

Review of Sustainable Finance Options for Marine Protected Areas in the Comoros

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Prepared for:

Wildlands Conservation Trust as part of the “Improving effectiveness of MPAs in protecting coral reefs in Comoros” project, referred to as the “*Renforcement de la protection des oceans aux Comoros*” (R-POC) project.

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ABBREVIATIONS

Abbreviation	Description
<i>AFD</i>	French Development Agency
<i>BIOFIN</i>	The Biodiversity Finance Initiative
<i>CBD</i>	Convention on Biological Diversity
<i>CBO</i>	Community Based Organisation
<i>CBNRM</i>	Community Based Natural Resources Management
<i>CEPF</i>	Critical Ecosystems Partnership Fund
<i>CFA</i>	Conservation Finance Alliance
<i>CTF</i>	Conservation Trust Fund
<i>CSR</i>	Corporate Social Responsibility
<i>EEZ</i>	Exclusive economic zone
<i>EU</i>	European Union
<i>FA</i>	Friends Association
<i>FNA</i>	Finance Needs Assessment
<i>FY</i>	Financial year (1 February to 31 March for Namibian government)
<i>GBF</i>	Global Biodiversity Framework
<i>GCF</i>	Green Climate Fund
<i>GEF</i>	Global Environment Facility
<i>GiZ</i>	Deutsche Gesellschaft für Internationale Zusammenarbeit (German Corporation for International Cooperation)
<i>HA</i>	Hectares
<i>HAC</i>	High Ambition Coalition
<i>IUCN</i>	International Union for the Conservation of Nature
<i>MPA</i>	Marine Protected Area
<i>NGO</i>	Non-governmental Organisation
<i>NP</i>	National Park
<i>NPS</i>	National Parks Service (of the United States)
<i>PA</i>	Protected Area
<i>PFP</i>	Project Finance for Permanence
<i>R-POC</i>	<i>“Renforcement de la protection des oceans aux Comoros”</i> project.
<i>SANParks</i>	South African National Parks Board
<i>TEEB</i>	The Economics of Ecosystems and Biodiversity
<i>UNCTAD</i>	United Nations Conference on Trade and Development
<i>UNDP</i>	United Nations Development Programme
<i>UNEP</i>	United Nations Environment Programme
<i>UNFCCC</i>	United Nations Framework Convention on Climate Change
<i>WWF</i>	Worldwide Fund for Nature

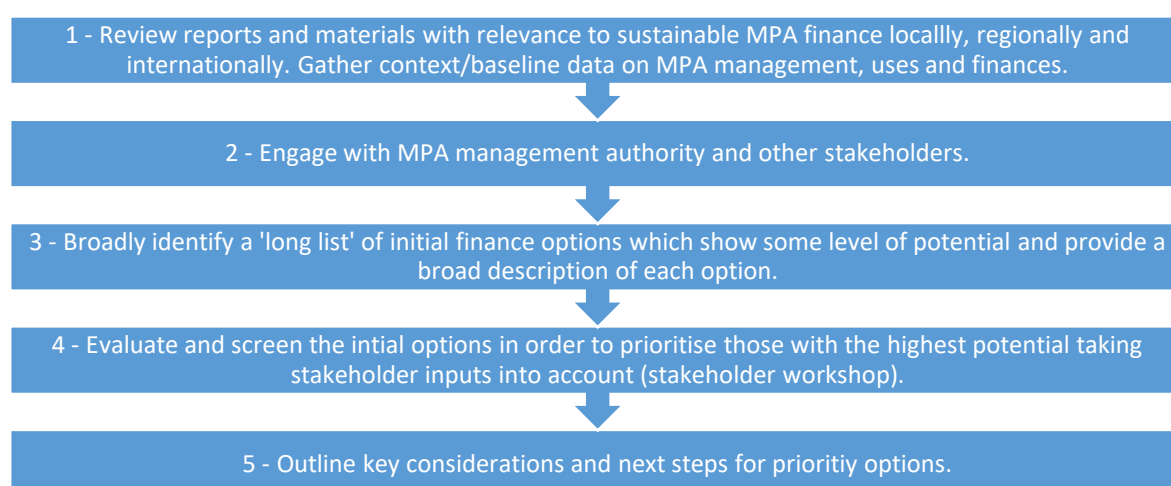
1 INTRODUCTION

The Comoros is making considerable efforts to protect its natural environment and has recently declared a number of new Marine Protected Areas (MPAs), has joined the nations who are members of the High Ambition Coalition (HAC), and supported the “30x30” protection of the oceans as per Target 3 in the Global Biodiversity Framework (GBF) adopted in December 2022. The MPAs are of great ecological, economic, and social importance not only for Comorans but also for the wider region and globally.

Financial sustainability is the ability of protected areas to meet their financial needs today and into the future, without compromising management objectives. The sustainable management of MPAs in the Comoros has become increasingly challenging due to the financial crisis and the impact of the COVID-19 pandemic. Although donors continue to provide funding, this is not sustainable. It is clear that other sustainable finance options or mechanisms should ideally play a role in MPAs financing.

The R-POC project, through its project partner CORDIO’s associated UNEP project (funded by the Nairobi Convention) is supporting the implementation of a project entitled “Improving effectiveness of MPAs in protecting coral reefs in Comoros” project. The WILDTRUST-led R-POC project team is carrying out selected work to implement this project’s activities, including on sustainable finance for MPAs and commissioned this high-level desk-top review of sustainable financing options for three newly established MPAs, namely Coelacanth National Park, Mitsamiouli Ndroudé National Park and Shisiwani National Park.

Its objectives are to broadly review finance options, screen them to identify those which show higher likelihood of being feasible and to outline constraints and opportunities along with next steps required to take them forward. To the extent possible, it lays some of the basic groundwork for the much more detailed investment framework and financing strategy process envisaged under the “Biodiversity protection through the Effective Management of the National Network of Protected Areas” project (i.e. the RNAP2 project under GEF-7). The RNAP2 project highlights that the financial situation of the PA system is highly precarious and constitutes the main challenge for the future of Comoros PAs. One of its key Outputs (1.3) is, “an investment framework and financing strategy is developed and implemented to support the long-term management of the PA system.”¹ The approach to the review involved the following steps or tasks:



¹ Note also that planned “Small Island Developing States (SIDS) Ecosystem Restoration Flagship in Comoros, Saint Lucia and Vanuatu” Project also has an Output (Nr 1.2) that “Sustainable finance mechanisms are established to support conservation and restoration efforts at national scale”

The review is structured as follows:

- Section 2 outlines the country context focusing on aspects relevant to MPA finances and key sectors including fisheries and tourism.
- Section 3 provides a brief introductory outline of the MPAs including key features, maps, ecology and surrounding communities.
- Section 4 outlines the overall MPAs financing context including revenue, funding sources and funding needs.
- Section 5 contains the identification and description of initial finance options.
- Section 6 provides further evaluation and screening of initial finance options to generate higher priority options.
- Section 7 outlines the key considerations and next steps for the priority options.

2 THE COUNTRY AND SECTORAL CONTEXT

The Comoros Archipelago is located approximately mid-way between northern Madagascar and northern Mozambique. It consists of four islands, namely Ngazidja (Grande Comore), Ndzuani (Anjouan), Mwali (Mohéli) and Maoré (Mayotte). The first three belong to the Union of the Comoros, while the last is under French administration which is disputed by the Comorian Government (Houssoyni, 2021).

Comoros is one of the five ‘hottest’ biodiversity spots in the world due to its large number of unique species found nowhere else. The coastal and marine environment is rich and varied, with fringing coral reefs, mangroves, seagrass beds, beaches of black, red and white sand, lava flows, islets and submarine banks. Many endemic, threatened or migratory species such as sea turtles, whales, dolphins, lemur and dugong, and sea cucumbers making the conservation of its biodiversity an endeavour of national and global significance.²

The Comorian national socio-economic and sectoral context can influence what is possible in terms of MPA sustainable financing.

Key socio-economic indicators can be found in the World Bank country review³ and are summarised here. The estimated population of the Comoros was 888,456 in 2021 with a relatively high population density of at least 465 inhabitants per km². This places intense pressure on natural resources and the environment. The country’s location and topography are among the most climate vulnerable in the world, and 54.2% of the population live in at-risk areas. Nearly 25% of the population is extremely poor living below the national poverty line, and 10% of the population risks falling below the national poverty line in the event of unexpected economic shocks.

Comoros was impacted by two successive shocks leading to a decline of the growth rate from 3.7 %, on average in 2017 and 2018, to 1.8% in 2019 (Cyclone Kenneth) and -0.3% in 2020 (COVID-19). Although the economy slightly recovered in 2021 growing by 2.2%.

² See <https://www.nairobiconvention.org/comoros-country-profile/comoros->

³ See <https://www.worldbank.org/en/country/comoros/overview>

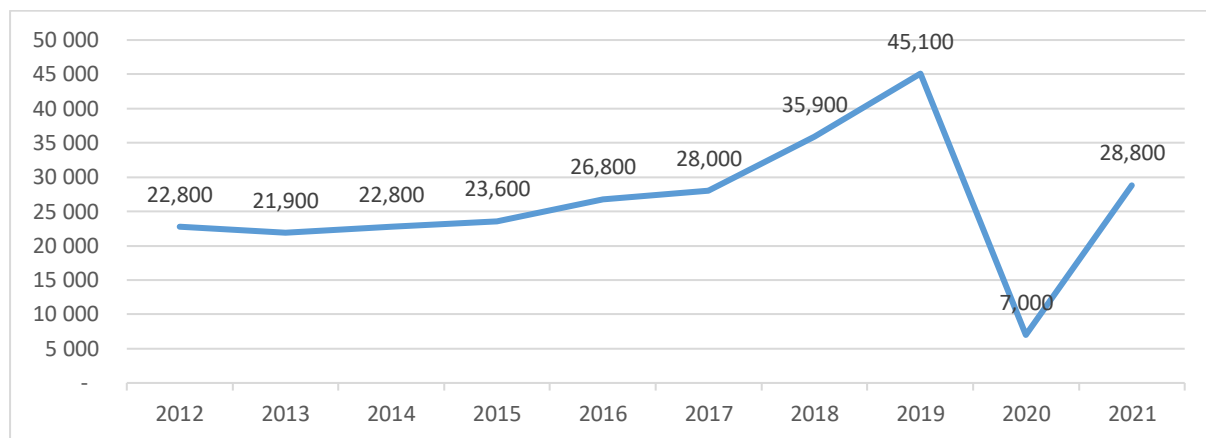
Agriculture and fishing are key sectors and tourism potential is high. The Comoros Emerging Plan for 2030 is the main national long-term development plan aimed at diversifying and growing the economy. The Plan includes the development of the limited tourism industry, expansion of agriculture and fisheries, development of Moroni as a regional finance centre, construction of infrastructure and improved air and sea transport links.

The fishing sector

The coastal population depends heavily on fishing. Artisanal fishers use a range of techniques many of them basic, primarily using nets for reef species and hook-and-line methods for pelagic species like tuna. They operate on the continental shelf. Industrial fishing operates separately from artisanal fishing, to a greater extent even than in most less developed countries, and is conducted primarily by foreign nations and the majority of catches are not landed in the Comoros. In 2017, the European Union paid the Comorian government €800,000 for fishing rights other fishing-related fees with €300,000 of this earmarked for the development of domestic fishing (UNCTAD, 2017 and <https://www.nairobiconvention.org/comoros-country-profile/comoros-ocean-economy/>).

The tourism sector

At a national level, after a period of low growth, Comoros experienced significant growth in international tourist arrivals in the two to three years before the COVID-19 pandemic as shown in Figure 2-1. In 2019 they reached 45,100 which is a 68% increase relative to 2017. However, due to the pandemic and associated recession, tourist numbers fell to 7,000 in 2020 recovering to 28,800 in 2021.⁴ Non-leisure tourists typically represent 15% – 25% of these total visitors.



Source: <https://www.unwto.org/tourism-statistics/tourism-statistics-database>

Figure 2-1: International tourist arrivals to Comoros (2012 to 2021)

For comparative purposes, these tourist visitors numbers are similar to those of Sao Tome and Principe (34,900 visitors in 2019) and several orders of magnitude below visitors to the nearby Seychelles (348,000 visitors in 2019) and Reunion (533,000 visitors in 2019).⁵

Visitor numbers drive PA tourism revenues and socio-economic benefits. Low national visitor numbers inevitably translate to low MPA visitor numbers. Data is not available on current visitors numbers to the three recently declared MPAs that are the focus of this assessment. The National Park Agency is, however, doubtful that visitors number per MPA have reached 1,000/yr. Visitors number to the longer established

⁴ Visitor numbers for 2022 are not yet available.

⁵ See <https://www.unwto.org/tourism-statistics/tourism-statistics-database>

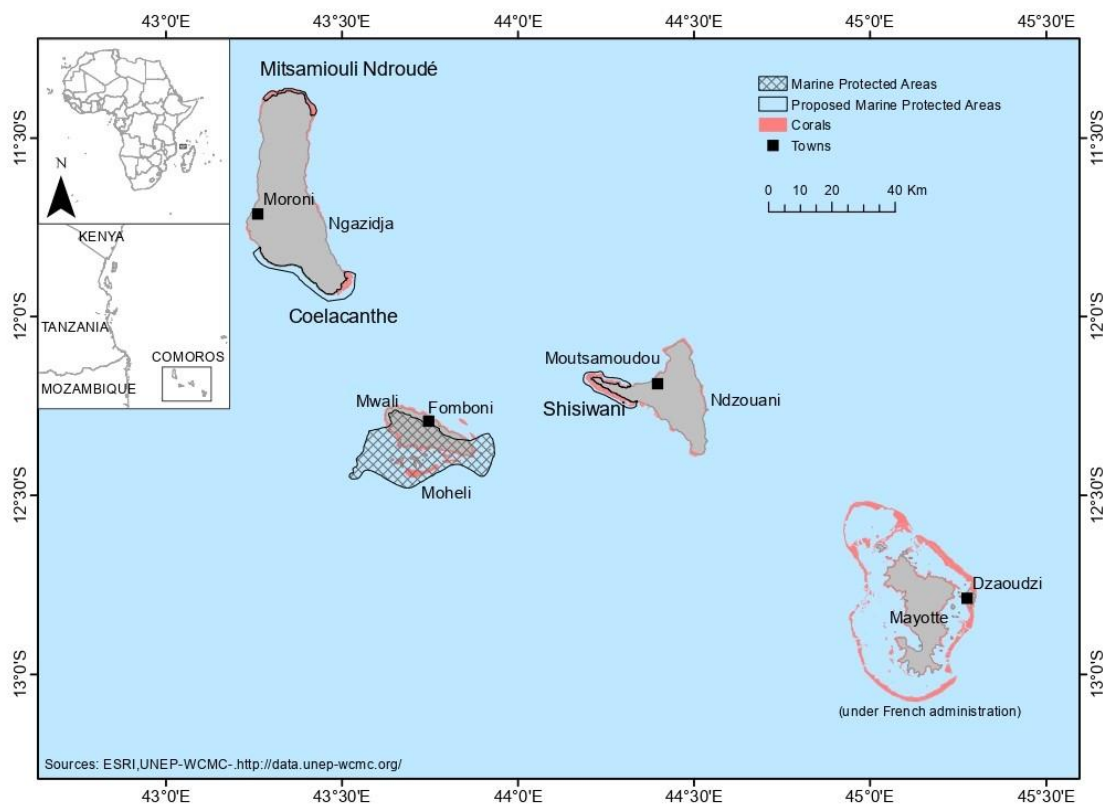
Moheli National Park were estimated at 390 in 2008 (C3 Comoros, 2008) although they have no doubt increased since.

Comoros’ beautiful natural environment means it has the potential to become a prime tourism destination. It is characterized by white sand beaches, turquoise seas and exceptional conservation areas. Comoros also has a rich history and strong identity, with deeply rooted traditions, specific social structures and a natural sense of hospitality. The coastline is fringed with world-class coral reefs, magnificent lagoons and white sand beaches, especially the three northernmost beaches at Le Galawa and Maloudja. There is potential for scuba, snorkelling, reef and wreck diving, deep-sea fishing and all types of water sports.⁶

The Comoros Emerging Plan set a foreign visitor target of 100,000 visitors by 2026. This is probably not realistic and was set before the COVID-19 pandemic. Reaching it will require considerable local and foreign investment and other complimentary actions.

3 MARINE PROTECTED AREAS PROFILE

In terms of PA development, Moheli National Parks’ marine component was established in 2001 and the terrestrial component in 2015. Coelacanth National Park, Mitsamiouli-Ndroudé National Park and Shisiwani National Park were declared in 2021 (see map in Figure 3-1). Two other terrestrial PAs are in the process of being established and all Parks are managed by the Comoros National Parks Agency (*Parcs Nationaux des Comores*) in voluntarily co-management with villagers from each area. The Agency has a total staff of approximately 123, of which, 38 are managing Moheli National Park.



Source: Houssoyni (2021)

⁶ See <https://www.nairobiconvention.org/comoros-country-profile/comoros-ocean-economy/>

Figure 3-1: Map of Comoros showing three main islands and MPAs

Key background information is provided below from the management plans of Coelacanth National Park, Mitsamiouli-Ndroudé National Park and Shisiwani National Park with a focus on that which is most relevant to financing. All of these MPAs are classified as IUCN category VI protected areas (protected area with sustainable use of natural resources).

3.1 Coelacanth National Park

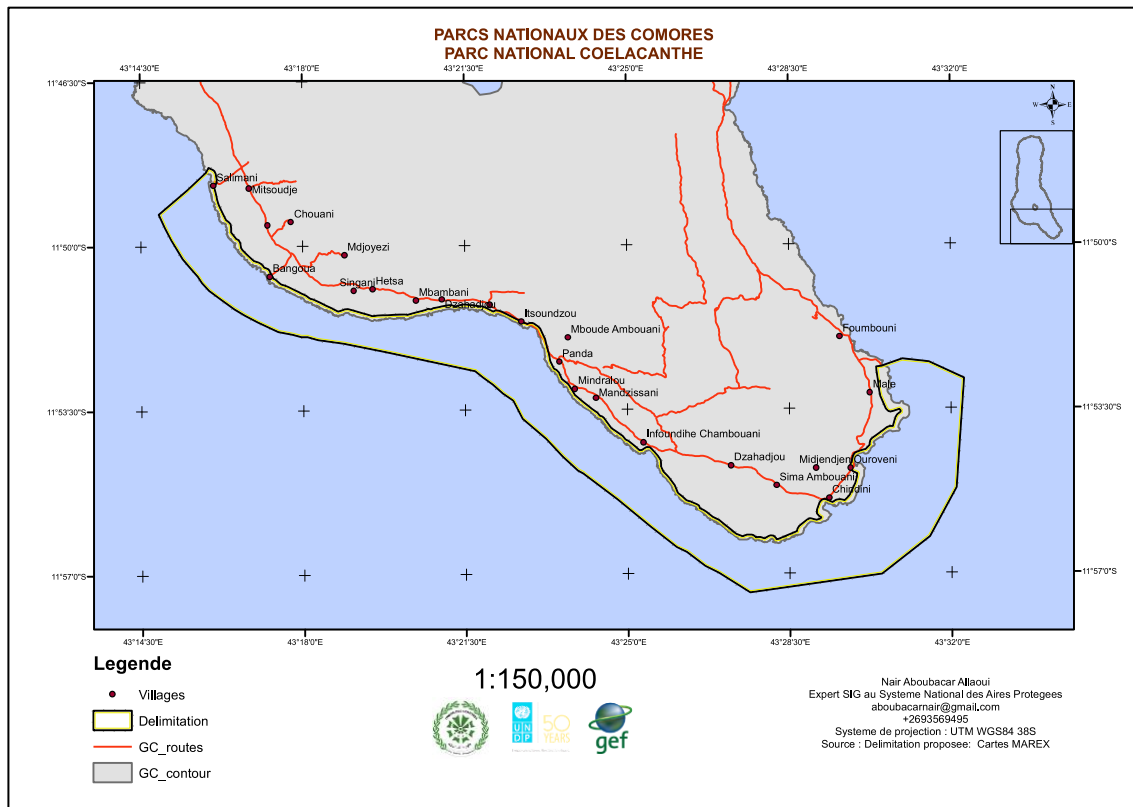


Figure 3-2: Map of Coelacanth National Park

The park covers an area of 9,276 ha, of which 861 ha is coastal/islets land (200-meter strip from the coastline towards the interior which is approximately 55 km in length). Main habitats include coral reefs, seagrass meadows, mangroves, beaches and volcanic shoals sheltering the coelacanth. Mangroves cover an area of 3.75 ha and are threatened by intense mostly illegal cutting for timber and firewood. Mangrove planting and regeneration activities have been carried out in the park with more planned. Seagrass meadows (area in ha not specified) remain in a good state despite pressures (poor water quality, soil erosion and trampling by fishers).

The global biodiversity importance of the park centre on the coelacanth, a living fossil threatened with extinction and with 500 individuals recorded to date. Also of interest are the increasingly rare turtles, the presence of an important coral reef in good condition in the southern zone (Chindini) and the presence of dolphins and whales.

The total population of the local communities nearby is 25,183 people. The main economic activities are fishing and agriculture, mainly cash crops and breeding of goats and oxen.

The number of fishermen in the area of the national park is 875 People.

Tourism could represent a great opportunity but is not yet exploited. The area does not have hotels or restaurants. Provided funding can be secured, the park management plan highlights the planned construction of:

- Bungalows in Chindini Beach and Male Beach (30 beds will be available to accommodate both national and international tourists).
- One centre for the conservation and marketing of fishery products in Chindini.
- One centre for the conservation and marketing of fishing products in Banguoi
- Seven marked underwater trails to diversify the tourist offering.

The biodiversity in the park is confronted with various threats including: (i) poaching; (ii) trampling; (iii) destructive forms of fishing; (iv) sampling; (v) household waste; (vi) terrigenous inputs; (vii) the effects of climate change and natural disasters.

3.2 Mitsamiouli-Ndroudé National Park

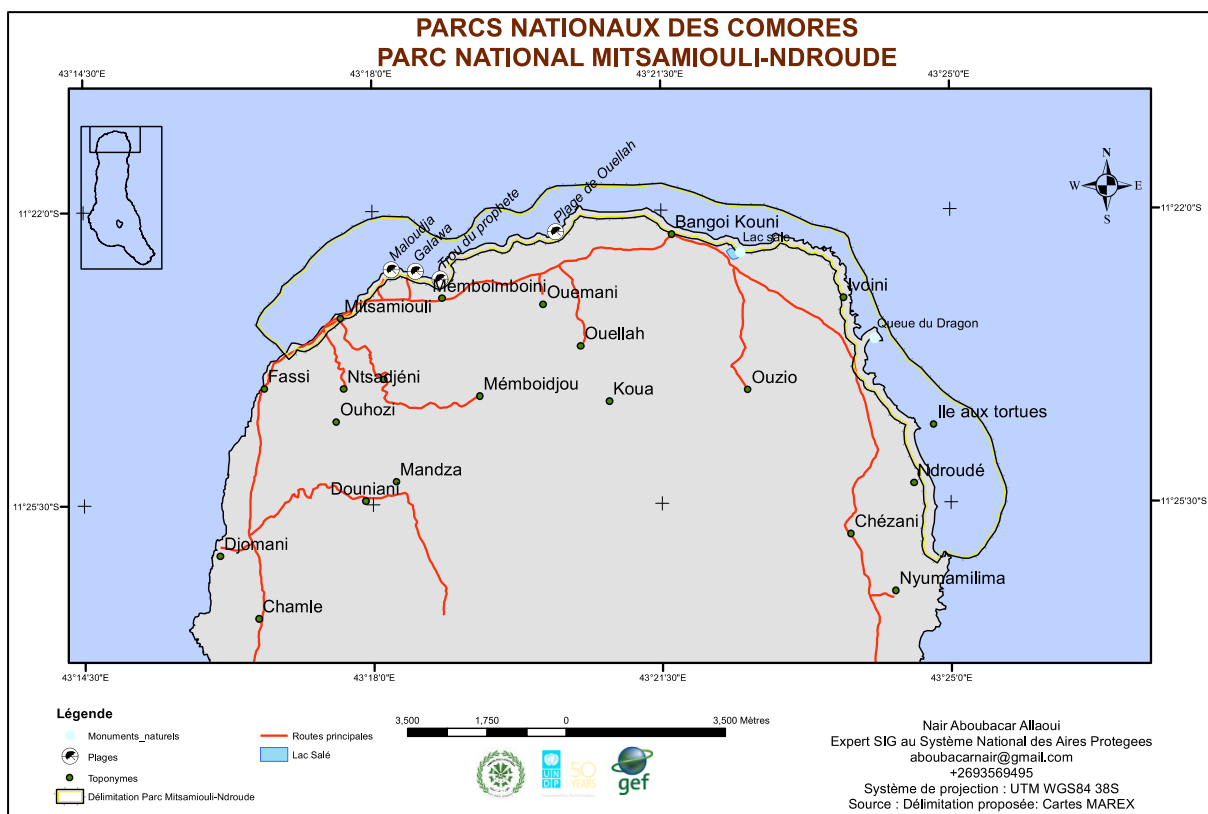


Figure 3-3: Map of Mitsamiouli- Ndroudé National Park

The park covers an area of 2,314 ha, of which 1,857 ha is marine and 457 ha is coast/Islets land. Main habitats include outer reef slopes, reef plains, seagrass meadows, basins in the reef plains and basalt slopes. Mangroves cover an area of 0.94 ha and are generally in a good state. Mangrove planting and regeneration activities have been carried out in the park with more planned. Seagrass meadows are well developed on northern Grande Comore (330 ha mostly inside the park). They remain in a good state despite pressures (poor water quality, soil erosion and trampling by fishers).

The park plays a key role in the preservation of the biodiversity. It has marine mammals, coral reefs, and seagrass beds are associated with many species of corals, fish, turtles, reptiles, crustaceans, molluscs, and echinoderms.

The total population of the local communities nearby is 30,285 people. The main economic activities are fishing and agriculture. There are about 600 regular fishers and 1,500 seasonal fishers. Due to its geographical position, rainfall and soil quality, the park area represents a recognized agricultural area, food crops occupying most of the arable land along with cash crops such as ylang-ylang and vanilla.

At present, tourism is little developed in the area despite the park having an abundance of tourism of assets. The tourist centres that were formerly Galawa and Maloudje, where tourism essentially started in the Comoros in the 1930s, are much reduced. At Galawa, for example, Sun International had a four star hotel with 180 rooms employing 500 people which was eventually closed and demolished in 2008-2009. Ecotourism bungalows are built in Ndroudé and Meboimboini, but are mostly only frequented by family visits on weekends and young people who make pic nics.

The Emerging Comoros Plan emphasises investment in tourism including in the park area. For example, the Hahaya-Galawa road has been rehabilitated resulting in increased tourism investment activity in Maloudja.

The biodiversity in the park is confronted with various threats including: (i) poaching; (ii) trampling; (iii) destructive forms of fishing; (iv) direct debit; (v) household waste; (vi) the effects of climate change and natural disasters.

3.3 Shisiwani National Park

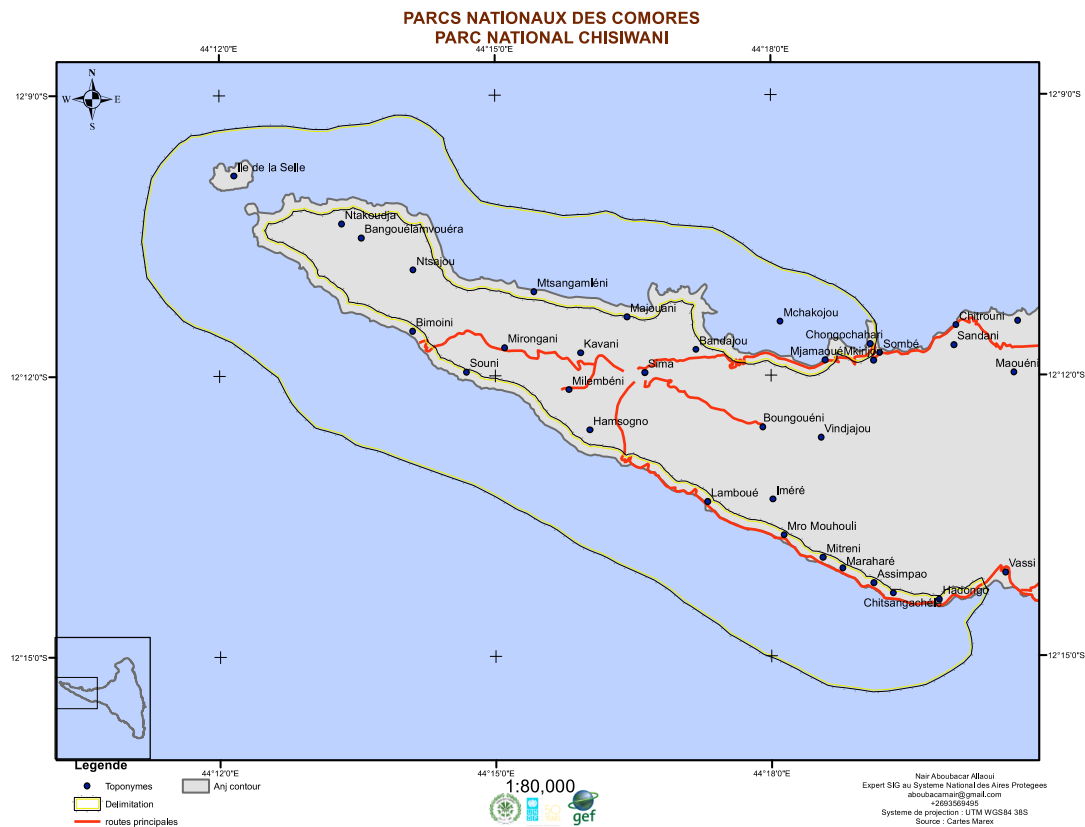


Figure 3-4: Map of Shisiwani National Park

The park covers an area of 6,500 ha. Main habitats include mangroves, a coastal barrier reef complex including a lagoon, beaches once used by turtles as nesting sites, seagrass beds and the coastal marsh of Pomoni. Mangroves are in a fragmented strip that stretches 7 km from the southwest coast and covers an area of 25 ha. Mangrove planting and regeneration activities have been carried out in the park with more planned. The seagrass meadows area is estimated at about 1,420 ha.

The Park is home to a rich biodiversity at both the species and ecosystem levels. Flagship species include whales, dolphins, turtles and reef fish

The total population of the local communities nearby is 28,888 people. Fishing in the park area is artisanal and most of the forms of fishing practiced are destructive. More than 500 fishing nets operate in the park area, a major challenge for the park. Agriculture and animal husbandry are little practiced mainly for subsistence and the soils in the area are generally not fertile.

The park area has a strong tourist potential given its nature, its beautiful beaches and other attractions including the potential to showcase local crafts and cultural heritage. Degradation of the environment remains a challenge along with facilities that should assist in attracting ecotourism investors.

The biodiversity in the park is confronted with various threats including: (i) poaching; (ii) trampling; (iii) destructive forms of fishing; (iv) levy; (v) household waste; (vi) terrigenous inputs; (vii) the effects of climate change and natural disasters.

4 THE MPAS FINANCING CONTEXT

The overall financial context of MPAs in the Comoros is an important informant of potential sustainable financing options. With this in mind, this section provides a broad summary of the context or baseline focusing on current funding sources and amounts, conservations trust funds and funding needs.

4.1 Current MPA funding

MPAs are currently funded entirely by donors. They do not receive budget allocations from government and do not have any sources of own (self-generated) revenue (note that the communities that co-manage MPA with the National Parks Agency contribute primarily their time and efforts but don't make funding contributions).

The National Parks Agency has a relatively unusual legal status as it is a registered NGO which carries out MPA management on behalf of the government. Importantly it has the ability and legal structure that generally allows it, in principle, to generate own revenue and receive funding and also to retain revenue/funding monies for use in MPA management. This revenue generation and retention ability may, however, be dependent on the specific nature of any future finance options.

The main recent and planned donor projects with some relevance to MPAs are summarised in Table 4-1 in terms of their donor, time frame, value and primary objective. Total donor contributions for all the projects listed is approximately US\$35 million. The RNAP1 and now RNAP2 are arguably most important for overall MPA financing along the WILDTRUST and CORDIO project. Note that Moheli is a special case as it was the only MPA in Comoros for some time and receives greater and separate funding primarily from AFD and EU project sources.

Table 4-1: Summary of key recent and planned donor projects benefiting MPAs

Donor	Project name	Time frame	Donor funds (US\$ mil.)	Primary objectives
GEF/UNDP	Strengthening Comoros Resilience Against Climate Change and Variability and Related Disasters (under GEF 6)	2017 - 2022	9.5	To strengthen the adaptive capacity of the Comorian population to manage the current disaster risks and reduce vulnerability to climate change. In so doing, the project will focus on improving early warnings and disaster risk management under changing climatic conditions.
GEF/UNDP	Development of a national network of terrestrial and marine protected areas representative of the Comoros' unique natural heritage and co-managed with local village communities - RNAP1 (under GEF 5)	2015 - 2020	4.7	To Establish an Expanded and Functional System of Protected Areas (PAs) in the Union of Comoros, Representative of the Country's Biodiversity Endowment and with Good Prospects For a Sustainable Future.
GEF/UNDP	Biodiversity protection through the Effective Management of the National Network of Protected Areas - RNAP2 (under GEF 7)	2022 - 2027	4.0	To conserve terrestrial and marine biodiversity by strengthening management of the Union of Comoros newly created Protected Areas Network through effective co-management with communities for sustainable development.
CEPF/UNEP	Strengthening ocean protection in Comoros through improved management effectiveness and planning within existing MPAs implemented by WILDTRUST, CORDIO and partners	2021 - 2024	2.5	To build socio-ecological resilience by improving ocean protection and aiding recovery of the marine biodiversity and fisheries of the Republic of Comoros, ensuring sustainable use of ocean assets and thereby enhancing benefits to dependent coastal communities
AFD and EU	Funding specifically for the management and development of Moheli National Park.	2016 - 2028	9.0	Projects focused on MPA conservation and management along with associated community and tourism development
UNDESA, UNEP and FAO	Small Island Developing States (SIDS) Ecosystem Restoration Flagship in Comoros, Saint Lucia and Vanuatu	2023 - 2028	5.0	Marine and coastal ecosystem restoration and conservation, supported by sustainable finance, is integrated into COVID-19 economic recovery and growth through a connected 'ridge to reef' and seascape management approach to ensure SIDS build back better and bluer.
Total			35	

Sources: Donor project documents, Pers com. National Parks Agency

4.2 Conservation Trust Funds

Conservation Trust Funds (CTFs) are private, legally independent institutions that provide sustainable financing for biodiversity conservation. The core business of CTFs is to mobilize resources from diverse sources – including international donors, national governments and the private sector – and to direct them, primarily through grants, to a diverse range of environmental programs and projects through non-governmental organizations (NGOs), community based-organizations and governmental agencies (such as national parks agencies) (CFA, 2020: 12). Conservation Trust Funds are thus not themselves a revenue or funding source but can play a critical role in assisting with mobilising, blending, holding and managing funding. Their independence can be particularly important in attracting funding from donors and the private sector who place a high value on this. They can play an important role in the implementation of biodiversity offsets.

The need for a CTF for protected areas in Comoros is recognised. However, the establishment and operationalisation of the Environmental Fund for the Protected Areas of the Comoros (FEC) remains a challenge and, as yet, no recurrent funding is mobilized from donors or government. The Project Document for RNAP2 states that “The process of creating an environmental fund for the Comoros (the FEC), which began several years ago, has encountered a succession of dead ends, in particular the decision of the Madagascar trust fund FAPBM to refuse to merge the two funds for the management of an amount earmarked for the Comoros PAs, after feasibility studies and negotiations that lasted more than two years, and the partial and then total withdrawal of the allocation amount of 1.5 million euros pledged by a donor.”

A full review of the FEC seems necessary leading to a concrete plan of action to operationalise and fund the FEC.

4.3 Funding/finance needs assessment

Knowing the amount of funding or finances needed for MPA management is important as it sets the funding target finance options. Such estimates are also a management tool and are needed when making the case for increased funding and/or revenue retention.

Funding needs estimates were made based on the five-year management plans for the three MPAs which were drawn up in 2019 and are for the period 2020 to 2024. The total amounts required were spread even across five years and inflated to current terms resulting in funding needs of approximately KMF 893 million/yr (approx. US\$2 million) for all three MPAs (Table 4-2). Of this, KMF 321 million would be for Coelacanth National Park, KMF 281 million for Mitsamiouli-Ndroudé National Park and KMF 291 million for Shisiwani National Park.

Table 4-2: Funding needs estimate for Coelacanth National Park, Mitsamiouli-Ndroudé National Park and Shisiwani National Park

MPA	At time of management plan drafting (2019)	Inflated to 2023
Coelacanth National Park		
Total funding needs for 2020 to 2024	KMF 1 321 662 500	KMF 1 605 583 894
Average funding needs per year	KMF 264 332 500	KMF 321 116 779
Mitsamiouli-Ndroudé National Park		
Total funding needs for 2020 to 2024	KMF 1 154 832 500	KMF 1 402 915 239
Average funding needs per year	KMF 230 966 500	KMF 280 583 048
Shisiwani National Park		
Total funding needs for 2020 to 2024	KMF 1 198 124 500	KMF 1 455 507 287
Average funding needs per year	KMF 239 624 900	KMF 291 101 457
Total for three MPAs combined		
Total funding needs for 2020 to 2024	KMF 3 674 619 500	KMF 4 464 006 420
Average funding needs per year	KMF 734 923 900	KMF 892 801 284

5 IDENTIFICATION OF INITIAL FINANCE OPTIONS

The overall goal of a sustainably financed park system requires the identification and prioritisation of an appropriate mix of finance options or mechanisms. This process starts broad and then narrows down

priorities. First, a 'long list' of initial finance options was generated to be subjected to evaluation and screening in order to prioritise options with greater feasibility and impact. These options were identified taking into account the above socio-economic, sectoral and MPA financing context along with local, regional and international sources and experience.

The key local or regional documents and literature reviewed included:

- The MPA management plans.
- Key donor projects documents for the RNAP1, RNAP2 and SIDS projects.
- Obiene S., Riddell M., Ojwang L.O., Njeri C., Okalo F., Momanyi J., Kawaka J., Ndiritu E., Mwalimu A and Samoilys M.A. 2022. Regional Workshop Report on the Financing Contexts of Locally Managed Marine Areas in Eastern Africa. CORDIO East Africa, Mombasa, Kenya.
- Riddell M., Esmail, N., Samoilys M.A., Musembi, P., Kawaka J., Ojwang L.O. and Momanyi J. 2020. CORDIO East Africa Review of sustainable financing for community based marine management. Report forming part of the LEAP project. CORDIO East Africa, Mombasa, Kenya

These were augmented by international material including:

- The BIOFIN global online database of finance options.
- The Conservation Finance Alliance (CFA) Conservation Finance Framework and Guide.
- OECD. 2017. Sustainable financing of marine protected areas: Economics, Management and Effective Policy Mixes. OECD, Paris.
- Binet, T., Diazabakana, A., Laustriat, M., Hernandez, S. 2015. Sustainable financing of Marine Protected Areas in the Mediterranean: a guide for MPA managers. Vertigo Lab, MedPAN, RAC/SPA, WWF Mediterranean. 76 pages.
- BlueSeeds. 2020. Financing mechanisms: A Guide for Mediterranean Marine Protected Areas. BlueSeeds, MAVA Foundation.
- Bohorquez JJ, Dvaskas A, Jacquet J, Sumaila UR, Nye J and Pikitch EK (2022) A New Tool to Evaluate, Improve, and Sustain Marine Protected Area Financing Built on a Comprehensive Review of Finance Sources and Instruments. *Front. Mar. Sci.* 8:742846. doi: 10.3389/fmars.2021.742846
- WCS (Wildlife Conservation Society) and CFA (Conservation Finance Alliance). 2018. Finance Tools for Coral Reef Conservation: A Guide. Prepared for 50 Reefs. WCS, New York.

Regarding most likely revenue sources and realistic expectations, OECD (2017) conducted a relatively comprehensive review of MPA funding/revenue sources worldwide. They found that government funding plays the main role in MPA funding in developed countries. In developing countries it often plays a major albeit generally smaller role given limited resources and other priorities particularly in lower income countries where, as in the Comoros, donor funding tends to be especially important. The clear majority of MPAs in the review that are able to generate significant own revenues do so from tourism user fees (mostly entrance fees, diving and boat access/mooring fees) and tourism concessions in locations that receive significant tourist visitors numbers (OECD, 2017). There is also arguable a tendency for MPAs that are successful in this regard to be smaller and less costly to manage (e.g. a small island as opposed to a stretch of coast) with good tourist access and access control options. The presence of a high-end resort(s) is also ideal. Some examples include Chumbe, Misali and Mnemba MPAs in Tanzania, Curieuse Marine National Park in Seychelles and Sugud Islands Marine Conservation Area in Malaysia.

The focus of this report is more on revenue or funding generation options as these are regarded as a more urgent need. MPA management cost reduction options along with supporting alternative livelihoods through biodiversity/conservation enterprises are less of a priority for this project. Table 5-1 shows the initial list of finance options including a brief description for each.

Table 5-1: List and description of initial MPA finance options

Finance option	Description	
	Government allocations, grants, donations, Trust Funds	
1	Conservation Trust Fund (CTF) operational and capitalised	Conservation Trust Funds are not themselves a revenue source but can play a critical role in assisting with mobilising, blending, holding and managing revenue. The establishment and operationalisation of the Environmental Fund for the Protected Areas of the Comoros (FEC) remains a challenge and the planned 'merge' with the larger Madagascar Fund (FAPBM) failed.
2	Accessing government funding	Government budget allocations are the most common form of funding in most countries especially with higher incomes. Even if modest, these allocations encourage other donors to contribute.
3	Increased grant and donor funding	Though donors are currently the only source of funding, there may be some scope to increase funding.
4	Donations from individuals and companies	Philanthropist donations seem to have potential particularly among the diaspora. Smaller donations can be facilitated through accommodation establishments (Laka Lodge has EUR5 voluntary conservation fee for tourists), donate tab on an MPA website, crowdfunding campaigns. Companies may want to meet their Corporate Social Responsibility targets and gain marketing benefits of association. Companies in tourism, fishing, oil and gas may have greater potential.
5	Project Finance for Permanence (PFP)	A framework or process developed by WWF that can be used in a structured attempt to ensure the simultaneous commitment of a number of donors and potentially others to a funding target and associated financing plan that would ensure permanent (long-term) funding for a protected area. Similar in concept to syndicate finance in that it seeks large group commitments to funding as opposed to piecemeal individual actions that are smaller.
	Cost sharing and outsourced management	
6	Increased management cost sharing with communities, NGOs	MPA management cost and effort is currently shared with local communities and NGOs. There may be scope to increase this.
7	Outsourced funding and management of MPAs	Organisations like Blue Finance are a social enterprises that develop and manage 'bankable' MPAs on behalf of governments. They drive the sourcing of funding and revenue generation options which are needed for financial sustainability so MPA generally needs to have viable prospects for own revenue generation.
	Tourism-related	
8	Tourism concessions	Private sector investors bid for accommodation, activity concessions and generally pay a fixed rental and/or share of turnover to the management authority. This model is commonly applied throughout the world and reduces financial risks relative to park management authority trying to be a direct tourism service provider.
9	Tourism entrance fees (conservation fees)	Tourists are generally willing to pay for entrance to protected areas including MPAs provided money is used for MPA management. Positive net revenues (i.e. after costs of implementation taken into account) depend on visitor volumes. Fee collection more difficult relative to fenced terrestrial PAs. Example where applied incl Seychelles, Tanzania MPAs
10	Tourism use/activity fees (for mooring boats, diving, recreational fishing, filming and photograph, events)	Tourists may be somewhat more willing to pay for specific activities compared to general entrance, again provided money is used for MPA management. Positive net revenues (i.e. after costs of implementation taken into account) depend on visitor volumes. Fee collection more difficult relative to fenced terrestrial PAs. Example where applied incl Seychelles, Tanzania MPAs
11	National (eco)tourism levy/tax, a portion of which could be used for MPA management	National tourism levies are often in the form of bed levies, air passenger levies. Their revenues are often used for country marketing so it will be important that a portion of the tax revenue is set aside specifically for MPA management. This will require political will and legislation. Examples of countries with tourism taxes include Seychelles, Malaysia, Bali
	Fishing-related	

12	Local users fee for fishing (and other marine extractive uses)	Fishers would pay annual fee for fishing in the MPA. Can attempt to restrict fee to non-locals. Those that fish outside the MPA, and therefore do not pay the fee, also benefit from the MPA.
13	National fisheries levy/tax, a portion of which could be used for MPA management	National levy/tax on all fishing activity with revenue used for sustainable management and development of fisheries including management for MPAs. Will be important that a portion of the revenue is set aside for MPA management. This will require political will and legislation. Kenya has recently introduced a Fish Levy with different levy amounts for different types of fishers (e.g. higher levy for foreign industrial fishers versus artisanal)
Payments for ecosystem services and other options		
14	Blue carbon finance	Blue carbon sequestration in mangrove and seagrass meadows has the potential to generate carbon finance from buyers. RNAP2 project output 2.4 is that "Blue and green carbon stocks assessed and monitored across the PA network" in Comoros. Blue Venture is undertaking such projects and has a presence in Comoros. Note that carbon finance is an income source with restrictions attached to them as it can only be used for restoration and protection activities as designated sites.
15	Fines and penalties	Fine amounts are generally low, not commensurate with damages caused and not set at levels that would discourage potential transgressors. Reform may thus have potential to lead to greater behaviour change and to raise revenue.
16	Certification	IUCN's Green List is a certification programme that recognises effectively managed and fairly governed terrestrial and marine protected areas. Being certified can attract donors, investors and visitors.
17	Biodiversity offsets	Biodiversity offsets aim to find a balance between a development project's negative impacts on biodiversity and the benefits that may be achieved through the offset. They are a regulatory requirement in several countries and are also required by major development project funders/lenders including the International Finance Corporation and World Bank. They can provide ad hoc funding but only if development with significant impact on biodiversity takes place in MPAs.
Debt instruments		
18	Debt-for-Nature swap	Creditors reduce national debts in exchange for commitments to conservation (or climate change action in debt-for-climate swaps). Can be country to country or well-resourced NGOs (e.g. The Nature Conservancy) buying country debt and then agreeing to a swap.
19	Blue bonds	Essentially a loan thereby ultimately increasing government debt. Seychelles Blue Bond of 2018 is often mentioned. Bond raised money to improve marine conservation and sustainable fisheries. The expectation is that increased fishing revenues will provide funds to repay loan.

6 EVALUATION AND SCREENING OF INITIAL FINANCE OPTIONS

The above 'long list' of initial finance options was subjected to evaluation and screening in order to prioritise options with greater priority. The initial options were discussed with the National Parks Agency and with stakeholders in a workshop setting. The evaluation was partially informed by a screening exercise roughly based on the approach used in the Biodiversity Finance (BIOFIN) programme in which each option is evaluated against the following criteria (with relative weightings per criteria indicated given that all criteria were not considered equally important):

1. Magnitude and sustainability of potential **net** financial gains (i.e. considering likely costs of implementation) (weighting of 40%).
2. Likely feasibility and successful implementation (including consideration of technical, social acceptability, legal, political and other risk factors) (weighting of 40%)
3. Socio-economic and environmental benefits (e.g. jobs for local community members) (weighting of 20%)

Each finance option was allocated a score out of 10 per criteria which was converted to a weighted overall score out of 10. Table 6-1 highlights key evaluation considerations and screening scores used to identify relatively higher priority MPA finance options. The following options emerged as higher priorities:

1. Conservation Trust Fund (CTF) operational and capitalised
2. Accessing government funding
3. Increased grant/donor funding and donations from individuals and companies
4. Tourism concessions
5. Accessing blue carbon finance

Table 6-1: Key evaluation considerations and screening used to identify relatively higher priority MPA finance options

Finance option		Key evaluation considerations	Total weighted score out of 10	Priority level (higher = score above 6)
Government allocations, grants, donations, Trust Funds				
1	Conservation Trust Fund (CTF) operational and capitalised	A well-functioning, adequately capitalised CTF is a priority to lay a strong basis for mobilising and managing finance. Examples of successes are BIOFUND Mozambique, Madagascar Protected Areas and Biodiversity Fund (FAPBM). Clear, updated international guidance on best practice for CTFs is available from the CFA.	7.4	Higher Priority
2	Accessing government funding	Some level of government budget allocation should be possible particularly with an effort to create greater awareness of the socio-economic contribution made by MPAs. Often the investment case needs to be made to government to unlock funding.	7.0	Higher Priority
3	Increased grant and donor funding	Additional donor funding seems to have potential provided some progress with other sources of funding can be shown to donors (they are less likely to want to commit more funds if they continue to be the only source of finance). Funds such as the Global Fund for Coral Reefs, Blue Action Fund, PROBLUE (World Bank) have obvious potential.	6.6	Higher Priority
4	Donations from individuals and companies	Relatively little is known about the potential of these sources which could be investigated further. It probably has moderate potential subject to further assessment particularly as the corporate sector is relatively small. A National Parks Agency website would be required along with sustained marketing to attract donations. Tourist visitors are often the primary source of donations so low visitor numbers may constrain this source.	6.0	Higher Priority
5	Project Finance for Permanence (PFP)	Has potential but is a WWF process so will require their interest to undertake a PFP for MPAs in Comoros and then also interest from donors to participate in the process.	5.0	Lower Priority
Cost sharing and outsourced management				
6	Increased management cost sharing with communities, NGOs	Increased involvement of communities in management is ongoing and is likely to improve as community buy-in and training continues. However, potential for significant contributions to costs seem low given low incomes in communities. In the longer term local fishery cooperatives assist MPAs. These cooperatives set aside a portion of their income for group development activities. As their awareness of the importance of MPAs increases, they may wish to contribute to MPA management out of self-interest.	4.2	Lower Priority
7	Outsourced funding and management of MPAs	Likelihood of MPAs being viewed as 'bankable' with good revenue generation potential, especially from tourism, is low. Would be a challenge to integrate this approach with existing management by National Parks Agency and communities	4.2	Lower Priority
Tourism-related				

8	Tourism concessions	Pursuing opportunities for concessions seems to have greater potential than the introduction of tourism fees. It should have greater revenue potential and lower management effort as the National Parks Agency can focus efforts on managing concessionaires. However, low tourism numbers are a constraint. It is probably most likely that concessions could be established first for Mitsamiouli-Ndroudé National Park or Coelacanth National Park given their easier access to Moroni. For example, concessions for diving in Coelacanth National Park seem worth investigating further.	6.2	Higher Priority
9	Tourism entrance fees (conservation fees)	Positive net revenues seem relatively unlikely in the short to medium term while visitor numbers remain low. Fee collection will be particularly challenging given larger size and multiple access points for all three MPAs (MPAs that cover one small island are ideal). May be potential to apply in Moheli MPA first and then evaluate if suitable for other MPAs.	4.8	Lower Priority
10	Tourism use/activity fees (for mooring boats, diving, recreational fishing, filming and photograph, events)	Positive net revenues seem relatively unlikely in the short to medium term while visitor numbers remain low. Fee collection will be particularly challenging given larger size and multiple access points for all three MPAs (MPAs that cover one small island are ideal). May be potential to apply in Moheli MPA first and then evaluate if suitable for other MPAs.	4.8	Lower Priority
11	National (eco)tourism levy/tax, a portion of which could be used for MPA management	Requires buy-in and willingness at the highest level of government and from the overall tourism industry which seems difficult to achieve although could be investigated further. Making the investment case for government funding of MPA management should point out that MPAs are critical to tourism which generates government revenue and creates jobs.	5.0	Lower Priority
Fishing-related				
12	Local users fee for fishing (and other marine extractive uses)	Affordability, implementation and policing are likely to be constraints and likely to meet high levels of community resistance. National Parks Agency engagement with communities is raising awareness among fishers of the benefits of MPAs to fish stock health.	3.8	Lower Priority
13	National fisheries levy/tax, a portion of which could be used for MPA management	Requires buy-in and willingness at the highest level of government and from the overall fishing industry which seems difficult to achieve. Making the case for government funding of MPA management should point out that MPAs are critical to healthy fisheries which help to generate government revenue from fishing rights.	5.0	Lower Priority
Payments for ecosystem services and other options				
14	Blue carbon finance	Seems to have good potential particularly for Shisiwani National Park given larger mangrove and sea grass areas. Requires further feasibility assessment	6.4	Higher Priority
15	Fines and penalties	Fines and penalties can be developed further as a management tool. However, additional prioritisation of fines and penalties seems to have limited potential to increase finances meaningfully.	4.8	Lower Priority
16	Certification	IUCN Green List project is being undertaken so option is already in process	Not applicable - in process	
17	Biodiversity offsets	Moderate potential for financial benefits but only if development with significant impacts takes place which will introduce risks to biodiversity. Nevertheless worth understanding the option better in order to be prepared should an offset be required in the future.	5.4	Lower Priority
Debt instruments				
18	Debt-for-Nature swap	Requires buy-in and willingness at the highest level of government. Comoros government debt to GDP ratio at 31% in 2021 is relatively low compared to other highly indebted countries that have done, or are considering Debt-for-Nature Swaps such as Cape Verde (130%), Belize (75%), Ethiopia (97%), Bahamas (96%), Cost Rica (79%) Gabon (54%) (https://tradingeconomics.com/country-list/government-debt-to-gdp).	5.0	Lower Priority

19	Blue bonds	Would result in a loan that has to be repaid. Requires buy-in and willingness at the highest level of government and need to be confident that additional management actions funded by loan will lead to increased revenues (from fishing, tourism) that can be used to pay back loan	4.0	Lower Priority
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This list of higher priorities does not imply that lower priority options should be ignored particular given the broad nature of this review. Rather, they should be kept in mind for additional investigation and potential future application.

7 KEY CONSIDERATION AND NEXT STEPS FOR PRIORITY FINANCE OPTIONS

Having identified higher priority options, this section focuses on their further consideration to inform future work on them. Key objectives, building blocks (critical success factors) and risks for the finance options to achieve feasibility are outlined to the extent possible. Next step required to assess their feasibility further and otherwise move them forward are then broadly outlined. The level of detail provided is broad in keeping with the scope of the assessment which will inform more detailed future work. The majority of the priority options are applicable to all three MPAs and it has been highlighted where this is not the case.

7.1 Conservation Trust Fund operational and capitalised

7.1.1 Objectives, building blocks and risks

A well-functioning CTF is an agreed priority to lay a strong basis for mobilising and managing finance in the Comoros. This is recognised by the National Parks Agency and its partners. However, the establishment and operationalisation of the Environmental Fund for the Protected Areas of the Comoros (FEC) remains a challenge and the planned 'merge' with the larger Madagascan Fund (FAPBM) failed. Note that the urgency associated with having a CTF in place to receive funding has probably increased since the Global Biodiversity Framework (GBF) was signed in 2022. The Framework is likely to unlock large amounts of funding for conservation and countries with CTF in place are likely to have an advantage in being able to attract funding.

The objective of this option would be to properly operationalise and start to capitalise the FEC. For the CTF to be successful, it will need to adhere to international best practice which is demanded by donors in most situations and especially in countries with a limited CTFs track record. Fortunately, clear updated international guidance on best practice for CTFs is available from the Conservation Finance Alliance primarily in the form of the Practice Standards for Conservation Trust Funds which build on considerable international experience (see CFA, 2020). There are also cases studies of successful Fund to draw on.

7.1.2 Next steps

Next steps to take this option further would be as follows:

- Scope and draw up a ToR for an independent review of the FEC. This should be done in collaboration with key donors who can then also play a role in steering the assessment. It should include a detailed description of any past failures that need to be avoided.
- Commission the independent review of the FEC which details what would be necessary for the Fund to meet international best practice (i.e. a strategy and detailed action plan including costs estimates). This should be carried out by an appropriately qualified and experienced international

expert in collaboration with a local expert(s) and apply the CFA Practice Standards for Conservation Trust Funds. It will be important that such a review includes engagement with key donors to be clear on their preferences for the Fund.

→ Consider the recommendations of the review and begin with implementation.

7.2 Accessing government funding

7.2.1 Objectives, building blocks and risks

Protected areas remain under-funded and awareness of the biodiversity and socio-economic value of protected areas is low globally particularly among politicians and government officials with a key role in budget allocation such as those in economic or finance ministries. Government budget allocations remains the most common form of funding for MPAs worldwide. However, government finance are particularly constrained in the Comoros and there are reasons for donor funding to play a more important role in the Comoros. Even so, some level of government budget allocation would be appropriate and should be attainable. It would assist with attracting/catalysing other funding including from donors. The objective of the option is to highlight the value of MPAs and specifically to make the case for increased investment in MPA management.

Making the case can draw from international experience. Some examples of assessments that have made the case for increased investment in protected areas include:

- Emerton (2011) for the Montenegro protected areas network
- Turpie et al. (2011) for the Namibian protected areas network
- Van Zyl (2015) for the Ethiopian protected areas network
- Van Zyl et al. (2023) for the Georgian protected areas network

The following key international projects on the value of protected areas including MPAs can also provide guidance:

- Friends of Ocean Action (2020) The Business Case for Marine Protection and Conservation.
- McKinsey and Company (2020) Valuing Nature Conservation: A methodology for quantifying the benefits of protecting the planet's natural capital.
- BMZ (German Federal Ministry for Economic Co-operation and Development). 2021. Africa's Protected Natural Assets: The importance of conservation areas for prosperous and resilient societies in Africa.
- IIED (2014) Developing a 'business case' for biodiversity: Tips and tasks for influencing government and the private sector.
- GEF/World Bank (2010) Valuing Protected Areas.

The approach to making the case generally uses the following steps:

1. Estimate the current baseline values or benefits of the ecosystem services including in monetary terms that are currently provided by the MPAs. These would include fish production, carbon sequestration, tourism and recreation, cultural values, etc
2. Conduct a cost-benefit analysis of increased investment relative to a Business As Usual Scenario (compare additional costs as estimated in the MPA management plans relative to additional benefit measured in terms of increased ecosystem services benefits or values resulting from increased investments in PA management).

3. Drawing on the previous steps, assess and outline the sectoral and other policy alignment benefits of investment in MPA management. These would include alignment with tourism, fishing, rural development, climate change mitigation and adaptation etc.
4. Summarize MPA management authority achievements and plans to grow and diversify their revenues and funding sources. Show that serious efforts are being made to increase financial self-reliance.

Although once-off assessments to make the case are generally a necessary starting point, they often need to be followed by regular updates so that decision-maker remain aware of the importance of funding MPAs.

7.2.2 Next steps

Next steps to take this option further would be as follows:

- Scope a making the case assessment for MPAs and draw up a ToR. This could be done in collaboration with key audiences such as the finance ministry who can then also play a role in steering the assessment.
- Commission the assessments through a consultancy and/or partnership with an appropriate respected local research institution with international assistance likely to be needed.
- Ensure that a communications strategy is devised to highlight the findings of the assessment to the wider public and decision-makers.

7.3 Increased grant/donor funding and donations

7.3.1 Objectives, building blocks and risks

Though donors are currently the only source of funding for MPAs, there may be some scope to increase funding which would be the objective of this option.

Additional donor funding is likely to be conditional on progress with other sources of funding to some degree as donors are less likely to want to commit more funds if they continue to be the only source of finance. Progress with other sources highlighted in this review over the next few years is thus an important success factor.

One of the key facilitating build blocks for this option is a well-functioning CTF which would give donors more confidence thereby increasing their willingness to donate.

In terms of specific sources, funds such as the Global Fund for Coral Reefs, Blue Action Fund, PROBLUE (World Bank) have obvious potential. It is also potentially useful to view donor funding as have two overall levels, namely large funds which are provided at National Parks Agency or country level (e.g. RNAP under the GEF) and smaller funds that each individual MPA could access for smaller projects (e.g. GEF Small Grants Programme - SGP).

Although much of the detail is yet to be determined, the landmark Global Biodiversity Framework (GBF) adopted in 2022 should also have good potential as a significant funding source that the Comoros should pursue. Target 19 of the GBF deals with resource mobilisation. It highlights the need to mobilise at least an additional US\$200 billion per year by 2030 from all possible sources. With specific relevance to increased donor funding, this target includes, "Increasing total biodiversity related international financial resources from developed countries, including official development assistance, and from countries that

voluntarily assume obligations of developed country Parties, to developing countries, in particular the least developed countries and small island developing States, as well as countries with economies in transition, to at least US\$ 20 billion per year by 2025, and to at least US\$ 30 billion per year by 2030.” (CBD, 2022, Target 19(a)). Being a least developed country and small island developing state should increase the likelihood of success. In addition, the Comoros has shown commitment by joining the nations who are members of the High Ambition Coalition (HAC), and supporting the “30x30” protection of the oceans as per Target 3 in the GBF.

The financial mechanism to deliver the funding commitments was a contested topic within the GBF negotiations with numerous countries advocating for a new Global Biodiversity Fund to be created.⁷ It was, however, agreed that during the course of 2023, the Global Environment Fund (GEF) would establish a Special Trust Fund to support the implementation of the Global Biodiversity Framework (the so-called “GBF Fund”), to complement existing support and scale up financing substantially (CBD, 2022a). Further details are not available about the Fund at this stage so it will be important to monitor developments through existing contact persons in the GEF. For example, once the Fund is established, some form of orientation and GBF-related capacity assistance for the funding application submission process may be made available to countries such as the Comoros.

Over time efforts to attract grant/donor funding should extend to pursuing donations from individuals and companies. Philanthropist donations may have potential particularly among the Comorian diaspora. Smaller donations can be facilitated through, for example, a donate tab on an MPA website, crowdfunding campaigns. Companies may want to meet their Corporate Social Responsibility targets and gain marketing benefits of association with MPAs. Companies in tourism, fishing, oil and gas may have greater potential.

7.3.2 Next steps

Next steps to take this option further would be as follows:

- Ensure progress with the operationalising the CTF and with other finance options so that donors can see progress.
- Continue to devote adequate time and resources to the functions and tasks that lead to success with attracting grant and donor funding. These include maintain relationships with existing donors, building relationships with new potential donors, maintaining relationships with partner NGOs, submitting applications, etc. It will also be import to market and highlight achievements in MPA management which attract donors.
- Ensure that the GEF’s development of the GBF Fund is closely monitored in order to clearly understand opportunities and requirements. Proactively liaise with the GEF to register interest in the Fund and with respect to any assistance that may be available such as for capacity building.
- Over time these efforts should extend to pursuing donations from individuals and companies. Relatively little is known about the potential of these sources so they would need to be investigated further learning from successes in other countries

7.4 Tourism concessions

7.4.1 Objectives, building blocks and risks

Tourism concessions seem to have good potential at least over the medium-term and probably have more potential than the introduction of tourism use fees. They should have greater net revenue potential, lower risk and lower management effort (the National Parks Agency can focus efforts on managing individual concessionaires compared to implementing a system of fees). However, low overall tourism numbers are

⁷ For background to this debate see <https://www.twn.my/title2/biotk/2023/btk230102.htm>.

a constraint which reduce the potential of tourism revenue option. General promotion of the Comoros as a tourist destination along with improved access and tourism infrastructure are thus building blocks for this and other tourism revenue options.

The objective of this options would be to investigate the potential for tourism concessions in more detail with a view to implementing concessions. This would require further scoping of concession potential and feasibility assessment. Local experiences with tourism such as for Moheli National Park should provide guidance on what may be feasible along with which pitfalls to avoid. It is probably most likely that concessions could be established first for Mitsamiouli-Ndroudé National Park or Coelacanth National Park given their easier access to Moroni. For example, concessions for diving in Coelacanth National Park seem worth investigating further. Key international guidance on tourism concession in protected areas include the following:

- IUCN 2017 Guidelines for Tourism Partnerships and Concessions for Protected Areas (Spencely et al., 2017).
- World Bank 2016 Introduction to Tourism Concessioning: 14 Characteristics of Successful Programmes. (World Bank, 2016).

7.4.2 Next steps

Next steps to take this option further would be as follows:

- Scope the potential for tourism concessions further by engaging with key tourism companies, tourism service providers and communities to better understand likely potential and constraints for tourism concessions.
- If scoping exercise finds good potential, consider commissioning a more detailed feasibility study(s) and action plan for the best concession ideas.
- Proceed based on the findings of the feasibility study and action plan.

7.5 Accessing blue carbon finance

7.5.1 Objectives, building blocks and risks

The demand for carbon offset projects is likely to continue in tandem with increasing climate change liability requirements. The voluntary carbon market has seen significant growth in the last five years and it is expected to a value of US\$10-40 billion by 2030.⁸ In the marine environment, carbon finance is potentially available for the protection and/or restoration of mangroves, seagrass beds and salt marshes which have good carbon sequestration properties. The objective of this finance option would be to access blue carbon finance. It is likely that this option would be most attractive for Shisiwani National Park given it has the largest areas of mangrove (25 ha) and of seagrass (1,420 ha).

Blue carbon projects are substantially less common than terrestrial carbon projects which tend to focus on forest areas. However, interest in such projects continues to increase. Organisations such as Blue Ventures, which has a presence in Comoros, are undertaking such projects. In Tahiry Honko, Madagascar, Blue Ventures initiated the world's largest mangrove carbon conservation project in 2019. It focuses on the conservation and restoration of over 1,200 hectares of mangroves and avoids emissions of over 1,300

⁸ <https://www.reuters.com/markets/carbon/voluntary-carbon-markets-set-become-least-five-times-bigger-by-2030-shell-2023-01-19>

tonnes of carbon dioxide per year. It is registered with the Plan Vivo standard and the project combines mangrove fisheries and forestry management supported by sustainable alternative livelihoods.⁹

Key building blocks and risks that would be relevant to this option include the following:

- Carbon finance projects must be 'additional' that is that they would not have occurred in the absence of the carbon finance provided. It may be difficult to show additionality for projects within existing protected areas in general which is why there are few carbon projects within protected areas worldwide. Carbon market participants and project funders may be inclined to take the view that the protection, management and restoration of state parks is a government funding and implementation responsibility. This is, however, less likely for low income countries such as the Comoros.
- The carbon market is global and relatively competitive. Any project would therefore probably have to compete at least to some degree with other projects at a global scale which may be able to sequester greater amounts of carbon as lower cost. The scale of any proposed project is therefore of critical importance.
- It is important to bear in mind that carbon payments are an income source with restrictions attached to them as they can only be used for restoration and protection activities.
- It will be important to establish that the costs of implementation will be lower than the potential carbon finance revenue. Cost-benefit analyses should be undertaken as part of feasibility assessment to ensure that the cost of implementing a carbon project does not outweigh any potential benefit.
- Putting successful carbon projects together is a challenging and complex task that requires strong partnership. Success is highly dependent on finding an appropriated skilled and ethical carbon project development partner.
- Maintaining integrity and safeguards is a must as there have been examples of projects that have caused environmental and/or social harm. The global standards of the Integrity Council for Voluntary Carbon Markets (ICVCM) should be understood and applied.

7.5.2 Next steps

Next steps to take this option further would be as follows:

- Collate a package of basic information on mangrove and seagrass areas in the MPAs that can be used as introductory information for potential partners. This can include basic mapping, extent, main pressures and condition including trends over time.
- Review carbon project development partner options and choose a preferred partner. Blue Ventures would be an option.
- Approach the preferred carbon project partner and begin discussions on establishing a partnership agreement.
- In collaboration with and under guidance from the carbon partner, conduct a scoping or pre-feasibility study of a potential carbon finance project. Note that RNAP2 project output 2.4 is that "Blue and green carbon stocks assessed and monitored across the PA network" in Comoros. This could form part of the scoping or pre-feasibility study.
- Next steps thereafter to be guided by the outcomes of the feasibility study.

⁹ <https://blueventures.org/what-we-do/climate-solutions/blue-forests/>

8 CONCLUSION

The Comoros is making considerable efforts to protect its natural environment and has recently declared a number of new Marine Protected Areas (MPAs). However, the sustainable management of MPAs in the Comoros has become increasingly challenging and MPA financial needs are not being met.

This high-level desk-top review focuses on sustainable financing options for three newly established MPAs, namely Coelacanth National Park, Mitsamiouli Ndroudé National Park and Shisiwani National Park. It lays some of the basic groundwork for the much more detailed investment framework and financing strategy process envisaged under the “Biodiversity protection through the Effective Management of the National Network of Protected Areas” project (i.e. the RNAP2 project under GEF-7).

The review generated a ‘long list’ of initial finance options which were broadly evaluated and screened to identify the following higher priority options for the MPAs:

1. Conservation Trust Fund (CTF) operational and capitalised
2. Accessing government funding
3. Increased grant/donor funding and donations from individuals and companies
4. Tourism concessions
5. Accessing blue carbon finance

A fully operation CTF, preferably capitalized to some degree, would be critical to mobilizing and managing funds for MPAs. This should be prioritized as a building block for other finance options and especially for increasing donor funding. Government budget allocations would also assist even if they are modest and have the potential to catalyse further donor funding. Opportunities to access existing donor funds focused on MPAs should be optimized and it will be important to monitor and respond to opportunities likely to emerge from the imminent GEF establishment of the Global Biodiversity Framework Fund. Low tourist visitors numbers to the Comoros remain a constraint to tourism revenue generation options. However, given the natural attractions on offer, there may be options for tourism concessions at least in the medium term. The mangrove and seagrass areas of the MPAs, which are largest in Shisiwani National Park, have the potential to provide blue carbon finance pending feasibility assessment and careful choice of a carbon project development partner. The review broadly outlines key objectives, building blocks (critical success factors) and risks for the priority finance options along with next step to guide future work.

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