



THE MOZBIO STORY

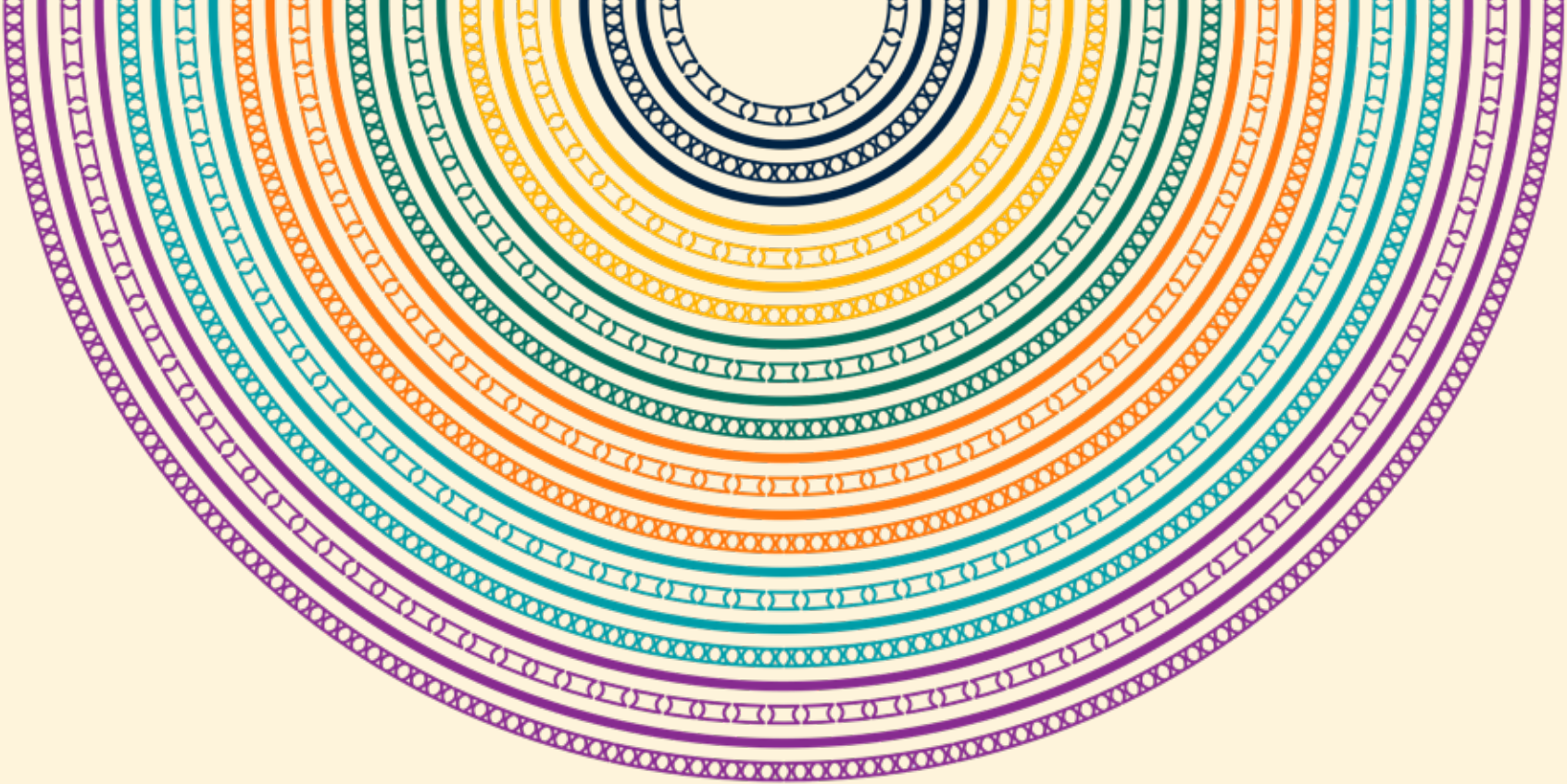
How Mozambique's Conservation Areas can support ecosystems, increase economic development, and improve community livelihoods



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Integrated Landscape Management

M O Z A M B I Q U E



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MOZAMBIQUE

Mozambique's conservation areas (CAs) are hubs of untapped potential. Extensive forests, fertile soils and an extensive coastline are just a few of the natural resources that support local communities and the national economy, while also providing global benefits such as climate regulation and biodiversity habitat. Covering approximately 25% of the country, CAs help to protect these diverse ecosystems and generate income for the national economy and local communities.

Land degradation and low management capacity, however, are threatening these protected areas and preventing them from reaching their full potential as valuable national assets.



Mozambique's CAs consist of nine National Parks, six National Reserves, two environmental protection areas, 17 controlled hunting areas (coutadas), over 50 privately run game farms (fazendas de bravia) and two community reserves.



and its CONSERVATION AREAS

Ecosystem and Natural Resource Protection: CAs are a critical livelihood source for rural households. These resources, however, are often threatened by overuse (particularly overfishing and land clearing for agriculture and charcoal production) and illegal activities such as poaching, mining and logging. There is great potential to improve livelihoods and reverse landscape degradation by offering alternative and/or stronger income sources through sustainable agriculture and improved market access.

Tourism and Hunting: Mozambique's spectacular coastline, wildlife reserves, safari hunting areas, and "off-the-beaten-path" locales offer huge (and largely undeveloped) potential to generate revenue. Low tourism infrastructure—such as effective marketing, visa requirements, and transportation—as well as ongoing unrest in the north is inhibiting the realization of this potential and failing to sufficiently finance CAs, making them dependent on government allocations and donor funding.

Effective Management and Planning: The Government of Mozambique (GoM) has made significant institutional and financial investments in CA management. However, several challenges still exist at the decision-making level and in the administration of parks and reserves. Additionally, the fight for independence (1964–1975) and civil war (1977–1992) continue to have a lasting impact on the conservation of wildlife stocks, habitats, and general CA management.

Climate Change: Mozambique's CAs are vulnerable to a changing climate, particularly when coupled with other threats such as forest clearing and land erosion. There is opportunity for CAs to counteract these impacts by introducing climate resilient infrastructure and incentives to reduce land clearing, which can protect landscapes and provide local incomes.



“MozBio puts biodiversity and conservation areas at the centre of rural development by diversifying rural livelihoods and supporting tourism development, sustainable agriculture, education, and healthcare.”

– Ivete Maibage, Minister for Land and Environment

¹ World Bank, 2018. Mozambique Economic Update

CONSERVATION for BIODIVERSITY and DEVELOPMENT

The World Bank's Mozambique Conservation Areas for Biodiversity and Development (MozBio 1) Project (2014–2019) was the first in a series designed to support the Government of Mozambique's MozBio Program². Building on achievements and lessons from the Transfrontier Conservation Areas (TFCA) projects³, MozBio sought to increase effective CA management (particularly those with the most potential to generate revenue) and improve community livelihoods in and around protected areas.

Improve CA management



Enhance livelihoods



THE MOZAMBICAN GOVERNMENT'S MOZBIO PROGRAM

MozBio1 was created at the direct request of the GoM, with the goal of supporting its own MozBio Program. Financed with funds from government, World Bank and other development partners, the GoM's MozBio Program is designed to bring together investment and management priorities for biodiversity conservation, tourism development and poverty reduction in and around

CAs. MozBio addresses key institutional issues, such as: the limited capacity of CA authorities, insufficient public-private partnership frameworks for CA management, and the lack of incentives for local communities to contribute to sustainable natural resource management.



² MozBio1 is followed by MozBio2 (2019–2023), the Bank's second project to support the ongoing government program. For the sake of this publication "MozBio" refers to the Bank's MozBio1 Project unless otherwise stated.

³ The TFCA Pilot (1998–2003) and TFCA Tourism Development Project (2006–2014) were supported by the World Bank and Global Environment Facility

HELPING COMMUNITIES AND PROTECTING WILDLIFE

In the villages of Guengo and Thlavane on the edge of Maputo Special Reserve, people and wildlife live in close proximity, often coming into conflict and competing for the same natural resources. To protect the local people and stop elephants destroying crops, the Reserve constructed a fence that successfully kept out wildlife but cut vital access to water. Maintaining crops became impossible and preventing water contamination by livestock was challenging, forcing people to choose between polluted water or wildlife confrontation.

“We had to walk to water supplies that we shared with crocodiles and elephants, we knew it was dangerous but we had no choice” says Lidia Massinga, a Thlavane resident.

Land degradation increased as environmentally destructive and less productive agricultural techniques escalated, and communities dug rudimentary wells and felled trees for charcoal to sell. Realizing the need to ensure sustainable livelihoods while also maintaining the integrity of the Reserve, MozBio built pumps and designated tanks so that the local people could access

“In the past we relied on cutting trees and selling coal. Now we have the opportunity to live through the protection of our animals”

– Amos Tembe , Community Leader



Above: A woman collects water from a MozBio sponsored tap in Maputo Special Reserve

water without having to venture outside the protective fence. To prevent land degradation and hunting in the Reserve, MozBio worked in 10 nearby communities (reaching 3,500 people) to provide training and resources for conservation-based agriculture, non-timber forest based livelihood activities (i.e. tourism), and alternative fuel options to protect forests and reduce human-animal conflict. As a result, communities are not only healthier and more prosperous, but they are now inclined to protect the surrounding landscape and animals.

THE INTEGRATED LANDSCAPE MANAGEMENT PORTFOLIO

MozBio1 is one of several projects under the World Bank’s Integrated Landscape Management (ILM) Portfolio. The Portfolio combines technical assistance, on-the-ground investments, results-based finance, and analytical work, to enhance the living conditions of rural communities and promote the sustainable management of natural resources across Mozambique.

Recognizing the inextricable links between natural resources, protected areas, communities and the national economy, all ILM Portfolio projects and activities—including MozBio—are managed collectively and benefit from shared knowledge, data and resources to increase effectiveness and extend their impact beyond the initial project cycle. See Annex 1 for more details.

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GOVERNING CONSERVATION

policy, coordination, and financial independence

When MozBio¹ commenced, Mozambique's institutional system for managing CAs was at a crossroads. Existing policies—such as the 2009 Conservation Policy—were still in initial stages of implementation, the National Administration for Conservation Areas (ANAC) had only recently been established (2011), and many key institutions

were not fully functional. As such, MozBio played a considerable role in influencing the development and implementation of major policies and regulations through trainings, institutional strengthening, and other resources. The project also helped to establish the national authority for the Convention on International Trade in Endangered Species

of Wild Flora and Fauna (CITES) inside ANAC. Through MozBio, the World Bank became an essential partner in revising and introducing operational guidelines and tools (such as an upgraded revenue collection system in two CAs), and supported annual meetings, study tours and attendance at international conferences.

BIOFUND: DONOR COLLABORATION FOR CONSERVATION

The Foundation for the Conservation of Biodiversity (BIOFUND) is a private institution that aims to finance the conservation of biodiversity in Mozambique.

BIOFUND is designed as a way to efficiently and transparently channel much needed funds from donors, as well as private and government sources, into protected area management. MozBio played a foundational role in

supporting BIOFUND through staff salaries and operating costs, as well helping to develop internal procedures and contributing to the Endowment Fund. As a result, BIOFUND is now generating revenue and is able to mobilize funds from a variety of international donors⁴.

BIOFUND is one example of MozBio's success in leveraging diverse financing sources and uniting development partners and stakeholders around a common cause.

“With support from MozBio, BIOFUND consolidated its role in supporting conservation in Mozambique by supporting sustainable financial management in protected areas.”

- Sean Nazerali, Director of Innovative Finance at BIOFUND



⁴ This includes an endowment fund from KfW and the World Bank through the Global Environment Facility, and investments from Conservation International, Agence Française de Développement, the European Union, United States Agency for International Development and United Nations Development Program.

CO-MANAGEMENT IN BAZARUTO ARCHIPELAGO NATIONAL PARK

Spanning 1,430 km², Bazaruto Archipelago National Park harbors a string of sand-ringed islands surrounded by aqua-clear waters and irreplaceable terrestrial and marine habitats. Famed for its diverse underwater ecosystems, Bazaruto is a source of livelihoods for surrounding communities and attracts divers and outdoor enthusiasts from around the world. A few years ago, however, this ecologically and economically valuable place was threatened by degradation and resource depletion caused in part by a lack of park funding and poor management.

In 2017, MozBio facilitated a 25 year co-management agreement between ANAC and African Parks⁵ to restore, develop and manage the national park. Since then, African Parks have recruited and trained 34 new rangers (17 of whom are women), invested significantly in law enforcement to mitigate immediate conservation threats, and built community support through engagement, development, and skills-based trainings with the goal of increasing employment opportunities in the Park—particularly in the growing tourism sector.

⁵ African Parks is a South Africa based non-profit conservation organization that takes on direct responsibility for the rehabilitation and long-term management of protected areas in partnership with governments and local communities.



Above: Santos Patiço outside his school in Bazaruto Archipelago, where he is a member of one of the new school-based environment clubs being supported by MozBio and African Parks

“Protecting our environment will attract tourists, who are important because they bring money to our communities. It would also be nice to show my children the animals in the future.”

– Santos Pantiço, Primary School Student from the region surrounding Bazaruto Archipelago Marine Park

PUBLIC-PRIVATE PARTNERSHIPS IN CONSERVATION AREAS

Private organizations and non-profits can offer knowledge and resources lacking in public sector agencies for the rehabilitation and long-term management of protected areas. MozBio facilitated partnerships between the GoM and organizations with proven successes in park management, natural resource management and/or nature based tourism.

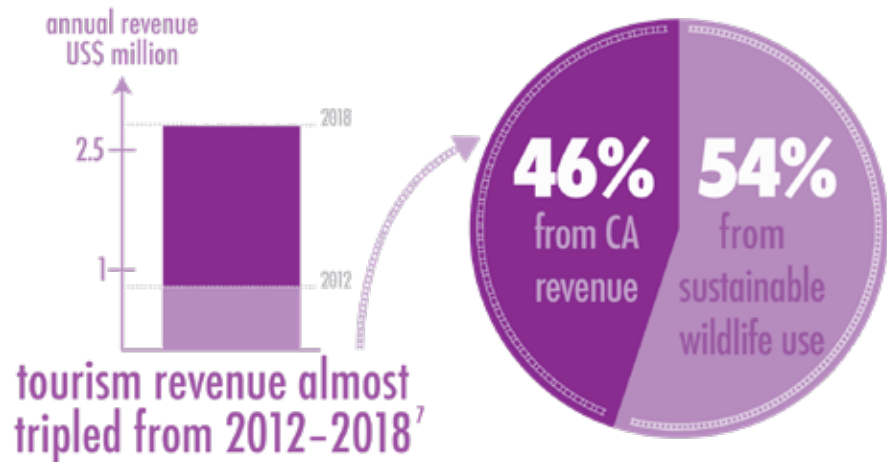
PROMOTING NATURE-BASED TOURISM

wildlife, visitors, revenue

MozBio supported ANAC in increasing CA tourism revenue and improving the business climate by creating a standard process for signing concession agreements in CAs, thus improving the clarity and relationship between the government and private operators.

Accomplishments include:

- Attracting US\$ 12 million in funding for Bazaruto National Park and 16 million for Maputo Special Reserve and Ponta do Ouro Partial Marine Reserve.
- The preparation of three tourism concessions in Maputo Special Reserve⁶ and one in Limpopo National Park.
- Regularization of eight concession agreements in Bazaruto National Park.
- A new revenue system to allow CAs to collect and track tourist entrance fees in Maputo Special Reserve and Bazaruto National Park.
- The development of marketing and communications campaigns that included a consistent branding strategy for CAs and the promotion of ANAC and BIOFUND through publications, videos and participation in tourism fairs and events.



While current tourism revenue is still insufficient for financing CA management and supporting local communities, these successes clearly demonstrate a positive trend in tourism development and have cemented the potential for nature based tourism in the public and private discourse. Additionally, these successes show how tourism can enhance opportunities for employment and investment in communities.



Employment in tourism and conservation has increased by **66%** thanks to MozBio

TOURISM INVESTMENT IN MAPUTO SPECIAL RESERVE

The Maputo Special Reserve and Ponta do Ouro Partial Marine Reserve protect one of the most important areas for plant endemism and coastal biodiversity in south-eastern Africa, with over 80% of nesting Loggerhead and Leatherback turtles in Mozambique. Home to pristine coastline and extensive fauna such as elephant, hippo and giraffe, the Special Reserve and Marine Reserve are valuable national tourism assets.

With the signing of a MozBio-facilitated co-management agreement between the GoM and Peace Parks Foundation⁸ in 2018, this important area is now on track to reach its full ecological and economic potential. In coordination with MozBio and the GoM, Peace Parks is providing technical and financial support for conservation and tourism development activities such as the reintroduction of approximately 4,500 animals and capacity building programs to ensure large scale development plans are implemented and sustained.

⁸ Peace Parks in an international foundation that works with governments to strengthen the management and protection of transboundary conservation areas through innovative conservation strategies, community engagement and nature-based tourism.

INTERNATIONAL CONFERENCE ON NATURE BASED TOURISM

In 2018, MozBio supported the GoM in hosting the International Conference on Nature Based Tourism. Bringing together tourism experts, investors and stakeholders from around the region,

The conference resulted in the signing of eight public-private partnership agreements with expected investments of over US\$ 600 million.



Top Right: New entrance gate and facilities welcoming visitors to Maputo Special Reserve.

Below Right: Two hippos play in the surf along the beach near the Ponta do Ouro Partial Marine Reserve (Angie Gullan)

TAKING STOCK of WHAT WE'VE GOT

strengthening management and resources in the field

MozBio invested funds and support into the management of CAs at a local level by providing trainings and resources for administrative staff, who often lack adequate facilities and capacity.

MozBio supported trainings on data collection, analysis, and collaborative knowledge sharing to help administrative and management staff in maintaining CA borders, ensuring transparency in land-rights discussions with surrounding

communities, and tracking biodiversity conservation. To inform effective conservation strategies for specific areas and species, MozBio support also included assistance with ecosystem research and monitoring of wildlife such as hippopotamus, lion and leopard in and around several CAs.

Given that CAs are considered a key land-use (along with activities such as agriculture, forestry and urban

development), this technical input and research is critical for developing land-use planning strategies for entire landscapes. Thanks to these trainings and research projects, Mozambique now has more robust and easier to use databases—critical tools for land managers and policy makers, as well as important public resources that support transparent land-use decisions. See ANNEX 3 for a list of all MozBio/ILM Portfolio supported resources at FNDS.

A NEW ENVIRONMENTAL PROTECTION AREA

In December 2019, the GoM approved a new Environmental Protection Area (EPA) along the coastal region of southern Mozambique. Encompassing multiple land use areas—from growing urban and agricultural areas to conservation reserves and nearby islands—the EPA is an outcome of the MozBio-supported territorial land use plan created for the region, an important resource in

assessing how best to protect and develop this valuable (and vulnerable) area. As part of its support in this region, MozBio is assisting in the preparation of a dossier to make the Maputo Special Reserve and Ponta do Ouro Partial Marine Reserve (which fall within the new EPA) a World Heritage Site to link these conservation areas with the neighboring iSimangaliso World Heritage Site in South Africa.

“The natural heritage of this region provides an opportunity to promote integrated management and stimulate economic growth through tourism, fishing and the sustainable exploitation of natural resources.”

- Mateus Mutemba,
ANAC Director General

BIODIVERSITY SURVEYS

With its wide range of ecological zones and ecosystems, Mozambique is home to a remarkable level of biodiversity—much of which is still undiscovered. Which is why, when MozBio funded several species surveys, it was of no surprise that the results were largely positive. Aerial surveys confirmed unthreatened populations of hippopotamus, leopard, and lion in several areas throughout the country. Marromeu Special Reserve, in particular, proved to host abundant populations of 18 species of mammal, including elephant, buffalo, and warthog.

In Chimanimani National Reserve, surveys recorded over 1,100 species of plants and animals—including several species never before recorded in Mozambique, such as the *Pipistrellus rusticus* bat, *Pseudoclanis postica* moth, and *Ovonotus incisus* cricket.

A Coral Reef Survey in Ponta do Ouro found healthy populations of reef fish, particularly surgeon fish and medium to large *Serranidae* and *Scaridae* species, which indicates the coral is recovering after a period of degradation.

Top: A baby chameleon in Chimanimani National Park
Below: A sunbird takes flight in Chimanimani National Park



COLLABORATION on the GROUND

working with communities and building livelihoods

MozBio worked with 69,000 people living in and around CAs to protect and restore the degraded ecosystem services that many communities rely upon—such as waterways, bush meat, and timber and non-timber forest products. This also offered opportunity to generate employment in park management, tourism, and conservation agriculture. Women's participation and equity were priorities throughout the project. Women represented 34% of all beneficiaries and

their needs and opportunities were given special consideration during the design and implementation of the community sub-projects. To increase collaboration between communities and CAs, MozBio hired community liaison officers to implement outreach and education activities, engage community organizations in project planning, and increase the involvement of local government in natural resource management.

Additionally, MozBio supported a variety of community sub-projects including support to groundwater access, conservation agriculture, horticulture, agroforestry, fishing, beekeeping, mushroom foraging, sustainable charcoal production, tourism, and environmental education for children. Thanks to this initial support from MozBio, some beneficiaries are now applying for funding through the Government's matching grants program (page 17).

COMMUNITY TOURISM REVENUE

Local communities receive a portion of CA income, allowing them to benefit from MozBio's general support to the CA system. With the increase in tourism revenue, funds available to communities almost doubled by the end of the project⁹. MozBio also provided technical support and training to community organizations to coordinate local sub-projects—benefiting 16,239 people (40% of whom were women) in and around seven CAs.



BEEKEEPING in CHIMANIMANI

Along the borders of Chimanimani National Reserve in the western province of Manica, honey is becoming a key livelihood activity for local communities. With supplies and technical assistance from MozBio, almost one hundred beekeepers across eight communities are producing honey for a private company that then distributes it throughout the country. Thanks to this support, the beekeepers (half of whom are women)

have either expanded existing harvesting processes or commenced the activity for the first time, thus providing a new source of income. Beneficiaries receive assistance in acquiring hives and resources, as well as extensive technical assistance and ongoing localized advice in sustainable beekeeping—such as how to ensure optimum viability and productivity in specific locations. In the Chimanimani area, research found that each aviary can

hold a maximum of 25 hives to support a sustainable bee population within the ecosystem without the need for artificial feeding. This approach has doubled honey production in the region while reducing land degradation and saving money. At 70 meticaís per kilo, the Chimanimani communities are now earning an income that significantly increases and diversifies their livelihoods and improves living conditions.



Above: Selling vegetables along the road near Chimanimani National Reserve

RESPONDING to CHANGE ADAPTING to the FUTURE

MOZBIO CYCLONE RESPONSE

In March and April 2019, tropical cyclones Idai and Kenneth caused severe human loss and damages in central and northern Mozambique. In Chimanimani National Reserve, for example, Idai greatly impacted MozBio beneficiaries and destroyed infrastructure built by the project. In response, MozBio provided farming emergency kits, realigned its activities to address the immediate needs of local people (and ecosystems), and rehabilitated destroyed infrastructure under “building back better” principles.

As extreme weather and unpredictable environmental conditions become increasingly common, this experience emphasized that projects need to be responsive to changing circumstances. As such, adaptiveness is now key to planning and implementation under MozBio2.

MozBio1 faced several challenges throughout implementation that forced the project to be flexible under changing circumstances. As summarized in this section, these lessons are now being adapted into MozBio2, the second phase of the program. Building on the lessons and successes accomplished in phase one, the MozBio2 Project (2019–2024) continues to work towards improving

management in targeted CAs and growing rural livelihoods as a strategy to reduce pressure on protected areas and natural resources. Taking advantage of its integrated and multisectoral approach, MozBio2 is designed to respond quickly and effectively to unforeseen situations such as national and international health, environmental, and economic crises.



PROJECT DESIGN NEEDS TO HAVE REALISTIC INSTITUTIONAL CAPACITY EXPECTATIONS

Despite considerable trainings and institutional support, low capacity remained a persistent challenge throughout implementation. As such, MozBio2 places significant emphasis on human resources through ongoing capacity development—such as the new Mozambique Program for Conservation Leadership, a joint initiative between ANAC and BIOFUND. The goal of the Program is to establish and maintain a cohort of skilled professionals in

biodiversity conservation to work for different organizations within Mozambique’s CA system.

The Program is promoted through long- and short-term trainings and professional experience/internships in national and international conservation institutions. Building the required workforce, however, is a long-term commitment and needs to be envisioned beyond the duration of the project.



GENDER EQUALITY NEEDS TO BE ADDRESSED AT ALL LEVELS OF PROJECT DESIGN AND ENGAGEMENT

Gender was a consideration in all of MozBio1's activities and the project saw some success in reaching a sizable portion of female beneficiaries. However, three key challenges remain in realizing true gender equality:

1. Women's participation is often overlooked: Monitoring and evaluation of MozBio's sub-projects estimate approximately 30% of beneficiaries are women. Although the real number is thought to be much higher, the lack of standardization of gender targets within project design meant that it was difficult to get an accurate reading on how many women were participating and benefiting.

2. Gender-specific roles remain: Although MozBio1 saw strong female participation in the sub-projects, beneficiaries maintained traditional gender roles with women usually taking the lower-paid jobs in agriculture while men's employment opportunities expanded to include the higher paid tourism sector.

3. Gender equality did not increase in government and partners: BIOFUND is the only institution with equitable gender representation. While the national institutions do not have gender balancing policies (women only represent 32% of employees at ANAC and 30% at FNDS), they do appoint women to managerial and leadership positions. In the CA administrations, an average of 12% of employees are women—varying from less than 5% in some areas to 39% in Bazaruto due to its explicit effort to recruit female rangers.

Gender balancing (especially rural areas) is difficult given traditional roles, particularly in the conservation sector, and the overall low numbers of qualified people. To address this, MozBio2 is mainstreaming gender into all aspects of project design and implementation (rather than just focusing on reaching female beneficiaries) by working more closely with partners on gender balancing and using the GALS methodology.

GALS METHODOLOGY

The Gender Action Learning System (GALS) is a step-by-step methodology that helps households and groups jointly develop plans to decide how to use resources and opportunities available to them, including those offered by the MozBio projects. In the process of working towards jointly established goals—examples range from building a house to increasing agricultural production—households/groups are better able to identify barriers and determine collaborative solutions.

Common achievements reached with the methodology include: an increase in household income; joint decision-making on the use of household resources; more equitable distribution of responsibilities; increase in women's asset ownership and control over productive assets; and a decrease in gender based violence.



LANDSCAPE APPROACHES ARE KEY IN UNIFYING CONSERVATION AND DEVELOPMENT

Conservation projects alone are not sufficient in protecting natural resources and transforming rural livelihoods. MozBio2 is building on the Program's landscape approach through a greater focus on:

Land-use Planning: Accurate and transparent land-use plans are essential to ensure administrators and communities are aware of the rules and regulations regarding how different resources can be used. MozBio2 is increasing planning support to ensure all CAs are incorporated into clear land management guidelines through the development of District Land-Use and Economic Development Plans.

Project Coordination: As part of the Integrated Landscape Management (ILM) Portfolio, both MozBio coordinates closely with the Bank's other rural development projects (Annex 1).

MozBio2 is expanding on this by establishing Landscape Management Units in areas where various ILM Portfolio activities are being implemented, to coordinate approaches and maximize collaboration between the projects.

Community Development: Given the high interaction between protected areas and the people living in and around them, activities that address socio-economic and cultural needs should be a part of CA projects. MozBio2 is providing a range of community-based activities such as governance support to Community-Based Organizations, increasing financial resilience (particularly amongst women) through Credit and Savings Groups, and the creation of a matching grants scheme (Susteta BIO) to support local entrepreneurs and build conservation-compatible value chains.

Transboundary Issues: Many of Mozambique's CAs are either bordering or in close proximity to international boundaries. While MozBio1 built on knowledge garnered from the Bank's earlier Transfrontier Conservation Areas projects², MozBio2 is encouraging greater international protected area cooperation between Mozambique, Zimbabwe and South Africa through data and knowledge exchange, transboundary ecological monitoring and law enforcement, and joint management planning.

MozBio2 is also continuing to support the country's World Heritage Site application for the new Environmental Protection Area, and the integration of Maputo Special Reserve and Lubombo Transfrontier Conservation and Resource Area. Further collaboration with South Africa will strengthen ecological linkages and allow for greater movement of animals (particularly elephants).

MATCHING GRANTS FOR SUSTAINABLE VALUE CHAINS

The ILM Portfolio supports matching grants that promote growth in rural economic markets through the sustainable expansion of the agriculture, fisheries, forest, and tourism sectors. Offering several different funding windows, the grants target specific demographics such as rural communities, women, and youth; they provide access to resources, technical support—such as business development training—and commercial financing, often either unavailable in rural areas or with prohibitively high interest rates. The **Susteta BIO** focuses on conservation compatible entrepreneurship and business development, and aims to stimulate economic development and strengthen the livelihoods of communities in and around Conservation Areas under the World Bank -financed MozBio 2 project.



LEVERAGING PRIVATE RESOURCES CAN BE HIGHLY EFFECTIVE FOR CONSERVATION

“The Public-Private Partnership Business Unit will stimulate a vibrant wildlife business sector by increasing the number of co-management agreements and nature-based tourism concessions.”

– Mohamed Haruna,
ANAC Business Development Unit Director

MozBio highlighted the potential for co-management agreements to improve CA performance and increase local involvement in conservation and sustainable livelihood activities. To be successful, however, co-management partnerships need to be based on regulated approaches and include clearly defined objectives set by the agency in charge of conservation management (ANAC).

To build on MozBio’s considerable success in facilitating co-management agreements, MozBio2 is further supporting ANAC in standardizing the agreement process and formally incorporating it under a dedicated Public-Private Partnership Business Unit.

MozBio also demonstrated how trust funds can provide efficient, sustainable finance for conservation activities. As such, MozBio2 will expand support to BIOFUND as a significant and reliable source of income for the CA system.

Right: World Bank, GoM, and Bazaruto National Park staff outside park headquarters.





COMMUNITY-BASED LIVELIHOOD ACTIVITIES NEED HIGH CAPACITY AND STRONG LEADERSHIP

MozBio1 incorporated communities into CA management and livelihood development by supporting Community Based Natural Resource Management (CBNRM)—which incentivizes communities living in and around CAs to use resources (e.g. forests, waterways, wildlife) sustainably. By involving the community in decision making, providing rights to land and resources, and enabling local people to benefit economically, MozBio1 experienced some success in improving CA viability and management. In the long term, however, CBNRM requires strong oversight and governance, formal legal representation, clear guidelines and communication, and high community capacity and education to enable active collaboration between

local people, administrators and the private sector. MozBio2 is addressing these challenges by:

Increasing environmental awareness and education by focusing on school children and environmental clubs.

Engaging the multi-stakeholder CBNRM Network to improve management and leadership capabilities within communities (and community organizations).

Improving ANAC's capacity to incorporate CBNRM in and around CAs by preparing community engagement guidelines.



INSPIRING CONSERVATION in YOUTH

Inspiring conservation and instilling attitudes that will last a lifetime requires the early introduction of environmental education. MozBio2 is advancing MozBio1's support in establishing school clubs to increase awareness and help students realize the importance of collectively protecting resources that their communities rely on.

“We have so much fun that the students don't even realize how much they are learning”

– Jecka Linda,
Benguerra Primary

Left: A CBNRM training workshop with participants from GoM agencies involved in conservation.

Right: Members of the Benguerra Primary Environmental Club in Bazaruto Archipelago.

“Today's students will grow up to become teachers and leaders in the community. The survival of our communities depend upon leaders who will care for the environment and understand conservation.”

– Jecka Linda, primary school teacher and environment club leader

On a small island off the central coast of Mozambique, Jecka Linda is leading the Benguerra Primary School's first environment club. Linda supports the club because she believes it is both an important supplement to the student curriculum, and a valuable community education initiative.

But engaging the students and teachers and sustaining their interest is key. By using creative and playful learning techniques and encouraging the teachers and students to get out in nature and explore, the club keeps its members tuned in while imparting basic environmental knowledge and life skills.



FINANCING RURAL INFRASTRUCTURE

In Quirimbas National Park on the northern coast of Mozambique, MozBio-supported infrastructure is helping local residents, national park staff, and tourists. A new bridge linking the mainland town of Quissanga to Ibo and Quirimbas islands, allows park staff to easily patrol more of the National Park, provides local residents with greater access to markets and services on the mainland, and transports tourists to the popular beaches and small island resorts.

In Chimanimani National Reserve in the country's west, MozBio is increasing community incomes and improving market access through the construction of agriculture markets, storehouses, a mill maize processing plant, and beekeeping facilities.

Thanks to these projects, communities are now able to expand and diversify how they sell their products. *"The new infrastructure allows us to develop businesses based on sustainably using the natural resources from our land"* explains a Chimanimani resident.

In addition to projects in Quirimbas and Chimanimani, MozBio1 financed the construction of national park headquarters, ranger accommodation, agricultural markets, and road and bridge construction in CAs around the country. With the success of these projects contributing to rural economic development and improved park management, MozBio2 continues to invest in infrastructure that supports park staff and local residents.

"Thanks to the new bridge, we no longer have to wait for high tide to take the boat to visit family or transport goods. It also decreases the risk of damaging our goods and even prevents injuries from getting on and off the crowded boat."

– Resident of Ibo Island in Quirimbas National Park



Below: A ranger on patrol in Quirimbas National Park.



MOZBIO EMERGENCY RESPONSE

Recent health and environmental emergencies have highlighted the need for MozBio to be able to quickly respond and adapt to the needs of communities and conservation areas.

In March and April 2019, tropical cyclones Idai and Kenneth caused severe human loss and damages in central and northern Mozambique. In Chimanimani National Reserve, for example, Idai greatly impacted MozBio beneficiaries and destroyed infrastructure built by the project. In response, MozBio provided farming emergency kits, realigned its activities to address the immediate needs of local people (and ecosystems), and rehabilitated destroyed infrastructure under “building back better” principles.

The 2019 and 2020 global and national measures taken to contain the COVID-19 pandemic continue to have multiple real and potential impacts on conservation area management. While stay-at-home orders, boarder closures, face masks, and social distancing are critical public

health responses, they also present social and environmental challenges—such as a rise in waste (particularly along beaches in coastal conservation areas), increased wildlife poaching, market and economic disruptions, and the collapse of the tourism industry.

In response, MozBio is working in collaboration with other ILM Portfolio projects and the GoM to launch an emergency grants program to provide much needed financing for rural enterprises, so they are able to retain their workforces and continue operating. The grants will provide necessary inputs (such farming kits) and training to support beneficiaries, particularly if they have had to expand or diversify into new areas of business.

As extreme weather becomes increasingly common and the world continues to tackle known and unknown health crises, these experiences emphasize the need to plan for fast and effective action. As such, adaptiveness is now key to planning and implementation under MozBio2.

ANNEX 1: ILM PORTFOLIO OVERVIEW





MOZAMBIQUE FOREST INVESTMENT PROJECT

MogFIP improves forest governance and sustainable land management by supporting activities that reduce deforestation and promote rural development. Key activities include the establishment of a commercial plantation scheme that engages small enterprises and communities, increasing access to markets in rural areas, and providing technical support to transition towards more environmentally sustainable land use practices.



ZAMBÉZIA EMISSIONS REDUCTIONS PAYMENT PROJECT

The Carbon Fund will pay Mozambique up to US\$ 50 million for generating emissions reductions by reducing forest loss in the province of Zambézia. The Portfolio assisted the GoM with: a REDD+ Strategy; a Safeguard Information System; a legal framework for selling carbon credits; and a robust Monitoring and Reporting System. The ERPA Project continues to provide support with emissions monitoring, verification and accounting.



MOZAMBIQUE DEDICATED GRANT MECHANISM

MogDGM is a community-led project that provides small grants to communities and civil society organizations to increase their participation in sustainable forest and land management practices. Activities focus on building capacity and engaging communities in activities that increase livelihoods while also reducing land degradation.



MOZAMBIQUE BLUE ECONOMY PROJECT

MogAzul is assisting Mozambique to develop its blue economy and address marine pollution. Key activities include: an investment trend assessment to help the GoM prioritize sustainable growth in the fisheries sector; recommendations on blue economy financing and analysis; and raising awareness on marine litter by working with the public to find solutions for reducing and reusing plastic.



MOZAMBIQUE LAND ADMINISTRATION PROJECT

MogLand improves land tenure and the efficiency of land administration services, to help the GoM maintain land information monitoring systems and improve service delivery to remote communities. Key activities include the revision of the National Land Policy, strengthening land tenure security, and increasing community outreach and public information on land rights.



MOZAMBIQUE CONSERVATION AREAS FOR BIODIVERSITY AND DEVELOPMENT PROGRAM

MogBio is a series of projects (MogBio1 & MogBio2) that supports national parks and reserves by strengthening management capacity and promoting livelihood activities that focus on conservation and biodiversity. Activities include improving park infrastructure and management, facilitating co-management agreements between the GoM and private organizations, and increasing local involvement in conservation area management, livelihood activities, and nature-based tourism.



AGRICULTURE AND NATURAL RESOURCES LANDSCAPE PROGRAM

Sustenta encourages sustainable agriculture in rural households and connects them with profitable forest-based value chains (such as conservation agriculture and community plantations). Key activities include improving land tenure and management, building rural infrastructure (bridges and roads), and enhancing agricultural productivity, markets, and employment through matching grants and financing options.



SOUTH-WEST INDIAN OCEAN FISHERIES GOVERNANCE AND SHARED GROWTH PROJECT

SWIOFish (Phase 1) is part of a regional collaboration to reduce marine resource degradation, strengthen fisheries management and governance, and increase the economic benefits from marine and coastal resources. Activities in Mozambique include supporting fisheries monitoring and data collection, increasing community-led fisheries management, and investing in infrastructure such as fish markets.



SMALLHOLDER IRRIGATED AGRICULTURE AND MARKET ACCESS PROJECT

IRRIGA increases irrigated agriculture productivity and improves market access among rural smallholder farmers so they are able to provide immediate and effective supplies in case of a national or regional crisis. Specific activities include financing irrigation construction, and investing funds and resources into smallholder farms to improve their market competitiveness.

ANNEX 2: Private sector investments leveraged through tourism concessions and other public-private partnerships

Organization	Type of Agreement	Amount Pledged (US\$ million)
African Parks	Co-management of Bazaruto	12.0
Peace Parks Foundation	Co-Management of Banhine	1.0
Peace Parks Foundation	Co-management of MSR/Marine Reserve	16.0
Peace Parks Foundation	Co-Management of Zinave	20.0
Farquhar	Co-Management Pomene	500.0
Banco Internacional de Mocambique (BIM)	Credit Facility	50.0
Greg Carr Foundation	Co-management Gorongosa	350.0
Far & Wide	Joint venture with Thomba Yedyo (Zenguelemo Lodge)	0.2
Total		949.2

ANNEX 3: Resources available through FNDS (supported by MozBio and the ILM Portfolio)

	Report	Online Database
Mozambique National Forest Inventory	https://fnds.gov.mz/mrv/index.php/documentos/relatorios/26-inventario-florestal-nacional/file	https://www.arcgis.com/apps/opstdashboard/index.html#/e765979f73384742bd78878001055302
Deforestation Assessment	https://fnds.gov.mz/mrv/index.php/documentos/relatorios/25-desflorestamento-em-mocambique/file	https://www.arcgis.com/apps/webappviewer/index.html?id=1e201cf974584b38ac5dd92b005c99ae

Forest Reference Emission Level	https://fnds.gov.mz/mrv/index.php/documentos/relatorios/27-nivel-de-referencia-de-emissoes-florestais-de-mocambique/file	
Zambezia Province Inventory	https://fnds.gov.mz/mrv/index.php/documentos/relatorios/38-relatorio-de-inventario-florestal-na-zambezia/file	
Land Use and Land Cover Report	https://fnds.gov.mz/mrv/index.php/documentos/relatorios/39-relatorio-de-mapa-de-cobertura-florestal-2016-versao-2/file	https://www.arcgis.com/apps/webappviewer/index.html?id=1e201cf974584b38ac5dd92b005c99ae
Project Registry System		https://bit.ly/geoportalmrvfnds
Monitoring and Evaluation Projects		https://www.arcgis.com/apps/MapSeries/index.html?appid=6602939f39ad4626a10f87bf6253af1e
National Forest Inventory Policy Briefing	https://fnds.gov.mz/mrv/index.php/documentos/estudos/16-policy-brief-resultados-de-inventario-florestal-nacional-2018/filet	
Cyclone Response	https://fnds.gov.mz/mrv/index.php/documentos/estudos/3-contribuicao-da-unidade-mrv-no-idai-ciclone-idai-meio-ambiente-terra-e-espacos-rurais/file	
Deforestation by district	https://fnds.gov.mz/mrv/index.php/documentos/estudos	







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