnel changes) must be approved by the [Accountable Entity].
- "Leverage" means resources that an Awardee brings to the Partnership. Leverage may be in a variety of forms that provides anything of value that can be measured, such as financial contributions, third party contributions, donated services or property, or intellectual property. Unlike Cost Share, Leverage is not audited.
- "Outcome" refers to the likely or achieved intermediate effects of an intervention's outputs. This is a type of result.

- "Outcome Indicator" refers to an indicator that measure the intermediate effects of an activity or set of activities and are directly related to the Output Indicators.
- "Output" refers to the direct result of a project activity. The goods or services produced by the implementation of an activity. This is a type of result.
- "Output Indicator" refers to an indicator that directly measure project activities. They describe and quantify the goods and services produced directly by the implementation of an activity.
- "Partner" refers to the primary organization receiving a Cooperation Agreement and undertaking the shared objectives and activities in a collaborative relationship with the Gabinete. Since the Partner receives an Award, the Partner is also referred to in this document as the Awardee.
- "Partnership" refers to a collaborative relationship between two or more entities governmental or nongovernmental in which the partners work together to achieve a common purpose or undertake a specific task and to share risks, responsibilities, resources, competencies, and benefits. The partners mutually determine the goals, structure, governance, roles, and responsibilities of their collaboration.
- "Project" refers to the joint activity with shared objectives undertaken through the Cooperation Agreement.
- "Sub-award" means an award of funding assistance by an Awardee, serving as a pass-through entity, to another entity, the Sub-partner.
- "Sub-partner" is any entity receiving a sub-award or sub-contract from the Applicant/Awardee to undertake elements of the Project.

The following acronyms are also used throughout:

AFD	French Development Agency		
AMP	Marine Protected Area (or Marine Conservation Area)		
ANAC	National Administration of Protected Areas		
APAIPS	Environmental Protected Area of the Archipelago of the First and Second Islands		
BIOFUND	Foundation for Conservation of Biodiversity		
CCP	Community Fishing Council		
CDF	Compact Development Funding		
CFF	Compact Facilitation Funding		
CI	Conservation International		
CTV	Centro de Terra Viva		
EIF	Entry into Force		
EU	European Union		
FAO	Food and Agriculture Organization		
FFS	François Sommer Foundation		
FNDS	National Sustainable Development Fund		
GIS	Geographic Information System		

GMT	Greenwich Mean Time		
GRM	Government of the Republic of Mozambique		
HAC	High Ambition Coalition for Nature and People		
ICMCDP	DP Integrated Climate Management and Coastal Development Project		
ICT	Information and Communication Technologies		
IDA International Development Association			
IFAD	International Fund for Agricultural Development		
IGF International Foundation for Wildlife Management			
IIP National Fisheries Research Institute, Oceanic Institute			
INGC	National Disaster Management Institute		
IUCN	International Union for Conservation of Nature		
KBA	Key Biodiversity Area		
KMAD	Kenmare Moma Development Association		
LMMA	Locally Managed Marine Area		
MCA	Millennium Challenge Account		
MCC	Millennium Challenge Corporation		
MIMAIP	Ministry of the Sea, Inland Waters and Fisheries		
MoU	Memorandum of Understanding		
MOMS Management Orientated Monitoring System			
MTA	Ministry of Land and Environment		
NDA	Non-Disclosure Agreement		
NGO	Non-Governmental Organization		
NICRA	Negotiated Indirect Cost Rate		
NOAA	National Oceanic and Atmospheric Administration		
NRM	Natural Resources Management		
OIKOS	Nordic Ecological Foundation		
PDF	Portable Document Format		
POEM	Marine Spatial Planning		
POC	Point of Contact		
PPS	Program Partnership Solicitation		
ProAzul	Fund for the Development of the Blue Economy		
RARE	RARE International		
REDD+	Reducing Emissions from Deforestation and Forest Degradation		
REPMAR	Regulations for Marine Fishing		
SPEED	Supporting the Policy Environment for Economic Development		
SWIOFISH	Second South West Indian Ocean Fisheries Governance and Shared Growth Project for Southern Africa		

TED	Turtle Excluder Device
U.S.	United States
USA	United States of America
USAID	United States Agency for International Development
USD	United States Dollar
WB	World Bank
WCDI	Wageningen Centre for Development Innovation
WCS	Wildlife Conservation Society
WWF	World Wildlife Fund for Nature
ZEE	Exclusive Economic Zone
ZVDA	Zambezi Valley Development Authority

2. PARTNERSHIP PROGRAM DESCRIPTION

2.1 Purpose

The purpose of the partnership program is to identify, develop and implement effective, time-bound, and cost-effective coastal biodiversity and fisheries habitat management interventions in the Swamp Coast of Mozambique that increase ecosystem productivity, enhance sustainable livelihoods, mitigate climate change effects on the coastal ecosystem, and continue beyond the five-year Compact implementation period until collapsing coastal ecosystems are restored, fisheries and livelihoods are optimized, and Mozambique complies with its laws and commitments for marine ecosystem management.

2.2 Anticipated Award Duration

The partnership through the Cooperation Agreement is expected to have a duration of up to 7 years, valid from December 2022, at the earliest, through December 2029. This period covers up to two years of Compact development followed by five years of implementation. Applicants are invited to propose an appropriate award duration. In no case may the award duration exceed the Compact end date, which is estimated to be December 2029.

2.3 Anticipated Award Amount

The estimated budget for the Government Award is anticipated to be between US \$50,000,000 and US\$ 100,000,000. Partner cost-share or leverage is additional to the Government funding.

2.4 Anticipated Number of Awards

This PPS is anticipated to result in two or more award[s].

2.5 Program Description

The purpose described in section 2.1 means that the proposed Integrated Climate Management and Coastal Development Project (ICMCDP) will need to consider investments in:

- protection of biodiversity through expansion of habitats and species populations;
- sustainable harvesting, relief of fishing pressure on species stocks, and maintenance of fisheries productivity;
- development of livelihoods alternatives to relieve pressure on coastal ecosystems and families:
- development of "blue carbon" benefits through assisting private and public marine and coastal REDD+ projects that benefit communities and empowerment of coastal communities to create and develop blue carbon projects that benefit them directly; and
- optimization of synergies with other similar programs or initiatives with aligned intent.

ICMCDP will also need to maximise the opportunities provided by the Mozambican legal and policy framework, and intervene in targeted, specific ways, when constraints/limits to this

framework are encountered¹. Lastly, given the climate vulnerabilities of Zambezia's coast, investments directed towards reduction of human and ecosystem climate vulnerability and damage mitigation are also important.

Inherent in this purpose is the importance of partnership to maximize the technical expertise, the financial resources, and the time dedicated to enhancing the impact of ICMCDP. The time factor is a critical element in the decision to undertake this partnership solicitation. MCC financing for Compact project implementation has a statutory limit of 5 years. Clearly, however, the environmental and social transformations necessary to achieve the project purpose are very unlikely to be achieved in so short a time. For this reason, the Gabinete is seeking partners who have a track record and long-term commitment to support for activities aimed at achieving the objectives inherent in the project purpose. The intention is to support the identification of the most effective of these existing activities, provide grant(s) to intensify and expand their implementation, and create conditions that will facilitate ongoing financing of activity implementation following the finalization of MCC's contribution, until the principal objectives have been achieved.

There are three specific objectives:

- 1. Maximise the area covered by healthy and productive ecosystems. Ecosystems characterized by healthy and expansive biodiversity are also more productive. In fact, marine and coastal production is linked to biodiversity since more biodiverse ecosystems have more ecological niches filled by productive species. Ecosystem productivity and ecosystem services both go down as species are removed.² Consequently, expansion of the areas with healthy ecosystems maximizes marine and coastal productivity and optimizes the benefits for people.
- 2. Maximize coastal and marine climate change resistance and resilience, to mitigate damage to ecosystems and, therefore, to human lives, livelihoods, and infrastructures. This will enhance the sustainability of existing human benefit streams (such as fishing) as well as the development of new ones (such as blue carbon).
- 3. Reduce human dependence and impacts on fisheries and their supporting ecosystems, through development of new, climate resistant and sustainable livelihoods strategies and livelihoods opportunities. The intention is not to eliminate the coastal fishing cultures, and people's dependence on the sea. The idea is to reduce dependence so that sustainable levels of utilization can be maintained.

2.5.1 Social and Environmental Context

Families in the coastal communities of the Swamp Coast in Zambezia and Nampula provinces families practice fishing, agriculture, gathering, and other livelihoods strategies, with fishing providing an average of 49% of family income. Despite these diversified livelihoods, only 25% of fisher families have enough income to meet their daily needs. It is no surprise that data show that poverty rates in three provinces are well above the national average (48.4 percent): Niassa-

¹ Examples include the need for timely revision of law 16/2014 of 20 June, regulation of Law 89/2016 of December 29, redefinition of institutional attributions and responsibilities, and, where necessary, analysis of the FNDS Policy in terms of Climate Management to identify where there are conflicts of interest.

² Jeremy B. C. Jackson, Michael X. Kirby, Wolfgang H. Berger, Karen A. Bjorndal, Louis W. Botsford, Bruce J. Bourque, Roger H. Bradbury, Richard Cooke, Jon Erlandson, James A. Estes, Terence P. Hughes, Susan Kidwell, Carina B. Lange, Hunter S. Lenihan, John M. Pandolfi, Charles H. Peterson, Robert S. Steneck, Mia J. Tegner and Robert R. Warner. 2001. Historical Overfishing and the Recent Collapse of Coastal Ecosystems. Science, New Series, Vol. 293, No. 5530 (Jul. 27, 2001), pp. 629-638.

60.6%; Nampula- 57.1%; and Zambezia- 56.5%, 2018 data).³ Population growth is 2.9% p.a. (2020 data) for Nampula and Zambezia, which means that more and more fishers are being added to the coastal population every year

The distribution of fishing income between crewmembers is highly skewed as well, with beach seine boat captains taking 50% of each boat's catch, the mate taking 25%, and the remaining 8 or 10 crew splitting the remaining 25% between themselves. Young men without prospects sign on with fishing boat captains for anywhere from 6 months to five years. If 8 to 10 people are needed to pull a beach seine (for example), and a day's worth of effort yields less than 12 kilos of fish (as per catch per effort results in Nacala, for example), then each young man will receive less than a kilo of fish in return for a day of backbreaking effort pulling beach seines by hand. It is a real question whether the caloric value of fish received is higher than the caloric value expended while pulling the nets. The simple fact that young men agree to such long contracts for such small returns indicates a degree of desperation that makes them vulnerable targets for any sort of violent extremism, whether political (as in the centre of Mozambique) or religious (as in the north).

Most fish resources in Zambezia are overfished, meaning that improved/increased fishing effort will not yield more fish, and that current offtake levels threaten sustainability. Much overfishing is attributed to the use of beach seines, which capture immature fish, larvae, and eggs, damaging future harvests. Beach seining also degrades the substrate, when weights drag across seagrass beds, nesting areas, spawning areas, or areas of juvenile growth. A cascade of negative effects are associated with both overfishing and the use of damaging fishing arts, not just habitat loss and lowered reproduction, but also: ecosystem fragmentation; the disruption that occurs to fish populations due to loss of connectivity between key habitats; and reduction/loss of species relationships across trophic/energy chains and species assemblages. In short, current fishing patterns disrupt the whole complex network that forms the base of productive coastal ecosystems, and from which humans derive benefits.

Women are less involved in 'formal' fishing activities than men. In Zambezia, men tend to occupy almost all roles in the marine products sector that involve cash flow; women are largely excluded. Women participate as buyers/ traders of fish, and in fish processing (drying). Women also collect intertidal resources and fish with capulanas or mosquito nets to feed their families, harvesting juvenile fish and larvae for some protein for family pots. Important contributing factors to gender roles include:

- 1. Although most coastal societies are matrilineal, matrilineality has been overlaid with male-dominated religious influences (Islam and Christianity). Although inheritance is preserved through the female line, authority and decision power rests with a woman's brothers; for her children, the maternal uncle is the most important figure. Women's participation in society and decision making (in society as well as in the home) is thus limited by societal expectations that men will dominate; women have little decision space.
- 2. Women themselves, when given position (on a committee or in an association), often do not have the confidence or experience to participate successfully. Although NGOs may mandate 50% women on a committee for example, this is no guarantee if women's

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 $^{^{3}\ \}underline{https://www.globallivingwage.org/wp-content/uploads/2021/03/Rural-Mozambique-LI-Reference-Value-FINAL-updated.pdf}$

- participation is limited. With few exceptions, women are constrained culturally from speaking as equals in public settings.
- 3. With large numbers of men camped on the beach in improvised fishing camps, transactional sex becomes a way for women to enter the economy in roles that men cannot usurp. Transactional sex also enters the fishing value chain, with some portion of the catch bought with sexual favours. When the women transport fish to town, sexual favours are also traded for cash to increase the profitability of the journey.

Extreme climate events also affect this area of Mozambique. Climate change effects not only damage houses, farms, crops, trees, and fishing boats and gears, they also damage habitats; Coastal and marine habitats such as mangroves, seagrasses, and coral reefs become covered with sand and mud, and mangroves may be damaged by cyclones and high winds and waves. Rising atmospheric CO² and climate change are associated with concurrent shifts in temperature, circulation, stratification, nutrient input, oxygen content, and ocean acidification, with potentially wideranging biological effects. Cyclones and heavy rains may scour inland areas, increasing erosion, infrastructure destruction, and the sediment loads of rivers. Variable rainfall may result in droughts or difficulties in timing the planting of crops.

The Zambezia coast is particularly vulnerable to climate change effects. The (then) INGC, *Instituto Nacional de Gestao das Calamidades*, in 2012 published an overview of hazards and vulnerability of Mozambican coast, including tidal range, offshore wave height, cyclone threat (occurrence, category, and inverse weighting by distance from shore), and elevation vulnerability. For all 4 parameters, Zambezia registers the highest level of vulnerability of any coastal area of the country.

2.5.2 Natural Infrastructure and Recovery Potential

Healthy coastal ecosystems, on the other hand, afford good protection for the coastline and human infrastructure, capture sediments to reduce coastal erosion and combat sea-level rise as well as help with recovery by ensuring that there are intact habitats not overtopped by sediments (i.e. source habitats for species and re-seeding).

An example of this is found in a comparison of the two 2019 cyclones that hit the Mozambican coastline: Idai, which hit in Beira and Sofala, and Kenneth, which hit the coast in Cabo Delgado, centered on the Quirimbas National Park. Cyclone Idai was a category 2 cyclone when it made landfall and was the deadliest storm ever to hit Africa and the largest humanitarian disaster of 2019, causing 1,300 deaths across southeastern Africa. Cyclone Kenneth, which made landfall a month later as a category 4 cyclone with wind gusts of 220 km/h, was the strongest cyclone to ever make landfall in Africa.⁵ Despite the much greater strength of Cyclone Kenneth, the damage inflicted was much less. Local officials attribute this to the extensive intact mangrove stands of the Quirimbas National Park and surrounding areas, which buffered much of the cyclone's violence and flooding. Idai resulted in 1.85 million people needing emergency assistance, while Kenneth resulted in only 374,000 requiring aid.⁶ Flooding and erosion meant that 400,000 people were displaced by Idai, while only an estimated 18,000 were displaced by Kenneth. Of the 400,000

⁴ https://www.researchgate.net/publication/223993871 Climate Change Impacts on Marine Ecosystems

 $^{^{5}\,\}underline{\text{https://reliefweb.int/report/mozambique/learning-cyclone-idai-and-cyclone-kenneth-inform-long-term-disaster-risk-reduction}$

 $^{^{6}\ \}underline{\text{https://www.unocha.org/southern-and-eastern-africa-rosea/cyclones-idai-and-kenneth}}$

internally displaced people from Cyclone Idai, an estimated 42,000 were permanently displaced and are currently residing in resettlement camps, compared to almost none from Kenneth.⁷

There is a worldwide body of evidence that formal protection of marine habitats contributes significantly to habitat recovery after climate events. Three formally protected areas lie within the Swamp Coastal Zambezia + geography. These are:

- 1. Área de Proteção Ambiental do Arquipélago das Ilhas Primeiras e Segundas (APAIPS);
- 2. Parque Nacional de Gilé, which has a hunting concession alongside its west side that is managed by local communities;
- 3. Reserva Nacional de Marromeu, which has 4 hunting concessions on the north and west, 3 of which are managed by private operators, and 1 (former Coutada 12) that has been absorbed by the Gorongosa National Park.

In addition there is a 34,000 hectare private game reserve for conservation and tourism owned by Madal, in a pristine Zambezi river delta area in close proximity to the Primeiras & Segundas Archipelago. It is a world-class birding destination with various rare and threatened species of bird and antelopes, as well as 4 of the Big 5 game species,

All of these areas suffer from a lack of management, and thus are unable to meet their goals for biodiversity protection and maximum ecosystem productivity. There is ample space for improvement, especially through community co-management. Management goals include coastal protection as well as increased productivity of fisheries and wildlife.

A recent study of fisheries recovery simulations maximizing both total biomass and catch show that improvements are possible within ten years by protecting 20 percent of critical habitat in optimally placed no-take Marine Protected Areas and reducing fishing effort.⁸ In all cases, management measures that reduce fishing pressure outside of AMPs, such as gear restrictions, are also critical. Total biomass (biomass inside AMP, outside AMP, and catch) can increase by as much as 2.9 times. These results align with previous studies of effects of no-take zones on artisanal fisheries in Mozambique.

No-take zones create safe havens where fish and habitats are not disturbed, so reproduction increases due to a variety of mechanisms (more adults surviving to large size, more reproduction, better habitats, and others). As fish populations go up, they spill over into surrounding areas where they are available to be caught. The size of a no-take zone is important. It should be large enough to provide a safe breeding place for targeted species, but small enough that not too much fishing area is lost. Many authors cite a 30% no-take zone as the right amount for best results, either as one large area or a network of smaller areas. For wide ranging species, it is important to protect breeding sizes and sites for juvenile development. Connectivity between different habitats is also required, so protecting the so-called blue highways between mangroves and corals, for example, is important.

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⁷ INGD, Personal communication to Terra Firma Lda..

⁸ Brito, A., Cox, C., Armando, C., Jose, E., and Santana Afonso, P. 2021. Sustainable Fisheries Assessment in Mozambique: Nampula and Zambezia. SPEED Technical Portfolio: (Biodiversity), USAID, Mozambique.

2.5.3 Important Stakeholders

The Ministry of Land and Environment (MTA) and the Ministry of the Sea, Inland Waters and Fisheries (MIMAIP) are committed to expanding the national network of Marine Protected Areas (AMPs) which currently cover around 2.1% of the Exclusive Economic Zone (ZEE) of the country. Mozambique is a member of the High Ambition Coalition (HAC) for Nature and People, which, on 11 January 2021, brought together over 50 governments who announced their commitment to protect at least 30% of the globe's land and ocean by 2030. More immediately the Mozambican government has 2 national and international conservation targets:

- To extend the current Marine Protected Area (AMP) network from 2% to 10% of its territorial waters by 2024 (Aichi Biodiversity Target); and
- To protect 5% of the marine ecosystems by 2025 (National Biodiversity Strategy and Action Plan).

Recently, MIMAIP defined three strategic lines of action to achieve these objectives:

- accelerate any ongoing processes to create new AMPs;
- analyze local community initiatives to establish community management areas and assess their potential to become AMPs; and
- use Key Biodiversity Areas (KBAs) as priority areas for formal protection.

In line with these strategies, the World Conservation Society (WCS) recently led a project in partnership with the MTA that identified and mapped 29 KBAs, 4 of which are marine and 7 coastal. WCS is working with MIMAIP on its initiative to develop an expansion strategy for AMPs, and has supported the National Fisheries Research Institute (IIP) in establishing an intersectoral coordination group, including representatives of oil and gas operators, which will support the MIMAIP strategy and provide input to the Marine Spatial Plannin (POEM) process. While the KBA process is meant to guide the implementation of AMPs, there are two issues that need to be understood:

- 1. Only a few areas have had enough research done to qualify as KBAs; the WCS methodology requires proof of the biodiversity value of an area. There is a high correlation between those few areas where research has been done and Mozambique's known KBAs.
- 2. Creation of AMPs may be for a variety of reasons, only one of which is biodiversity protection. Others include coastal protection and fisheries improvement, among others. Many AMPs have multiple purposes.

MIMAIP and IUCN (through the Coastal Resilience to Climate Change project), RARE (Fish for Ever program), OIKOS, Blue Ventures and other partners are seeking to increase the resilience of coastal communities by establishing community management areas and ecosystemic approaches to marine management.

Existing AMPs in Mozambique are in general managed by ANAC, which places a high priority on co-management with both donors and local people. The NGO RARE has been working on a number of Locally Managed Marine Areas (LMMAs). So far none of these has benefitted from the legal protection that gazettement confers. MIMAIP has also organized some non-gazetted AMPs. Gazettement is important so managers may receive the "full management toolkit" that gazettement implies. It should be noted that no new AMP has been declared since 2012, even

though improvements in legislation since then have created a number of options, including community managed AMPs. There is substantial political will, and many successful examples. Finance and champions seem to be the remaining issues. Creating an AMP is an intensive, community-based effort over quite some time, which must also be accompanied by GRM involvement, and a clear sustainability plan. While donor finance is sometimes available, conservation in Mozambique is underfunded, so community management, supported by local government structures (District Administration, police), and any private sector interests (tourism, the Kenmare mining operations KMAD in Moma, etc) is likely the best formulation.

The MIMAIP has established Community Fishing Councils (CCPs) to manage each CCP's home waters, so much of the necessary social organization is in place. What will need to be addressed is capacitation in areas such as governance, inclusion, fisheries management, climate change, and coordination with relevant authorities. The MIMAIP also lacks a policy on AMPs and an AMP support/ management unit, even though MIMAIP in principle has been managing the Lake Niassa Reserve (also known as Lake Malawi, outside of Mozambique) since its declaration in 2009. In practice not much management has actually happened, so this is a clear policy and institutional need within MIMAIP, especially given the RARE-created LMMAs waiting in line to be gazetted. The development of AMPs for fisheries purposes, by the MIMAIP, would put the MIMAIP in a leadership position within the Mozambican government with respect to its international commitments to expand AMPs, as well as to increasing the well-being of fisher communities all along the Mozambican coast.

Regarding community development programs, FNDS has adopted the Gender Active Learning System (GALS) in the MOZ-BIO project to empower women and youth in Marromeu, Ximanimani and Maputo National Parks. The Bio- Moz project, which is funded by the World Bank, is based on landscape development and recognizes the vital role of conservation areas as an integral part of the country's balanced growth. FNDS reports have shown that decision making in the household approach such as GALS, have empowered communities by reducing cases of gender-based-violence and improve their income generation.

In 2020, Mozambique gazetted new Regulations for Marine Fishing (REPMAR). These new regulations state that beach seines will be prohibited by 2024. This is a laudable action, which will allow for fisheries and habitat recovery. However, it does leave the livelihoods of beach seiners in doubt; there is a need to substitute fishing gears so that precarious fisher livelihoods can be protected. Changing fishing gears from beach seines to other gears (like gillnets) may be an opportunity to reduce skewed fisheries income as well, as fewer young men are required per gillnet. Thus, there may be an opportunity to increase net ownership and reduce skewing.

The Mozambican Government represented by the National Administration of Protected Areas (ANAC) has an existing co-management agreement with the CARR Foundation for the Marromeu Reserve; consideration is being given to expanding the reserve buffer zone northward to, and perhaps across, the Zambezi River.

An international consortium led by the local NGO Centro Terra Viva has an agreement to establish the initial management structures and programs for the APAIPS, using funds from the EU (PROMOVE Biodiversidade project, managed by BIOFUND⁹), and possibly also from the World

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⁹ See below for description of BIOFUND

Bank (IDA funds from the MozNorte Project). The APAIPS is the only protected area in Mozambique that benefits from a small but long-term grant originally donated from Conservation International, that yields annual returns from a BIOFUND endowment investment. All these funds are channelled through BIOFUND.

BIOFUND – The Foundation for Conservation of Biodiversity¹⁰ mobilizes and provides long-term sustainable funding for protected areas in Mozambique; it is supporting all three protected areas through its various projects and can provide continuity to any investment MCC might wish to make in these areas. BIOFUND may also be able to mobilize synergistic funding for the APAIPS as it has been chosen to be the convening agent for the Global Fund for Coral Reef (https://globalfundcoralreefs.org/), a blended finance instrument to mobilise action and resources to protect and restore coral reef ecosystems. Mozambique has been selected as an investment country and is currently preparing its programme proposal which will include the APAIPS and run for 8 years.

The Carr Foundation is a long-term partner in Gorongosa and recently expanded responsibilities to Marromeu. The François Sommer Foundation (FFS) with the International Foundation for Wildlife Management (IGF) has an MoU with ANAC since 2007 to support the co-management of Gilé National Park through financial and technical support. They are also the implementing partners of the PROMOVE Biodiversidade project (from 2019 to 2024), funded by EU, via BIOFUND.

PROAZUL¹¹ is a government financial mechanism created by decree 91/2019 of 27 November. It works in partnership with different sectors of the State, the private sector and civil society so that strategic and financial resources are aligned with effective initiatives for sustainable exploitation of inland waters, the sea and the coastline. Among the main activities carried out by the Fund are the financial and strategic management of projects, the design of financial mechanisms, studies of new sources of funding, and technical assistance to the Government of Mozambique in the development of the Blue Economy and the fulfillment of the Sustainable Development Goals, in particular objective 14. PROAZUL is developing a line of finance for blue economy projects, and runs MaisPeixeSustentavel, a programme that has created a line of credit for supporting aquaculture and the artisanal fisheries value chain.

Other opportunities and potential partners might include:

- The recently declared KBAs in Mozambique, that appear in the Zambezia + geography, mentioned above;
- Expansion of Marine Protected Areas, since the MIMAIP (via the Oceanic Institute, formerly IIP) has already started with WCS the design of expansion scenarios to reach the 2030 target;
- The Primeiras and Segundas AMP which has a new management and funding structure for one of the most important areas of coastal and marine biodiversity in the country (as mentioned above);
- Long-term post-project funding from BIOFUND and various partners (EU, World Bank, French Aid—AFD, etc);

¹⁰ https://www.biofund.org.mz/ 11 https://www.proazul.gov.mz/em-curso/

- A strategic partnership with BIOFUND, for management and handover of the entire component, since BIOFUND is specialized in the management of, disbursement of, and monitoring the use of environmental and conservation funding;
- AFD, which, with WWF and BIOFUND, has a climate change adaptation project in the Zambezi Delta;
- The World Bank Second South West Indian Ocean Fisheries Governance and Shared Growth Project for Southern Africa (SWIOFISH), which is a regional project that aims to improve the management of selected fisheries at regional, national and community levels and to increase access by targeted fishers to alternative livelihood activities; 12
- The *Universidade Lúrio* (*UniLúrio*) and Total Energies EP Mozambique Área 1 Limitada, have signed an MoU to implement a reef restoration and sustainable fisheries development project in Cabo Delgado province. The project, with an initial duration of three years and a budget of US\$450,000, covers the localities of Pemba, Maringanha, Wimbe and Gimpia. It aims at restoring coral reefs, improving the health of ecosystems, setting up nurseries and coral spiders¹³, building artificial reefs, increasing sustainable fishing techniques, and promoting ecological tourism¹⁴. Similar activities may be appropriate in parts of the Zambezia + geography.

2.5.4 Potential Project Components

Four potential project components are outlined here. These components are synergistic, each one supporting or necessary for the others. A fuller description of the components is found in Annex B.

Component 1. Restoration of fisheries, including establishment of new protected areas for fish reproduction.

- Establish and fortify fisheries co-management as a way to reduce uncontrolled overfishing and the use of damaging fishing gears;
- Conduct feasibility studies on innovative private sector solutions (domestic/global) that support sustainable fishing infrastructure and practices;
- Support baseline studies, community engagement and education, establishment, declaration, and operations of new marine protected areas in Zambezia + geography. Studies should also explore the social and gender dynamics of NRM and AMP governance.
- The specific goals of new protected areas would include:
 - o economic goals, to maximize fish production and other revenue streams (blue carbon, tourism, sport fishing, protection of infrastructure etc.);
 - o biodiversity goals, to protect habitats, species and ecosystemic processes;
 - o climate goals to increase resilience to climate change (climate refugia); and

scale Coral Reef Rehabilitation After Blast Fishing in Indonesia coral reef rehabilitation/link/5eecae3e299bf1faac629795/download

¹² https://projects.worldbank.org/en/projects-operations/project-detail/P153370

https://www.researchgate.net/publication/326578843 Large-

 $^{^{14}\ \}underline{\text{https://mzlng.totalenergies.co.mz/en/press-releases/unilurio-and-totalenergies-join-efforts-restore-coral-reefs-and-develop-sustainable}$

- social goals, addressing the way that people interact with and perceive their natural environment, as well as the behaviours that are socially and environmentally destructive.
- Collaboration with MIMAIP, ANAC, BIOFUND, PROAZUL, local government, NGOs (WWF, RARE, WCS, and others) and local communities; including support to MIMAIP and ANAC to increase AMP/LMMA support and management capacity.

Component 2. Support for existing Protected Areas in the Zambezia + geography.

- Strengthen and support management and protection of important habitats and ecosystem services.
- Consider ICTs in the oversight and management of protected areas (e.g., forecasting, drone surveillance, data gathering, mapping, data analysis).
- Protected area infrastructure development (headquarters, ranger stations, interpretative centres, boat launches, workshops, etc.).
- Identify and protect areas with resistance to climate change (climate refugia). Refugia areas have natural characteristics that serve to buffer marine ecosystems against climate change effects, leading to increased economic and biodiversity sustainability over time. For example, access to deep water and an upwelling help the corals of the APAIPS in the Zambezia+ geography recover and resist bleaching events. Similarly, as sea levels rise, there is evidence that the rate of sedimentation in coastal mangroves increases, allowing deposition to track sea level rise, thus buffering coastlines.
- Support private sector conservation initiatives.
- Collaboration with ANAC, MIMAIP, BIOFUND, local government and communities, and NGOs in all activities.

Component 3. Transformation of the livelihoods of marine and coastal communities.

- Economic diversification and new revenue streams for local communities and marinebased businesses with a focus on economic alternatives that foster sustainable natural resource management (e.g. sustainable forestry, ecotourism, game and wildlife reserves, crab fattening);
- Alternative livelihoods that incentivize improved resource conservation and improved management of natural resources in local communities;
- Women and youth economic empowerment activities;
- Blue carbon projects for mangrove, seagrasses, and coral reefs ecosystems;
- Improved food security and import replacement due to increased marine productivity and better post-harvest management;
- Removal of beach seines for exchange with other nature-friendly fishing technologies.

Component 4. Improved fisheries management, making ecosystem restoration, resilience and adaptation technologies scalable, cost-efficient, and relevant to the project area.

- Improved management and co-management;
- Biodiversity offsets implementation;

- Nature-based solutions for erosion, soil water retention, habitat protection;
- Direct threat reduction through new value chains with the private sector in the area of waste management.
- Cooperation with other funding sources to increase sustainability and leverage matching funds.

Applicants are invited to contribute to the vision of the potential components and also to propose results or milestones aligned with the purpose and objectives described above.

2.6 Approach to Partnership

The anticipated relationship with the selected Partner(s) is expected to be collaborative and cocreative, drawing on the unique expertise, equities and intersecting - but unique - interests of each party. All parties are expected to identify and access additional information, networks or abilities that might advance the shared objective(s) of the parties.

It is anticipated that a Partnership Advisory Committee comprised of the empowered representatives from the Partner(s), the Gabinete or its successor and any other stakeholder entities deemed necessary, will jointly undertake direction-setting and ensure that the creative work led by the Partner(s) addresses the interests and parameters and opportunities of the contributing stakeholders.

While the relationship is expected to be collaborative, contributing towards achievement of the common goal, certain responsibilities and authorities will be held by individual actors in the collaboration:

- The Partner(s) will lead planning and implementation of the activity.
- The Gabinete or its successor will have sole authority to oversee compliance with award terms in accordance with MCC requirements. An Award Manager from the Gabinete or its successor will have authority to approve changes to key personnel and other terms as specified in the Cooperation Agreement. Since MCC Funding will finance a portion of this partnership, the Gabinete or its successor will also coordinate with MCC for guidance, technical support and approvals per MCC's requirements.

2.7 Design and Implementation

As indicated in sections 2.2 and 2.5 above, the Gabinete anticipates that more than one partner will be selected and that the partnership will extend over two distinct phases: one lasting approximately two years prior to the Compact Entry Into Force (EIF), and another covering the full five-year period of Compact implementation. It is further anticipated that successful implementation of the partnership will enable the partnership activities to continue, without MCC funding, for one or more decades following Compact closure, and thereby to achieve substantial progress in restoration of coastal ecosystems, optimization of fisheries and other community livelihoods, and compliance with Mozambican laws and commitments for marine ecosystem management.

It is important for all applicants to understand that there is no guarantee that MCC will incorporate the project design prepared jointly by the Gabinete and its selected partners during the first phase of the partnership into the overall Compact. Nor can it guarantee that MCC and the Government of Mozambique will successfully negotiate and sign the proposed Compact once the coastal zone project has been incorporated.

The likelihood of MCC approval and inclusion of MCC funding for the coastal zone project will be enhanced to the degree that the project design and the capabilities and commitments of the partners selected demonstrate a probability of long-term success in coastal ecosystem restoration, fisheries and community livelihoods optimization, and improved marine ecosystem management in Mozambique. During the first phase of the partnership, MCC will engage a due diligence consultant who will review the project design process and evaluate the capabilities and commitments of the project partners. It is expected that the selected partners will collaborate fully with this review and evaluation, not only to demonstrate their own contributions, but also to assist in identifying any needs for additional support that the Gabinete or its successor, the MCA, or MCC may be able to contribute to enhance the likelihood of success of the project.

3. PARTNER PROFILE

3.1 Eligible Applicants

The following organizations are eligible to apply:

- Local and international non-governmental organizations engaged in long-term environmental management and/or social/community development (including gender) activities in the Mozambican Swamp Coastal area.
- National governmental organizations engaged in long-term support for environmental management and/or social development activities in the Mozambican Swamp Coastal area.
- National and international academic and research organizations engaged in long-term study
 of environmental management and/or social development activities in the Mozambican
 Swamp Coastal area.
- International organizations with ample experience in "blue carbon" financing program development that are willing and able to make a long-term commitment of staff expertise and operational resources to program development in the Mozambican Swamp Coastal area.

Consortia, whether organized as joint ventures with mutual and several liability or as a team of lead and sub-organizations, are eligible to apply. This round of invitation is anticipated for organizations that have experience managing larger portfolios and/or providing sub-grants to smaller organizations.

Eligibility for this solicitation is determined in accordance with Section 5.1.2 of MCC's Program Grants Guidelines (available at https://www.mcc.gov/resources/doc-pdf/guidance-program-grant-guidelines).

3.2 Capabilities of Applicants

The selected Partner(s) should have a demonstrable track record in marine coastal ecosystem management, protected area co-management, and/or fishing community social development in Mozambique, or in "blue carbon" financing program development, as well as a long-term

commitment to implementation of socio-environmental development activities in the Mozambican Swamp Coastal area.

All Applicants must be able to demonstrate a long-term commitment to working in the Mozambican Swamp Coast area as well as at least one of the following qualifications and core competencies:

- Experience in protected area co-management with local communities.
- Experience in facilitation of coastal community management of no-fishing zones.
- Experience in facilitation of artisanal and/or small-scale commercial fishery activities, as well as alternative livelihoods development in communities located in the Mozambican Coastal area.
- Capacity to provide project or program financing for local sustainable development in Mozambican Coastal areas and to oversee the implementation of such projects and programs.
- Demonstrable experience in preparing successful applications for international "blue carbon" credits, and in overseeing the implementation of projects or programs receiving such financing.

In addition to organization-level capabilities, the Gabinete is seeking a qualified team of seven Key Personnel to carry out this partnership. Provision of one or more members of this team by the each of the selected applicants will be encouraged. The team should collectively provide expertise in coastal zone ecosystem management and fisheries development and possess the following skills and expertise:

- Marine ecosystem management.
- Artisanal fishing supervision.
- Mangrove recovery and development.
- Fish production processing and marketing.
- Protected area co-management with local communities.
- Blue carbon credit project management and supervision.
- GIS and geospatial mapping.

3.3 Co-Financing

Co-financing in the form of Leverage by Applicants of at least 25% of the government Award amount is required. For example,

MCA Share: \$2.000,000
Applicant Leverage: \$500,000
Total Project Value: \$2,500,000

Leverage means resources that an Awardee brings to a Partnership or Award, including those provided by third parties, to achieve a total effect that is greater than the sum of the parts. Leverage

may be in many forms that provide anything of value to the program that can be measured, such as financial contributions, donated services or property, or intellectual property.

Once committed to providing leverage, the Awardee is required to report on fulfilment of its obligation. To be accepted and allowable, all leverage contributions must be:

- Incurred or earned during the period of the award;
- Necessary and reasonable for proper and efficient accomplishment of the program;
- Comprised of non-U.S. federal funds;
- Valued based on actual costs.

Applicants who can demonstrate more significant co-financing will be considered more competitive, all else being equal. Applicants who can demonstrate a plan and resources to achieve impact beyond the duration of the award will be more competitive.

4. PARTNERSHIP APPLICATION INFORMATION

4.1. Staged Process

The application process under this Program Partnership Solicitation will take place in four stages.

- 1. Stage I. Concept Note
- 2. Stage II. Co-Creation
- 3. Stage III. Proposal
- 4. Stage IV. Negotiation and Award

The decision to exclude Applicants for failure to meet the eligibility criteria in each Stage shall be taken by the Gabinete. The Applicants deemed ineligible shall be informed immediately indicating the reasons for disqualification.

Applicants who pass Stage I may be invited to Stage II. Applicants who pass Stage II may be invited to Stage III. The Gabinete reserves the right to advance one, several, or no organizations from one stage to another.

Discussions may be held with individual Applicants after the Concept Note and Proposal Stages in order for the Applicant, acting on its own, to improve its subsequent submissions.

The Gabinete reserves the right to engage third-party advisors in review panels, evaluations or in co-creation sessions. Certificates of confidentiality and impartiality will be secured for any such third-parties.

Millennium Challenge Corporation has the right of no-objection at certain stages in the selection process, including prior to negotiation and award signature.

4.2. Indicative Timeline of Process

The following schedule provides the indicative timeline for the different steps in the process:

ACTION	Timing
Pre-Application Conference Call	May 18, 2022
Questions or Clarifications Deadline	June 8, 2022
GDC II Publication of responses	June 14, 2022
Stage I: Concept Note Deadline	June 29, 2022
Notification to Applicants following review of CNs	July 29, 2022
Stage II: Co-Creation Session(s)	August 8-12, 2022
Request Technical and Financial Proposal	August 19, 2022
Stage III: Technical and Financial Proposal Deadline	October 5, 2022
Selection Notification	November 18, 2022
Stage IV: Award Negotiation	December 1 - December 15, 2022
Kick Off of detailed activity design	January 25, 2023

4.3. Pre-Application Clarification

A Pre-Application conference call will be held on May 18, 2022, at 2 p.m., GMT +2.

Applicants may request clarifications to this Program Partnership Solicitation by stating their questions or clarification requests via email. All clarification requests must reach the Gabinete by 5:00 p.m. GMT+2 of June 8, 2022. The email address for requesting clarifications is GDCcoastaldevelopment@gmail.com.

The Gabinete will respond to all clarification requests by means of a Q&A document by 5:00 p.m. GMT+2 of June 14, 2022.

4.4. General Submission Instructions

All Stage I applications and Stage III proposals shall be submitted electronically to GDCcoastaldevelopment@gmail.com. Submission by hard copy is not permitted. Late submissions will not be accepted.

The following stipulations pertain to Stage I and Stage III documents.

- All applications shall be in pdf, 11-point font (Times New Roman or size equivalent), and single-spaced, unless otherwise specified, and may not exceed the page limits given for each section.
- Any charts or tables included within the technical application sections will be considered against the page limits of those sections. Charts may use 9-point font.

- All documents shall be written only in English or Portuguese.
- Budgets should be represented in \$USD.
- Applicants should *not* password protect submissions.
- Submission occurs when the document is *fully* uploaded and received. Firms are therefore advised to commence the file upload with an ample time margin as the upload time will depend on the size of the document, the internet bandwidth capability and concurrent traffic.

4.5. Stage I: Concept Note Instructions

The application consists of the following elements, with associated page limits. A detailed budget should *not* be submitted for STAGE I, though an estimated top-line award budget figure and leverage amount should each be included in the cover page.

4.5.1 APPLICATION SUBMISSION FORM (1 page limit)

See Annex A.

4.5.2 COVER PAGE (1 page limit)

The cover page must contain the following information:

- 1. Name and full address of Applicant organization;
- 2. Project Title;
- 3. Type of organization (e.g., for-profit, non-profit, etc.);
- 4. Point of Contact (name, position title, phone number, fax number, e-mail address);
- 5. Total estimated budget required (including percentage and sources of leverage amount);
- 6. As applicable, any partnerships / proposed consortium members with the addresses and contact person's name, phone and email; and
- 7. Signature of authorized representative of the Applicant, name and title.

4.5.3 ORGANIZATIONAL OVERVIEW (2 page limit)

The Organization Overview should succinctly provide information about the Applicant:

- 1. The organization, its mission, structure, legal registration or incorporation.
- 2. List of proposed consortium members (if applicable).
- 3. If applying as a group, specify the legal arrangement between the participants, such as a consortium organized as an association with mutual and several liability or a consortium organized as a prime Awardee and sub recipients.
- 4. Summary of relevant organizational experience, qualifications and past performance of the Applicant and proposed consortium partners (if applicable).
- 5. The organizational capacity in the technical area, as well as management practices and technical expertise of Key Personnel to manage and implement the Project with high quality and credibility. If proposing a consortium, address organizational capacity of all partners, and the consortium management capacity of the lead partner.
- 6. Description of likely Applicant cost share types and anticipated cost share levels.

4.5.4 **PROJECT CONCEPT (3 page limit)**

The Applicant's vision for the project should be clearly described in a Concept Note to enable the Gabinete to distinguish the Applicant's suitability for this opportunity. The Concept Note must include:

- 1. Identification of geographic focus (must be all or part of the Zambezia marine/ coastal area or neighbouring districts, including all districts of the APAIPS), concise title and objectives of proposed project.
- 2. Discussion of method of approach.
- 3. Brief discussion of why the Applicant considers the proposed approach to be effective given the Program Description in Section 2 above.
- 4. Brief discussion of any elements of the partnership concept that the applicant considers to be unique, innovative, unusual, or based on rigorous evidence.
- 5. Estimated amount of effort to be employed, estimated project duration.
- 6. Discussion of the division of roles, responsibilities and contributions between prospective partner organization(s), as applicable, and the Gabinete or its successor, the Mozambique Millennium Challenge Account, as well as how risk within the partnership will be distributed.

4.5.5 **APPENDICES (4-6 page limit)**

- 1. Appendix 1 Relevant Past Performance and Past Experience (3 page limit; 5 page limit if applying with sub-partners). Information provided here by the Applicant should correspond to qualifications listed in Section 3.2 and should include contact information for references.
- 2. If consortium members are proposed, the applications should also include at least two (2) past performances for each party for relevant work over the last five (5) years. The Applicant must include the name, recent telephone number and email address of knowledgeable customer/donor contacts. The past performance information shall be provided in the following format:

Award Number	Period of Performance	Award Value	
Technical POC:			
Name	Email	Tel. Number	
Contractual POC:			
Name	Email	Tel. Number	
Project Description:			
Relevant experience to proposed program:			

If the Applicant (including any of its associates or sub-partners) is or has been party to an Millennium Challenge Corporation (MCC)-funded contract or agreement (either with MCC directly or with any MCA Entity, anywhere in the world), whether as lead firm, affiliate, associate, subsidiary, sub-contractor, sub-partner or in any other role, the firm must identify and /or disclose the contract or agreement in its list of references submitted with its application. Previous experience with MCC is not a requirement but Applicants who have it must disclose it.

The Gabinete may contact references and use the past performance data regarding the organization, along with other information to evaluate the applicant's past performance. The Gabinete reserves the right to obtain information for use in the evaluation of past performance from any and all sources.

4.6. Stage II: Co-Creation Instructions

The Gabinete may choose to advance one, several, or no organizations from Stage I to Stage II. Stage II is characterized by structured, interactive discussions between the invited applicant(s) and the Gabinete.

The purposes of co-creation sessions are: 1) to facilitate discussion of the proposed methodology in light of the objectives and context, and 2) to engage in brainstorming and open dialogue with Applicants to better clarify, develop, and refine methodology, and 3) to ensure that the parties have a common objective and vision for a collaborative working relationship, risks, resources and roles to achieve the joint objective of the collaboration.

Co-creation discussions generally require two full working days, or the equivalent distributed across multiple days. Representation at the co-creation session is mandatory, and at least two members of the organization(s), including any who would be proposed as Key Personnel must be present. Applicants who fail to attend will not be allowed to submit proposals in Stage III.

The co-creation session(s) will take place in person, provided that public health measures so permit, and/or virtually, likely between the dates of August 8 to 12, 2022.

Applicants are responsible for costs related to attendance at the co-creation session.

If more than one Applicant (inclusive of groups applying as a consortium) is advanced to Stage II, the organization of the co-creation session will probably include a joint session and individual sessions with each such Applicant.

Applicants invited to Stage II will be provided additional information and a detailed agenda to prepare for the sessions. Applicants will be requested to prepare very brief presentations to aid discussions.

A Non-Disclosure Agreement (NDA) is signed by all invited Applicants prior to the Co-creation session(s).

4.7. Stage III: Technical Proposal Instructions

Applicants invited to Stage II will subsequently be invited to Stage III, in which Applicants submit a complete proposal consisting of a Technical Proposal and Financial Proposal together with capability details. The Technical Application and Financial Proposals must be in two separate files.

The requirements for the Technical Application sections as described below are minimum requirements that must be included with the Applicant's submission. The Submission should be arranged as follows:

- 1. Cover page
- 2. Executive Summary
- 3. Technical Approach
- 4. Appendices

4.7.1. COVER PAGE (1 page limit)

The cover page must contain the following information:

- Name and full address of applicant organization;
- Project Title;
- Type of organization;
- Legal registration;
- Point of Contact (name, position title, phone number, e-mail address);
- Proposed place and period of performance;
- Total proposed budget, with breakdown of proposed total award funding and leverage contribution;
- List of proposed partners/consortium members, as applicable, including the contact person's name, address, phone and email;
- If consortium, description of legal relationship between parties, e.g. prime Awardee organization with sub-awardees, consortium with mutual and several liability, etc.
- Signature, name and title of Applicant's authorized representative.

4.7.2. **EXECUTIVE SUMMARY** (2 page limit)

The executive summary must summarize the Applicant's final proposed vision and technical approach to achieve project outcomes; highlight work plan milestones; and convey why the Applicant's proposed team is optimally suited to lead this project.

4.7.3. **TECHNICAL APPROACH** (15 page limit)

The technical application will be the most important factor for consideration in selection of the proposed Award. The technical application should be clear, complete and concise. At a minimum, the application should provide the content listed below.

- Context, including problem and opportunity statement, as related to the Program Description in Section 2.
- Description of targeted results (outputs and outcomes, as applicable) and planned activities, methodologies, and timelines, including milestones.
- Indicator table noting the key output and outcome (if applicable) indicators expected to be produced by the planned activities, and their annual or end-of project targets.
- Description of approach to achieve results.
- Proposed public and any non-public outputs among the milestones.
- Anticipated risks and proposed mitigation strategies.
- Post-agreement phase out and sustainability plan.
- Explanation of partners and their expected roles, including any consortium members.
- Description of envisioned roles of any consortium members, if applicable, as well as the Gabinete or its successor, the Millennium Challenge Account and any other essential stakeholders, if applicable.

- Proposed duration of activity; define activities and implementation schedule, targets and standards.
- Applicant's (the firm/consortium/joint venture) track record and qualifications directly relevant to achievement of the goals and milestones (see also Section 3.2.).
- Proposed team's qualifications directly relevant to the achievement of the goals and milestones (see also Section 3.2).
- Staffing plan for the entire project team, including whether each position is full-time or part-time and the planned person months, days or hours each position will devote to the Project.
- Organizational chart showing the structure and relationships between positions, including any sub-partner, joint venture, or associated organizations.
- Among the entire team, which may include sub-partners, identification of Key Personnel, summary of Key Personnel qualifications, and Key Personnel contributions to the project, including level of effort.
- Management strategies and administrative approaches (e.g., plan, structure, policies and practices) to manage the technical, operational and financial aspects of the activity and award.
- Summary and description of financial and non-financial resources that the Applicant (including consortia or sub-partners) brings to the partnership activity over the course of the award period.

4.7.4. **APPENDICES** (30 page limit)

1. Appendix 1 - Key Personnel Résumés and Letters of Commitment

- Each résumé for the proposed Key Personnel positions (which should be clearly identified by the applicant) should not exceed 3 pages.
- Each Key Personnel résumé must be accompanied by a signed Letter of Commitment from the candidate indicating his/her: (a) availability to serve in the stated position; (b) intention to serve for the full term of service (complete period of performance for the cooperation agreement); and (c) agreement to the compensation levels which correspond to the levels set forth in the cost application.

2. Appendix 2 - Sub-partner or consortium member Letters of Intent (if applicable)

- brief statement of the role of the sub-partner, joint venture or association member;
- availability to participate in the potential program;
- the length of participation as it relates to the program;
- agreement to the budget associated with consortium member (sub-partner or associate with mutual and several liability) set forth in the cost application; and
- agreement to the designated representative from the lead organization (or joint venture representative) to represent the consortium member in negotiations.

4.8. Stage III: Financial Proposal and Capability Instructions

The financial proposal is submitted separately to the technical proposal. It is comprised of:

- 1. Line Item Budget (Excel)
- 2. Budget Narrative (Word or PDF)
- 3. Other documentation as required and requested by the Gabinete in conformance with the Program Grants Guidelines.

4.8.1. **DETAILED LINE-ITEM BUDGET (Excel)**

A detailed budget must be submitted electronically as an <u>unprotected</u> Microsoft Excel document with **open and linked formulas**.

Budgets should be organized *by milestone* and then by *budget year*. Budgets should be shown in USD. The detailed budget tabs should provide, in detail to the individual line item, a breakdown of the costs anticipated per milestone, with formulas showing input prices and quantities, as well as a breakdown of the overall funding between the prime and any sub-partners or associated members of a consortium (if applicable).

The budget summary and milestone line-item breakdowns must include any proposed co-financing information in addition to the amounts anticipated to be funded by the Gabinete or its successor, the Millennium Challenge Account.

If the award is structured as Cost-Reimbursement and the organization has a US government Negotiated Indirect Cost Rate (NICRA), the MCA Entity may accept this as the indirect cost rate at its discretion. If the award is structured as cost-reimbursement and the organization does not have a NICRA, the MCA Entity may reimburse some of the organization's indirect costs as direct costs if such costs are detailed in the budget and adequately justified in the Budget Narrative in accordance with MCC's Cost Principles for Government Affiliates.

If the award is Fixed Amount, no indirect costs or percentage-based overhead allocations can be incorporated as part of the MCA-funded portion of a Fixed Amount Award. If the award is Fixed Amount, the MCA Entity may reimburse some of the organization's indirect costs as direct costs if such costs are detailed in the budget and adequately justified in the Budget Narrative in accordance with MCC's Cost Principles for Government Affiliates.

4.8.2. **DETAILED BUDGET NARRATIVE (Word)**

The Gabinete must ensure that proposed costs meet cost principles under its Grant and Funding Agreement with Millennium Challenge Corporation, including that all costs are reasonable and necessary, allowable and, for any shared costs, rationally allocated to the partnership activity to be funded through the Cooperation Agreement.

To facilitate such a pre-award analysis, the Applicant must submit a budget narrative in Microsoft Word or PDF that describes the basis of estimate for each line item, including reference to sources used to substantiate the cost estimate. The narrative must be detailed enough to identify the purpose of every cost item proposed, as well as understanding the basis for the costs. Costs apportioned to the project at less than a hundred percent should have a rational basis for the proposed portion allocated to the project.

Regarding personnel costs, the budget narrative should unbundle the unit costs shown in the budget, specifying what portion of the unit cost in the budget covers benefits, taxes or other costs additional to the remuneration paid to the worker. As a reminder, this PPS does not allow for applicant profit margins in unit costs in personnel or other line items.

The budget narrative must also include sufficient details about the type, source and timing of Leverage or Cost-Share resources contributed to the total budget of the Cooperation Agreement to the extent necessary to demonstrate the feasibility and applicability of the proposed contributions to the program during the award period. Third-party leverage should be described and valued, as applicable.

4.8.3. OTHER DOCUMENTATION

To facilitate Capability Risk Assessment conducted in Stage 3, additional documentation will be required, including a copy of the Applicant(s)' most recent audit report or financial statements, a copy of the Applicant(s)' incorporation or registration certificate, a list of individuals authorized to sign on behalf of the organization, a list of the Board of Directors, and materials related to the Applicant(s)' mission and Annual Reports.

4.9. Stage IV: Award Negotiation Instructions

Upon notification from the Gabinete of intent to negotiate, any successful Applicant(s) will review the proposed Cooperation Agreement template [to be provided later] and identify any specific issues requiring negotiation within [5] business days. The Applicant should be prepared to conduct and conclude award negotiations, including agreement on Cooperation Agreement Annexes, within [15] business days of notification of intent to negotiate. Negotiations may be completed virtually. The MCC will review the negotiated award for no objection. The award is expected to be signed within [4-6] weeks following issuance of the Intent to Negotiate.

Matters that will be discussed and confirmed during negotiation will include, among any items raised by the Applicant:

- Budgetary items, proposed methodologies, and staffing proposed in the Stage III proposal.
- The provisional milestone and disbursement schedule to be included in the Cooperation Agreement.
- The Gabinete and the Millennium Challenge Account, its successor's, substantial involvement in the project, including the Partnership Advisory Committee composition and roles.
- The start date and end date.
- The Gabinete and the Millennium Challenge Account, its successor's, and Partner's contributions.
- Monitoring and evaluation methodology and scheduling, including key performance indicators.

General provisions of the Cooperation Agreement are not negotiable. Applicants are advised to thoroughly review the Cooperation Agreement terms prior to proposal submission.

Once the Gabinete has signed an award with any successful applicant(s), it will inform any Applicant who submitted a proposal but was not ultimately selected at Stage III. In the case that

no proposal satisfies the requirements, the Gabinete would inform any Applicant(s) invited to Stage III that an award will not be negotiated.

5. PREPARATION FOR PHASE 2

The major milestones and activities stages foreseen in the two phases of the Partnership can be summarized as follows:

PHASE	ACTION	Timing
	Selection process and award negotiation	Dec, 2022
	Detailed activity design	Jan 2022- March 2023
1	Incorporation of the jointly developed project design into the MCC Investment Memo and the Compact	March, 2023
	Review and necessary adjustments to Grant award terms. Detailed implementation plans, development of sub-awards and preparatory studies and/or research activities.	April, 2023 – Dec., 2024
2	Compact Entry into Force	December, 2024
2	Project implementation	Dec., 2024 – Dec., 2029

The detailed design of project activities is expected to be the central activity during the first half of Phase 1. Following completion of the project design, a conceptual description of the project will be incorporated into the MCC Investment Memo and used as the basis for inclusion of the project in the Compact proposal. During approximately 21 months following this inclusion, it will be possible and important to undertake additional preparatory studies of social and environmental conditions and to prepare detailed project implementation plans. Funds for these activities will be made available as needed. The major grants to partners for actual project implementation, however, will not become available until the Compact enters into force. This is currently expected to occur in December 2024.

6. EVALUATION METHOD

6.1 Stage I

The Stage I Application Review takes place across two progressive steps: administrative compliance and technical evaluation. Applicants must pass administrative compliance to proceed to technical evaluation. Technical evaluation comprises Technical Approach and Organizational Capacity and uses a Pass/Fail method.

Administrative Compliance

Eligibility Checks. The eligibility of each Applicant will be verified by the Gabinete. The eligibility of each organization listed as party to the application or potential partnership will be verified ("partial eligibility verification"). If the Applicants are eligible based on this check they may proceed to the next step in the review process. If (a) record(s) for one or more firms is identified in the Eligibility Verification Procedures, additional research will be conducted to

determine whether the result may be a "false positive." At this stage MCC will be notified and consulted prior to a final determination to disqualify an Applicant. The Eligibility Verification Procedures can be found here.

Past Performance and Reference Checks. The Applicant's performance on similar past projects will be considered a factor in qualification.

Technical Merit Review. All Stage I applications will be evaluated as Pass/Fail based on the following factors:

- 1. Technical Approach
 - a. Fit between the proposed objectives and approach and the opportunity as described in Section 2.
 - b. Whether the proposed technical approach and methodology can reasonably be expected to yield the intended outcomes.
 - c. Whether the proposed approach brings innovation and creativity to the proposed activity.
- 2. Organizational Capability
 - a. Whether the Applicant (or consortium) can demonstrate relevant organizational qualifications as described in Section 3.2.
 - b. Past experience relevant to the proposed activity.

Only those applicants whose applications pass STAGE I will be invited for STAGE II: Co-Creation. Should more Applicants qualify than the Gabinete can engage in Co-Creation, passing applicants will be ranked using adjectival ratings against the criteria. Adjectives and associated points include: Information Not Provided (0), Significant Weakness (1), Partially Satisfied (2), Satisfied (3), Exceeded Expectations (4).

6.2 Stage II

The co-creation stage does not include evaluation.

The Gabinete in good faith will devote time openly to discuss goals, options, risk and roles with qualified Applicants so all Applicants are in the best position to develop a highly relevant, full proposal, while simultaneously developing shared expectations for how to work with one another in a collaborative manner towards a shared goal. Where significant misalignment appears in the co-creation discussions, any such issues will be raised and discussed to determine if there is a way to resolve the issue(s).

6.3 Stage III

Stage III Proposals will be evaluated on their own; no proposal element will be considered as having been adequately covered through previous discussion during Stage II co-creation or in Stage I concepts. Applicants are encouraged to review the content requirements in Sections 4.7 and 4.8 and evaluation criteria below when developing full proposals.

Stage III Proposals will be evaluated in three parts: Technical Merit Review, Budget Assessment, and Risk and Capability Assessment.

Stage III Technical Merit Review scoring will occur using adjectival ratings for each of the criteria; adjectives and associated points include: Information Not Provided (0), Significant Weakness (1), Partially Satisfied (2), Satisfied (3), Exceeded Expectations (4). The Technical Approach and Methodology Category and the Risk and Capability Assessment will be given 40% weighting, with the Budget Assessment 20%. Technical Merit Review categories and individual criteria include the following.

1. Technical Approach and Methodology

- 1.1. Extent to which the approach to achieving objectives is clear and realistic.
- 1.2. Approach describes compelling manner to engage essential stakeholders necessary to achieving the objectives.
- 1.3. Roles of known partners show complementarity, clarity and build on the interests and abilities of each.
- 1.4. Proposed milestones and targets are appropriate to the context and goals of the partnership activity, as described in the Partnership Program Description.
- 1.5. Clear and practical monitoring and evaluation methodology and scheduling, including key performance indicators.
- 1.6. Applicant has thoughtful plan for how to navigate prominent risks and opportunities.
- 1.7. Plan for sustainability, close-out or hand-off following conclusion of the award period enables future benefits for stakeholders in the activity.
- 1.8. Compliance with existing Mozambican legislation and international agreements to which Mozambique is a signatory (examples might be EIA legislation, the REDD+ carbon framework, legislation relating to marine protected areas, etc.).

2. Past Performance and Management Plan

- 2.1. Applicant's experience in similar work, with a particular focus on:
 - long-term environmental management and/or social development activities in the Mozambican Swamp Coastal area.
 - long-term support for environmental management and/or social development activities in the Mozambican Swamp Coastal area.
 - Long-term experience in protected area co-management with local communities.
 - long-term study of environmental management and/or social development activities in the Mozambican Swamp Coastal area.
 - experience in "blue carbon" financing program development.
- 2.2. Efficient team management plan, including across any organizations applying as a consortium or joint venture.
- 2.3. Clear co-financing plan meeting or exceeding minimum leverage of 25% or higher.

3. Team Qualifications

- 3.1. Clear, suitable staffing plan.
- 3.2. Qualifications of proposed Key Personnel, as described in Section 3.2.

An Award Budget Assessment is conducted as part of the evaluation process in Stage III. The Budget must comply with the MCC Cost Principles for Government Affiliates, which include cost allowability, allocability and reasonableness.

A Capability Risk Assessment is conducted to assess the probability that an Applicant will successfully carry out a proposed Award. The assessment may include, but is not limited to, financial resources, amount and complexity of prior grants or other funding sources, necessary equipment and facilities, relevant technical resources, including the ability to comply with environmental and social requirements of the Award, organizational and management structure and experience, accounting and operational controls, procedures for procurement and Sub-Partner awards, record of past performance in carrying out other grants and record of integrity and business ethics.

7. FINANCIAL AND AWARD CONDITIONS

6.1 Authorized Costs

The Gabinete budget may be used for allowable, reasonable and allocable costs associated with the realization of the shared objective. See <u>Cost Principles for Government Affiliates</u>. For further instructions on authorized costs, see section 4.8.1.

6.2 Cost of Application and Co-Creation

Applicants are solely responsible for the cost associated with the preparation and submission of their proposal. The Gabinete shall not be responsible or liable for those costs, regardless of the conduct or outcome of the selection process. Any costs incurred prior to any eventual award will not be reimbursed.

6.3 Profit or Fee Under Assistance Award

For-profit, or profit-making organizations, are eligible for award under this PPS; however, per MCC's Grants Guidelines, profit or fee is unallowable for assistance awards. Profit will not be allowable under any award made under this PPS.

In addition, the funds provided by the Gabinete under this partnership must be clearly defined with a reasonable degree of certainty and with reasonable assurance that the Applicant will not be able to realize an increment (profit) above its actual cost.

6.4 Parameters on Use of Funds

Prior to Compact signing, it will be possible to access MCC Compact Development Funding (CDF) to support the co-creation process. Specifically, these funds may be used to cover expenses related to:

- Logistics and facilitation of the co-creation discussions with potential partners and, following selection, with the selected partners.
- Information needs and research identified as important for compact implementation. This is likely to be necessary in relation to:
 - o blue carbon, in order to:
 - identify carbon markets,

- determine the location and scope of initiatives for sea grass and mangrove protection,
- design appropriate mechanisms for ensuring the flow of funds to community beneficiaries.
- o conservation priorities for fisheries development, such as:
 - identification of co-management areas, and
 - clarification and prioritization of needed changes in legal measures governing fishing practices and establishing co-management structures.

Following signing of the Compact and prior to Entry into Force (EIF), it will be possible to access MCC Compact Facilitation Funding (CFF) to continue support activities initiated with CDF, and also to support establishment of the institutional and physical infrastructure identified as important for successful ICMCDP implementation.

The goal of activities supported through CDF and CFF will be to ensure, to the extent possible, that detailed plans and institutional and legal conditions are in place at EIF so that a full five years can be dedicated to implementation of the crucial on-the-ground, in-the-sea and along-the-coast measures that can reverse the downward spiral of coastal ecosystems, fisheries and community livelihoods, even as climate change threats increase.

6.5 Disbursements

Upon award, disbursements will be made upon successful completion of milestones. Each milestone will have an agreed value based on costs to achieve the milestone, as substantiated by the Partner's budget and budget narrative. The disbursement schedule will be included in Cooperation Agreement.

6.6 Currency

Disbursements will be in US dollars.

6.7 Tax Obligations

Section 1.5 of the Cooperation Agreement sets forth the tax provisions for this activity. Applicants should review this clause carefully in preparing their applications. It is the responsibility of the Applicant, before starting financial negotiations, to determine the relevant local tax amount to be paid by the Applicant under the proposed Cooperation Agreement. Except to the extent provided in Section 1.5 of the Cooperation Agreement, in no event will the Gabinete be responsible for the payment or reimbursement of any taxes, and in the event that any taxes are imposed on the partner, the award amount will not be adjusted to account for such taxes. Applicants are expected to account for tax implications in their budgets.

6.8 Audits

Accountable Entities follow MCC's Guidelines for Contracted Financial Audits, which establishes the MCA's responsibility for regular auditing of its MCC-funded Grants, which may include any award under this solicitation. The Accountable Entity may also conduct an audit at its discretion. See MCC's guidelines for Accountable Entities for further instructions.

6.9 Cooperation Agreement Terms

Cooperation Agreements are a form of legal instrument used to provide assistance that facilitate collaboration in the governance and implementation of the project being funded by such assistance. Applicants are encouraged to review the standard Cooperation Agreement, linked here [to be provided later]. Features of a Cooperation Agreement include:

- Focus on achieving an objective with a benefit to the public in furtherance of a compact program.
- Co-financing by the Partner.
- Joint governance of the partnership activity through a Partnerships Advisory Committee.
- Substantial involvement by the Gabinete or its successor, the Mozambique Millennium Challenge Account, for example through: 1) participation in a Partnership Advisory Committee, 2) approval of and input into timelines for work plans, or the "cooperation plan," 3) approval of changes to Key Personnel or consortia members, 4) periodic status reports to Gebinete or MCA executives or Board of Directors, 5) facilitation of resources, networks or knowledge to advance the shared objective.
- Routine reporting by the Partner and monitoring by a designated Award Manager in the Gabinete or its successor, the Mozambique Millennium Challenge Account.
- Compliance with Millennium Challenge Corporation Program Grant Guidelines, which can be found on the MCC website at: https://www.mcc.gov/resources/doc/guidance-program-grant-guidelines.
- Compliance with Millennium Challenge Corporation general provisions, which can be found on the MCC website at: https://www.mcc.gov/resources/doc/annex-of-general-provisions.

7. ANNEXES

7.1 Annex A: Application Submission Form

[Location, Date]

To: Deolinda Mabote Nunes, Gabinete de Desenvolvimento do Compacto – II, Ministério da Economia e Finanças. Republic of Mozambique

Re: Coastal Zone Project Partnership Solicitation; MOZ-PPS-2022-001

Dear Madam.

We, the undersigned, offer to partner with Gabinete de Desenvolvimento do Compacto – II and its successor, the Mozambique Millennium Challenge Account, for the above-mentioned undertaking in accordance with your Program Partnership Solicitation (PPS) dated June 1, 2022 and our Application.

We acknowledge notice of MCC's Policy on Preventing, Detecting and Remediating Fraud and Corruption in MCC Operations¹⁵. We have taken steps to ensure that no person acting for us or on our behalf has engaged in any corrupt or fraudulent practices. As part of this, we certify that no attempt has been made or will be made by us to induce any other concern to submit or not to submit an offer for the purpose of restricting competition.

We are hereby submitting our Application, in Association with:

[Insert a list with full name and address of each associated Applicant, including subpartners in a consortium]. 16

Our total estimated budget (including percentage and sources of cost share) is USD....... Of this, our estimated cost share is USD.......

We hereby declare that all the information and statements made in this Application are true and accept that any misinterpretation contained in it may lead to our disqualification.

We understand you are not bound to accept any Application that you may receive.

Yours sincerely,

[Authorized Signatory]

[Name and Title of Signatory]

¹⁵ Available at www.mcc.gov/resources/doc/policy-fraud-and-corruption

¹⁶ Delete in case no Association is foreseen.

7.2 Annex B: Initial list of 20 potential activities in the 4 proposed project components

NB: Possible activities to be proposed by potential partners are not limited by the suggestions below.

Component 1. Restoration of fisheries, including establishment of new protected areas for fish reproduction.

1. **Restoration of Coastal Habitat** Working with local communities building on existing work of organizations like RARE, WCS and CTV¹⁷ to develop co-management arrangement with local communities. These arrangements once developed are provided the legal status of community-led protected areas and can include both terrestrial and marine zones. The inclusive co-management allows communities to manage the resource such as no-take zones and protected mangroves. They are allowed to sustainably harvest resources in a cooperative fashion and to enforce against unlicensed or clandestine extraction of resources with support of local officials (communities can detain, but the local authorities arrest and fine violators). In this way, real ownership over home waters can be established, as well as gear limits and the prevention of damaging fishing arts.

The relevant Theory of Change is perhaps best expressed visually as the "Fogão Africano," the African Stove, the three stones sitting on the ground that African women use to balance a cooking pot over a fire. The Fogão Africano represents in visual form the relationship between resource tenure, resource productivity and use, and resource management.

- Resource tenure- no one is motivated to sustainably manage resources which are
 not their own. The converse of this is that open access commons are generally not
 managed, but simply overexploited. In order to create an enabling environment for
 sustainable use and management, ownership must clearly be defined.
- Resource productivity and use a resource that does not provide benefit to its owner is not managed. It is usually abandoned or discarded. Once ownership is defined, an enabling environment for sustainable use, rather than resource mining, is created. Sustainable use includes the making of productive investments such as investing in increased soil fertility, forest health, fruit trees, or dams and irrigation canals. An owned resource, producing valued and recognised benefits, then creates an enabling environment for...
- **Resource management** Individuals and communities that own resources and are deriving benefit from them will be motivated to manage them in a sustainable way. What they may lack are the skills and means to do so, which is an important role for the project (see no 2, below).

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¹⁷ RARE International works in fisheries monitoring and management. Wildlife Conservation Society and Centro de Terra Viva are working on co-management of protected marine and land areas.



The African traditional "stove", or *Fogão Africano*. Remove one rock and the whole thing collapses...

In the absence of any one of these three stones, resource management does not function, just as a cooking pot falls into the fire when a stone is removed. In the case of open-access fisheries (no clearly defined resource ownership), the world-wide dynamic has been resource over-exploitation; it is in the interest of the individual fishermen to catch as many fish as rapidly as possible, before someone else comes and catches them. On the other hand, if no fish are there to be captured (such as in many fisheries worldwide) fishermen also do not manage, but simply go to fish elsewhere. Another example is a field whose fertility has been exhausted. Such fields are abandoned, for they offer no benefit to the farmer. Only when ownership is clearly defined and benefits are realised will people be motivated to manage resources.

Thus the change of more secure resource tenure unlocks the possibility of better management and investment leading to increased benefits, which both together motivate even more investments in sustainable management. This creates an upward spiral as increases in benefit and investment lead to increases in perceived value and thus motivate ever more intensive and sustainable management. A failure to clarify resource rights (such as is the case at present) creates the inverse sort of spiral. No one will manage resources so anyone can come and take them under an open access resource regime.

Note that 'tenure' issues in terms of marine resources essentially means 'the power to include and exclude'; i.e. power over who gets to use the resource. Also note that the mix

of suggested activities all contribute to one or the other 'stones' of the *Fogao Africano* theory of change.

Echoing the importance of the CCP's, Nhantumbo and Gaile (2020) underline the importance of increasing the agency, ownership, and management skills of CCP's and their constituents.¹⁸ They write,

"The experience of introducing fisheries co-management schemes has highlighted the importance of local engagement and ownership by community fishing councils (CCPs). The government could stimulate this by defining clear rules for the use of funds earmarked for community development, law enforcement and managing fisheries and implementing these rules accordingly. It is also important to define clear mandates, roles and responsibilities for CCPs in general, and to encourage community-developed management plans such as supporting local job creation (training and initial investments) along the pre-harvest and post-harvest stages of the SWSF [shallow water shrimp fishery] value chain. Revenues for these activities should be channeled to the local level. Rules, roles and responsibilities should be clarified in Ministerial Decree 60/2018." 19

- 2. Development and specific training of CCPs (Communities Fisheries Councils) to assume major roles in the implementation of all elements of the project. Specific activities to target involvement and empowerment of youth and women may be relevant here. Enabling communities and other local stakeholders to organize themselves around restoration of fisheries is a key step for almost all of the programme's suggested activities. The MIMAIP has already established Community Fishing Councils (CCPs) to manage each CCP's home waters, so much of the necessary social organization is in place. What will need to be addressed is capacitation in areas such as governance, inclusion, fisheries management, and coordination with relevant authorities.
- 3. Increase the marine protected area network, to improve fisheries reproduction and productivity. The network of protected areas developed could encompass 30% of the coastal waters of Zambezia, and should be designed using both scientific knowledge as well as local and traditional knowledge systems, as recommended by Brito et. al. and in line with Mozambique's international and internal commitments as mentioned earlier. What happens around the protected area is the 'spillover effect,' a well- documented effect that increased local fish capture, due to increased reproduction within the protected area. Fish then spill over into adjacent waters and are caught by fishers. If the zone is sized correctly, the area lost to fishing will be more than compensated for by increased fish capture in adjacent areas (size of AMPs depends on the habitats and species to be stimulated).

Establishment of these AMPs could be concluded within 5 years, with downstream oversight either by ANAC and/or by MIMAIP, co-managing with local fishing councils. Methodology for developing these has been piloted in the Zambezia + Geography as have management planning and implementation. Sites for creation of AMPs will be based on

¹⁹ Republic of Mozambique (2018) Decreto No 60/2018: Altera e republica o regulamento de concessão de direitos de pesca e de licenciamento da pesca, aprovado pelo decreto No 74/2017, de 29 de Dezembro. http://extwprlegs1.fao.org/docs/pdf/ moz172331.pdf

¹⁸ https://pubs.iied.org/sites/default/files/pdfs/migrate/16670IIED.pdf

several criteria, as listed earlier. Ideally every local CCP (community fishing council) would have at least one new AMP to co-manage for the benefit of their members.

Note that not all of the proposed new AMPs will be sited in key biodiversity areas, as there are multiple possible objectives in addition to biodiversity protection. The AMPs envisioned would be designed to protect important habitats, species, and ecosystem elements and processes necessary to maximise fisheries productivity. Such elements include:

- Maintenance of connectivity between different habitats that fish species use at different points in their life cycles (i.e., prawns and many open water fish pass their juvenile life stage in mangroves);
- Maintenance of intact food webs; damaged food webs reduce productivity by limiting biomass through reduced carrying capacity (hunger/ food availability);
- Maintenance of biodiversity and functional redundancy of species (as you remove species from an ecosystem, its productivity goes down.

In association with the above, it is important to note that **MIMAIP** also lacks a policy on **AMPs and an AMP support/ management system**, as mentioned earlier. With additional AMPs and LMMA's being formed, this is a clear policy and institutional need within MIMAIP. ANAC, the other agency that manages protected areas, also lacks capacity in marine and coastal management, and has expressed a desire for capacity building.

a. It will be important that additional AMPs build in sustainability mechanisms (such as decentralised/ local community management, blue carbon, etc.) to avoid overburdening limited GRM budgets.

Component 2. Support existing Protected Areas in Zambezia + geography

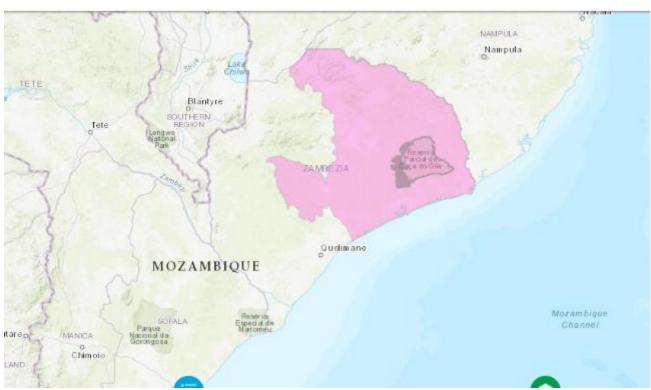
- 4. The APAIPS protected area lacks basic infrastructure (Headquarters, Ranger Posts, docks, ICTS, etc.), which could be an MCC investment, as could training for new staff (as staffing of the area is only beginning). This would allow other funds from BIOFUND, WB, EU, and CI to be invested in other ways, while limiting MCC's investment to time bound infrastructure and human resource investments. The business case here is the establishment of tourism and increased marine products benefits through improved compliance and enforcement with protected area regulations, as well as improved coastal protection and averted damage to coastal infrastructure and farms. BIOFUND and ANAC and other development partners would provide long-term sustainability to this investment. In addition, both restoration of fisheries and the establishment of additional no-take zones to improve fisheries productivity should be undertaken within this existing AMP, allowing better co-management and increasing fisher community benefits.
- 5. The expansion of the **Marromeu Reserve Buffer Zone**. ANAC and the CARR Foundation have a plan to expand the Marromeu Reserve Buffer Zone northwards to encompass more of the Zambezia Delta, its channels and mangroves. Protection of these will allow for increased fish and prawn production for artisanal as well as industrial capture. The expansion of protected areas would allow for connectivity on a landscape and potentially seascape basis, extending from Gorongosa Mountain as part of the Gorongosa National Park through the main park in the Rift Valley through the coastal forests and

wetlands at Marromeu. Extending to the north of the Zambezia provides and expanded buffer and increases protection of the Zambezia River and delta. It also reaches into the expanded mangroves around Chinde, a coastal town that has been destroyed three times and rebuilt due to extreme storms. Protection from such storm surges as well as the impact on fisheries could be an added benefit associated with the improved management of the protected area matrices (protected areas and hunting reserves/concessions) and mangrove management in the area. Additionally, reducing sediment loads by protecting the riverine and coastal habitats coming from the Zambezia during extreme weather events may reduce some of the sediment pulses that are so damaging to fisheries and coastal communities.

French Development Aid—AFD has a climate change adaptation project in the Zambezi Delta, with WWF and BIOFUND, making WWF a possible, reputable implementation partner.

Component 3. Transforming the livelihoods of fisheries-dependent communities

6. **Mangrove blue carbon:** Much work in establishing and structuring carbon markets in Mozambique has been done by FNDS (National Sustainable Development Fund), and is publicly available on their websites²⁰. FNDS has also piloted a REDD+ programme that is currently running in several northern and coastal areas of Zambezia. See map below.



The FNDS Zambezia REDD+ carbon programme's geography. From the FNDS geospatial platform²¹

The pink area represents the 7 Districts of Zambezia in which the FNDS REDD+ project operates. Mangrove carbon credits produced by these districts could be sold through the

https://www.fnds.gov.mz/index.php/en/our-projects/project-list/redd;

https://www.arcgis.com/apps/MapSeries/index.html?appid=6602939f39ad4626a10f87bf6253af1e and others)

²⁰ (https://fnds.gov.mz/mrv/;

²¹ accessed 26.11.2021 @ https://www.arcgis.com/apps/webappviewer/index.html?id=bc625b48f180462885fa527d4f2ea843

FNDS programme, which has already been the first carbon project worldwide to sell credits through the World Bank's carbon credit facility. So, there is an existing anchor project to build out from. There is also room to fortify the existing programme, as the emphasis so far has not been on blue carbon, and a mangrove carbon component could add higher margins to the existing operations. Note that 80% of carbon generated by the FNDS programme is mandated to be returned to the population. Another opportunity is to expand credit sales to the voluntary market.

To the north, a carbon programme could be used to support both the coastal population as well as the Primeiras and Segundas Protected Area (APAIPS). Just south of the Zambezi, a similar project could support the population and supply a steady source of conservation finance to the Marromeu reserve. The area from Quelimane to the Marromeu reserve is open, yet available.

Possible mangrove carbon partners here are plentiful, the government ones, being FNDS, ANAC, and MIMAIP as well as several NGO's already working in the area (CTV, WWF, the CARR Foundation, Blue Forest, and others). Private sector companies may also be interested as well. Note that Mozambique already has a national Mangrove Strategy (https://www.biofund.org.mz/wp-content/uploads/2020/05/Estrate--gia-Gest--o-Mangais-Mo--ambique-2020-2024.pdf) with which this initiative naturally aligns.

The US Forest Service in collaboration with WWF MCO, Government of Mozambique, supported by USAID, has already produced a pilot baseline assessment for REDD+ reporting and monitoring in the Zambezi Delta which could be used as a basis upon which to build a programme (available at https://www.srs.fs.usda.gov/pubs/50420). The Zambezia + geography contains 145,000 ha of mangroves, and is one of the largest mangrove areas in Africa.

Note that seagrass carbon is another possibility in the Primeiras and Segundas Protected Area (APAIPS), along the offshore islands and in the northernmost area north of Angoche. Most of the rest of the coast inshore is too turbid with river runoff to allow for extensive seagrass beds. Seagrass restoration in the northern an offshore island areas is a possibility, however, as years of commercial prawn trawling and beach seining have damaged seagrass habitat in these areas. The WWF, Natura, and the Pedagogical University may be additional contacts for more information here.

7. Hand-in-hand with securing the mangrove ecosystem, is **mangrove crab fattening**. This is a project that has been piloted with artisanal fishers in the Quirimbas National Park with good success in years past. Currently, Asian buyers are serving as aggregators for crab fattening in Zambezia, with an estimated 7000 artesanal fishers involved in the market. Small mangrove crabs are captured wild and raised for a period of six weeks in small pens constructed below the high-water mark in mangroves near fishing villages (this also increases motivation to conserve mangroves). The crabs are fed a mixture of table scraps, fish offal, and mangrove horn shells. During six weeks, they more than triple in size, reaching a final weight of something like 1.4 kg per crab, which increases the market value from between 300 to 500%. Crabs have a good internal market with local people, hotels,

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²² Christina E. Stringer, Carl C. Trettin, Stanley J. Zarnoch, and Wenwu Tang. 2014. The Zambezi River Delta Mangrove Carbon Project: A Pilot Baseline Assessment for REDD+ Reporting and Monitoring Final USAID and US Forest Service, available @ https://www.srs.fs.usda.gov/pubs/50420.

city residents, and even international export. Current prices for live mudcrabs on the international market vary from 10- 18 USD/kilo.²³ Crabs must be set to most international markets via air freight (they can survive 2 to 4 days out of water if kept damp and cool). Demand internationally is high.²⁴



Example of a mud crab fattening cage on the left, mud crabs on the right. Note the mangroves in the background, as well as the simple technology used to construct the cages.

As far as production goes, non- farmed mangrove crabs have a potential yield in the Primeiras and Segundas area alone of as much as 1400 tons per year, if this fishery would be developed (IFAD, February, 2001). This figure would be much higher for farmed crabs.

The nascent industry suffers from a number of problems:

- a. Lack of regulation and monitoring;
- b. Potential for overuse of crab and horn shell species;
- c. Potential power imbalances between buyers and sellers may lead to pricing imbalances;
- d. Potential biosanitary issues.

Productive interventions might be possible within this industry, as its additional development will create new higher value revenue streams for coastal families, relieving some pressure coastal and marine habitats. These might include:

- a. Development of regulations for the industry;
- b. Development of formal monitoring;
- c. Value chain studies;
- d. Social organization of producer groups to increase knowledge exchange and bargaining power;

https://www.researchgate.net/publication/259079829 Marketing of Mud Crab Scylla serrata Froksal from Khulna district to International markets

²³ Accessed 1.9.2021 @

²⁴ Accessed 1.9.2021 @ https://www.sciencedirect.com/science/article/pii/S2468550X21000058

- e. Investigations into the production of alternative feeds; India and other countries have found that soy-based feeds can replace high percentages of fish and marine products in crab rations;
- f. Other technological developments.

PROAZUL's *MaisPeixeSustentável* programme has a financing window for aquaculture and value chain development in the artisanal fisheries sector.

- 8. Removal and substitution of beach seine nets as per the REPMAR. Beach seines will be substituted with fishing gears that are more selective of adult fish and less destructive of habitats. These might include gillnets, lines, traps, and others. Simply outlawing the use of beach seines, while an excellent idea in terms of fisheries productivity and sustainability, is likely to cause hardship for coastal families as well as conflicts between the government and population. These issues could be resolved with a fishing gear substitution scheme to be implemented within the Zambezia + geography. This would remove damaging seine nets and replace them with less destructive gears, while maintaining coastal people's ability to fish. This activity has a definite beginning and end, and could serve as a model for other provinces. Alternatively, lobbying to ban the sale of new beach seine nets could result in a gradual 'retirement' of beach seines, which owners will replace with other fishing arts.
- 9. As an adjunct to the above, **the substitution of beach seines for specific prawn nets** (such as 3 ply gill nets) could offer a way for artisanal fishermen to break into the much more lucrative prawn value chain. The MIMAIP has made some investments in the aggregation and processing value chain over the years, but more may be necessary. A recent report notes that employment (including for women) throughout the value chain in the prawn fishing subsector is significantly higher than in the industrial prawn subsector. Artisanal fishers, including those working in shrimp fisheries, face significant losses of their shrimp catches during the harvesting and post-harvesting stages equivalent to US\$3–4 million. Projects such as ProAzul aim to help fishers and merchants purchase inputs to prevent such losses (such as cooling equipment), which would be particularly important for disadvantaged women merchants or poorer fishers. MCC could provide additional support for this value chain (perhaps via ProAzul) to reduce these economic losses.
- 10. **Use of bycatch.** Commercial prawn trawling produces substantial bycatch (about 85% of the total haul, with only 15% being prawns.²⁷ In Mozambique, about 70% of this bycatch is wasted, though in neighbouring countries (Kenya, Tanzania, and Madagascar) systems have been put in place for formal sale and processing of bycatch using artisanal or other traders.²⁸ Productive use of this bycatch would allow for substantial increases in fisheries value. The FAO recommends that Mozambique support "small-scale fishing communities with the organization of their activities to increase bycatch collection:

Legally, by

²⁵ https://pubs.iied.org/sites/default/files/pdfs/migrate/16670IIED.pdf

²⁶ Ibid.

²⁷https://www.researchgate.net/publication/273487460 Marine fisheries in Mozambique catches updated to 2010 and taxonomic disaggreg ation

²⁸ https://www.fao.org/3/az020e/az020e.pdf

- Making bycatch collection by small-scale fishers legal at the national level;
- Facilitating agreements between trawler operators and bycatch collectors and their organizations.

At the socio-economic level, by

- Organizing the collectors;
- Providing credit for smaller investments, including safety equipment.

Technically, by

- Introducing improved insulated iceboxes for collector canoes;
- Providing training in safety at sea aspects for bycatch collection operations.
- 11. The MIMAIP is emphasizing the importance of aquaculture to the fisheries economy, particulary freshwater aquaculture (*Tilapia spp.*). Commercial tilapia farming has also been established in Mozambique. Chicoa Fish is a vertically-integrated fish farm that also produces feed, fingerlings, and has access to markets in Tete's urban center and other markets across the region, including Blantyre, Lilongwe, Harare and Beira.

Chicoa is farming *Oreochromis niloticus*, more commonly known as Nile tilapia. These shoaling fish are social and territorial, and although omnivorous, they feed on a primarily vegetarian diet. They're also robust, good breeders and well-suited to the farming environment.

Chicoa set up its first cages in 2015, and have 24 cages now and nursery tanks on land. Chicoa has secured \$1.5-million funding to include local-small scale fish farmers within the startup's model, extend product facilities, and towards the installation of a new processing plant.

Mozambique Aquacultura E Agricultura, based in Beira, is a private sector supplier of tilapia fingerlings, whose entire operation was destroyed by cyclone Idai. The project used YY tilapia broodstock – fish that are able to produce 99 percent male offspring without the need for hormonal sex-reversal. The operation is recovering with support from the Wageningen Centre for Development Innovation (WCDI), part of Wageningen University and Research, which had been contracted by the Zambezi Valley Development Authority (ZVDA) to support aquaculture development in the area. Having heard about the fate of the hatchery they contacted Netherlands-based Til-Aqua International, who decided to donate 500 YY broodstock. Convinced that restoring the hatchery would be an effective contribution to aquaculture development in Mozambique, ZVDA paid the certification and transport costs needed to ship the broodstock from the Netherlands to Beira.²⁹

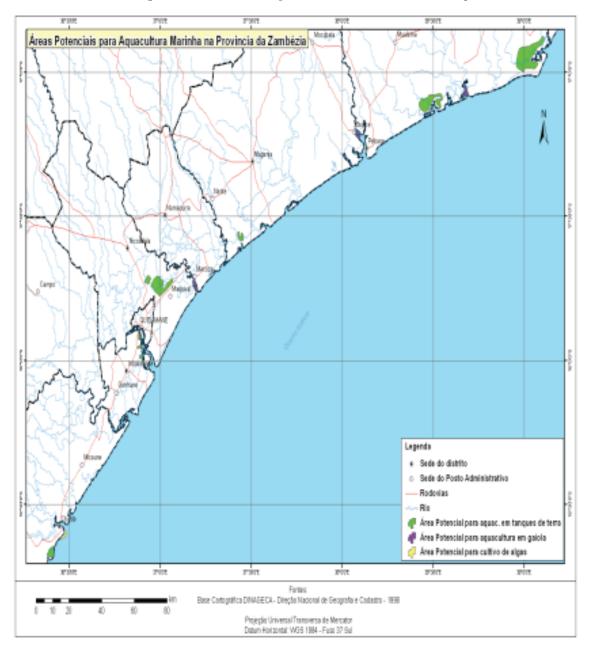
Despite these achievements, and several new private sector initiatives as well, aquaculture in Mozambique is mostly artisanal for subsistence; there are an estimated 3,500 artesanal fish ponds in the country.³⁰ The development of this activity has been affected among several factors, due to insufficiency and poor quality of inputs aquaculture (mainly feed and fingerlings), limited investments for research, investigation and extension services, reduced number of technicians and extension workers and limited access to credit, despite

²⁹ https://thefishsite.com/articles/the-donation-that-could-help-to-rebuild-mozambiques-tilapia-sector

³⁰ FAO 2005-2021. National Aquaculture Sector Overview. Mozambique. National Aquaculture Sector Overview Fact Sheets. **Text by Omar, I.** In: *FAO Fisheries Division* [online]. Rome. Updated.

the existence of a high potential, estimated at 4 million tonnes/year, in maritime and inland waters

The sector legal framework includes: the Constitution of the Republic of Mozambique (2004); the *Lei das Pescas*, *Lei n.*° 22/2013; the <u>General Regulations on Aquaculture</u>, (Regulamento Geral da Aquacultura), Decreto 35/2001; and Decreto n.° 71/2011: Determination of Areas Suitable for the Development of Marine Aquaculture, to Increase Fish Production (Determina as Áreas que aão Potencialmente Propícias para o Desenvolvimento da Aquacultura Marinha para o Incremento da Produção de Pescado).



In addition to these marine aquaculture sites, these is ample water in coastal Zambezia, a potential supply if fingerlings in Beira, but little other support as noted earlier. However,

- and approach which included local development of feed, extension, and other support may be productive.
- 12. In past centuries, the transport system along the Zambezia coast consisted of **barges and tugboats**, together with a network of small ports in rivers and estuaries. If government and private sector partners could be found, this network might be less costly to re-establish than trying to keep roads open throughout this soggy geography. **Storage silos for agricultural goods might be built near to waterways** to allow for improved agricultural marketing, which would be an investment that covers all three of the MCC's focus areas.

Component 4. Fisheries and supporting ecosystem restoration, resilience and adaptation technologies are made scalable, cost-efficient, and relevant to the project area.

- 13. In order to implement the above activities, the MIMIAPs is particularly interested in the creation of a **registry of fishers**. Socially this could be built upon the CCP management units, while technologically this should be based on new technologies available on tablets and cellphones.
- 14. In conjunction with the above, **development of an informational network based on cellphone use,** to be used both for fisheries enforcement, reporting of fisheries violations, informant networks, maritime rescue and security, and emergency hotlines. All users of the sea, including tourist operators and tourists, transport companies, as well as fishermen, could be involved (as is done in other countries).
- 15. The cellphone network could also be used to pilot a Zambezia + geography-wide **monitoring programme for marine mammals and sea turtles,** based on systems used in various national parks in Africa to monitor wild dogs, lions, etc. This would allow exportation to American and additional markets around the world (see point A below). Mozambique has an existing system of this type that could be used/tweaked as a model; the WWF- promoted Management Orientated Monitoring System (MOMS) already in use in Bazaruto National Park³¹.

What is the economic importance of monitoring marine mammals and turtles? Two observagti0ons are in order:

a. Mozambique, through the MIMAIP, has recently applied for a Compatability Finding from the USA Governments NOAA Marine Mammal Protection Act (https://www.fisheries.noaa.gov/topic/marine-mammal-protection). One flaw in the GRM's Compatability Finding application to NOAA is the lack of a national survey and stock estimate for marine mammals, as well as a way to report injury and death of marine mammals (intentional or accidental). Once established, the programme could be maintained at low cost by a university, MIMAIP, ANAC (perhaps in partnership with BIOFUND), or a combination of the above. Note that without a successful Compatability Finding, Mozambique will be unable to export all marine products to the USA, so this issue is a serious and urgent one. Mozambique exported marine products to the value of USD 3,289,620 during 2020

³¹http://theeis.com/elibrary/sites/default/files/downloads/literature/Management%20orientation%20monitoring%20systems%20in%20the%20Southern%20African%20Region.pdf. for example.

- and 2021, even though Mozambique wild-caught prawns are banned from the USA as Turtle excluder devices are not in use (though mandated by law).
- b. Turtles and marine mammals are main targets of marine tourism and ecotourism worldwide; their monitoring could contribute to the development of these industries.
- 16. Linked to all of the above, **improvements in cellphone network coverage** in coastal areas that would allow for better networking for tourism as well as the ideas listed above.
- 17. **Protection of mangroves** by itself is an important economic activity, aside from any blue carbon that results. Nhantumbo and Gaile (2020) estimate that on average, the value of mangroves for income generation through fisheries could be US\$855/ha, while mangrove destruction leads to an income loss of between US\$1.1 million and US\$1.6 million per year. Causes of mangrove destruction are linked to demands for land, timber and fuel. Poorer members of fishing communities are also likely to be more dependent on mangroves for their livelihoods. Therefore, the government should increase investment in programmes which address the underlying causes of mangrove destruction and promote mangrove reforestation...with a particular focus on poorer and vulnerable community members.³² Mangrove management schemes such as partial or rotational harvesting, planning of alternative fuel species, and mangrove reforestation, would contribute directly to the economic impact of the MCC programme, and help reverse the downward spiral of fisheries degradation in the Zambezia + geography.
- 18. Aside from mangrove protection, dune, riverine, and other natural protection to increase coastal protection against climate change is also important. Green technology can help coastal dwellers to reduce or avoid economic losses due to climate change impacts. Strategic green protection of at-risk habitats such as dunes, mangroves, and riverbanks, can help reduce losses, which can be quantified, thus providing an incentive and motivation for companies, municipalities, and others to invest, through a variety of financial mechanisms. An MCC investment here, combined with blue carbon and other initiatives, could create positive examples that could be rolled out in other areas of Mozambique.
 - a. Deforestation from the highlands all the way to coast has led to a considerable about of sedimentation and soil plumes flowing into the coastal fisheries. Some level of nutrients is needed for fisheries, but an excess sedimentation is burying seagrass and coral areas key for fisheries. Land management needs to be at the land and seascape level to ensure that impacts inland do not have a negative impact on the coastal fisheries areas.
 - b. An additional idea is that the MCC compact itself could use green technology as way to climate-proof its investments in agriculture and roads. This would catalyse the development of a climate-proofing industry in Zambezia.
- 19. Recent years have seen the criminalization of many marine and fisheries infractions. However, judges and prosecutors have not been trained in the new laws and penalties. The SPEED Programme of USAID has made a multi-year investment in the training of judges

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 $^{^{32}\ \}underline{https://pubs.iied.org/sites/default/files/pdfs/migrate/16670IIED.pdf}$

in the new Biodiversity Conservation law, with visible results in terms of wildlife security. Perhaps a business case could be made for **training for improved case processing and prosecuting in the marine sector** as well?

- a. One area of specific impact would be the use of **Turtle Excluder Devices (TEDs).** TEDs are now legally obligatory in Mozambique with the passing of the new REPMAR in 2020, and are also required to allow prawns to be exported to the United States, under Section 609 of U.S. Public Law 101-162 ("Section 609"), enacted in 1989. While efforts have been made to enforce this law, industrial fishermen complain that TED's do not work; apparently there was a not-so-successful effort at technical assistance in the past, so there are some real training issues remaining. Training for officials and maybe even boat captains/owners on the use and legal issues surrounding TEDs would maintain/ open markets for Mozambique's prawn fishery, much of which is located in the Zambezia + Geography. MIMAIP officials have expressed a desire to implement TED's, which would open many new markets (including the USA) to wild caught Mozambican prawns.
- 20. Several ideas for incorporation of marine and coastal stewardship have been generated for the MCC itself.
 - a. The MCC itself could be a carbon neutral project, actually purchasing credits from the mangrove carbon project suggested above.
 - b. Biodiversity offsetting is now law in Mozambique, for all residual, unmitigable impacts of Category A and A+ projects (such as roads). Purchase by the MCC of biodiversity offsets, for its own impacts would mean that MCC would be one of the first compliant projects in Mozambique, opening the way for others and perhaps catalyzing green industries.
 - c. An additional idea, already mentioned, is that the MCC compact itself could use green technology in conjunction with climate proof design as way to maximize climate resistance and resilience of its investments in agriculture and roads. This would catalyse the development of a climate-proofing industry in Zambezia.
 - d. Many stakeholders are aware that the MCC is also working in the areas of transport and agriculture. There is a growing body of opinion that MCC should cluster agricultural, transport, and marine management activities in coastal districts to take advantage of the potential synergies involved. For example, as noted earlier, 50% of the population lives in coastal districts and relies on both agriculture and fishing for livelihoods. And agriculture and fisheries market chain development both will depend on climate resistant improvements in coastal transport.