COLLABORATIVE MANAGEMENT MODELS FOR CONSERVATION AREAS IN MOZAMBIQUE

Regional Best Practices, Current Models in Mozambique and a Framework for Enhancing Partnerships to Protect Biodiversity Assets and Promote Development

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ACRONYMS

AFD	Agence Française de Développement
ANAC	National Conservation Areas Agency of Mozambique
CA	Conservation area
CBNRM	Community-based natural resource management
CMP	Collaborative Management Partnership
DRC	Democratic Republic of the Congo
EWT	Endangered Wildlife Trust
FFI	Fauna & Flora International
FZS	Frankfurt Zoological Society
GEF	Global Environment Facility
GoM	Government of Mozambique
GRP	Gorongosa Restoration Project
HWC	Human-wildlife conflict
IGF	International Foundation for the Conservation of Wildlife
KfW	German Development Bank
MITADER	Ministry of Land, Environment and Rural Development
MITUR	Ministry of Tourism
MOU	Memorandum of Understanding
MOMS	Management Oriented Monitoring System
MPA	Marine Protected Area
MSR	Maputo Special Reserve
NP	National Park
PA	Protected area
PPP	Public-private partnership
SBV	Santuario Bravio de Vilanculos
SGDRN	Sociedade para Gestão e Desenvolvimento da Reserva do Niassa
SPV	Special Purpose Vehicle
TFCA	Transfrontier Conservation Area
USAID	United States Agency for International Development
WCS	Wildlife Conservation Society
WWF	Worldwide Fund for Nature (known in US as World Wildlife Fund)

EXECUTIVE SUMMARY

Mozambique is endowed with a large Conservation Area (CA) estate with the potential to create significant, long-lasting benefits for conservation and for people. The protection of CAs is critical to ensure the sustainability of priceless ecosystem services—such as food, clean water, timber, non-timber forest products, medicine, climate regulation, flood protection, soil regulation, etc.—as well as the development of the economic benefits of tourism and other opportunities presented by biodiversity conservation. This is especially important in Mozambique, where over 80% of the population depends on biodiversity to sustain their livelihoods (MITADER, 2015).

Managing Mozambique's vast CAs is a costly endeavor—collaborative management partnerships are a global best practice that infuse international funding and technical expertise into this endeavor. The Government of Mozambique has recognized this by making partnerships a central element of ANAC's mandate (Creation Decree, 2013; Financial Plan, 2015) and enshrining them as a key element of its conservation strategy (Conservation Law, 2014).

The ***objective of this paper is to help formalize the manner in which collaborative management partnerships can best operate across Mozambique's important network of CAs***. With the support of USAID SPEED+, and together with BIOFUND, the World Bank, ANAC, and other partners, a three-part study was conducted to:

1. ***Perform a regional review of collaborative management partnerships*** in protected areas in Africa—including identifying the main models, evaluating their respective pros and cons, and drawing lessons learned for improved governance and management;
2. ***Assess collaborative management models in Mozambique***, including significant current and past partnerships, in order to take stock of Mozambique's experience and draw important insights and lessons learned for the future; and
3. ***Develop a strategic framework and roadmap*** to help guide and improve partnership models and practices in Mozambique's CAs.

This final report is assembled in the same sequence, with Chapters 1-3 covering each of these topics respectively.

i. Background

Protected Areas ('PAs') are recognized globally as the most effective means of conserving biodiversity and associated cultural assets, as well as an important way of promoting sustainable rural development. Across sub-Saharan Africa, large protected areas have been set aside for conservation. ***In Mozambique, an impressive 26% of national territory is legally protected***.

However, there is a ***lack of financial resources and technical capacity in Mozambique to provide for the protection and management of CAs.*** Average state funding of CAs in Mozambique ($34/km^2) is much lower than regional peers ($187/km^2 in Zimbabwe, $2,500/km^2 in Kenya, $2,720/km^2 in South Africa), and far lower than the recommended minimum of $500-900/km^2 (Lindsey et al., in prep). ***Mozambique's 135,809 km^2 CA network requires $68-135***

million per year for optimal management (Lindsey et al. in prep), ***versus a current state investment of approximately $2 million***. As of 2014, **81%** of spending in CAs came from international donors, compared to **10%** from the state treasury, **6%** from CA revenues, and **3%** from other revenue generation schemes.

As a result of its budget and capacity shortfalls, ***the Government of Mozambique has long recognized partnerships as a key feature of its conservation strategy*** (Table 1).

Table 1: Mozambique's laws and policies relating to conservation partnerships

Government Law/Policy	Section relating to partnerships
Forestry and Wildlife Law of 1999 (Law 10/99, Article 33)	Allows management of CAs to be "delegated" to the private sector.
Conservation Policy of 2009 (Chapter III) & Conservation Law of 2014 (Article 4)	Promotes the establishment of partnerships "involving local and national authorities, local communities, the private sector and non-governmental organizations" so as to "enable the economic viability of this policy."
ANAC Creation Decree (Decree 9/2013 of 10 April, Article 3)	Identifies as one of ANAC's five principle objectives: "to establish partnerships for the management and development of Conservation Areas."
ANAC Financial Plan of 2015	Recognizes the limited financial resources of ANAC compared to the amount required for effective management of CAs and recommends: "The search for more partnerships is an important strategy for ANAC."

ANAC's engagement of partners has primarily been reactive and ad hoc—responding to the proposals of interested partners on a case-by-case basis as they arise. However, there is ***a desire on the part of ANAC to become more proactive in its solicitation and engagement of conservation partners***, and in so doing to be guided by a clear vision and strategy (ANAC, 2017). With nearly 20 years of experience with partnerships, it makes sense to take stock of Mozambique's partnership experience and to draw lessons that can inform ANAC's future conservation partnership strategy.

ii. Report Findings and Key Recommendations

Three Recommended Models for Management of CAs

The report provides a 'menu' of three recommended models for management of CAs that can inform policy on how Mozambique enters into agreements with partners:

1. ***The "Delegated Management" Model***—is the most decentralized model, with day-to-day management responsibilities devolved to the partner. In this model, partners typically create a special purpose entity, outside the government bureaucracy, to run the park for a long term, often 20 years or longer. A board comprised of both partners handles governance issues, such as strategy setting and oversight. However, day-to-day management (including the selection of the park manager) is essentially delegated to the non-profit partner, which seeks to implement a jointly agreed management plan. This model is characterized by its emphasis on effectiveness and accountability, but sometimes faces political challenges due to perceptions associated with the prominent role played by a foreign non-profit in the management of a national asset. Thus, strong government support is critical to the success of the delegated model.
2. ***The "Integrated Co-Management" Model***—occurs when the government and non-profit partner share both governance and management authority. This model works best when a

special purpose vehicle (SPV) is created and given a high degree of autonomy to run the park on a daily basis. This structure provides the partner with clear authority and a high level of autonomy in daily, on-the-ground management to execute a shared vision—embodied in a general management plan and/or business plan. Unlike the delegated model, however, this entity is characterized by a more equal sharing of responsibility between the partners. The "Integrated Co-Management" model should not be confused with the "Bilateral Co-Management" model, whereby the two organizations work alongside each other as separate entities. We do not recommend adoption of the "Bilateral Co-Management" model as it has not worked well in practice. For the "Integrated Co-Management" model to function well, it is critical that a clear, detailed, and strong agreement is signed that specifies roles and responsibilities and decision-making processes.

3. ***The "Financial-Technical Support" Model***—is the most common across the continent. In this model, the government retains full governance and management authority and the non-profit simply provides financial support and technical advice. This model tends to work most effectively where there is significant government capacity, and a strong, positive relationship between the partners at all levels. However, since it is highly reliant on strong relationships, it is prone to breakdown. It is also highly vulnerable to political interference that can undermine the goals of the partnership. Finally, where government capacity is low, it has generally proven less effective. In these contexts, financial and technical support has tended to be insufficient to overcome the vast challenges posed by low local capacity and increasingly serious threats. This is, in part, because such partnerships are generally of a short-term nature (though they may be successively renewed). Nonetheless, the "Financial-Technical Support" model is included in the menu of recommended models because it can provide crucial assistance in under-resourced areas where other models may not be able to be engaged. This is generally the most politically palatable partnership model since it does not require any formal sharing of authority with the non-governmental partner. While it generally generates less funding than other models, it allows the injection of funding and technical support from non-profits that may otherwise lack the resources to engage in stronger delegated or co-management models. Thus, it represents a way to more fully capture international willingness to pay for and support conservation in Africa.

Lessons Learned from Implementation of the Three Models

The Delegated Model, which provides a combination of a clear mandate and accountability, along with the long-term commitment of a trusted and skilled non-profit partner, is attractive to donors and potential tourism investors. At the same time, this model relieves a significant burden on government, which essentially hires a "service provider" to conduct CA management, providing an effective, low-cost, and immediate solution. A key element of the effectiveness of the delegated model is its decentralized structure: high levels of autonomy allow for quick decision-making and help to insulate the park from excessive political interference. It also allows management to hire skilled staff and remove non-performing or corrupt personnel, which is a critical factor in the success of the partnership and of the park.

The most consistent and striking examples of collaborative management success come from the delegated model. Majete Wildlife Reserve, which was almost entirely devoid of wildlife, is now Malawi's only Big Five Reserve. In Zakouma National Park, where the elephant population plummeted from 4000 to only 450 elephants, a delegated management partnership achieved three years of zero poaching, allowing the elephant population to begin to recover and actually increase. In

Akagera National Park, poaching has declined by 200% since the delegated management partnership took over responsibility, lions and rhinos have been reintroduced, and tourism has grown exponentially. In Mozambique, delegated management partnerships are also amongst the most successful examples of collaborative management. São Sebastião has achieved impressive successes, and Niassa's "conservation-oriented" concessions, Mariri and Chiulexi (which are essentially fully delegated partnerships), have also performed well relative to the rest of the reserve. Compared to less-delegated models, these areas have much higher management budgets per km^2, more successful carnivore conservation, less elephant poaching (though they are facing severe and increasing pressure), and the only significant community programs compared to the rest of the reserve.

The Integrated Co-Management Model, with high degrees of devolved management responsibility, is implemented at the most successful reserve in Mozambique: Gorongosa. . It was also implemented in the 2000-2012 partnership in Niassa under SGDRN, which achieved significant initial successes. Regionally, as well, this model has shown great promise at nearby Gonarezhou National Park in Zimbabwe.

The less devolved ***Bilateral Co-Management Models*** in Niassa and Gilé and the ***Financial-Technical Support models*** in Limpopo, Banhine, Zinave and several other CAs in Mozambique—exhibit mixed, and often significantly less impressive, results. They tend to have lower management budgets, and struggle to tackle conservation challenges effectively. Nor do they have strong, coherent community programs. The exception is Maputo Special Reserve, which—because of its proximity to the capital and the commitment of government—has received significant and consistent support since 2006. It also has the benefit of being a more easily manageable size (1040km^2) with a smaller resident population (~650 people) compared to other CAs. Table 2 provides a comparison of CAs in Mozambique by management model.

Table 2: Comparison of CAs by management model

Park	Length of Agreement	Level of Approval
Delegated management: full, long-term devolution of authority		
São Sebastião	50 years	Council of Ministers
Integrated Co-Management: shared governance, shared appointment of management, and long-term devolution of day-to-day authority		
Gorongosa	25 years	Council of Ministers
Niassa (SGDRN)	10 years	Council of Ministers
Bilateral Co-Management: shared governance and day-to-day management authority		
Gilé	5 years	Ministry
Niassa (WCS)	2 years	Ministry
Financial-Technical Support to government management		
Banhine	3 years	ANAC
Limpopo	5 years	Ministry
Quirimbas	5 years	Ministry
MSR	7 years, extended for 6 years	Ministry
Zinave	10 years	Ministry
NGO collaboration: support to reserve, though not to core park management		
Bazaruto	No partner agreement[1]	
Chimanimani	No partner agreement	
Managed by the State without partnerships		
Magoe	No partner	
Marromeu	No partner	

[1] A partnership agreement was signed with African Parks in December 2017, to take effect in March 2018.

Key Recommendations

The report presents a range of models to accommodate different situations and partner capacities, while simplifying—where possible—unnecessary complexity and incorporating lessons learned from regional and local experience. Regardless of the model adopted, government support is absolutely critical to the success of *all* CA partnerships.

1. **More devolved models of CA management are recommended, which include (1) the Delegated Model; and (2) the Integrated Co-Management Model**. As much as possible, these ***partnerships should be in the form of delegated management models***, based on long-term agreements (i.e., 20-25 years with an option to renew). Such devolved models provide partners with clear authority and a high level of autonomy in daily, on-the-ground management to execute a shared vision—embodied in a general management plan and/or business plan. Devolved models allow the partner to build a strong team based on transparent selection processes and to quickly dismiss under-performing personnel. These models have the greatest potential to overcome challenges of low funding, insufficient capacity, and weak governance, which characterize the Mozambican context. Mozambique has experienced significant success with devolved models—such as the 'integrated co-management' model in Gorongosa National Park and the 'fully delegated' model in São Sebastião Coastal Reserve.

2. **The "Financial-Technical Support" Model should be used where partners are not available who have sufficient funding, expertise, or willingness to assume management responsibility.** While this is typically a looser, informal and more flexible model, we recommend a version that incorporates clear, formal, and strong governance and management structures, and that—wherever possible—is based on a longer-term agreement, funding, and vision for CA development. ***Financial-Technical Support models can also serve as a bridge to developing a longer-term, more devolved model between the partners in the future***. Current ANAC field personnel can be concentrated in CAs lacking partnerships and CAs with financial-technical support partners. It is important to recognize that where financial-technical support models are preferred, there will generally be a requirement for government to invest significant resources towards the management of the CA in question.

3. **Devolving management authority does not mean "giving away" national assets. Rather, the Government is attracting investment and managing partners who are committed to strengthening the country's CAs, attracting tourism, and uplifting local communities.** Government continues in a regulatory and oversight role—guiding the way in which CAs are developed and managed. Even where revenue is retained at the CA level, government stands to benefit economically. Since none of Mozambique's CAs are currently financially profitable at the CA level (despite likely conferring net economic benefits nationally), government is essentially delegating a financial burden and responsibility to partners. The government further benefits from devolution through increased CA value, increased economic activity (due to increased investment in conservation, tourism, and community development), and increased tax receipts. As CAs become increasingly developed and financially self-sustaining under partner management, this decreases the potential government burden should it decide to assume management responsibilities in the future.

4. **Create a new directorate within ANAC focused specifically on soliciting, regulating, monitoring, and facilitating partnerships.** In particular, this directorate should: (1) concentrate on sourcing capable partners, (2) guide the process of establishing partnerships, (3) support the ongoing functioning of partnerships, such as by engaging with other sectors of government where necessary, (4) monitor the performance of partnerships to ensure adaptive management, (5) and promote regulations that strengthen the enabling environment for conservation.

5. **Clarify and make transparent which models government will apply to each CA.** For each model, government should adopt a set of guidelines that outlines the parameters for partnership agreements. These guidelines should incorporate lessons learned from local and regional experience, while still being flexible and open to innovation and local contexts and needs. This will provide the new directorate with clarity in implementing its mandate.

6. **Adopt a clear and expeditious process for selecting partners and negotiating agreements.** The government should work on designing transparent tender processes with clear evaluation criteria and decision deadlines, actively seeking out and encouraging the participation of potential partners and developing standard contracts for each partnership model. Government should also provide clarity on which institution (ANAC, MITADER, Council of Ministers) is required to finalize partnership agreements.

7. **Prepare a prospectus featuring CAs** for which partners are sought and consider hosting an event to attract potential investors and partners to Mozambique. The prospectus would highlight unique and attractive features of CAs and describe the kinds of partnership models available.

8. **Develop a clear policy regarding local communities.** Government must urgently adopt and implement across all sectors a clear policy regarding local communities living inside CAs. Such a policy should address immigration into CAs, settlement expansion, regulation of activities, land-use planning and zoning (ensuring that there are sections of CAs in which settlement, agriculture and other human activities incongruent with conservation goals are prohibited).

9. **Provide CA partners with strong political support in enforcing wildlife crimes.** Such support must include liaising with district and provincial governments regarding enforcement and sensitizing the police and judiciary regarding the seriousness of these crimes.

10. **Enhance the legal framework for CAs.** The legal framework in Mozambique provides a solid foundation for CA management through the 2009 Conservation Policy and the 2014 Conservation Law. The engagement of partnerships is also a core objective in ANAC's creation decree. Mozambique's law is open-ended and does not unnecessarily restrict the kinds of partnerships ANAC may engage. This leaves room for ANAC to adopt its own partnership strategy, such those outlined in this report. However, there are some gaps and barriers in the law that currently inhibit the establishment and success of partnerships: ***(i) regulations are urgently needed to clarify the authority and protections for law***

enforcement rangers employed by CA partners and concessionaires, as the lack of such clarity seriously hamstrings the ability of partners to tackle threats; and (***ii) an inability to create tax-exempt, non-profit companies, which creates challenges for many potential CA partners*** (if such a provision cannot be introduced, measures should be proposed that at least guarantee tax and duty exemptions for CA partners).

With strong partners and devolved management in more CAs, Mozambique can increasingly become a source of positive conservation outcomes, preserving the country's natural capital, attracting increasing investment and tourism, and providing long-term benefits to rural communities. Gorongosa is already captivating interest and passion and becoming a source of pride for Mozambicans—a flagship park with international recognition and fame. Under the new partnership with African Parks, Bazaruto has the potential to achieve a similar status as a marine CA. Pursuing similar models in more CAs not only represents a clear-eyed understanding of what is required to restore Mozambique's CAs, but also has the potential to create real, long-term, and sustainable benefits for the country.

iii. Conclusion and Report Structure

As this report concludes, collaborative management partnerships offer a variety of potential benefits to Mozambican CAs. These include ***long-term financial and technical support***, local ***capacity building*** within the national wildlife authority and among communities, ***access to a broader array of potential donors***, and ***attracting expertise and innovation*** to wildlife management and community engagement. Given that ANAC and the Government of Mozambique have expressed interest in expanding CA partnerships, this report is meant to help policymakers develop a governance framework to institutionalize the formation, maintenance and monitoring of these partnerships.

The complete **methodology** used in the research for Chapters I and II can be found in Annex K. In both Mozambique and the region, in-country travel to conduct participatory workshops and interviews with key stakeholders was supported by an extensive literature review to capture the key information, outcomes and impact of various models.

This combined final report provides a comprehensive view of partnership models for CA management – surveying models used throughout the region and their experiences, as well as models used in Mozambique and their experiences. Based on this foundation, the report outlines a roadmap for integrating best practices and assisting Mozambique to implement models that will preserve biodiversity assets and simultaneously enhance economic benefits to CAs, local communities and the country as a whole. The report is structured as follows:

Chapter I Partnership Models for Conservation in Africa: A Regional Review, which provides an overview of partnership models in Southern Africa (and across sub-Saharan Africa more widely), describes the main features, pros and cons and tradeoffs of each model, and draws lessons learned for improved governance and management.

Chapter II Partnership Models for Conservation Areas Management: An Assessment of Collaborative Management Models in Mozambique, which provides an overview of current and past partnerships in Mozambique, including a description of each model, and an evaluation of its effectiveness and the underlying reasons for its successes and failures. The Chapter also compares the performance of partnerships across a series of indicators—including financial investment,

conservation impact, and community development—and highlights key lessons that can be learned from Mozambique's experience with collaborative management.

Chapter III Roadmap for Collaborative Management of Conservation Areas in Mozambique, provides a strategic framework to help guide and improve partnership models and practices in Mozambique's CAs. This Chapter discusses the role of ANAC as it relates to this partnership strategy; provides a 'menu' of three, optimized partnership models; outlines a process by which ANAC can attract and engage partners; and analyzes the opportunities, gaps and barriers in the existing legal framework relating to CA partnerships.

In **Annex A**, we have provided a summary **policy paper with key recommendations,** which can be used by Government to advance the key report recommendations.

CHAPTER I: PARTNERSHIP MODELS FOR CONSERVATION IN AFRICA: A REGIONAL REVIEW

1.1. Introduction

Over the last 20 years, Mozambique has been a pioneer in the development of collaborative management partnerships ('CMPs')[2] as a strategy for improving management in conservation areas ('CAs'). With the support of SPEED+, and together with BIOFUND, the World Bank, ANAC, and other partners, a consultant team was engaged to study (1) regional CMP models, as well as (2) Mozambique's own current and past CMPs (contained in Chapter II of this report). The aim is to facilitate improved understanding of these partnerships in order to develop a clear, strategic framework for the next 20 years of collaborative management in Mozambique—one that learns from both local and international experience and therefore enhances the governance, management, and ultimately the performance of CAs in Mozambique.

This chapter:

1. Identifies partnership models in Southern Africa (and across sub-Saharan Africa more widely);
2. Describes the main features of each model;
3. Highlights the pros and cons of each model;
4. Analyzes the tradeoffs among models; and
5. Draws lessons learned for improved governance and management.

In particular, we highlight the following key points:

1. Mozambique has a large protected area network with significant conservation importance and the potential to benefit local people in remote areas as well as the national economy more broadly, both through the long-term, sustainable provision of critical ecological services and by serving as the foundation for the development of tourism and related industries.
2. However, Mozambique's CAs are under intense pressure from human activities, particularly compared to its regional peers, in part due to the presence of communities living inside CAs. While some countries have some categories of CAs with resident communities, these usually represent a minority of the country's CAs. Mozambique is unique in that all but one of its national parks and reserves have local communities living within the boundaries, creating uniquely severe pressures on wildlife and habitats. At the same time, the level of state resources and capacity to tackle these threats is significantly lower than in most Southern and East African countries.
3. Given the magnitude of the current threats, without sufficient funding and management capacity it will be impossible to protect Mozambique's CAs and unlock their potential, ecologically and economically.

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[2] We note that there is significant confusion across the continent in the use and definition of terms like 'co-management' and 'public-private partnerships.' For example, co-management has been used to describe situations that involve everything from informal consultation of local communities and conservation partners to the formal delegation of management authority for an entire reserve. Public-private partnerships are most often used in a for-profit context, for large-scale public works projects, that can create confusion when applied to conservation. As a result, we adopt the term 'collaborative management partnership' to refer broadly to partnerships of various kinds between government and non-profits to improve conservation management of state protected areas.

4. CMPs offer a means of harnessing international willingness to pay for conservation, accessing technical expertise, and sharing the burden of protected area management.

5. Over the last 20 years, Mozambique has been a pioneer in experimenting with and engaging in CMPs to help generate investment in and improve management of its CA system.

6. During the same time, partnerships have also proliferated across Southern Africa, and the continent more broadly. It is useful to understand the variety of partnership models in the region as Mozambique considers its conservation and partnership strategy going forward.

7. It is possible to identify three general partnership models based on the allocation of governance and management authority. Governance involves the power to set overall priorities and strategies and to define how decisions get made, whereas management involves day-to-day operations and implementation on the ground. The three models identified are: Delegated Management, Co-Management (or Shared Management), and Financial-Technical Support.

8. The first model—'delegated management'—is the most decentralized and devolved model. In this model, the partners typically create a special purpose entity, outside the government bureaucracy, to run the park for a long term, often 20 years or longer. A board comprised of both partners handles governance issues, such as strategy setting and oversight. However, day-to-day management (including the selection of the park manager) is essentially delegated to the non-profit partner, which seeks to implement a jointly agreed management plan. This model is characterized by its emphasis on effectiveness and accountability and is favored by many donors as a result. However, it sometimes faces political challenges due to perceptions associated with the prominent role played by a foreign non-profit in the management of a national asset. Thus, strong government support is critical to the success of the delegated model.

9. The second model—'co-management' or 'shared management'—occurs when the government and non-profit partner share both governance and management authority. This model generally takes one of two forms. In the integrated form, a special purpose entity is created and given a high degree of autonomy to run the park on a daily basis. Unlike the delegated model, however, this entity is characterized by equal sharing of responsibility between the partners. In the bilateral form, the two organizations work alongside each other as separate entities. The co-management model is often seen as providing the partners an opportunity to harness their unique strengths—combining the political legitimacy and local knowledge of the government with the technical expertise and resources of the non-profit partner. However, the sharing of decision-making authority by two organizations also creates an increased risk of confusion, complexity, and conflict, as well as slower and less efficient decision-making due to the need for consensus. Thus, a clear, detailed, and strong agreement, specifying roles and responsibilities and decision-making processes, is particularly critical for this model to function well.

10. The third model—'financial-technical support'—is the most common across the continent. In this model, the government retains full governance and management authority and the non-profit simply provides financial support and technical advice. This model tends to work most effectively where there is significant government capacity, and a strong, positive relationship between the partners at all levels. However, since it is highly reliant on strong relationships, it is prone to breakdown. It is also highly vulnerable to political interference that can undermine the goals of the partnership. Finally, where government capacity is low,

it has generally proven less effective. In these contexts, financial and technical support has tended to be insufficient to overcome the vast challenges posed by low local capacity and increasingly serious threats. This is, in part, because such partnerships are generally of a short-term nature (though they may be successively renewed). As a result, many donors, non-profits, and governments are increasingly undertaking co- and delegated management models in such contexts. Nonetheless, the financial-technical support model can provide crucial assistance in under-resourced areas and is generally the most politically palatable partnership model since it does not require any formal sharing of authority with the non-governmental partner. While it generally generates less funding than other models, it allows the injection of funding and technical support from non-profits that may otherwise lack the resources to engage in stronger delegated or co-management models.

11. In terms of context, the financial-technical support model is by far the most common and widespread across the continent; however, there is an increasing trend towards adoption of stronger co- and delegated management models. To date, more devolved models have been undertaken where the resources and capacity for conservation are extremely low, though the prevalence of these models seems to be expanding into other contexts as well in light of significant successes. Thus, they have proliferated across Central and West Africa, as well as parts of Southern Africa. For example, Malawi and Rwanda have committed to and experienced impressive successes with the delegated model. Zimbabwe, which traditionally has been skeptical of more devolved models, has recently engaged in a promising co-management partnership with FZS for the management of Gonarezhou National Park, its second largest reserve, and is considering adopting a delegated management model for Matusadona National Park. Zambia has experimented with all three models, with varying degrees of success, while countries like South Africa, Namibia, Botswana, Kenya and Tanzania—which generally have capacitated, skilled, and experienced wildlife authorities—tend to engage in more limited financial-technical support models to aid where they have particular challenges and needs.

12. We recommend that ANAC, in determining its future conservation and partnership strategy, gain clarity on the kinds of models it would like to engage and in which scenarios and CAs. This requires—first and foremost—taking the time to consider the various roles ANAC itself plays in different partnership models, in terms of its level of involvement in governance and management. Different models implicate different roles for ANAC and make different demands on it as an institution. More delegated and devolved models place an emphasis on ANAC's role in regulation, policy, oversight, and coordination, allowing it to focus limited resources in these critical areas. Less delegated models require ANAC to develop the expertise, capacity and resources to do all of this while also undertaking the 'heavy lifting' of daily reserve management responsibilities. In all cases, ANAC has a critical role to play in the success of conservation partnerships in Mozambique: it is simply a question of which role.

13. In developing future partnerships, ANAC should also consider the lessons learned by other countries' experiences. Perhaps most fundamentally, it is important to understand that the state's sovereignty and ownership of national parks and reserves is fully preserved in all of these models. There is frequently a misperception that more devolved models involve a 'selling' of parks to outsiders, or an undermining of national sovereignty. Such misunderstandings are often stirred up because it is politically useful or convenient to do so. On the contrary, however, all models are subject to and guided by the laws and policies

established by the government. Even in the most delegated models, government shares in high-level strategy and oversight of park management and plays a crucial role in the success of the partnership. Indeed, government often plays a much greater role in such partnerships than it does in many other instances where it engages the private sector for the delivery of public goods or for the management of national assets—such as when it engages in private-public partnerships for the development of large infrastructure projects, or grants concessions and licenses to oil and gas companies, or even to private for-profit companies for the management of hunting coutadas. Thus, this model fits well within current government practice. Rather than being seen as 'selling' or 'privatizing' a national asset, these conservation partnerships should be viewed more accurately as engaging a 'service provider' to provide on-the-ground management and technical expertise in order to strengthen and capacitate a national asset—thereby effectively sharing the burden of financing CAs with the international community.

14. Engaging in a range of models allows for support to be obtained from the widest possible array of non-profits and donors. However, each model comes with clear pros and cons, and ANAC would be advised to take account of the tradeoffs each of these models implies. In general, more devolved models have so far garnered the most significant funding and achieved the most impressive successes. Their autonomy from bureaucratic constraints and political interference allow a skilled and capacitated partner to effectively execute a vision for park improvement—injecting significant funds, instituting strong governance and management systems based on the principle of accountability, and building local and park capacity. However, this autonomy can also lead to misunderstandings of the partnership and politically motivated attacks. Thus, strong government support for the partnership and communication with stakeholders—from the national to the local level—is especially important. On the other end of the spectrum, financial-technical support models tend to be far less politically controversial; however, they tend to generate less investment and are more vulnerable to political interference. As a result, it is important for ANAC to carefully consider in which contexts this model is engaged, and whether it is capable of meeting the threats a particular CA faces.

15. In short, ANAC should carefully consider the tradeoffs among models as it develops its future partnership strategy and decides what competencies it will focus on developing (over the next 20 years) and what it aims to accomplish over this time period. With a clear understanding of these tradeoffs, it can realistically assess the potential benefits of various partnerships and be prepared to address the challenges and mitigate the potential downsides of the models it chooses.

1.2. Model Categorization

In order to categorize partnerships into discrete models, we focused on how decision-making authority was shared between the partners. Partnerships were categorized based on the *formal* allocation of authority, as informal practice on the ground sometimes differed.

1.2.1 Governance and Management

Importantly, two fundamental kinds of decision-making authority were studied: governance and management (Table 1/1). Governance concerns who has the power to set overall priorities and

strategies, and how those decisions get made—while management involves day-to-day operations and implementation on the ground.

Table 1/1: What is the difference between governance and management?

Management	...is about...	- **what is done** in pursuit of given objectives - **the means and actions** to achieve such objectives
Governance	...is about...	- **who decides** what **the objectives** are, **what to do to** pursue them, and with **what means** - **how** those decisions are taken - who holds **power**, **authority and responsibility** - who is (or should be) held **accountable**

Source: Borrini-Feyerabend et al., 2013.

For each partnership, it was determined whether governance and/or management decision-making: (1) fell primarily under the formal authority of the *state*, (2) was *shared* with a non-profit partner, or (3) was *delegated* to the non-profit partner. Decision-making authority and processes were studied for each of several important components of governance and management, as detailed in Table 1/2 below.

Table 1/2: Key elements of governance and management in CMPs

GOVERNANCE	
Elements	Examples
Strategy & Priority Setting	• Who approves long-term management and business plans? • Who approves annual work plans?
Oversight	• Who is represented on the governance body? • How is governance-level decision-making conducted (e.g., by consensus or majority vote)? • Who receives reports and monitors progress of the partnership?
Finance	• Who is responsible for fundraising? • Who approves annual budgets? • Who pays for what? (e.g., HR, operations, infrastructure)
Appointment of Senior Management	• Who selects the senior management in the park? (e.g., park manager / warden, deputy, head of law enforcement) • How is this decision made?
MANAGEMENT	
Elements	Examples
Overall on-the-ground authority	• Who exercises overall authority for the park on a daily basis? • Who does the Park Manager report to? (e.g., government, non-profit, both) • How much independence does management have in relation to the government bureaucracy?
Law Enforcement	• Who is responsible for law enforcement operations? • Who pays, hires, and fires law enforcement leadership and staff?
Human Resources	• Who pays, hires, and fires general staff?
Operations	• Who is responsible for PA operations, including: - Ecological management - Infrastructure - Tourism - Community Engagement?

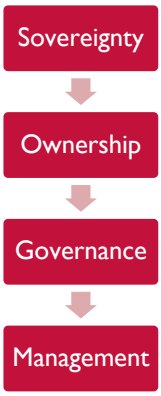
In order to complete the general picture of how the partnership works, the legal and institutional structure was also investigated, as well as its financial framework (i.e., the financial contributions of each party and how revenues and potential profits are handled).

1.2.2 Sovereignty and Ownership

It is important to situate this governance and management authority within the broader decision-making context regarding PAs. In particular, it is important to keep in mind that, even when governance and management are shared with, or fully delegated to, a non-profit partner for a period of time, the government always retains full sovereignty and ownership of the PA—and thus overall authority.

According to the Oxford English Dictionary, 'sovereignty' refers to 'the authority of a state to govern itself.' As sovereign, the government has the authority to make law and policy. The legal and policy framework it creates establishes the limits, and guides the operations, of all CMPs (and PAs) in the country. Subject to these laws, ownership of land may be open to individuals, communities, corporations, non-profits, or other organizations—in addition to being held by the state. Therefore, the temporary devolution or sharing of authority for governance or management of a PA should not be confused with the permanent sale or transfer of land, nor should it be confused with an abdication of sovereign authority. A state is no less sovereign because private individuals or organizations own or manage land within its territory. Where a government engages in a PPP, it retains full ownership of the PA and its full rights as sovereign.

Figure 1/1: The descending flow of decision-making authority over PAs



1.3. Three Main Models of Partnerships

In total, partnerships in 38 PAs in sub-Saharan Africa (excluding Mozambique) were identified and studied. These partnerships fall along a spectrum—between devolution of governance and management authority to a partner on one end of the spectrum, to full government control on the other end. In between these two poles, there is significant variation according to the particular context, goals, and needs of the PA and the partners.

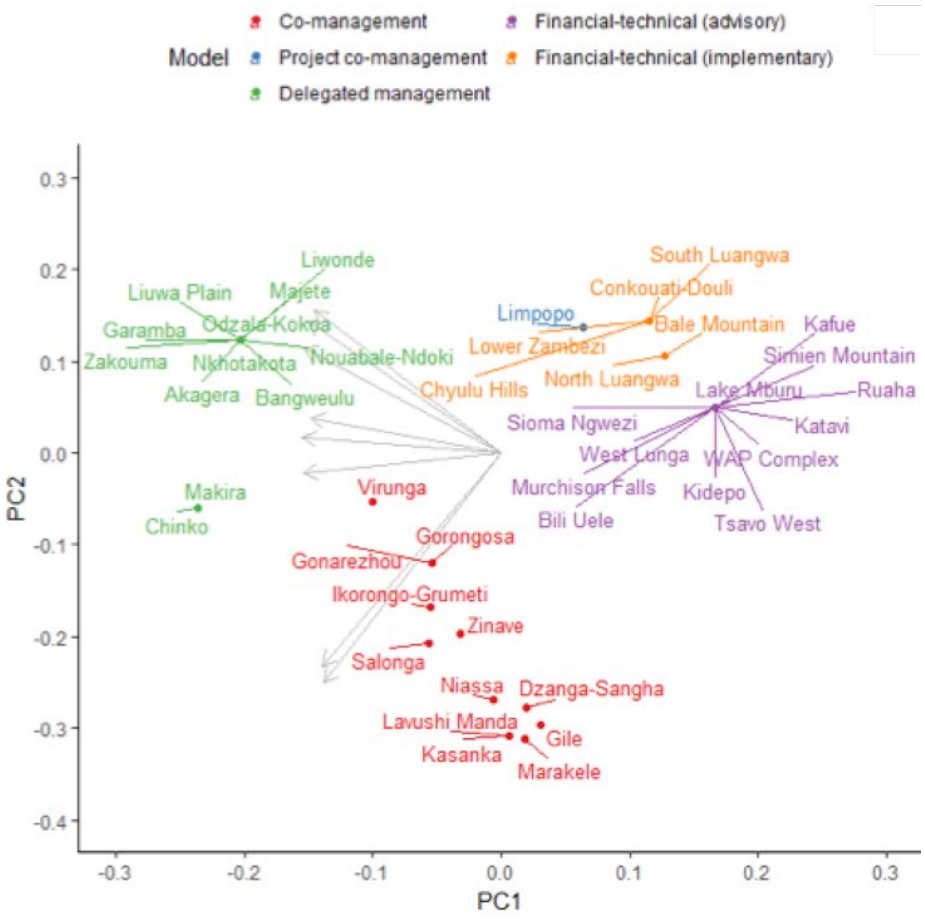
Despite this variation, it is possible to broadly identify three general models. The partnerships that are grouped into each model share important similarities in terms of how they allocate governance and management responsibility. The three main models identified were:

1. **Delegated management**—in which governance is shared between the partners, but on-the-ground management of the PA is delegated to the non-profit.
2. **Co-Management (or shared management)**—in which both governance and management responsibilities are shared by the government and the non-profit partner.

3. **Financial-Technical Support**—in which the non-profit advises and supports the government, which retains full governance and management authority.

Figure 1/2 illustrates both: (1) the variation across partnerships, based on the different ways in which governance and management authority were allocated across the eight components studied (represented by the points on the map), as well as (2) how those partnerships cluster into broad models (represented by the colors).[3]

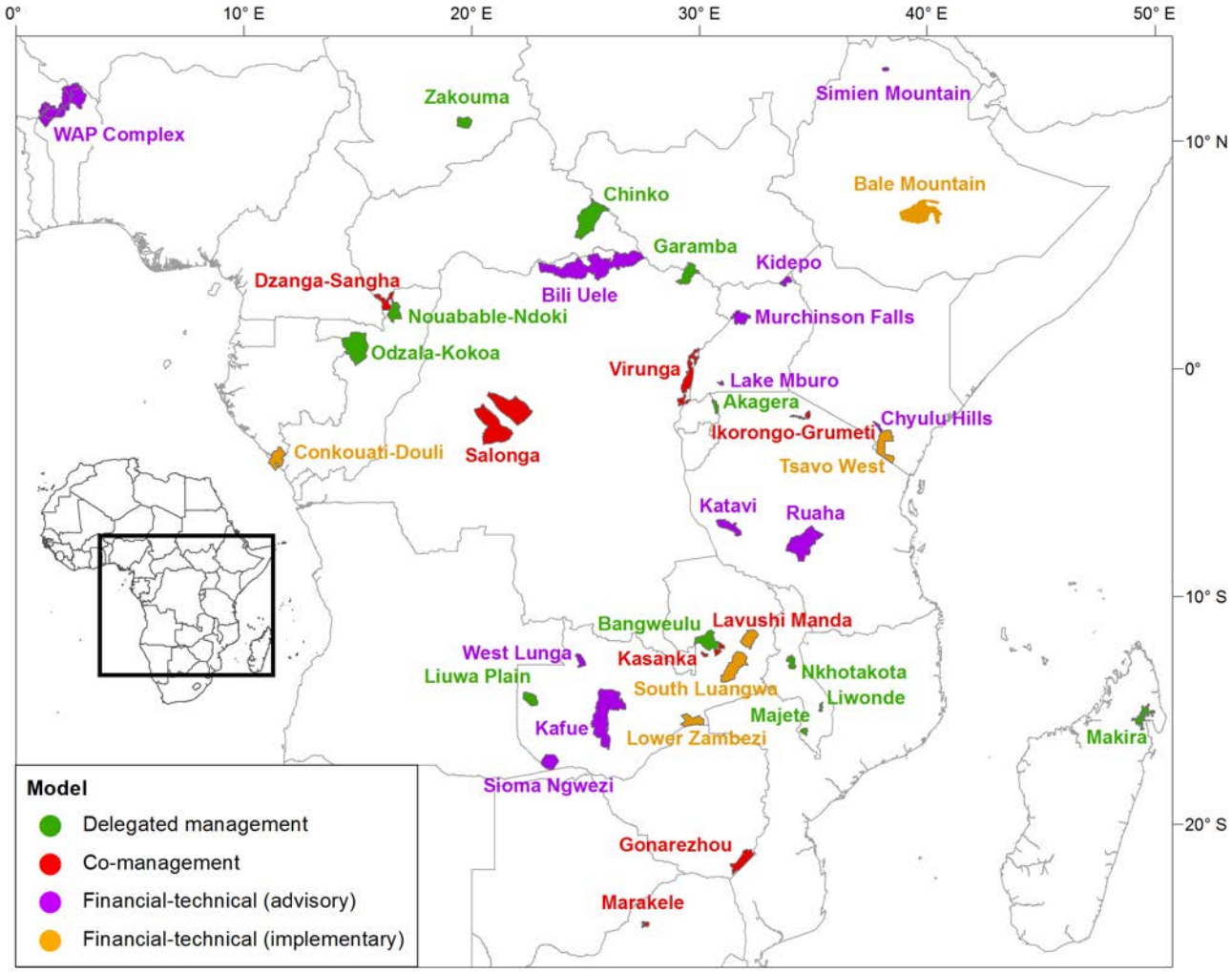
Figure 1/2: Principal components analysis (PCA) biplots, mapping the allocation of governance and management authority



Source: Baghai et al. (2018).

[3] A more detailed explanation of the methodology used to create Figure 1/2 can be found in the source article (Baghai et al. 2018).

Figure 1/3 illustrates the geographic location of the various partnerships, color-coded by model.



Source: Baghai et al. (2018).

1.3.1 Delegated Management Model

In the delegated model, key elements of governance (such as strategy and oversight) are shared by both partners. However, day-to-day management, including selection of the park manager, is fully delegated to the non-profit. Thus, at a strategic and governance level, this is still a 'co-management' model, even though on-the-ground management is fully delegated.

This model is most frequently undertaken by African Parks (across a range of countries, including Malawi, Zambia and Rwanda). It has also been adopted by Wildlife Conservation Society ('WCS') in Madagascar and Republic of Congo ('Congo').

How It Works

Legal and Institutional Structure

Typically, the government and non-profit jointly create a special purpose entity (such as a non-profit, foundation, or trust) in the host country. The government then delegates to that entity responsibility for long-term management of the PA, usually 20-25 years with an option to renew. This is

memorialized in a comprehensive and detailed legal agreement. This institutional arrangement gives the partnership a high level of autonomy and flexibility—allowing for innovation, experimentation, quick decision-making and adaptive management—compared to the often-lengthy procedures and restrictive requirements of the traditional government bureaucracy.

Governance

Governance issues—such as strategy setting and oversight—are dealt with by a Board comprised of representatives of both partners. In the typical partnership, there are seven board members—4 chosen by the non-profit (including the Chairperson), and 3 selected by the government. The non-profit typically nominates 2 persons from their organization's leadership, and 2 from amongst "persons of influence and stature within the country, local citizens with a passion for and interest in conservation, who are very often ex-business leaders and ex-politicians who can play a role in upholding and advancing the project in the country" (non-profit respondent). Government typically nominates persons from the relevant central, provincial, and local government authorities (e.g., the director of the wildlife authority). In the two parks in Zambia where local communities live inside the park (Liuwa Plain National Park and Bangweulu Wetlands), communities also select 2-3 Board members to represent them. The Board meets regularly, usually 3-4 times per year. Although the non-profit usually has a majority on the Board, the Board operates by consensus and rarely, if ever, relies on formal voting.

The government plays a critical role in the partnership. First and foremost, the government should play an active role in strategy setting and oversight through the Board. Second, the partnership is usually based on agreement from the outset to a long-term management plan, which is approved by the appropriate Ministry or government representative. This management plan embodies the partners' shared vision, and forms the foundation of, and the roadmap for, the partnership. Thus, the government's role in shaping and approving the long-term management plan is critical. Third, the government's leadership and support in handling issues of politics, policy, and permits is essential to the success of the partnership. These are issues that the government is uniquely qualified to address and can ultimately make or break the success of a partnership. Therefore, even a delegated management model requires a willing and engaged government partner in order to be successful.

Overall Management Authority & Operations

Day-to-day management is led by a Park Manager, who is selected by the conservation organization after liaising with the government. The Park Manager has a high degree of autonomy, within the boundaries of the approved management plan and the laws and policies of the host country. The Park Manager is frequently an expatriate, while the Deputy Park Manager (the 'second in command') is usually someone hired or seconded from the local wildlife authority. Together, these two senior managers work together to oversee management of the park, often with the Park Manager taking the lead on operational, technical and budgetary issues, and the Deputy Park Manager interfacing with the Ministry and local communities with which he/she has greater experience and deeper relationships. The majority of remaining staff are nationals, and in some parks, the Park Manager is the only expat.

The reason for the Park Manager initially being an expatriate is usually because this person has: (1) significant park management experience, (2) a strong understanding of the conservation organizations' operating procedures, and (3) already established confidence and trust of the partner and donors, who are investing millions of dollars into revitalizing a park. However, the goal is that

the Park Manager and Deputy Park Manager work closely together, with a view to the Deputy Park Manager eventually growing into the role of Park Manager.

Hiring and Firing

All staff are directly employed by, or seconded to, the special purpose entity. Thus, there is a single, streamlined set of policies and procedures for all employees. Law enforcement rangers are seconded from government to the special purpose entity (which pays their salaries); in this way, rangers maintain their authority to carry weapons and make arrests. Disciplinary proceedings for seconded rangers are joint, but the Park Manager has the right to have a non-performing individual removed from the project.

Law Enforcement

The Head of Law Enforcement is typically drawn from the local wildlife authority. He/she reports to the Park Manager, who has final authority.

Finance

In this model, the non-profit channels significant investment into the PA via its donor relationships. In an effort to promote financial sustainability and positive incentives for park personnel, revenue is 'ring-fenced' at the park level—that is, all revenues are directly reinvested into the park, rather than being remitted to central government. The partners typically agree to share any potential future profits, understanding however that profits are not guaranteed, and the regeneration of a park is a long-term process.

Motivation & Context

This model is characterized, and often motivated, by its emphasis on *effectiveness* and *accountability*. The non-profit partner harnesses significant international funding and expertise over a long term and is granted a clear mandate by the government to effectuate a shared vision. Because on-the-ground management resides in a single partner, the non-profit is fully accountable—both to the government and to donors—for how money is spent *and* for achieving results.

As a result of this effectiveness and accountability, the delegated model is seen as having the potential to save and rehabilitate severely threatened parks (such as in Garamba National Park in DRC or Zakouma National Park in Chad), or alternatively to elevate a park with significant tourism potential toward financial sustainability (such as in Akagera National Park in Rwanda, or possibly in Bazaruto National Park in Mozambique). In all cases, effective management can optimize income levels so as to reduce the financial burden of PA management on government and society.

Significant conservation successes from delegated management also bring positive, international publicity, interest and attention to a country and its government, further stimulating tourism and investment. Thus, a country that might otherwise be seen as struggling with depleted parks and rampant poaching is instead lauded for making impressive steps forward, elevating its profile internationally. This has been the case in both Rwanda, with its successes in Akagera, and in Malawi, which was named by Lonely Planet in 2014 as one of the Top 10 places for tourists to visit (alongside Seychelles as the only other African country on the list), in part based on the attractiveness of Majete Wildlife Reserve, which prior to the delegated management intervention was almost entirely depleted.

Currently, delegated management models tend to be found in the most severely under-resourced PAs. These are often parks facing unique challenges (such as extreme remoteness or the presence of political instability), where wildlife populations are severely depleted or in danger of becoming so, and where the capacity and resourcing of state wildlife authorities to deal with these issues is extremely low.

However, this context is starting to change. More recently, as African Parks has demonstrated impressive successes, countries are showing increasing willingness to delegate authority for higher profile PAs, or even their entire parks system. The reason is simple: A parks system that functions well can provide benefits to local communities, stimulate tourism, and increase national profile. This is an enticing prospect compared to a park system that, due to chronic underfunding, struggles to face enormous and ever-increasing threats.

Table 1/3: Current list of countries and parks with delegated management

Park	Country	Conservation Organization	Performance Insights
Pendjari National Park	Benin	African Parks	• Performance cannot yet be assessed since the project started very recently. • Pendjari contains the largest lion population in the WAP complex (a three-country cross-border reserve) and good densities of wild ungulates.
Chinko	Central African Republic	African Parks	• Since starting in 2014, the partnership has secured a core area (2000 km^2 out of a total 17,600 km^2), resulting in increased game wildlife densities. • Increased reserve employment from 4 to 300, making it the largest employer outside of the country's capital.
Zakouma National Park	Chad	African Parks	• Zero elephant poaching between 2011 and 2015, turning a situation of steep decline into one of recovery and growth. • Other ungulates are considered to be increasing and approaching carrying capacity. (E.g., buffalo increased from 6,000 in 2009 to 10,000 in 2014.) • Significant and stable lion population.
Odzala-Kokoua National Park	Congo	African Parks	• This partnership has struggled at times due to misaligned expectations regarding the role of government and the non-profit partner. • Odzala lost its last lions during the 1990s. Forest elephant populations continue to be under poaching pressure. However, the area retains a large and stable population of wild ungulates.
Nouabalé-Ndoki National Park	Congo	Wildlife Conservation Society	• Between 2013 (when the partnership was established) and 2015, patrol coverage increased 85%, resulting in no poached elephants in 2015.
Garamba National Park	DRC	African Parks	• Wildlife populations are below carrying capacity due to many years of poaching pressure. However, numbers are considered stable. Garamba retains a large and viable population of lions. • Due to its location in areas of political instability and armed conflict, Garamba is under more severe pressure from poaching than most PAs on the continent.
Makira Natural Park	Madagascar	Wildlife Conservation Society	• The partnership is hamstrung by a lack of law enforcement powers. • Nonetheless, it has managed to cut deforestation rates in the park by half over the last 4 years.
Liwonde National Park	Malawi	African Parks	• The partnership removed 26,000 wire snares during the first two years of operation. • Ungulate numbers are recovering; cheetahs have been reintroduced to Malawi for the first time in 20 years, and lions will be reintroduced in 2018.

Majete Wildlife Reserve	Malawi	African Parks	• Prior to African Park's engagement, rhino, elephant and lions were extinct. All three species have since been reintroduced and are thriving. In total, 2,500 animals have been reintroduced, and wild ungulate numbers are believed to be at carrying capacity. • In 2003, when the partnership started, there were no tourists and no revenue. In 2016, there were 8000 tourists, generating $400,000 in revenue.
Nkhotakota Wildlife Reserve	Malawi	African Parks	• Prior to the partnership, Nkhotakota was extremely depleted. Since then, 500 elephants, and 1,400 individuals of other wildlife species were reintroduced in a historic translocation during 2016 and 2017.
Akagera National Park	Rwanda	African Parks	• Wildlife populations are recovering rapidly from historic depletion (prior to partnership). • Lions and black rhinos have been reintroduced. • In 6 years of partnership, revenue has increased 550% and the park is already 60% self-financed. The opening of a luxury camp by Wilderness Safaris is planned for 2018.
Bangweulu Wetlands	Zambia	African Parks	• The partnership experienced initial difficulties, and almost collapsed, due to misunderstandings of the partnership by local communities; however, the partnership has since addressed these issues and clarified the roles of various stakeholders. • Black lechwe numbers have increased from 30,000 to 50,000 since 2011.
Liuwa Plain National Park	Zambia	African Parks	• The lion population has been augmented to prevent local extinction. • Wildebeest numbers increased from 15,000 to 45,000 during 2003-2013. Zebra increased from 2,700 to 5,872, red lechwe from 966 to 1,500 and tsessebe from 430 to 767. • Buffalo were reintroduced in 2008, and numbers have grown from 37 to 120. • In 2017, a new luxury camp was opened, and is being operated by Norman Carr Safaris.

1.3.2 Co-Management (or Shared Management) Model

In the Co- or Shared Management model, *both* governance and management are shared between the partners. However, authority is not necessarily split exactly 50-50 for all aspects of management, and as a result, Co-Management partnerships vary in their precise arrangements.

A broader range of conservation organizations engage in this model, including Frankfurt Zoological Society ('FZS'), Kasanka Trust Limited, Singita Grumeti Fund, Virunga Foundation, and the World Wide Fund for Nature ('WWF', known in the US as World Wildlife Fund).

How it works

Legal and Institutional Structure

There are two main institutional co-management structures: integrated and bilateral. In the 'integrated' model, a special purpose entity is created by the partners, much like in the delegated model. This provides a high degree of autonomy to the entity to run the PA (within, of course, the laws and policies of the country and under the guidance of the approved management plan). The key difference is that the sharing of authority in the co-management model, at both a governance and management level, is equal, making it a 50-50 endeavor, unlike the case with the delegated model where the non-profit generally has a majority on the governance board and is fully delegated management responsibility on-the-ground. In the bilateral co-management model, the two organizations retain their separate structures and hierarchies, working alongside each other, often

with parallel staffing. Thus, this latter model requires working through the traditional structures of the government bureaucracy and does not benefit from the autonomy of a special purpose entity.

Co-Management partnerships are typically memorialized in comprehensive legal agreements that are fairly long-term, typically lasting 10-20 years.

Governance

The integrated model features a governance board with equal representation of both partners. In the case of Gonarezhou National Park, the government of Zimbabwe and FZS each nominate three members to the six-person board. There are two Co-Chairs, one from each partner. The Board seeks to operate by consensus but can also vote. If a vote is tied, the Co-Chairs may resolve the issue between them. Ultimately, if agreement cannot be reached, the government has a casting vote on conservation and policy issues, while the non-profit partner has a casting vote on financial issues. As with the delegated model, the partnership is based on agreement from the outset to a long-term management plan that outlines a shared vision of what the partnership seeks to accomplish.

The bilateral model features a loose 50-50 governance arrangement. In the case of Kasanka National Park in Zambia, for example, there is currently no joint governance board or committee, but only informal and ad-hoc coordination and collaboration between the partners. Five-year and annual management plans and budgets are nonetheless mutually approved.

Overall Management Authority & Operations

The integrated model is characterized by shared on-the-ground management authority. This takes the form of a single jointly chosen manager or a management team with representatives of both organizations that works through consensus. All aspects of management are handled by this team, including the appointment of lower-level staff. It is usually a local drawn from the wildlife authority that takes the lead in 'external'-facing issues (e.g., political and community related issues). The non-profit lead tends to play a more 'behind the scenes' role, taking the lead on technical and operational issues within the park.

By contrast, the bilateral model is characterized by a dual, or parallel, structure. This may involve dual leadership on the ground (as is the case of Kasanka National Park in Zambia) or a single park warden who represents both parties (as in Virunga National Park in DRC).[4] In the case of dual leadership, the two on-the-ground leaders hold regular management meetings in which strategies and plans are jointly developed, and seek to reach consensus on all issues, including law enforcement, community relations, and general park management. If consensus is not achieved, an unresolved issue is referred upward to the governance level for resolution. In the latter case, where there is a single park warden, there is nonetheless dual staffing, with the government and non-profit each employing staff working within the park.

Hiring and Firing

In the integrated model, all staff are employed by, or seconded to, the special purpose entity—as in the delegated model—outside the typical bureaucratic government structures. This creates a

[4] In the case of Virunga National Park, Emmanuel de Merode, a Belgian national, was officially sworn in as Chief Warden of Virunga National Park, and wears the uniform of ICCN, the local wildlife authority. He is, at the same time, a board member of the conservation co-management partner, Virunga Foundation.

cohesive team by harmonizing HR policies and pay scales and allows the entity to offer more attractive salaries and benefits that government is typically able to.

In the bilateral model, staff may be employed either by the government or by the non-profit, and each organization has ultimate hiring and firing authority for its own employees. The partners may seek to work collaboratively, developing a single code of conduct for park staff and jointly participating in disciplinary proceedings, however seamless harmonization is usually difficult (if not impossible) in this bilateral structure.

Law Enforcement

In the integrated model, the head of law enforcement reports to the joint management team or the jointly selected park manager. In the bilateral model, it is typically the government warden that takes lead responsibility for law enforcement, with the support and collaboration of the non-profit manager. All law enforcement rangers work under and report to the government warden. In the case of Kasanka National Park, the non-profit employs community scouts, who also work under and report to the warden.

Finance

In the integrated model, revenues are directly reinvested in the PA, with the aim of promoting financial sustainability. While the government no longer receives PA revenues, it benefits by paying less in salaries, which are instead paid for by the non-profit. In the bilateral model, there is typically no revenue retention at the park level. However, the government finances salaries for its personnel, which includes the warden and law enforcement rangers.

Motivation & Context

The co-management model tends to be driven by a shared desire to inject funds and expertise into an otherwise under-resourced park.[5] These partnerships often emerge from a realization that incremental financial-technical support arrangements simply are insufficient to achieve the partners' objectives, especially in areas where the government's capacity is very low, and challenges are very significant.

In order for donors and non-profits to be willing to invest increased resources, they generally require a greater say in decision-making. Thus, increased funding is conditioned on increased decision-making authority. This allows the non-profit to be accountable to donors for how the money entrusted to it is spent.

At the same time, co-management models are motivated by the government's desire not to fully delegate management to a partner, and by the non-profit's desire to ensure the local wildlife authority retains its role in on-the-ground park management.

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[5] The case of Marakele National Park in South Africa is an outlier. There, co-management is used to *extend* the boundaries of the park to include privately owned land, rather than as a means to *improve* the management of an existing protected area.

Table 1/4: Examples of Co-Management in Africa

Park	Country	Conservation Organization	Performance Insights
Dzangha-Sangha National Park	Central African Republic	WWF	• Insufficient information to evaluate performance. • Over the past several years, the bilateral partnership has experienced significant difficulties due to poor relations between the national director and the partner, and the lack of a written agreement to help solve disagreements.
Salonga National Park	DRC	WWF	• Insufficient information to evaluate performance. • The partnership began in 2005, but in 2013 the partners decided to move from a financial-technical support model to a co-management structure, based on a shared belief and understanding that they were not achieving their conservation objectives due to problems of governance and a lack of financial, technical, and management capacity.
Virunga National Park	DRC	Virunga Foundation	• Increase in large mammal populations despite armed conflict. • Home to more than 200 of 800 remaining mountain gorillas; no gorillas were killed by poachers in 2013, and the gorilla population is growing. • Tourism revenue tripled from 2014 to 2015, reaching $1.7 million.
Ikorongo-Grumeti Game Reserves	Tanzania	Singita Grumeti Fund	• Wildlife populations conserved at high densities, believed to be around carrying capacity. • Ungulate and lion numbers increasing.
Kasanka National Park	Zambia	Kasanka Trust	• Ungulate numbers considered to be declining and below half of estimated carrying capacity. No permanent lion presence.
Lavushi Manda National Park	Zambia	Kasanka Trust	• Ungulates believed to be severely depleted but increasing.
Gonarezhou National Park	Zimbabwe	FZS	• Large and stable elephant population, increasing populations of predators and of ungulate biomass • Wildlife recovering strongly from historic under-funding and severe drought in the early 1990s

1.3.3 Financial-Technical Support Model

In the financial-technical support model, the government retains formal authority for all aspects of governance and management. The non-profit advises and supports government but has no formal decision-making authority for the park. This is the most common, longstanding, and varied model on the continent. It can take a variety of forms, ranging across a spectrum including:

- short-term, one-off, targeted interventions (e.g., specific trainings and furnishing of equipment);
- posting a single technical advisor to support park management (e.g., frequently used by African Wildlife Foundation and Peace Parks Foundation);
- project-based support to specific aspects of park management, such as law enforcement (e.g., Game Rangers International in Kafue National Park and Conservation South Luangwa in South Luangwa National Park in Zambia); and
- large, reserve-wide, long-term projects (e.g., FZS's 30-year engagement in North Luangwa National Park in Zambia).

How it works

Legal and Institutional Structure

Financial-Technical Support partnerships usually take the form of 3-5 year, renewable Memorandums of Understanding or simple project documents, which may or may not be legally binding. As a result, they are very flexible, easy to walk away from, and do not generally provide the same kind of long-term commitment that the other models do.

This model consists of two main structures: advisory and implementor. In the advisory model, the non-profit typically posts a single technical advisor to the PA. In the implementor model, the non-profit may employ significant numbers of staff to help implement shared projects and goals that are agreed to by the government.

Governance

Governance is undertaken by government through its usual structures and hierarchies. However, the non-profit may informally influence strategies and planning through its advice and provision of financial support for particular projects in the PA. Some projects establish a steering committee that provides for some degree of share governance over donor or project funds, though not for the park as a whole.

Overall Management Authority & Operations

Frequently, a lead non-profit technical advisor works alongside the government park warden on a daily basis. The warden retains full authority for park management and operations, though the non-profit advisor may have significant informal influence due to strong working relationships and control over donor funds.

Hiring and Firing

Staff, especially law enforcement staff, are typically employed directly by the government. As a result, the government is responsible for hiring and firing of park staff. A non-profit may hire some additional personnel to support law enforcement and other park operations, in which case hiring and firing of those individuals is the partner's prerogative.

Law Enforcement

Authority for law enforcement operations rests fully with the government. Where a non-profit employs additional law enforcement staff (community or deputized rangers), they work under and report to the government head of law enforcement.

Finance

Park revenues are received and managed by government agencies, whereas the non-profit partner is responsible for receiving and managing donor funding. For larger projects, this frequently means that the government is chiefly responsible for staff salaries and some recurrent costs, while the non-profit partner is responsible for most capital and recurrent expenditure, and may provide additional salaries, top-ups or other benefits for staff.

Motivation and Context

The financial-technical support model is found in the widest range of countries and contexts. The increasing trend toward devolved models—such as co- and delegated management—is in many cases

the result of the inability of this financial-technical support model to achieve desired outcomes. Nonetheless, the financial-technical support model remains the most common and widespread model across the continent and can be effective when implemented well and in the appropriate contexts.

From a government perspective, this model is used primarily in three contexts. First, it is used in countries with significant state capacity, funding and commitment to PA management (such as South Africa, Botswana, Namibia, Kenya and parts of Tanzania). In such countries, financial-technical support "makes sense because there is solid government commitment for core management of the PA, but there are some specific threats—or challenges, or even opportunities—that the government is not able to tackle alone" (non-profit respondent) and that the non-profit can support. Second, this model is used in countries that refuse to engage in more devolved models, either for political or philosophical reasons. Third, this model is engaged in countries where the government is open to a variety of models and is responding to the proposed engagements of diverse non-profits and donors.

From a non-profit perspective, this model is chosen for two reasons. First, some non-profits do not have adequate resources or expertise to undertake significant management responsibility. Second, some non-profits and donors believe that their proper role is to support (not supplant) the state, which they see as the appropriate management authority for PAs, even where capacity is low.

Anecdotally, the financial-technical support model appears to work best when:

- the local wildlife authority has baseline capacity and both partners contribute resources;
- there is high level and local political support;
- the non-profit enjoys local status and tax exemption, and its role is clearly defined;
- donor support is sufficient to accomplish the agreed objectives;
- the non-profit has a high degree of technical competency and experience;
- there are significant and achievable landscape and ecological 'wins'; and
- population pressures on the PA are not severe.

Table 1/5: Examples of allocation of governance and management authority in three models

Model / example	General Description	Governance	Management	Human resources	Law enforcement
Delegated Management African Parks: Majete WR and Liwonde NP (Malawi), Liuwa Plains NP and Bangweulu Wetlands (Zambia), Akagera NP (Rwanda)	A joint entity (e.g., foundation, non-profit, trust) is created in the host country. Management of the park is fully 'delegated' to the joint entity, based on an agreed long-term management plan. High-level governance is shared, while day-to-day management is led by the non-profit partner.	The non-profit partner appoints the majority of board members, including the Chair. The government appoints a minority of board members. Communities may have direct representation if they live inside the park. The board strives to make decisions by consensus.	The private partner selects the Park Manager, after liaising with government. The Park Manager has authority over the park, including hiring and firing of staff. The Deputy Park Manager is drawn from the local wildlife authority.	All staff is employed by the joint entity. Law enforcement rangers are seconded from government (so they can carry weapons and make arrests). Disciplinary proceedings for seconded rangers are joint; but the Park Manager has the right to have an individual removed from the project.	A Head of Law Enforcement is typically drawn from the local wildlife authority but reports to the Park Manager.
Co-Management (Integrated) FZS: Gonarezhou NP (Zimbabwe)	A joint entity (e.g., foundation, non-profit, trust) is created in the host country, and management is 'delegated' to that entity—as above. Unlike the delegated model, this entity is characterized by 50-50 sharing of authority, rather than being led by the non-profit.	Each partner appoints 3 board members, of which 1 is a co-chair. The board strives to make decisions by consensus. If the board is divided, the decision is referred to the co-chairs. If agreement is still not reached, government has a casting vote on conservation and policy issues, and the non-profit has a casting vote on financial issues.	The Park Management Team (led by a Director) has ultimate authority and is jointly selected by the parties. The team works by consensus to manage the park.	All staff are employed by the joint entity or seconded by the partners. Law enforcement staff are seconded by government. Hiring and firing of rank and file staff are handled by the Park Management Team.	A Head of Law Enforcement, drawn from the local wildlife authority, is part of the Park Management Team.
Financial - Technical Support FZS: North Luangwa NP (Zambia)	The government retains full governance and management authority. The non-profit advises and supports the PA through donor-funded projects discussed with and agreed to with the government.	There is no formal governance mechanism for the project. PA governance issues are dealt with through the usual government channels and bureaucracies, and in discussion with the non-profit counterpart in the field.	The government warden is the ultimate authority for the park and has final say on operations and line management of employees. The non-profit Project Manager is responsible for project implementation and donor funds and provides advice and support to the warden.	Law enforcement rangers are employed by government. All other staff are employed by the non-profit. Each partner has full authority to hire/fire its own staff.	Law enforcement is the authority and responsibility of the government. The partner provides advice and support.

1.4. Pros and Cons of Each Model

1.4.1 Delegated Management

Pros

The key benefits of the delegated model are effective management and clear accountability in a single partner. The model is also characterized by a long-term commitment and the provision of significant funding and technical expertise. As such, this model relieves a significant burden on government. In effect, government hires a 'service provider' to conduct PA management, providing an effective, low-cost, and immediate solution. Despite misconceptions regarding loss of sovereignty, this model can actually be seen as empowering for government, given its (1) potential for success (rehabilitating and capitalizing a park that is a national asset), (2) clear accountability to government and donors, and (3) employment, mentoring and training of primarily local staff.

A key element of the effectiveness of the delegated model is its decentralized structure: High levels of autonomy allow for quick decision-making and help to insulate the park from excessive political interference. It also allows management to hire skilled staff and remove non-performing or corrupt personnel, which is a critical factor in the success of the partnership and of the park.

Table 1/6: Achievements of delegated management partnerships

Park	Key Successes of Delegated Management
Akagera National Park (Rwanda)	From 2010-2016: • Successful reintroduction of lion and black rhino • Decline in poaching by 200% • Increase in animals from 4,000 to 12,000 • Increase in asset value from $446,000 to $2,280,000 • Increase in employment from 18 to 214 • Increase in annual tourism from 15,000 to over 170,000 • Increase in taxes paid to government from zero to over $500,000
Liuwa Plain National Park (Zambia)	Since 2004: • Reintroduction of eland, buffalo, and lion • Increase in wildebeest population from 15,000 to over 27,000; increase in zebra from 2,700 to 5,800 • Increase in permanent employment from 18 to 108 • Opening of new high-end tourism lodge (King Lewanika Lodge)
Majete Wildlife Reserve (Malawi)	Since 2003: • Increase in wildlife from only 60 animals counted to over 12,000 • Malawi's only Big Five reserve, with historic reintroduction of elephants, black rhino, lion, leopard and buffalo • Construction of boundary fence that has reduced human-wildlife conflict • Construction of five-star lodge and community campsites
Zakouma National Park (Chad)	Since 2010: • Three years of zero poaching leading to an increase in the elephant population (which had previously been decimated) • Increase in security for local people, eliminating the threat of incursions by the Janjaweed from Sudan • Tourism described in the press as "world class" and "must-see"

The most consistent and striking examples of collaborative management success come from the delegated model (Table 1/6). Majete Wildlife Reserve, which was almost entirely devoid of wildlife, is now Malawi's only Big Five Reserve. In Zakouma National Park, where the elephant population plummeted from 4000 to only 450 elephants, a delegated management partnership achieved three years of zero poaching, allowing the elephant population to begin to recover and actually increase. In Akagera National Park, poaching has declined by 200% since the delegated management partnership

took over responsibility, lions and rhinos have been reintroduced, and tourism has grown exponentially.

In addition to its effectiveness, the delegated model is characterized by its clear mandate and accountability. Since on-the-ground management decision-making resides with one partner, that partner is fully responsible for delivering results. This structure avoids the pitfall of partners trying to shift blame to each other for unachieved outcomes. Management works within the laws and policies established by the government and strives to implement the long-term management plan signed off on by government. Management also regularly reports to a joint Board, which ensures oversight of progress and accountability.

The combination of a clear mandate and accountability, along with the long-term commitment of a trusted and skilled non-profit partner, is attractive to donors and potential tourism investors. Many interviewees observed that this model attracted donor funding that was not otherwise available, because of its effectiveness, accountability and relative from corruption. For example, the European Union has supported several of these delegated management partnerships, which form part of its 'African Wildlife Strategy.' This anecdotal evidence was corroborated by our study of partnerships across Africa, in which we found that delegated management models on average generated higher levels of investment per square kilometer than other partnership models (Baghai et. al, 2018).

As a result, this model has the potential to mobilize significant investment in PAs, which can in turn promote development in remote rural areas with few other economic opportunities. In some PAs, this increased investment, when combined with skilled management, can unlock untapped tourism potential and increase a park's financial sustainability.

Lastly, the long-term approach, the creation of strong governance structures with a focus on accountability and efficiency, and the hiring of primarily local citizens who are mentored and trained by international experts, builds local capacity.

Figure 1/4: Primary pros and cons of delegated management

Cons

The primary downside of this model is that delegating management of a national asset can give rise to politically-charged misunderstandings and opposition. This model frequently meets resistance from amongst politicians (at various levels and sectors of government), the national wildlife authority, and some citizens who believe too much power is being granted to foreigners and who mistakenly perceive the model as 'selling' a national park to outsiders. These sensitivities may be further heightened if resettlement of local communities living inside the park is deemed a necessary part of PA rehabilitation. If not handled properly, this can result in the foreign organization being blamed for uprooting local people. The commitment of the government partner to addressing these potential issues is thus a critical element of a successful partnership.

The delegated model is also sometimes criticized for not building capacity within the existing operational structure of the national wildlife authority. However, it is not clear that other models are more effective. Unless there is a strong commitment within the national wildlife authority to rewarding high-performing staff and disciplining under-performing staff, it is extraordinarily difficult for an alternative model to effectively build local capacity. In such circumstances, a delegated model,

which ensures accountable and motivated staff, and provides opportunities for mentorship and training, is likely to be more effective at engraining capacity.

1.4.2 Co-Management / Shared Management

Pros

In theory, the shared management approach has the potential to capitalize on the unique strengths of each partner—combining the political legitimacy and local knowledge of the government with the innovation, expertise, and donor relationships of the non-profit sector.

Figure 1/5: Primary pros and cons of co-management

Situated between the other two models on the partnership spectrum, the co-management model shares some of their advantages and disadvantages (albeit to a modified degree). Like the delegated model, the long-term partnership of a trusted and committed non-profit with a willing government partner can unlock funding that may not otherwise be available. As a result, it can infuse significant resources into the PA and lay the groundwork for increased financial sustainability. The Co-Management model can also create governance systems and structures that last after the partnership ends. In particular, the integrated co-management model, like the delegated model, allows for high levels of autonomy and quick decision-making. The bilateral co-management model, like the financial-technical support model, has potential to embed capacity directly in the local wildlife authority.

Cons

However, the model's complexity often creates significant risk of conflict and misunderstanding between the two organizations, as well as slower, less efficient decision-making due to the need for consensus, particularly in the bilateral structure. As a result, there appears to be more mixed success in this model, compared to the delegated model. Between its two iterations, the integrated version appears to experience greater success in terms of conservation outcomes on the ground.

The Co-Management model also shares some of the downsides of the other two models. Because the government shares formal decision-making authority with a (foreign) non-profit partner, it is subject to some of the political risks associated with the delegated model. However, like looser financial-technical support models, the co-management model can also suffer from relationship issues and problems of efficacy, cumbersome bureaucracy and excessive political interference. The co-management model is also susceptible to an increased likelihood of conflict between two different organizations and work cultures. While this is minimized in the integrated structure, it is more pronounced in the bilateral structure. The latter is highly reliant on good working relationships and the need for consensus, which can cause decision-making to be slower, less efficient, and less effective. When relationships break down, the progress of the partnership can effectively grind to a halt, or even be reversed.

1.4.3 Financial-Technical Support

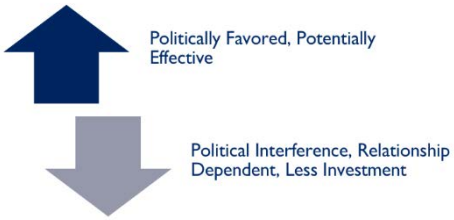
Pros

In the financial-technical support model, the government warden typically exercises formal authority over the PA, while the non-profit technical advisor provides advice and support and manages donor funding. As a result, when the relationship of these two key management leaders is strong and when their goals are aligned, the financial-technical support model can work well and achieve significant conservation successes, helping to bridge gaps in funding and human resources, and building capacity within the national wildlife authority.

The financial-technical support model is a flexible model that allows the parties to continue or end their partnership with little risk or difficulty. It also allows for the engagement of a wide variety of non-profit partners, including those that may not have the resources to take on significant management responsibility. As such, having a diversity of models can help capture support from a broad array of donors.

Cons

Figure 1/6: Primary pros and cons of financial-technical support



On average, the financial-technical support model generates lower levels of investment compared to the other models. Donors are sometimes reluctant to invest where governments call all the shots, due to low levels of faith in their accountability and technical capacity and the exposure of decision-making to political interference. Correspondingly, where governments have very low capacity, the lack of input from partners in strategy and management (and particularly with respect to human resources and law enforcement) can mean that, although significant donor funds are spent, the status quo carries on without significant or lasting improvements.

The relatively loose, informal legal agreements that underpin this model means that partnerships often last for shorter periods and may be prone to ending suddenly if either partner chooses to exit the partnership. It also means that the effectiveness of this model hinges on strong relationships, rather than clear structures and decision-making mechanisms. If relationships break down (due to personality conflicts or staff turnover), the partnership can grind to a halt and any conservation successes achieved can be quickly reversed.

Finally, decades of experience with this model have shown that its achievements tend to be vulnerable to collapse when the partner leaves, since local capacity (financial or technical) has often not been sufficiently built. This situation is exacerbated by the fact that governments who receive financial-technical support tend to shift resources to other PAs, reducing the baseline capacity and sustainability of the PA and the partnership.

Table 1/7: SWOT assessment of three main partnership models

	Strengths	Weaknesses	Opportunities	Threats
Delegated Management	• Effective management (due to autonomy, flexibility, expertise, innovation, and funding) • Clear accountability of external partner for results (due to simple management structure) • Attracts additional donor funds • Attractive to potential tourism investors • Large influx of funds relieves government of financial and administrative burden • Long-term commitment has potential to build lasting capacity • Attracts qualified, motivated staff	• Vulnerable to political opposition and legitimacy attacks—such as misperception of park being 'sold' to foreigners • Capacity is not built directly within the PA authority • Potentially tricky issues related to delegation of law enforcement authority	• Potential to transform parks with tourism potential into becoming financially self-sustainable (by creating the conditions for conservation enterprise to thrive) • Potential to save embattled parks (e.g., Garamba, Zakouma) • Local community benefits from increased employment, tourism, and from outreach programs tailored to its needs • Partnership disseminates principles/systems of good governance and management	• Partner may sideline and not sufficiently involve government • Government does not fulfil its role by facilitating permits and policy changes, and exercising oversight • Insufficient buy-in of government, which may view the partnership as a 'necessary evil' rather than an opportunity • Government perception that non-profit is closer to donor than to government • Lack of communication between partnership and PA authority can lead to problems/misperceptions • Change in government leadership may undermine commitment to this politically sensitive model
Co-Management	• Capitalizes on strengths of both partners—leverages legitimacy of government and capacity of partner • Enables a government to take advantage of support, but stay involved in day-to-day management of PA • Long-term commitment of non-profit partner unlocks donor funding and is attractive to potential tourism investors • Increased funding allows hiring of qualified, motivated personnel to tackle threats to PA	• Structural complexity increases risk of conflict, confusion, and blame shifting—thus reducing accountability • Inefficient, slower decision-making due to need for consensus • Exposed to political interference and bureaucratic delays • Politically sensitive and subject to opposition because of sharing of management authority with (foreign) non-profit entity • Success depends on relationship of trust between partners at all levels	• Potential to transform and increase financial sustainability of PA • Potential to institute and embed good governance structures and systems	• If partners employ dual leadership and staffing, this can result in conflict that immobilizes the partnership and is unable to tackle threats to the PA; success is dependent on strong relationships • Lack of integration of private partner and government staff in bilateral model can create problems/tensions • May generate high expectations that are not able to be fulfilled

Financial-Technical Support	• Legitimacy; local authority with long-term mandate retains full authority • Support of non-profit partner can be effective under the right conditions • Relieves government of a financial burden	• Weak, informal framework is extremely vulnerable to collapse if there is a change in staff or a breakdown in relationships • Success depends on willingness/capacity of government partner to implement technical advice; and willingness/skill of external partner to listen to local partner and its needs • Often attracts less investment than other models; harder to fundraise • Short-term agreement invites short-term funding, which makes tackling long-term threats through long-term planning extremely difficult	• Potential to build capacity within the PA authority with the long-term management mandate	• May not effectively build lasting local capacity / sustainability, especially where government financial and technical capacity is extremely low; if so, when partner leaves the project may collapse and its achievements may be quickly undone • Lack of transparency can breed mistrust • Subject to donor withdrawal; lack of long-term commitment

1.4.4 Tradeoffs among models

From this analysis, it is possible to identify some general tradeoffs among the three models. For example, the delegated model has the potential to deliver the most effective conservation outcomes, but is vulnerable to political attacks on its legitimacy. On the other end of the spectrum, the legitimacy of the financial-technical support model is rarely questioned; however, it tends to generate less investment and is more vulnerable to political interference and collapse.

In general, where challenges are more significant, technical assistance is frequently insufficient to sustain a PA and generate the kinds of improvements that are necessary for success. In these circumstances, partners across the continent are increasingly willing to undertake the tradeoffs implied in moving to stronger co- and delegated management models.

Effectiveness

While there is no comprehensive, scientific study of the relative effectiveness of the various models, interviewees across the board tended to view the delegated model as the one most capable of effectively and efficiently delivering positive conservation outcomes. Anecdotally, it indeed appears that delegated management models (such as in Akagera NP, Liuwa Plain NP, Majete Wildlife Reserve, and Zakouma NP), and stronger integrated co-management models (such as in Gonarezhou NP and Gorongosa NP), achieve greater conservation successes.

The success of other models (i.e., bilateral co-management and financial-technical support) is highly dependent on the strength of relationships on the ground, and therefore prone to more inconsistent results. A frequent difficulty in bilateral co-management models and looser financial-technical support models occurs when a warden is changed without consultation with the partner. This can lead to years of difficulty, strain, and stalemate.

In general, financial-technical support models tend to be most effective when there is a experienced partner who is committed to supporting the reserve for the long-term, such as is the case with FZS's over 30 years of partnership with the government of Zambia in North Luangwa NP.

Accountability

The delegated model provides the clearest example of accountability. With a full management mandate, the non-profit partner is responsible for delivering results, and cannot shift blame for lack of success. Moreover, the joint board allows the government to exercise oversight and hold its partner accountable for progress toward the goals identified by both parties at the outset of the partnership.

The co-management model increases the accountability of the partners to each other since they share power and must make decisions together. In this sense, the partners can hold each other accountable. However, because management responsibility is shared, it is easier for each partner to blame the other for failures in the PA.

Financial-Technical Support models offer the least accountability and are most susceptible to political interference. The government plays both roles of implementing management programs on the ground and exercising oversight. As a result, there is no 'separation of powers' or 'checks and balances.

Investment

For the reasons outlined in the discussion of pros and cons above, delegated models tend to attract the most investment, while financial-technical support programs tend to face more fundraising difficulties. Many donors are simply unwilling to invest significant sums unless the partner has a significant, formal say in decision-making for the PA; without this, donors are concerned that money invested will fail to yield results (e.g., because corrupt game scouts cannot be effectively disciplined or removed, or because illegal activities such as mining inside the reserve cannot be shut down due to political interference).

The tradeoff between political support and political interference

The delegated management model is the most insulated from political interference in decision-making, but it is also the most politically sensitive model as a result. Financial-Technical Support is often viewed in the host country as the most politically favorable model, but it is also the most vulnerable model to political interference. Co-Management falls in the middle: it provides legitimacy by ensuring the government shares in governance and management of the PA; however, since an external partner also shares decision-making authority, the partnership may still be the object of political opposition.

Capacity Building

Delegated management ensures a long-term commitment, and so is capable of embedding systems, structures, and policies that serve the PA in the long run. Moreover, a partner that is committed to employing nationals and has the funds to bring in international experts as needed, can build local capacity through high quality training and mentorship. Together, this training and mentoring of individuals, who work daily alongside international experts, and the implementation of accountability structures can promote a positive and motivated culture of work and pride in PA management.

The financial-technical support model takes a different approach to capacity building: it seeks to work within the existing structures of the wildlife authority. However, where government capacity is very low and accountability systems are not in place, these efforts are often ineffective, and collapse back to the status quo as soon as external support is withdrawn. Moreover, this model frequently deploys less funding and has less power to encourage structural improvements.

Co-Management once again falls between the other two models. Integrated co-management models are more similar to delegated management, while bilateral co-management models are more similar to financial-technical support.

1.5. Lessons Learned

Below we list lessons learned for improved governance and management of each model, as well as lessons learned that apply across all models.

1.5.1 Delegated Management

1. **The perception that delegated management implies a loss of sovereignty is untrue.**

As explained above, an examination of partnerships across the continent, including their legal frameworks, makes clear that they do not result in any loss of sovereignty or ownership. Even when management is ‘delegated,’ the partnership is subject to government oversight and must operate

within the laws and policies of the host country—for everything from the entrance fees for the park, to the prosecution of poachers and the engagement of local communities. In even the strongest delegated models, government shares decision-making over the strategic direction of the park, and simply hires an entity to manage it on a day-to-day basis, under its oversight, and for a defined and limited period of time. When law enforcement is at issue, the partner must work, as always, within the legal framework established by government, collaborating closely with government police and the judicial system. In short, the perception of a loss of sovereignty is at best the result of a lack of familiarity with the nature of these partnerships, and at worst the result of purposeful misrepresentation for political gain. As a result, clear communication to all stakeholders regarding this model is of fundamental importance.

2. **A willing, engaged, and supportive government partner is critical to the success of the delegated model.**

Even though day-to-day management of the PA is delegated, the government nevertheless plays an important role in this model. The government is uniquely positioned to address political challenges, to interface with local communities, to support the partnership in developing tourism and tackling poaching, and to provide the necessary permits and permissions that may otherwise be subject to a protracted bureaucratic process. The government can further help build support for the partnership by engaging stakeholders both inside and outside the PA.

This support is important at all levels of government, from a local level all the way up to the presidential level. As interviewees pointed out: "In countries where we do not have access to the presidents, or where governments are not necessarily in favor of the model, it is not always a success, or it is an uphill battle." "What makes Zakouma successful in a context of enormous challenges but a different project not as successful? It's the political support—to stop poaching, to promote tourism. The government has seen that African Parks can bring good management, tourism, investors, and they are supporting and helping."

Finally, where government makes an annual financial contribution to the park, as the government of Rwanda does in Akagera National Park, this sends a strong signal of its commitment to donors and makes the project easier to fund.

3. **Partners should have a shared understanding of the model, and a shared vision for the park, from the outset.**

It is important that the partners have a shared understanding and commitment to the model—and specifically its division of roles and responsibilities. Misaligned expectations can create problems and lead to breakdown and failure. If the government views the delegated model as a 'necessary evil' rather than as an opportunity, such views can undermine the partnership. In short, if there is not genuine will on both sides, the partnership is much less likely to achieve success.

In order to ensure the partners, have a clear, shared vision of what they want to achieve, a long-term management plan is usually agreed to at the very beginning of the partnership. The government plays an important role in developing and approving this plan, which provides guidance and a mandate to the management team on the ground.

4. **The agreement should be long-term—typically at least 20 years.**

The precise duration of the partnership agreement may vary, but in general long-term agreements help: (1) with long-term management planning; (2) with hiring quality personnel, to whom secure, long-term contracts can be offered; and (3) with fundraising, since a long-term agreement gives donors confidence that the partner and government share a commitment to developing the PA in a sustainable fashion.

A long-term partnership is also more likely to help secure lasting outcomes. There are numerous examples of short-term projects across the continent in which the situation reverted back to the prior status quo soon after the partner left.

5. **The contract should detail the roles and responsibilities of both partners as clearly and specifically as possible.**

The agreement should describe in detail the respective roles and responsibilities of each partner. For example, it should include the government's commitment to support law enforcement, which frequently requires support from the police or military outside of park boundaries. If resettlement of local populations is necessary, the agreement should also include the government's commitment to addressing those issues and to creating growth nodes outside the park. A strong agreement can prevent long bureaucratic delays by ensuring provision of certain kinds of permits and permissions. Finally, the agreement should address, if possible, how the non-profit partner plans to build local capacity and how and when hiring of expats will be permitted.

6. **The management structure should be simple and clear, providing a full, long-term management mandate to the partner.**

This simple structure empowers the non-profit to bring significant funding and expertise to the PA in order to execute a clear vision for improvement of the PA. It also invests clear responsibility in one party to deliver results, and prevents blame shifting. The governance structure, in turn, ensures accountability by providing regular oversight of management's progress toward agreed-upon goals.

7. **The non-profit partner should have the mandate to select all management personnel, including the Park Manager.**

One of the main reasons for underperformance of PAs is that many wildlife authorities have become encumbered by incompetent, physically unable and corrupt staff, who they are unable to dismiss—either due to restrictive laws or other difficulties. However, the success of any park fundamentally requires skilled, motivated, committed personnel.

As a result, it is absolutely critical that a delegated model provide the non-profit partner the ability to select the management team on the ground, including the Park Manager and the rangers who perform law enforcement. It is also important that the non-profit have the ability to remove corrupt or non-performing staff as it deems necessary. All of this, of course, should be done in consultation with the government partner, whose views and inputs are extremely valuable.

In short, a key benefit of the delegated model is its ability to build skilled and motivated teams, as a result of flexible arrangements, decentralization, institutional culture, funding, and emphasis on selection and training. Where the delegated model is most successful, this is viewed as a benefit and opportunity by the host country, rather than a difficulty and a hindrance.

8. **The governance board should be composed of the key partners, while other stakeholders can and should be engaged in other forums.**

It is useful to have a board composed of several members from both partners. This allows the non-profit to nominate not only its own leaders to the governing body, but also prominent local citizens who can help support the partnership and its goals. It also allows the government to have representation at both a central and provincial level, if it desires. If there are communities living inside the boundaries of the park, it may also be wise to have community representatives on the board, depending on the particular situation and context.

However, it is also advised that small and focused governing bodies are often more effective (and less costly) than large and unwieldy ones, and that other forums may be created to engage a broader array of stakeholders.

9. Allowing the non-profit to nominate a majority of the board helps insulate the joint entity from political interference and enhances accountability.

Having a non-profit majority on the board creates separation between the entity running the park and the government, and so creates independence. It also empowers the non-profit to achieve the vision laid out in the management plan.

At the same, government buy-in is nonetheless secured through agreement to the long-term management plan, which it is the goal of the partnership to implement. Further, government representation on the board ensures oversight and continued influence (e.g., through the approval of annual work plans and budgets). It is critical that this board strive to work collaboratively and through consensus, rather than relying on voting. Frequent voting can lead to a breakdown in the relationship and is a sign that the partners are not on the same page.

For similar reasons, the Chairman should be appointed (or at least mutually approved) by the non-profit. Ideally, the Chairman should be an independent person (rather than someone in the current political hierarchy) with management experience. Persons nominated to the governing board should be people committed to the shared vision embodied in the management plan, who understand the partnership model, and who are passionate about conservation.

10. The head of law enforcement, as well as all law enforcement staff, should be seconded from government.

The head of law enforcement should be seconded from government. Even though this person reports to the Park Manager, who is selected by the non-profit partner and employed by the joint entity, this structure maintains the role of law enforcement as a central government function.

Law enforcement officers should also be seconded from government, even though their salaries may be reimbursed by the non-profit. This ensures they maintain the right to carry weapons and make arrests, and also ensures some level of indemnification in the event of physical altercations with people undertaking illegal activities in the area.

Disciplinary proceedings for law enforcement staff should be joint, though the Park Manager should have the right to have anyone who is not performing removed from the project. This flexibility to remove non-performing personnel should not be encumbered by lengthy procedures or requirements. As discussed above, since the non-profit is undertaking responsibility for management and for delivering results, it must have the ability to select the team working in the PA and to remove non-performing personnel.

11. Revenue should be 'ring-fenced' and reinvested in the park.

Ring-fencing revenue at the park level provides several benefits. First, it creates positive incentives for park personnel, who see the fruits of their labor. If revenue is not reinvested in the park, any additional economic activity risks being seen as a "headache and disincentive" (non-profit respondent). Second, reinvesting park revenues creates a basis for long-term financial sustainability. Third, reinvesting revenues is attractive to donors, who generally prefer to invest money where they see a path to sustainability, as opposed to putting money into a system with "leakage."

12. The non-profit partner should train and place as many nationals as possible in key positions.

While the delegated model may sometimes be viewed with skepticism in terms of its ability to build local capacity, it has the ability to increase capacity in important ways. First, the delegated model has potential to build capacity in terms of putting in place governance structures and accountability systems. Second, in terms of training individuals, the partners usually commit to employing as many nationals as possible, while employing expats where necessary and with a plan to train nationals for those positions over time. This ensures a sense of national ownership of the project and pride in the successes of the park.

At the same time, it is important to give the non-profit the flexibility to bring in external consultants and experts when necessary. It is frequently true that working alongside someone with significant experience and skills is a much quicker and more effective way of building capacity than simply providing theoretical or classroom training to someone who does not otherwise have the requisite experience. In all cases, the partners should clarify in the legal agreement the processes and circumstances under which expats may be hired.

13. Even though management is delegated, the relationship is critical and should be nurtured at all levels.

Interviewees stressed that trust takes time and effort to develop, and that the relationship between the partners should be cultivated at all levels—from a high political level (e.g., President, Minister, and other key government officials who welcome the partner's involvement) to the regional and local levels. In order to strengthen these relationships, the partners should ensure that stakeholders at all levels understand the model and feel included; this helps to dispel misperceptions and build trust. Regular interaction and demonstrating positive achievements over time also helps to build these relationships. On the other hand, frequent changes in government personnel (e.g., at the Ministerial level) can make it difficult to build long-term relationships.

1.5.2 Co-Management

1. A single employer and park manager helps create a unified team.

An integrated model is often more effective, both because its institutional independence creates autonomy and flexibility, and because its simplified management structure creates clarity and unity. Interviewees noted that having a single employer and a single park manager created better alignment than having a dual management team (with one lead drawn from each partner) and parallel staffing. While dual leadership can work, it can also break down if the two senior managers do not have a strong working relationship. Dual leadership can also lead to slower decision-making due to the need for consensus, and create confusion, tension, distrust and competition (especially between people who come from different organizational cultures). It also can reduce accountability by leading to blame shifting.

The park manager should be someone has the trust of both partners, who can work within the local culture and government bureaucracy and also within the more business-like, international culture of the non-profit partner. In terms of staffing, it is useful to have a unified human resources policy for all staff in order to prevent disparities that can create resentment.

2. **Getting the board composition right is essential.**

An equal number of board members promotes the feeling of a shared enterprise. It is critical that the individuals nominated to the board, whether they are selected by the government or the non-profit partner, be persons who are committed to the vision of the partnership and the goals that it has set (e.g., an improved PA that functions well, that is as close as possible to financial sustainability, and that has a positive relationship with local communities). If board members are susceptible to political concerns, short-term thinking, or are overly focused on the influx of money as opposed to the generation of real, on-the-ground outcomes, the partnership will have a hard time achieving its goals, and the effort invested in creating such an elaborate partnership risks being wasted.

3. **Clarity on roles and responsibilities is essential and should be spelled out in the legal agreement.**

While clarity of roles and responsibilities is important across all models, it is especially critical in the bilateral co-management model. This is because this model hinges on a positive working relationship between the park manager and the non-profit project manager. If there is a lack of clarity on their respective roles and responsibilities, the relationship can quickly break down. Such a breakdown can effectively cause the partnership to grind to a halt.

The legal agreement should detail decision-making processes and mechanisms with respect to all of the various aspects of park management (including, finances and revenues, law enforcement, human resources, tourism, ecological management, and community outreach), so as to avoid misunderstandings and conflict. Broad statements that the parties will collaborate, consult, and share information with each other are, by themselves, insufficient.

In addition, spelling out the commitments of each party can be useful in countries where government bureaucracies can otherwise cause slowdowns, and where government representatives may be reluctant to make decisions without clear instruction and mandate. A detailed agreement that is signed off at a high level can significantly help smooth the way later when permissions, approvals, and other government assistance is required.

4. **The legal agreement should be for a long term (at least 20 years).**

The same reasons for having a long-term agreement in the delegated model apply to the co-management model. That is, long-term agreements assist with: (1) achieving goals that can only be accomplished through long-term management planning; (2) attracting quality personnel; and (3) attracting donor and tourism investment. Such a term also suggests a realistic understanding of the challenges facing many PAs and the effort necessary to achieve success.

5. **In the bilateral structure, government should liaise with the non-profit in selecting the warden.**

Because the relationship between the warden and non-profit manager is critical to the success of this model, the government should liaise with the non-profit in selecting the warden. If the non-

profit does not have a say in the selection of the warden, and the warden and non-profit manager are not aligned, the partnership is unlikely to be effective. On the non-profit side, the project leader should be someone who is skilled in consensus building and collaboration, rather than a 'command and control'-type leader.

6. **In the bilateral structure, communication between partners at all levels is critical.**

Since relationships are critical to the success of this model, there should be multiple points of contact between the two institutions—at a governance level, a management level, and a middle management level. According to interviewees, problems that arise are frequently due to a lack of communication; as a result, ensuring multiple, regular points of contact can help avoid problems related to lack of communication or misunderstanding, and instead enhance cooperation between the partners.

7. **A critical component of the co-management model is shared authority in hiring and firing.**

As in all models, competent, motivated staff is critical to the success of the PA. In the co-management model, the government and non-profit usually share hiring and firing authority. Without this formal say in human resources decision-making, there is much less incentive for a partner to invest significant funds and undertake the additional reputational risk associated with a co-management partnership.

8. **Revenue retention is important to attract donors and promote sustainability.**

Like the delegated model, the co-management model tends to involve the investment of significant amounts of donor and non-profit partner funding in the PA. Without revenue retention, there is less incentive for this level of investment.

9. **Clear communication with stakeholders about the model is critical.**

Spending time to communicate with stakeholders helps create an understanding of the model and foster pride in the park. It can also help dispel misperceptions about the partnership. As one interviewee expressed: "It is vital that local communities and the public know of the intervention and take pride in the restoration of their own heritage. In addition, the support from the international community is vital in mobilizing additional finances and other assistance." Thus, communication with stakeholder at all levels—local, regional, national and international—about the partnership is important.

1.5.3 Financial-Technical Support

1. **Communication and willingness to collaborate is essential.**

A long-term presence by the non-profit can help build trust, acceptance and understanding. Trust and teamwork are developed over time, through daily interaction, sharing of ideas, and communication. As a result, communication and coordination should be facilitated at all levels, from the local to the national level, as many problems are the result of miscommunication or lack of communication. If possible, it is useful to get both local and central government on board and engaged from day one of the partnership.

2. **Partners should engage with an open mind.**

One frequent mistake of non-profits and donors is that they arrive with a fixed idea or plan of how they would like to engage. Interviewees recommended that partners arrive with an open mind, that they listen to and engage with local authorities, and that they tailor the project to the needs and context of the particular PA.

3. **Establish written agreements with clarity on roles and responsibilities.**

The often loose and informal nature of financial-technical support partnerships can limit investment. Clarity allows partners to work toward goals with confidence and prevents misunderstandings and conflicts that can occur over time and with inevitable staff turnover.

4. **Encourage long-term partnerships and support.**

While these partnerships tend to involve shorter-term arrangements of 3-5 years (which are frequently renewed, often many times over), a longer-term agreement of 10 years is often beneficial, even in cases where the commitments are not fully funded from the outset. This gives confidence to donors that the partners are committed to real, lasting improvements. It also sets a realistic benchmark, since achieving a meaningful impact and building local capacity generally requires longer than a few years. Long-term funding enables long-term planning. Partners should, where possible, set clear, achievable goals, and not expect to achieve success too quickly; if the non-profit pulls out too soon, progress risks being lost. Experience shows that large aid projects that operate for 2-3 years and then disappear frequently fail to achieve lasting improvements.

5. **Capacity building should be a significant focus of the partnership.**

Capacity building builds confidence in the partnership. Supplying the correct material for field operations and training can significantly help increase morale and motivate park staff. Involving the government in all non-profit programs is also an important way to build the relationship. Hiring primarily nationals, especially in key positions of leadership, encourages local 'ownership' of the park and of the project. The partners should factor in sustainability at the beginning of the program and develop a clear, detailed, concrete plan for how it will be achieved. Otherwise, when the partner leaves, there may be a gap that the government cannot fulfil, and the situation is likely to revert to its previous status.

1.5.4 General lessons for all models

From the above discussion it should be clear that 'intangibles'—such as having a strong, positive relationship—are important across all three models. These intangibles include a feeling of buy-in and true partnership, and a shared vision of what the partners want to achieve.

Nonetheless, the structural elements of the models can help promote these more intangible factors in important ways. Examples include: (1) having a clear and detailed agreement outlining each partner's roles and responsibilities; (2) reaching agreement, from the outset, on a long-term management plan that embodies the partners' shared vision and that is arrived at in a collaborative fashion; (3) having a long-term commitment supported by long-term funding, which is especially important in areas lacking governance and management capacity; and (4) monitoring key metrics of success that give partners clarity and transparency regarding what the partnership has accomplished, and allows for periodic review of performance and adjustments where necessary.

It is also critically important that the government, where possible, identifies experienced and competent partners who have the funding required to truly make a difference in the PA. Otherwise,

long-term engagements with inexperienced partners with inadequate funding can prevent engagement with better-positioned partners and result in disappointing outcomes. Conversely, the role of government in all of these partnerships is absolutely critical to success, even in the most delegated models.

Table 1/8: Co-Management Recommendations

Theme	Key recommendations
Legal agreement	1) Establish long-term legal agreements to build confidence among partners, donors, and potential investors. 2) Ensure legal agreement clearly defines partner roles and responsibilities, sets out a clear process for decision-making, and outlines staffing arrangements. A clear understanding from the outset prevents power struggles. It is also helpful if there is staff turnover, since there is an agreement that clearly spells out how the relationship works. 3) Avoid overly-cumbersome governance structures that may inhibit effective and efficient functioning on the ground.
Financial arrangements	1) Clearly and legally define the financial responsibilities of the partners, both in terms of revenue generation and expenditure. 2) Partners should strive for maximum financial transparency regarding income, budgets and expenditure. Fundraising can be the source of significant mistrust and friction if it is not undertaken transparently and with the involvement and blessing of all partners. 3) Particularly in the case of delegated and co-management models, mechanisms should be set up to retain revenues generated from tourism (or other activities) at the PA level. Such mechanisms increase scope for financial sustainability, reduce the financial liability of the non-profit partner and provide a degree of flexibility and rapidity in the allocation of the PA's revenues that may not be the case where the state collects revenues centrally.
Governance	1) Decision-making mechanisms should be clearly spelt out in the legal agreement established for the collaboration. 2) The governing body should have a good balance of stakeholders to ensure that relevant interests are appropriately represented, while keeping in mind that small and focused governing bodies are often more effective (and less costly) than large and unwieldy ones, and that there are other mechanisms for collaboration with stakeholders who do not have formal governance authority. 3) In co- and delegated management models especially, sufficient delegation of decision-making authority should be made to the management team to avoid frustration with delays and to allow for adaptable management. 4) Formal mechanisms for conflict resolution should be established in the event of disagreement and be embedded in the legal agreement. 5) All members of the governing body should be regularly informed of the overall aims of the collaboration and the progress made toward those goals.
Management	1) A general management plan and/or business plan should be collaboratively written and agreed to by both partners as a pre-requisite. Some parks also use jointly agreed annual operations plans to guide day-to-day management activities. The plan should be approved by the relevant government authority, therefore forming a legal management mandate. 2) Long-term plans provide an important basis for identifying a shared vision for the management of the area in question, and for defining strategies to achieve that vision. That shared vision of what the parties wish to achieve through the partnership should be the paramount driving force for all involved. 3) Management systems, including policies, procedures, standard operating procedures and, where relevant, codes of conduct should be jointly developed and agreed by both partners. This provides a jointly agreed framework for the management team to work within.

Table 1/8: Co-Management Recommendations

Theme	Key recommendations
Community engagement	Partners should: 1) Engage communities from the development stages of the partnership. Manage expectations with clear communication. Raising expectations unrealistically can create tension and do more harm than good. In particular, this includes: (a) being clear about the role of the community in decision-making; (b) being clear that the park is not replacing the state and its responsibility toward communities; (c) dispelling the myth that the PA can take care of all of the community's needs. 2) Engage communities to understand their potential role in contributing to PA management and to understand their needs before embarking on outreach programs. Consider the principal land uses outside the park that place the greatest pressures on the PA from the outside and try to improve those livelihoods as a way of addressing both community engagement and park threats. Attempt, where possible, to invest in education and enterprise development rather than simple aid projects that can create a culture of dependency on the PA management agency. 3) Involve communities in the development of management plans for the PA. 4) Forums for regular two-way communication can give communities a sense of ownership and build trust. 5) Employ staff with specialized community-related skills and/or engage partner organizations that specialize in community work. 6) Engage with local state agencies that have a mandate for community development.
Leadership and staffing	1) Clearly and legally define the process for, and the non-profit's role in, hiring and firing of staff to ensure that only high quality and motivated staff are employed and that there is a clear process for dealing with non-performing staff. 2) Clearly and legally define roles, responsibilities, hierarchy, mode of interaction and decision-making protocols of staff. This is especially important for co-management models where both partners are likely to want to select and employ PA leadership and staff. 3) Both partners are advised to pay close attention to choosing staff who are able to collaborate effectively. 4) To reduce conflict and jealousy, conditions of service of staff working for either partner should as far as possible be aligned. 5) To support effective collaboration, it is also important that shared performance management systems are put into place. 6) Capacity building should be planned for from the outset of the partnership. Local capacity building is critical for long-term sustainability. Such capacity building includes training and mentorship but should also consider broader goals such as creating incentives, systems and structures that promote a motivated and committed culture of work and accountability.
Interpersonal relationships	Partners should: 1) Work together to develop and implement planning frameworks that help ensure that all partners work towards a shared vision. 2) Ensure that agreements are long-term (especially for co- and delegated management models). 3) Ensure competent leadership. 4) Create effective and well-structured systems for communication. Specify how communication and information exchange should take place. Constant reporting, collaboration, and feedback is necessary to avoid the miscommunications that can disrupt relationships. 5) Ensure effective monitoring of progress. Clear and measurable performance indicators reduce the risk of conflict or confusion about what each partner is contributing to the relationship. 6) External communications should credit the 'partnership' with success. 7) Build a constituency outside the park, at all levels, that can help when needed.

Source: adapted from Baghai et al. 2018.

CHAPTER II: PARTNERSHIP MODELS FOR CONSERVATION AREAS MANAGEMENT: AN ASSESSMENT OF COLLABORATIVE MANAGEMENT MODELS IN MOZAMBIQUE

2.1. Introduction

This chapter:

1. Provides an overview of the current and past partnerships in Mozambique, including:
    a. A description of each model (including its institutional structure and the division of roles and responsibilities between the partners);
    b. An evaluation of its effectiveness (including key successes and failures) in terms of ecological, economic, and social indicators; and
    c. Identifying the underlying reasons for its successes and failures.

2. Compares the performance of partnerships across a series of indicators—including financial investment, conservation impact, and community development.

3. Identifies and discusses key conclusions that can be drawn based on the above analysis.

In particular, ***we highlight the following key points***:

1. This chapter provides an overview of the most significant CA partnerships in Mozambique over the last 20 years and evaluates and compares their performance based on information gathered from available documents, interviews of stakeholders with direct experience, and short site visits to three CAs: Gorongosa National Park, Limpopo National Park and Niassa National Reserve. Greater emphasis is placed on the three CAs chosen for site visits, both because they are important reserves in Mozambique with longstanding partnerships and because they represent the closest examples in the country to the three main regional models identified in the regional review.

2. Our evaluation reveals that CAs with partnerships have performed better across all indicators than CAs solely under public management. Without partnerships, Mozambique's CAs tend to have extremely insufficient management budgets and staff numbers, very low densities of wildlife, little or no tourism, and no community programs. The support provided by partners and donors is thus a significant improvement on an otherwise bleak status quo.

3. Our evaluation further shows that devolved partnerships, such as those in São Sebastião and Gorongosa, have far and away proved the most successful—in terms of financial investment, conservation success, and community benefits. Niassa's 'conservation-oriented' concessions, Mariri and Chiulexi—which are essentially fully delegated partnerships—have also performed well. Likewise, the 2000-2012 partnership in Niassa under SGDRN achieved significant initial successes. By contrast, less devolved models have produced questionable results. CAs such as Niassa and Gilé (which have a bilateral co-management model) and Limpopo and Banhine (which have financial-technical support models) are facing severe difficulties which the current level and structure of management support have so far proven inadequate to address. Maputo Special Reserve ('MSR') is a unique case, as it has received significant and consistent government (and donor) support due to its proximity to the capital. As a result, it has performed much better than other financial-technical support models, though it still has ample room for improvement.

4. Overall, the state of CAs in Mozambique is extremely worrisome. Mozambique's CAs are generally faring poorly compared to other countries in the region (Lindsey et al., 2017). With a few notable exceptions, Mozambique's CAs have very low densities of wildlife and many have declining population trends (Table 2/1). Without a strong wildlife product, they fail to attract the tourism or revenues of their peers (WTTC, 2015; Rylance, 2014).

Table 2/1. Current status of terrestrial wildlife in studied CAs—as measured by density and key population trends.

CA	Wildlife biomass as a % of carrying capacity	Wildlife population trends
Banhine	10.6%	Wildlife at very low densities and probably stable. Very low numbers of elephants, lions and leopards.
Gilé	22.2%	Wildlife numbers believed to be stable, and elephants may be increasing. Lions are absent. Leopards are rare.
Gorongosa	30.7%	Wildlife populations increasing strongly, including elephants and lions. Leopard numbers appear to remain depressed, but reintroductions are planned.
Limpopo	16.8%	Wildlife populations are declining in spite of significant reintroductions. Of particular concern has been the recent decline in lions due to the targeted poaching for their body parts.
Magoe	No data	Wildlife populations at low densities and declining. Magoe lacks any donor support.
Marromeu	10.3%	Wildlife populations are generally increasing, but still far below carrying capacity. Elephants are likely declining, lions are rare and data deficient, and leopards are likely far below carrying capacity.
MSR	22.1%	Wildlife numbers, including elephants, appear to be increasing; the reserve has benefited from significant translocations. Lions are absent, and no record on leopards perhaps are at extremely low densities.
Niassa	62.0%	Wildlife populations increased up to 2009 but are now declining. Elephant numbers are crashing. Niassa contains the country's largest lion population, but that is now believed to be declining too.
Quirimbas	2.1%	Terrestrial wildlife populations declining, elephant numbers crashing, lion and leopard numbers declining. PA now lacking significant donor support.
São Sebastião	No data	Wildlife numbers increasing and occur at high densities. Elephants and lions are absent.
Zinave	2.9%	Wildlife populations at very low densities but increasing, particularly with large translocations. Very low numbers of elephants. Lions are absent, and leopard are rare.

5. The presence of human populations inside almost all CAs represents a particular challenge. Mozambique is unusual in Southern Africa in that human settlement and agriculture are permitted in CAs. There is clear evidence that human settlement in CAs is associated with compromised conservation outcomes in Africa, and with more severe threats to wildlife (Lindsey et al., 2017). A key additional challenge is the lack of effective restrictions on

ongoing immigration into wildlife areas. Such immigration, coupled with natural population growth, represents an existential threat to some CAs if it is not addressed.

6. The primary threats to wildlife in Mozambique's CAs include: bushmeat poaching, poaching of wildlife for body parts such as ivory and increasingly lion teeth and claws, human encroachment, illegal logging and illegal mining. This situation is exacerbated by the fact that poachers are often not prosecuted or are given weak punishments such as fines, which frequently go uncollected (*see, e.g.,* Valoi, 2014). This situation is further complicated by the alleged involvement of officials in the bushmeat trade and other illegal activities, such as illegal mining and logging. This situation must change if the threat to wildlife is to be tackled effectively and Mozambique's CAs are to be effective. Bushmeat poaching is particularly prevalent and severe and requires greater attention.

7. In some cases, the management of CAs is ineffective due to a lack of sufficient, stable, and reliable financing. Some CAs receive little or no donor support (e.g., Banhine National Park, Magoe National Park, Marromeu National Reserve, Chimanimani National Reserve). As a result, management is nominal and inadequate to tackle threats. Several other CAs benefit from partner and donor support, but nonetheless do not have sufficient budgets to allow for effective management of the whole CA. For example, in Limpopo, management is focused on the area of land adjacent to Kruger, leaving most of the remainder of its area vulnerable to poachers. In Zinave, management is focused on a 60 km^2-fenced sanctuary, although the new partnership with Peace Parks Foundation ('PPF') and the influx of investment it brings is aimed at allowing management to expand its reach so that a greater area of the park can ultimately thrive.

8. In Niassa, which has a bilateral co-management model, there are clear challenges associated with the partnership arrangement. WCS currently lacks a valid partnership agreement, which makes operating in the reserve extremely difficult. The relationship of WCS with ANAC is undermined by a lack of clarity on respective roles, which compounds the already difficult task posed by the vastness of the reserve, the inadequacy of available funding for management and the presence of 40,000-50,000 people in the area. Solidifying and clarifying the partnership agreement is, therefore, essential. In addition, it is also critical to ensure a management presence in vacant concessions. Finally, ensuring that the local government takes threats seriously—especially threats posed by poaching (for bushmeat, ivory, and lion parts), illegal logging and mining, and the pressures created by a growing human population—is an essential pre-requisite to success. Without urgent and decisive action to restrict human immigration and the spatial extent and location of settlement within the reserve, it is highly unlikely that Niassa will continue to function as a single ecological entity.

9. Gorongosa and São Sebastião represent clear highlights in Mozambique's CA network. As such, they illustrate how rapidly Mozambique's other CAs could recover under the right conditions. Both Gorongosa and São Sebastião have seen impressive natural increases in wildlife numbers and have engaged surrounding communities in a meaningful way. In terms of total investment, Gorongosa and São Sebastião —both long-term, devolved models—have generated by far the largest overall investments, the largest investments per square kilometer, and have the greatest multiplier effect of donor funding compared to government

funding (Figures 2/1 and 2/2). In general, bilateral co-management and financial-technical support projects have tended to generate less external funding.

10. The reason for the superior performance of devolved models can be distilled into four key characteristics. They (i) attract and invest high levels of funding (and provide for revenue retention at the park level), and (ii) are based on a long-term vision and commitment to the improvement of both the CA and its relationship with communities. They also (iii) provide a clear mandate and high level of autonomy, which creates accountability and avoids confusion and conflict in on-the-ground management. Finally, devolution allows partners to (iv) attract and hire highly competent staff—both in management as well as in law enforcement—and to effectively discipline and dismiss non-performing or corrupt staff. These four attributes are particularly critical to success in contexts of low funding, insufficient management capacity, and weak governance. These strengths of devolved models represent an adaptation to the weaknesses of other kinds of partnerships, particularly the bilateral co-management and financial-technical support models.

The two figures below highlight the greater levels of funding attracted by devolved partnerships. The first figure illustrates the total funding for each partnership since its inception. The x-axis shows the name of the CA, the partner, and the duration of the partnership (in years).

Figure 2/1. Total and annual funding of partnerships.

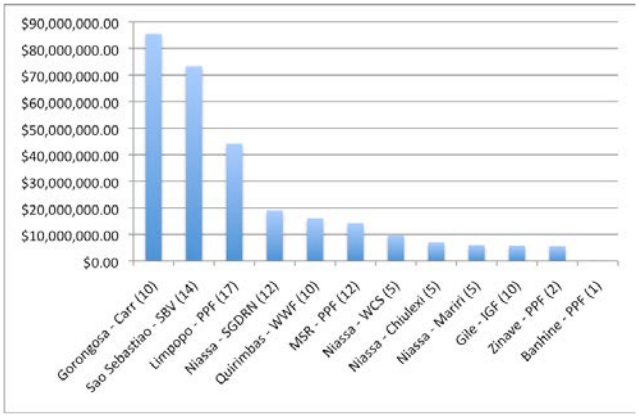
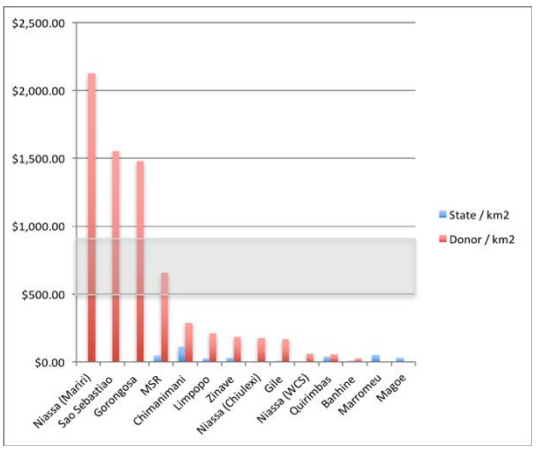


Figure 2/2 shows the annual operating budget for each partnership in 2017 (or 2016 if 2017 numbers were unavailable). A grey band denotes the recommended minimum budget.

Figure 2/2. Annual operating budget for each partnership (2017).



11. In conclusion, Mozambique's CA network is struggling and there is a need for urgent interventions to prevent these trends from continuing. However, there are also some promising success stories—especially relating to devolved partnerships—that provide real hope and a clear opportunity for a larger portion of Mozambique's CAs to function effectively and provide long-term, sustainable benefits to local communities and the overall economy. In order to move in this direction, key steps required include:
    a. Attracting partners for CAs that currently lack donor support (especially partners who are willing and able to make long-term commitments).
    b. Improving the partnership agreements in CAs that have partners:
        i. To ensure that roles are clarified and adapted to the needs of the CA and to the realities on the ground.
        ii. To allow CAs to retain critical revenues for direct reinvestment.
        iii. To ensure that partnership agreements are concluded promptly—since the lack of a proper agreement creates insecurity, undermines partner authority, and scares off donors, exacerbating problems on the ground rather than solving them.
    c. Introducing steps to ensure that CA staff are:
        i. Carefully screened to ensure quality.
        ii. Flexibly hired so as to allow for the rapid dismissal of inept or corrupt staff.
    d. Introducing monitoring and evaluation of partnerships to ensure that where performance is lacking, answers are sought as to why and management is adapted accordingly.
    e. Providing strong political support to partners by:
        i. Ensuring that all levels and sectors of government take threats seriously, including poaching (bushmeat, ivory, and lion parts), illegal mining and illegal logging.
        ii. Tackling the issue of human settlement in CAs to ensure that limits on immigration are enforced and that CAs are zoned to ensure that settlement is not expanded.
        iii. Clarifying the relationship between CAs and district governments to ensure that CA administrators have clear authority within CA boundaries and that development inconsistent with conservation goals is prohibited.
        iv. Helping to attract elevated levels of funding to CAs that lack sufficient resources.
        v. Facilitating partnerships by liaising with other sectors of government—e.g., to ensure speedy approval of NGO registrations, work permits, flight permissions, import of equipment, return of CA revenues, etc.

If these steps are taken, there is every reason to believe that Mozambique's CAs can thrive and become a source of well-being and pride for local communities and the country as a whole.

2.2. Overview of Mozambique's Partnerships

In this section, we provide an overview—or 'snapshot'—of each partnership. This includes: a general description of the partnership model and its division of roles and responsibilities, some insights regarding its key successes and failures in terms of ecological, economic, and social

performance and the reasons underlying its performance. The partnerships evaluated are listed in Table 2/2.[6]

Table 2/2: List of Partnerships Evaluated

Park	Partner	Years
Banhine	PPF	2017 – 2020
Gilé	IGF	2007 – present
Gorongosa	Carr Foundation / GRP	2008 – present
Limpopo	PPF	2001 – present
MSR	PPF	2006 – 2018
Niassa	SGDRN	2000 – 2012
Niassa	WCS	2012 – present
Quirimbas	WWF	2005 – 2015
São Sebastião	SBV	2000 – present
Zinave	PPF	2015 – present

2.2.1 Gorongosa / Carr Foundation / Gorongosa Restoration Project

Proclaimed in 1960, Gorongosa National Park stretches 4086km^2 at the terminus of the Great Rift Valley. Historically, it has been regarded as Mozambique's flagship national park. However, wildlife populations were decimated during the civil war and Gorongosa still remains a hotspot for civil strife.

Since 2008, the park has been managed by a long-term public-private partnership between the government and the Gorongosa Restoration Project (a U.S. non-profit formed by the Carr Foundation). In 2016, the original 20-year agreement was extended for 25 years, with the approval of the Council of Ministers.

Key features of the Gorongosa model

The partnership between the Government of Mozambique and the Carr Foundation is defined by several key features. First and foremost, it is ***long-term***. This enables the partnership to take a long-term view of development of the park, capacity building, and strengthening relationships with local communities.

Second, it is a ***devolved and integrated form of co-management***. As a 'co-management', key aspects of governance and management decision-making are shared. An Oversight Committee, comprised of one representative of government and one representative of the Carr Foundation, provides strategic guidance and oversight. The Warden is jointly selected by the parties and leads a team of six Department Directors. Each partner appoints three directors, in collaboration with the other. The government appoints the Directors of Conservation Services (i.e., law enforcement),

[6] A couple partnerships were not included in the study, such as the work of Micaia Foundation in Chimanimani National Reserve (where Micaia Foundation supports community outreach and development) and Endangered Wildlife Trust in Bazaruto Archipelago National Park (where EWT supports dugong protection). While important initiatives, their limited, focused nature distinguishes them from the CMPs which support management of the park more broadly at a central level. Additionally, some CAs like Ponto do Ouro Partial Marine Reserve were not included in the study since they lack significant partnership support and were not identified by the Oversight Committee for study.

Community Relations, and Education and Training. The Carr Foundation appoints the Directors of Tourism Development, Operations and Infrastructure, and Scientific Services.

Although it is a kind of co-management, it is a highly devolved model. Day-to-day management is delegated to a single management entity—GRP—which has significant autonomy and flexibility on the ground, and which employs all park personnel. As such, there is a single HR and management structure, which creates a sense of unity and cohesion amongst the team working in the park. While GRP enjoys a high degree of autonomy and flexibility in day-to-day management, its goal is to implement and achieve the shared vision of the partners, which is embodied in the long-term partnership agreement and in a jointly agreed management plan.

Third, the model is defined by a ***significant and stable source of funding*** from a committed donor, who is passionate about both conservation and human development. This provides continuity and long-term stability, while enabling GRP to leverage funding from additional donors to extend the scope of its conservation and human development work. The model also requires ***retention and reinvestment of park revenues***. This is an exception to the standard procedure in other Mozambican national parks whereby revenues are remitted to government and only 80% is returned to the park—with 64% reinvested in the CA and 16% distributed to local communities. In the case of Gorongosa, revenues are retained at the park-level, with 20% directly dispersed to communities and the remaining 80% reinvested in the park.

Performance

Overall, Gorongosa has highly positive trends across all indicators, and the partnership's achievements in a short time are impressive and praiseworthy. Nonetheless, there is still a significant way to go in order to achieve the long-term vision of a thriving and sustainable park.

Ecological Performance

The civil war led to a catastrophic decline of wildlife populations in Gorongosa (Cummings et al., 1994). By 2000, the park had lost 99% of its buffalo and zebra populations, 97% of hippos, and 92% of elephants. "In 1998, there were still anti-personnel mines hanging under trees. There was literally nothing. One must understand that Gorongosa-Chitengo was one of the hottest contested areas in the war. 'The place where the dead come to meet the dead.'" (anonymous, pers. comm.).

Under the partnership, Gorongosa has seen a dramatic increase in wildlife numbers—from 15,000 large animals to over 78,000 (GRP, 2017). Large mammal biomass has reached 50% of pre-war estimates, and trends show continuing increase. Importantly, this is mostly natural growth, as fewer than 500 animals were reintroduced. "The waterbuck population has grown to what is probably the single largest one in Africa (more than 34,000 individuals). There are already more than 500 elephants (>20% recovery), nearly 800 sable antelope (>100% recovery) and 700 buffalo in the Park. The waterbuck and impala have nearly quadrupled since 2008. Sable antelope have nearly tripled and hippo numbers have nearly doubled. This recovery rate of wildlife populations is phenomenal. (Munthali & Macandza, 2015).

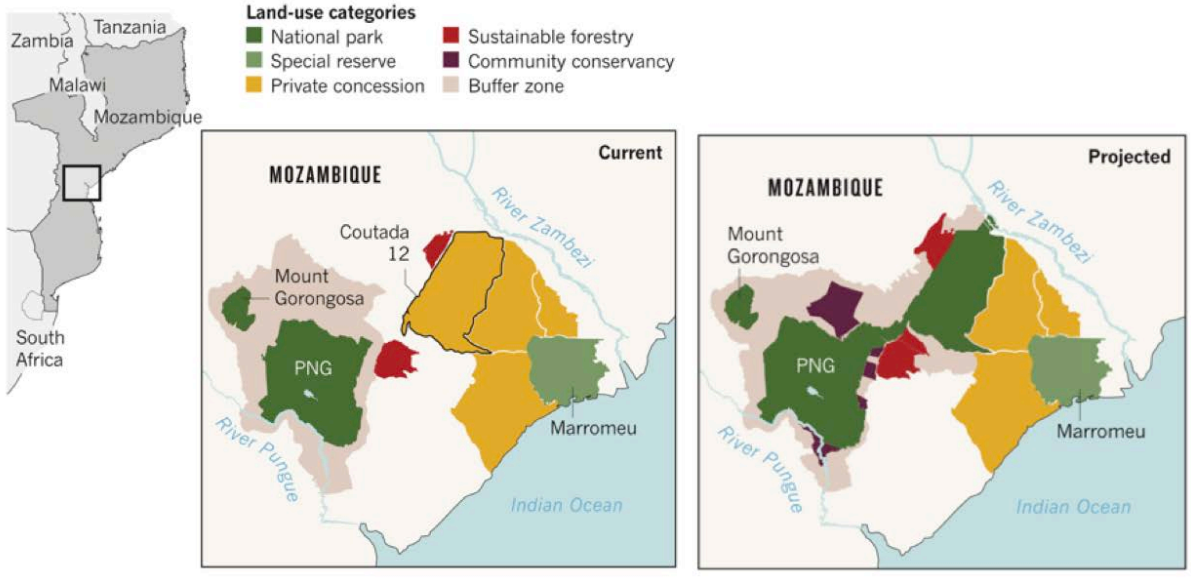
Table 2/3: Trend in wildlife populations of key mammal species in Gorongosa
(Source: GRP)

Wildlife species	1972 estimate	2000 estimate	Loss 1972 - 2000	2016 estimate	2016 estimate as % of historical levels
Buffalo	14 000	<100	>99%	>700	>5%
Elephant	2 500	<200	>92%	>500	>20%
Hippo	3 500	<100	>97%	>400	>15%
Waterbuck	3 500	<300	>91%	>45,000	>100%
Zebra	3 500	<20	>99%	<20	<1%
Blue wildebeest	6 500	<20	>99%	>350	>5%
Sable antelope	700	<100	>86%	>800	>100%
Lichtenstein hartebeest	800	<100	>88%	>500	>60%
Lion	200	?	?	> 60	> 40%

Gorongosa is one of the only CAs in Mozambique with growing populations of both elephants and lions, the latter of which now number over 80 individuals (P. Bouley, pers. comm.), and both of which are increasingly imperiled elsewhere in the country. The growth in herbivores is so significant that Gorongosa has become a source of animals to repopulate other CAs in Mozambique.

In 2010, the National Park was officially enlarged to include the top of Gorongosa Mountain (above 700 meters). Gorongosa now has the potential to double in size, as management seeks to incorporate Coutada 12 into the Park, creating a link all the way to Marromeu.

Figure 2/3. Current and potential future reach of Gorongosa National Park (Pringle, 2017)



While these successes are clearly impressive, challenges still remain. The successes described are largely concentrated in the southern portion of the park. According to an evaluation of the partnership conducted in 2015: "Effective patrolling is constrained by the terrain (only 30-40% of the park is accessible to park managers by vehicle), flooding conditions during the rainy season, and limited radio coverage" (Munthali & Macandza, 2015). (A GEF6 program is in the pipeline that will address these limitations by investing in infrastructure.)

Similarly, the recovery of some species has been significantly higher than others. Lions are currently the only large carnivore, and the park currently lacks leopards, hyaenas, and wild dogs (though there are plans to reintroduce these animals).[7]

Finally, due to the security situation, and the flare up of civil conflict in 2013-2014, there has been an increased influx of subsistence farmers in the northern sector of the park, which could not be effectively controlled by the project.

Economic Performance

The Carr Foundation has invested approximately $60 million into the restoration of Gorongosa, far exceeding the minimum annual contribution of $1.2 million required under the agreement (which as of 2018 would amount to a total of $12 million). It has also raised an additional $25 million from an array of other institutional and individual donors. As a result, yearly budgets have grown to nearly $7 million in 2017. At $1484/km^2, this is the highest CA management budget (per square kilometer) in the country, next to São Sebastião.

Despite setbacks due to civil conflict, tourism in Gorongosa is once again on the rise. The Park features a main tourism lodge, and a luxury, tented camp is under construction and scheduled to open in 2018.

However, revenues are currently only a small percent of annual operating expenditures. This illustrates that sustainability is a long-term goal that requires significant amounts of time to achieve, and expectations should be managed accordingly. The goal of financial sustainability is also constrained by external factors that depress tourism, such as political instability and the general difficulty of the business climate in Mozambique (U.S. Dept. of State, 2013). For example, in 2018 Mozambique ranks #138 on the World Bank's Ease of Doing Business list.

Social Performance

Thanks to the partnership with the Carr Foundation, CBNRM committees have been established in all 16 communities in the park's buffer zone. Investment in community outreach and human development has grown each year and is likely to hit $2 million in 2017. This funding has led to the establishment of significant programs in:

- Health—with over 150,000 people treated per year;
- Education—including the construction of a Community Education Center that hosts 4,000 local children every year, and the establishment of a Girls Education program that will reach 94 schools over the next three years; and
- Conservation Agriculture—which reaches 4,200 farmers in 4 districts.

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[7] A wild dog reintroduction is, for example, planned for April 2018.

These and other interventions have generated significant community support for the park and recognition of its impact.

With 200,000 people living in the buffer zone, there are still areas that have not yet been reached. There also continue to be misperceptions of the nature of the partnership (e.g., that the park has been 'sold' to foreigners who are improperly profiting from the country's natural resources). These misunderstandings have sometimes been manipulated for political purposes. It should be understood as a key role of the government partner to actively address these misunderstandings and communicate with stakeholders at all levels regarding the nature and purpose of this partnership.

Factors Impacting Performance

Three main reasons for the success in Gorongosa can be identified:

1. The model is well designed and effective.
2. There is a significant, long-term source of funding.
3. The strategy of investing in both conservation and communities has generated goodwill.

Model: Devolution provides a high level of autonomy that harnesses the quick decision-making, innovation, flexibility, efficiency and efficacy of the private sector. It allows GRP to attract a strong team of qualified people and to remove corrupt and non-performing personnel. Since all staff is employed by GRP, this creates a sense of cohesion and reduces the potential for any 'us' versus 'them' resentments. Finally, the long-term nature of the partnership allows the partner to develop and implement a long-term vision for the restoration of the park, and ultimately makes it more likely the partnership will have a lasting impact.

The Funding: At $1484/km^2, Gorongosa has the highest management budget of any national park in the country, a factor that undoubtedly contributes to its success. Notably, Gorongosa benefits from the support of a wealthy philanthropist who, compared to institutional donors, can provide significant, stable, flexible, and long-term support. The partnership's success, in turn, attracts additional donors (who wish to be associated with such success and who are confident that money donated will be well spent) and so allows GRP to multiply its impact.

The Strategy: GRP has demonstrated a strong commitment to both conservation and communities. It has a scout force of 183 men—or 1/22km^2—the highest in the country (Table 11). At the same time, GRP maintains a significant focus on communities, generating goodwill that was evident in interviews.

2.2.2 Niassa / SGDRN

At 42,000km^2, Niassa represents 36% of Mozambique's CA estate and 51% of its terrestrial parks and reserves. The reserve is the size of Switzerland. Nearly two whole districts (Mecula and Mavago) are located within Niassa, as well as a percentage of a further seven. To facilitate management of such a vast area, Niassa has been divided into 17 blocks, most of which are tendered out as concessions. In short, "Niassa is a world. Gorongosa is one block."

This scale makes Niassa part of an elite and increasingly rare group of only seven 'mega-protected areas' in sub-Saharan Africa, with huge conservation significance continentally and globally. Niassa is a highly important landscape for the conservation of carnivores—one of the five most important areas

for lion and wild dog on the continent—and supports the largest concentrations of wildlife remaining in Mozambique—including 800-1000 lions, 350 African wild dogs, the largest population of sable, and over 50% of the country's elephant population (as of 2016, though, the elephant population is rapidly shrinking and under extreme threat).

Niassa's location, size and remoteness are both its greatest strength and challenge. What makes Niassa so precious from a conservation perspective is also what makes it extremely difficult to manage. As Mozambique emerged from civil war, the government recognized that, with so many other pressing priorities, it had neither the staff nor the funds to manage Niassa. As a result, it entered into the first public-private partnership for management of a CA in Mozambique.

In 2002, the Sociedade para Gestão e Desenvolvimento da Reserva do Niassa (SGDRN) was created and formally approved by the Council of Ministers as a private-public partnership between the State (51% share) and Investimentos Niassa, Ltd (49% share), a private sector entity comprised of individual Mozambicans. SGDRN was awarded the rights to manage Niassa by Council of Ministers Decree No. 81/99. This was formalized in a 10-year management rights lease agreement signed with the Ministry of Tourism in 2002, which expired in 2012.

Key features of the SGDRN model

The SGDRN model was characterized by **devolved management**, which gave management significant autonomy independent from the traditional government bureaucracy. At a governance level, a Board of Directors was appointed to oversee management and approve annual budgets and work plans. A majority of board members were appointed by government, as prescribed by SGDRN's statutes and consistent with government's majority shareholding. However, day-to-day management decision-making was led by the Executive Director of SGDRN and the warden, who reported to the Executive Director. The warden was selected by the Executive Director (through a tender process) and appointed by government. All personnel, including the warden, were employed by SGDRN.

Another critical feature of the model was SGDRN's **authority to tender concessions** for hunting and photographic tourism. This served both as a way to raise revenues to manage the reserve *and* as a means to share the responsibility of management of such a vast area with operators.

The third major feature of the SGDRN model was the **retention and reinvestment of revenues** (with 20% distribution to local communities). These revenues were critical to the operation and management of the reserve by SGDRN.

Performance

Overall, the SGDRN model was a unique and innovative public-private partnership—and the first of its kind in Mozambique. It paved the way for future partnerships, such as the one in Gorongosa, but stands alone as a uniquely 100% Mozambican initiative. Perhaps its greatest accomplishment was that SGDRN created the foundation for the survival and management of Niassa, a fact which should not be taken for granted.

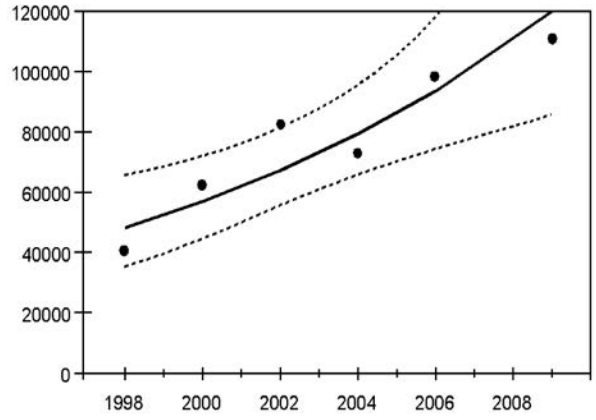
Ecological Performance

The most fundamental achievement of SGDRN was that Niassa survived. After the war, Niassa was 42,000km^2 without management or funding. "If SGDRN hadn't been there, Niassa Reserve may not

exist today," observed one respondent. Instead, Niassa became internationally recognized as a CA of prime conservation importance.

SGDRN established the reserve's infrastructure and administration. SGDRN also established the concession model that exists today, zoning the reserve based on biodiversity and socio-economic studies, and introducing a rigorous and transparent tender process through which it allocated 12 of 17 management units. Numerous interviewees pointed out that SGDRN implemented this concession system skillfully—working in close coordination with operators, building strong relationships and exercising keen oversight. It also implemented a robust system of trophy monitoring and hunting regulations aimed at sustainably managing wildlife. This concession model improved the presence of management across the reserve, leading to improved conservation outcomes. Under SGDRN, wildlife populations—including elephant, lion, and key ungulate species—increased until 2009.

Figure 2/4. Combined wildlife trends in Niassa under SGDRN
(SGDRN, 2010)



However, towards the end of the partnership (which expired in 2012), elephant poaching spiked and SGDRN struggled to combat the increased threat. At the time, SGDRN was losing political support, human-wildlife conflict ('HWC') was becoming increasingly politicized throughout Mozambique, and SGDRN's funding was severely limited. Its insecurity of tenure in its final years made fundraising nearly impossible. Thus, a variety of social, political, and economic factors converged, making it extremely challenging for SGDRN to deal with the poaching crisis and ultimately leading to the end of the partnership entirely.

Economic Performance

Despite considerable challenges for business development in Mozambique, and especially in northern Mozambique, SGDRN succeeded in generating significant tourism investments. It harnessed $14 million in private sector investment, in addition to its own $5 million investment in Niassa (SGDRN, 2010). Revenues increased from $15,000 to nearly $700,000 (Rodrigues & Booth, 2012).

However, SGDRN faced fundraising challenges throughout its existence. Given the limitations in Mozambican law, which unfortunately does not provide for non-profit company status, and the practical difficulties of creating a foundation, SGDRN was created as a for-profit company, even

though its statutes specified that it was to operate on a non-profit basis. This made it virtually impossible for SGDRN to receive major institutional funding and complicated the organization's tax status.

Social Performance

The SGDRN model achieved several successes, including:

- The creation of 800 permanent jobs (including private sector tourism);
- Significant increases in revenues, of which 20% was distributed to local communities;
- The creation of community hunting quotas, for cultural and traditional ceremonies; and
- The implementation of HWC measures (including electric fencing for numerous villages and the creation of a special response team to deal with conflicts).

However, SGDRN did not have a structured, coherent community program, nor did it have a clear strategy for regulating the spreading settlement and activities of communities in the reserve. Proposals were put forth to address these issues towards the end of SGDRN's tenure (SGDRN, 2010), but were ultimately not implemented as the government decided not to renew its agreement with SGDRN.

Factors Impacting Performance

The Model: Devolution allowed for strong management and led to significant achievements. In particular, it provided clarity regarding the management mandate of SGDRN. This included empowering SGDRN to institute a rigorous and transparent tender process for concessions, and to exercise strong authority over operators. Over time, revenue retention provided a significant and flexible source of funding for the reserve, free from the vagaries and constraints associated with donor funding.

However, the institutional structure of SGDRN was flawed. Its status as a company led to misperceptions and nourished suspicions: Even "within district and provincial authorities, there [was] a prevailing perception that the Reserve [was] managed by a private company only, and that as a company it [was] accruing substantial profit" (SGDRN, 2010). Its 'for-profit' company status also created obstacles to fundraising. A foundation structure would have addressed both of these problems. It would also have allowed for a broader governing body with wider representation that may have been better positioned to protect SGDRN in the political environment, especially with the discovery of minerals and the politicization of HWC.

The second flaw in the model was that it was not sufficiently long-term. A longer term agreement would have allowed the management entity to generate longer-term funding. Instead, by the later years of the partnership, SGDRN struggled to secure resources without a guarantee of renewal, a fact that accentuated the increasing difficulties it faced.

Funding: SGDRN managed significant achievements with a relatively small budget. But as poaching and political pressures increased, SGDRN required more funding. Thus, while it was relatively successful in its early years when Niassa was outside of the political spotlight and still considered a 'forgotten wilderness,' a new reality in the later years of the partnership required significantly more resources.

2.2.3 Niassa / WCS

At the end of SGDRN's tenure, the government invited WCS to co-manage Niassa. In 2012, the parties signed a two-year MOU (renewable for one year), with a view to developing a longer-term agreement. This short-term agreement was intended to cover an interim period during which, in the government's view, a foundation would be created that would assume management responsibilities for the reserve. However, five years have now passed, no such foundation has been created, and the partnership is currently operating without any agreement at all.

Key features of the WCS model

In contrast to the integrated, highly devolved model of SGDRN, the partnership with WCS represents a move to a bilateral co-management model. Such a model gives the state significantly more control over key aspects of management—including the selection of the warden and authority over tenders, concessionaires, and revenues. It also means that, rather than creating a single joint management entity, the two organizations each employ their own staff in the reserve.

At a governance level, issues such as strategy setting, oversight, and approval of annual work plans and budgets, are dealt with by an Oversight Committee, composed of the DG of ANAC and the WCS Country Director.

On a management level, the government has sole authority to select the Warden and Head of Law Enforcement. WCS selects their counterparts: a 'Reserve Manager' and Law Enforcement Advisor. The warden has official authority for the reserve but engages in joint monthly planning with the WCS manager. On a day-to-day basis, ANAC takes the lead on political issues, community relations, and law enforcement, while WCS leads operations, planning, and technical activities. WCS and ANAC each have ultimately authority over hiring and firing of their own staff, though WCS employs the vast majority of staff in Niassa, including most law enforcement rangers.

Unlike SGDRN, revenues are no longer retained at the park level. Instead, they follow the standard government procedure for parks—requiring remittance to government, which is then supposed to return 80% to the park.

Performance

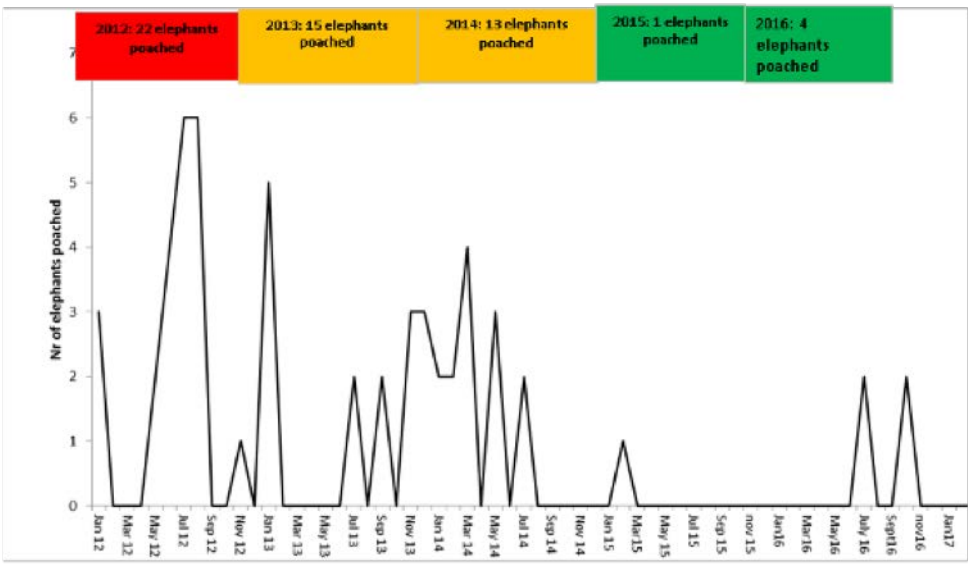
The current partnership is unfortunately not working well. There is uncertainty, confusion, conflict, and a lack of trust between the partners. After five years, there is still not a full management team on the ground, nor a shared vision for the CA (as there is no current management plan or business plan). There is little management of or coordination with operators, many of whom expressed feelings of being 'on their own'. At the same time, there is no clear vision relating to communities—and insufficient government support and political will for dealing with issues relating to local communities and the enforcement of wildlife crimes. All of this is occurring in the context of numerous and intensifying threats to the survival of Niassa as a wilderness area.

Ecological Performance

Ecologically, there are few successes. Lions are increasing in some parts of Niassa due to the presence of strong, committed operators investing heavily in conservation (i.e., Niassa Carnivore Project in Mariri/L5S and FFI in Chiulexi/L5N, L6, R6), but overall lion numbers are declining in the reserve.

The reserve lost 70% of its elephant population from 2011 to 2016—declining from over 12,000 to an estimated 3,500. Elephants are at less than 25% of carrying capacity and declining precipitously. Indeed, the elephant population is feared to be at less than 2000 and could very soon be extinct in the park (Niassa Conservation Alliance, 2017). Elephant populations are faring relatively better in Chiulexi and Mariri compared to other blocks. Chiulexi has 36% of the reserve's elephants on 14% of the land. Mariri has seen a significant decrease in poaching during NCP's tenure (Figure 2/5). However, operators are increasingly struggling to combat intense poaching, particularly since their scouts are not authorized to carry automatic or semi-automatic weapons and lack critical reserve management and government support. Strong government support in tackling the poaching crisis is absolutely vital to the survival of Niassa's elephants.

Figure 2/5. Elephant poaching statistics in Mariri concession from 2012-2015
(NCP, 2016)



Niassa has a population of 40,000-50,000 people living in the reserve, and an estimated 20% of the reserve is under human settlement or cultivation. In addition to severe elephant poaching, Niassa is affected by a wide array of threats, including:

- High levels of bushmeat poaching—both for local consumption and trade to nearby urban centers;
- Targeted poaching of lions for their body parts;
- Large numbers of illegal miners—resulting in the degradation of river systems, habitat destruction, and spikes in poaching;
- Habitat destruction and fragmentation—due to encroachment by people, who practice slash and burn agriculture for subsistence; and
- Illegal logging.

Economic Performance

Central reserve management budgets for Niassa have grown significantly over the last several years, reaching nearly $3 million in 2016. (This does not include management budgets of private sector concession operators.) However, without a full management team on the ground in Niassa or clear

decision-making structures, this increased funding has not yielded the desired impact. Moreover, at less than $60/km^2 (not including private sector management spending), this budget is still insufficient. Recent research indicates that $500-2,000/km^2 is needed to manage African PAs to a high standard (Lindsey et al., in prep). In Niassa, some operators have stopped paying concession fees and other blocks are empty entirely, depriving the reserve of critical revenues and investment, and creating a vacuum in which poachers can operate with near impunity. This situation must be urgently addressed by all parties.

Social Performance

Niassa has a community team that is primarily focused on mitigating HWC. However, the relationship with communities has not discernibly improved since 2012, as there is still no coherent strategy for engaging with communities. The main highlights with respect to community engagement involve the work of conservation operators in Mariri and Chiulexi, which have implemented significant and growing community programs. Together, they have budgeted over $500,000 for community outreach in 2017 alone, and implemented a variety of programs addressing education, health, and alternative livelihoods.[8]

However, these operators continue to face significant challenges with respect to community members engaged in illegal activities, and district officials who, rather than enforce the rule of law, are complicit in illegal activities and promote agendas at odds with conservation. Once again, there is an urgent need for clear and strong support from both central government and central reserve management in liaising with district and provincial government to ensure the rule of law is enforced.

Factors Impacting Performance

The underperformance of the partnership arrangement in Niassa can be attributed to:

- A flawed model based on a weak agreement with unclear responsibilities, and the current lack of any agreement at all;
- A lack of shared vision and clarity on strategy—leading to an inability to tackle threats from growing human pressures, including illegal mining and the spread of human settlement;
- The lack of a full, stable management team;
- A lack of strong law enforcement—including an understaffed ranger force, the corruption of some rangers and challenges associated with removing such individuals from their posts, and the lack of proper equipment such as a helicopter to aid in law enforcement activities;
- Delay in tendering vacant concessions, which comprise 9,940km^2, or 23.4% of the reserve, and which therefore lack effective management;
- The lack of a strong relationship with operators—whereby weak or poor operators are not effectively censured/removed and strong operators are not sufficiently supported;
- Inadequate budgets ($60/km^2, not including private sector budgets); and
- Insufficient support from government—particularly in regulating local communities, prosecuting poachers (who are released with little or no penalty or the issuance of fines

[8] In addition to significant employment of local communities, programs include: a livestock husbandry program (active in 5 villages and 100 households), a microcredit scheme for women, daily lunch provision for 350 schoolchildren, building and upgrading of schools, construction of the Mariri Education Centre, a flying doctor service, and response teams and support for mitigating HWC.

that are never collected) and addressing issues of corruption and official complicity in illegal activities (such as illegal mining and bushmeat poaching).

We elaborate on a few of these challenges below:

A flawed model - The original agreement, although intended to be only an 'interim agreement', lacked: a unified structure and team, clarity in the roles and responsibilities of the partners, detailed decision-making procedures, and provisions for financial transparency. Despite the fact that WCS channels millions of dollars into the reserve and employs most of the staff, the agreement creates a weak role for WCS: WCS does not have any say in the selection of the warden or head of law enforcement and does not have a clear role in managing concessions. These flaws in the agreement have led to confusion and conflict.

Lack of a shared vision and strategy - Another critical flaw has been the lack of an agreed management or business plan from the outset, which should constitute the shared vision and roadmap for the partnership. This has exacerbated confusion and delay in a reserve that is in the midst of a crisis situation and in need of strong management. It also makes tackling tricky, political issues—like limiting the spread of human settlement and regulating activities of local populations—extremely difficult, if not impossible. It should be noted that there was also a failure to transition smoothly from the previous partnership, and to draw on the institutional knowledge and learnings of SGDRN. As a result, key recommendations that were made by SGDRN in 2010—including the need for clear delineations of authority and coordination with provincial government, immediate tendering of empty blocks, and the need for a structured and coherent community program—were never followed through and remain problems today.

Lack of a full, stable management team - One of the key underlying problems is the lack of a full management team on the ground in Niassa. There are currently no directors for numerous departments—including Community Outreach, Logistics and Operations, Infrastructure Development, and Business Development and Tourism. As a result, central reserve management lacks functioning departments, and management and coordination of operators has largely been neglected. The partnership has also suffered from high turnover of management staff. Potential reasons for high turnover include, amongst other things: extremely basic and remote living conditions (which do not take advantage of the beauty of the reserve), and conditions that are likely to be extremely frustrating for management staff, as they currently lack the necessary model and support to be able to succeed.

Lack of strong law enforcement - Despite a significant increase in budgets, reserve management has failed to get a hold on law enforcement. With only 89 rangers, of which only half may be on patrol at any given time, law enforcement is extremely understaffed (1/474km^2, excluding private sector scouts) (Table 2/11; Hensen et al., 2016). Reserve management has also struggled to weed out corruption amongst rangers.

Insufficient government support - Many of the challenges Niassa faces could be mitigated or overcome with strong government support. Indeed, without clear and strong government support to enforce wildlife laws, it is unlikely that any partner can be successful in Niassa. However, there has been a lack of clarity and a lack of political resolve by government to deal with issues relating to communities and illegal activities, such as illegal mining, which leads to spikes in bushmeat poaching and other pressures. Moreover, the delay in concluding an agreement for the co-management of the reserve and delays in ratifying agreements with operators contribute to a worsening situation on the

ground. These delays create insecurity, undermine partner authority, and make fundraising difficult, further undermining the efforts of partners and the prospects of successful conservation in Niassa.

2.2.4 Limpopo / PPF

Limpopo National Park ('LNP') is 11,233km^2—a former hunting area that was upgraded to a National Park in 2001. Its link to Kruger National Park and its central location within the Greater Limpopo Transfrontier Conservation Area (GLTFCA) have created great expectations for LNP, but its development has proceeded slower than hoped.

Because of its role in the proclamation of LNP and the GLTFCA, PPF was engaged as a partner in 2001 to implement and manage donor project finances via a 'Project Execution Contract'. This 5-year agreement has been successively renewed ever since.

Key features of the PPF model in Limpopo

PPF primarily plays a **technical support and advisory role** to government and undertakes **financial management** for donor projects. The government selects the Warden, who has full authority for the park and for management of government employees, who make up the vast majority of park staff (200 out of approximately 210). PPF provides significant salary top-ups to key government personnel, including the Warden and Head of Law Enforcement.

The project plays a significant role in the park's operations, since it covers most of the funding (except for government salaries). To date, most project funding has been focused on **resettlement**, with a smaller annual allocation for park operations. With respect to the project, governance issues are handled by a Steering Committee—composed of two representatives of government and two representatives of PPF. On-the-ground implementation of project activities is managed by a Project Implementation Unit—composed of the Warden, a PPF project manager, and a PPF finance manager.

There is **no direct retention and reinvestment of revenues** in Limpopo. Rather, Limpopo follows the standard procedures outlined in Mozambican law.

Comparison to other models

Unlike Gorongosa or SGDRN, the Limpopo model does not feature an integrated entity with high levels of devolved authority. Rather, it has a bilateral structure similar to the WCS-ANAC partnership in Niassa. However, unlike WCS, which employs the vast majority of staff in Niassa and which is positioned to be a long-term co-management partner for the reserve, PPF employs only a handful of personnel and its role is linked to 3-5 year donor projects. Though PPF and donors do not directly employ many staff, they do provide top-up salary contracts to some management personnel, as well as success-based incentives for law enforcement rangers.

Performance

Overall, progress in Limpopo has been slow, due primarily to long delays in the resettlement program. Significant sums of money have been spent, and new infrastructure has been built, but far less has been achieved in terms of on-the-ground conservation results. Wildlife populations are very low, while poaching remains high. After 16 years, only ~30% of the population has been resettled—though it is hoped this process will accelerate and reach completion over the next five years. Government should support the expeditious resettlement of the remaining villages inside Limpopo.

Ecological Performance

Over the course of the partnership, the elephant population has increased from 100 to approximately 1000 individuals (as of the last aerial census), and there has been a similar increase in the buffalo population, as well as increases in kudu and nyala. Vegetation is recovering in areas that have been resettled, and resettlement has had a positive impact in reducing bushmeat poaching.

However, challenges predominate. Poaching inside the park remains extremely high. Elephants have declined significantly since 2010 and are likely down to approximately 500 individuals, due to poaching pressure, drought, and the migration of animals back to Kruger as a result (A. Alexander, pers. comm.). Villages engage in bushmeat snaring, rhino horn and ivory poaching (crossing the border into Kruger), and increasingly in lion poisoning for body parts. Thus, rather than animals migrating in large numbers from Kruger into Limpopo, Limpopo has been a source of poaching to Kruger (Save the Rhino, 2018; Goba, 2017; Hübschle, 2016; Oxpeckers, 2016; Büscher & Ramutsindela, 2015).

In particular:

- Despite the overall increase in the elephant population since 2001 (from 100 to 1000 animals), the population has declined markedly since 2010 (Annex D, Figure 6), when it peaked at 1500.
- The success of reintroductions has been questionable: All 10 white rhinos were subsequently poached.
- There has been an alarming increase in lion poaching for body parts. Lion densities are approximately five times lower in Limpopo than in adjoining Kruger, and lions have undergone an estimated 68% decline (from 66 to 21) between 2013 and 2017 (Everatt et al., in prep).
- Leopards occur at low densities and are well below their likely carrying capacity.
- An estimated 15% of the park is under human settlement or cultivation. Community-owned livestock represents 75% of the park's ungulates, and alone fills 81.9% of the park's ecological carrying capacity.

Economic Performance

Over $44 million has been invested in Limpopo, though the majority has gone towards resettlement. At $238/km^2, the budget is larger than that of many Mozambican CAs, though still insufficient given the scale of challenges. Some tourism infrastructure has been created, including two park camps and one private operator tented camp; however, occupancy is low, as Limpopo is not yet recognized as a tourist destination and is mainly used as a transit by tourists traveling to the beach from South Africa (ANAC, 2015 Financial Plan).

Social Performance

The importance of the resettlement undertaken so far should not be underestimated. It has been carried out in tandem with irrigation schemes that have resulted in two-crop harvests per year, improving food security and resulting in a visible impact on the livelihoods of local people (Ribeiro & Macandza, 2016). However, resettlement has moved slowly and in fits and starts, with just under 30% of the population resettled in 16 years, and 5,000-6,000 people still living inside the reserve. Moreover, because of the focus on resettlement, there has been far less funding and capacity dedicated to other kinds of community programs.

Factors Impacting Performance

The underperformance of Limpopo can be attributed to the limitations of the financial-technical support model, insufficient management budgets, and delays in the resettlement process.

The Model: The limited scope of the financial-technical support model creates limitations for the development of the park. This is because two critical (and related) areas of successful park management remain largely outside the scope of the project: law enforcement and human resources. In the words of one interviewee: "The number 1, 2, and 3 barriers to success come down to performance management of staff and competency levels of staff. This is far and away the park's biggest challenge." The hiring and firing of staff is under government control, and attracting high quality staff, or removing ineffective or corrupt staff is extremely difficult and subject to political interference. Corruption infiltrates the ranger ranks (Hübschle, 2016), severely hampering effective protection of LNP. Government control over human resources and law enforcement has also led to an insufficient number of rangers: 1/80km^2 in the Intensive Protection Zone, and only 1/150km^2 overall—compared to 1/50km^2 in Kruger and a recommended 1/24-50km^2 for areas with elephant poaching (Hensen et al., 2016). As a result, although significant donor funding is channeled into Limpopo, the impact of this funding is significantly diminished by these critical limitations of the model.

The model also creates other limitations. Because funding is short-term (based on 3-5 year projects), management's ability to plan and execute a long-term vision for the park is limited. Implementation is also slower compared to other models because of the need for consensus on project activities.

The Funding: Insufficient budgets also limit the ability of the partnership to have a meaningful impact and meet expectations. Perhaps equally important is the lack of continuity and stability in funding, which limits long-term planning and decision-making. Moreover, despite the majority of funding available for Limpopo being spent on resettlement, only 30% of the communities living within Limpopo have been moved, leaving a population of 5,000-6,000 still living inside the park, with consequent impacts on wildlife and habitat.

The Strategy: The strategy of management has been to focus on the most critical habitats near the border with Kruger (where the majority of wildlife is currently located), while still executing strategic patrols in the rest of the park. In this way, 100% coverage is maintained, but with differing levels of intensity. While this is an understandable strategy in a context of limited human and financial resources, it necessarily means that a significant management presence is limited to a very small portion of the park. Limited levels of success so far may in part be attributable to this limited presence across the park. For example, significant wildlife reintroductions were undertaken in spite of this limited management presence and, as explained above, yielded questionable results.

2.2.5 Gile / IGF

Gilé was first proclaimed as a partial reserve in 1932 with the goal of protecting black rhino and elephant, and as a hunting ground for other animals. In 1999, its status was elevated to a National Reserve with total protection. Gilé spans 4,396 km^2—2,861 km^2 of core area and 1,535 km^2 of buffer zone (which includes a 964 km^2 community hunting concession).

Gilé is the only terrestrial reserve in Mozambique without local communities living inside its boundaries. Nevertheless, a population of 160,000 people lives on its periphery (with 12,000-14,000

in the buffer zone) and practices slash and burn agriculture for subsistence, resulting in forest loss and degradation in the surrounding area outside Gilé.

Like many other reserves in Mozambique, Gilé suffered significant losses of wildlife during the civil war (Ribeiro & Macandza, 2016), and lacked a significant management presence after it ended.

In 2007, the government entered into 'Co-Management' MOU with IGF for an initial five years, which was subsequently renewed for another five years, and expired in 2017. A new agreement is currently under negotiation.

Key features of the IGF model in Gilé

The partnership incorporates **some aspects of the financial-technical support and bilateral co-management models**. Officially, the government maintains full management authority for the reserve and appoints the Warden to lead day-to-day management. At the same time, a 'co-management unit', composed of both representatives of government and IGF[9], approves project activities and manages project funds, which make up the vast majority of funding for the reserve. IGF stations a few staff in the reserve, including a Technical Advisor that works alongside the Warden. Most of the 40 staff are funded by IGF and donors. There are no significant revenues, and no special provision for revenue retention.

Performance

Without IGF's involvement, Gilé would be a paper park (Nazerali & Souquet, 2017): the government currently supports only six salaries (for the warden and five rangers). The partnership has achieved modest successes over its 10 years, though more is needed if the reserve is to fulfill its potential and meet mounting challenges. Notably, Gilé presents a highly different context to Limpopo and Niassa, as it is significantly smaller in size, does not have communities living inside its borders, and is not subject to the same level of political pressure.

Ecological Performance

The partnership in Gilé has created a functional administration for the reserve—including recruiting and training rangers, introducing a MOMS program for biodiversity monitoring, and developing the reserve's first management plan. Three locally extinct species—buffalo, zebra, and wildebeest[10] —have also been reintroduced. Though aerial surveys are not available, monitoring information[11] shows increasing trends in many ungulate species, though they nonetheless remain at low densities (Figure 2/6).

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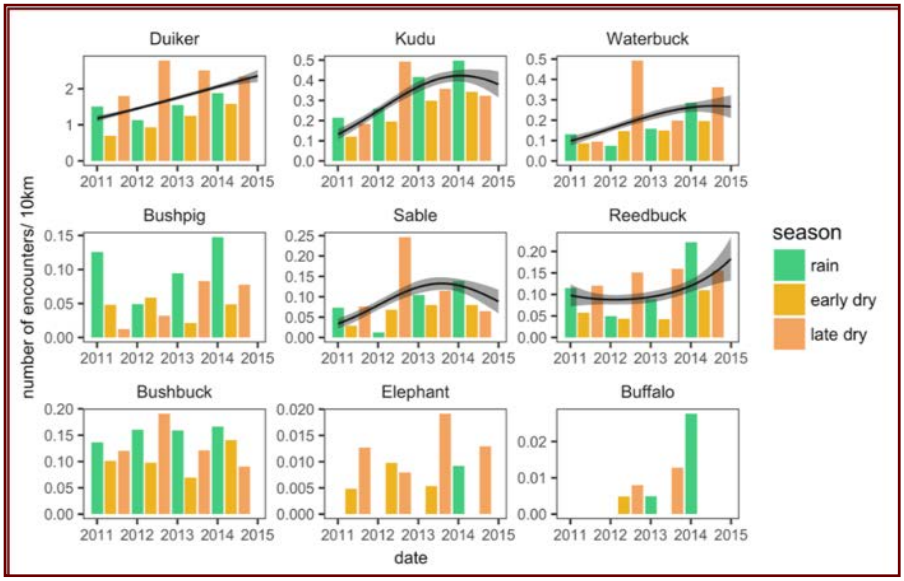
[9] Specifically, the co-management unit is composed of the Warden, a representative of ANAC, the provincial director, the IGF Director, and the IGF Technical Advisor.

[10] Two reintroductions took place: 20 buffalo in 2012, and 47 buffalo, 15 zebra and 20 wildebeest in 2013.

[11] Based on data collection by rangers, which is sometimes of limited reliability and insufficient to draw confident conclusions.

Figure 2/6. Encounter Rate (number of groups / 10km) of 9 species of mammals in Gilé
(Significant trends are reported with black lines (confidence interval ± gray))

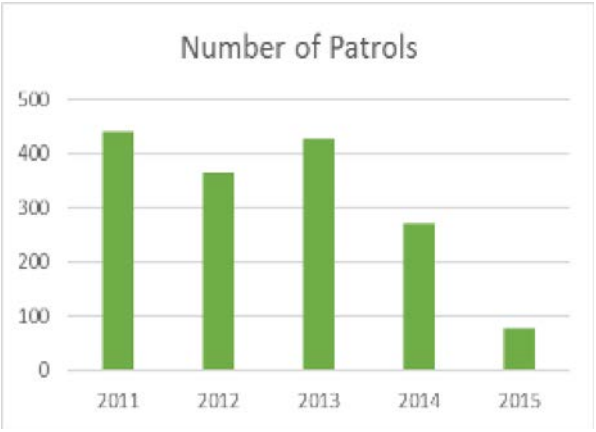


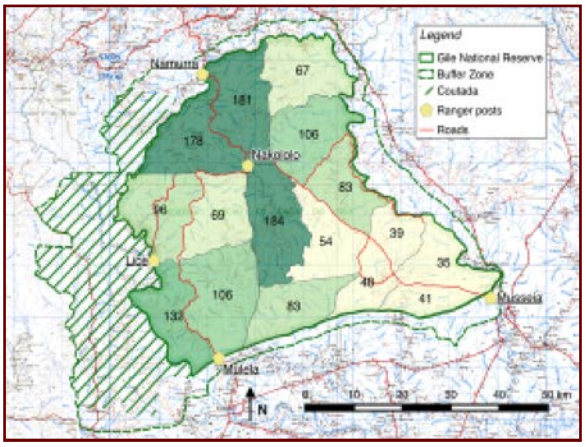
(Nazerali & Souquet, 2017).

The partnership has also implemented an innovative REDD+ project that produced significant carbon credits (though they have not yet been sold) and that has influenced the development of a national carbon scheme.

However, clear challenges remain. The ranger force is extremely understaffed, with only 25 rangers for the entire reserve (1/175km^2). According to one interviewee, the ranger force is of "very poor discipline and very poor fitness", with some scouts admitting that they do not go on patrol. Since 2014, there has been a rise in illegal logging and poaching, with evidence of involvement by the community, natural resources police and park rangers (Ribeiro & Macandza, 2016). Rangers were required to reinforce roadblocks and clandestine entry points around the reserve's perimeter, resulting in a significant decline in the number of patrols (Figure 2/7).

Figure 2/7. Patrolling effort and coverage 2011-2015
(Source: IGF)





Economic Performance

Donor investment in Gilé has yielded a management budget of approximately $175/km^2, which is a significant improvement on the status quo, but still below the amount required for effective management. Moreover, IGF's 10 years of support has not yet translated into an increase in capacity in ANAC, which despite its expressed desire and commitment, has not been able to take over payment of ranger salaries. There is as yet no tourism in Gilé, and as mentioned above, REDD+ credits have not yet been sold.

Social Performance

A community coutada and 14 community Natural Resource Management Committees were created (Nazerali & Souquet, 2017). The recently created coutada spans 964 km^2 in the buffer zone. However, there is as yet no operator in the coutada, due to low wildlife densities, the recent flare up in armed conflict, and general difficulties relating to the hunting and business climate in Mozambique. The NRM committees are not yet active and operating effectively, and because of the lack of tourism, there is no revenue sharing with the communities (Nazerali & Souquet, 2017).

In terms of community outreach, conservation agriculture projects have led to higher farmer incomes and a reduction in deforestation in some areas. However, the reserve does not yet have a coherent community development strategy (Nazerali & Souquet, 2017).

Factors Impacting Performance

The reserve has a solid management budget ($175/km^2), but not one that is sufficient for highly effective management. Additionally, two factors were identified by survey respondents as limiting management effectiveness:

- First, the need for greater investment in law enforcement and improvement of scout management.
- Second, insufficient enforcement of laws related to wildlife crime and natural resource use, and alleged corruption by the police on issues related to poaching. By way of example, a poaching ring was arrested in early 2017, yet all four poachers were released on bail in contravention of the law. Similarly, in 2016, "the Reserve apprehended 5 tractors and 23 trucks involved in illegal logging inside the park", but the majority did not pay the fines applied, and some were "summarily released by the justice system without punishment" (Nazerali & Souquet, 2017).

2.2.6 Quirimbas / WWF

The Quirimbas National Park was created in 2002. With a total area of 9,130 km^2, it encompasses both marine and terrestrial habitats. It is distinguished by a large resident population of approximately 100,000 people, making it a highly atypical national park in which there is significant habitat modification and major impacts on local biodiversity.

Quirimbas was created in part in order to solve difficulties that local communities had identified linked to their environment (WWF, 2010). Overfishing was leading to the collapse of fish stocks and, in terrestrial areas, communities wanted help dealing with human-elephant conflict. The creation of a national park was a way to accomplish this, though it was not the most accurate or appropriate designation for such a densely populated area.

Key features of the WWF model in Quirimbas

The key features of the model changed over time. During Phase 1 (2005-2010), a project was implemented in partnership with WWF to establish and fund the park. The government remained the official authority for the park, with the right to name the Warden and the Head of Law Enforcement. WWF directly employed, paid, and managed all other staff—including management (e.g., the heads of various departments including Finance and Administration, Tourism, Infrastructure, Community Development, and Monitoring & Evaluation) as well as rank and file rangers. In some years, the Warden was the only member of government staff stationed in the reserve. Although this was not a partnership that envisioned a long-term co-management of the reserve with shared decision-making over all aspects of park management, 99% of funding in this early period was channeled through WWF, meaning that in practice there was a kind of 'co-management', since the Warden and WWF Technical Advisor needed to agree on anything that involved the use of those funds.

This changed in Phase 2 (2011-2015), when the project was ratcheted back to a more typical financial-technical support model. Most staff were transitioned from the partner/donor payroll to the state. As a result, WWF was less involved in direct implementation and increasingly in a solely advisory role. Expenditures also required less sign off by WWF.

In terms of the management structure, there was a Project Steering Committee that dealt with governance issues, and an 'Implementation Unit' at a management level. The project also facilitated the creation of a broader advisory committee that included representatives of the park, provincial and district governments, civil society and local communities.

Throughout the partnership, the park followed the standard CA revenue procedures outlined in Mozambican law, and thus did not directly retain and reinvest revenues.

As of 2017, the partnership with WWF has ended. WWF remains engaged in some community projects but is not directly involved in park management. AFD support is also scheduled to expire at the end of 2017. As a result, the 2018 budget is likely to decrease significantly.

Performance

The partnership in Quirimbas generated initial successes, including the designation of sanctuaries that increased fish stocks to the benefit of local communities. It also addressed human-elephant conflict. However, management was transitioned back to the state before capacity was sufficiently built; as a result, these advances were largely reversed. The example of Quirimbas thus highlights the importance of a partner's long-term commitment. Short-term engagement is of questionable utility in contexts of low capacity.

Ecological Performance

The partnership created the foundation for the operation of park—including building facilities and purchasing equipment, installing a radio communications system, recruiting and training staff, creating a database on biodiversity, and implementing a monitoring and evaluation system (WWF, 2010).

The designation of marine sanctuaries created significant biodiversity increases in the first few years, providing reservoirs for spillover and breeding grounds for fish. The partnership enabled better resource use by communities and reduced invasion from outside fisherman. However, the success of marine sanctuaries decreased over time as a result of weak law enforcement.

On the terrestrial side, the elephant population dropped from 2000 in 2008 to 517 by 2011. In 2013, 49% of all elephants seen were dead, indicating a poaching crisis (Craig, 2013). Ungulates are also severely depleted—with a current biomass of only 2.1% of carrying capacity (Figure 2/11). Lions and leopards are also severely depleted and considered to be declining. An estimated 40% of Quirimbas is under human settlement or cultivation.

Economic Performance

The partnership with WWF helped contribute to the development of both luxury and community tourism initiatives, with the number of camps increasing from 2 to 11. Revenues increased to approximately $41,000-92,000/year, and over 350 people are employed as permanent staff in tourism.

Despite the growth in tourism, Quirimbas remains far from financial sustainability. This situation contributed to the collapse that occurred when management was transferred back to the state. The current management budget ($93/km^2) is far from sufficient, and likely to decrease even further in 2018.

Social Performance

The partnership increased the role of local communities in park governance by creating an advisory committee that included community representatives. The partnership also initially addressed the issues that were most important to local communities: Marine sanctuaries increased fish capture, and park management helped mitigate human-wildlife conflict, limiting damage to farms to below 2-3% (WWF, 2010). However, as management was transitioned to the state, initial gains were lost, due to insufficient capacity of staff and weak law enforcement.

Factors Impacting Performance

The partnership in Quirimbas was ultimately too limited and short-term to effectively meet the level of challenges facing the park.

The Model: The financial-technical support model of the project—especially as it transitioned from Phase 1 to Phase 2—proved insufficient in a context of low capacity, weak governance and high threats. Since the scope of the partnership was the project (as opposed to the park) key issues remained outside its influence. This included: the selection of high-level management, such as the Warden and Head of Law Enforcement; hiring and firing, as staff was transitioned to state payrolls; and law enforcement. As a result, qualified personnel were not always appointed (either as a result of insufficient funding and capacity, or due to political influence). Weak law enforcement, ineffective prosecutions, and official complicity in poaching (Oxpeckers, 2014) led to the collapse of progress in the park. The limited project scope of the partnership also failed to create lasting governance structures.

The Funding: In addition to weaknesses in the model, there was insufficient funding (approximately $16,000,000 over 10 years) for an area the size and complexity of Quirimbas and with such a large human population. With limited funding, management could cover the basics, but could not do what was necessary to make Quirimbas a successful park.

The Strategy: Critically, WWF and its donor partners pulled out before sufficient capacity was built. The decision to pull out was motivated in large part by a belief of the principal donor and non-profit

partner that government should be the management authority for national parks, and that the role of partners and donors should be short-term, thereby requiring government to assume responsibility after only a few years. However, it was unrealistic to assume that progress could be sustained, and challenges addressed after only 5 years of partner involvement. Staff that was hired by the project with private sector salaries and benefits could not be assumed by the state (WWF, 2010), leading to a decline in capacity. In the end, some interviewees felt the investment in Quirimbas was wasted.

2.2.7 São Sebastião / SBV

In 2000, the Council of Ministers authorized12 the Santuario Bravio de Vilanculos, Lda ('the Sanctuary' or 'SBV'), a Mozambican entity, to develop and manage 439km^2 on the São Sebastião Peninsula, at the southern tip of the Bazaruto Archipelago. The Council subsequently declared this a Total Protection Zone, the same status designated for national parks and reserves under the Forest and Wildlife Law (10/1999). As such, it is a full conservation area, under the purview of ANAC. Under the authorization, the project has three objectives: conservation, low-density eco-tourism13, and socio-economic upliftment of the local community. São Sebastião is an example of fully delegated, private management of a CA. Nonetheless, it should still be considered a kind of partnership in which government's role is primarily oversight, facilitation and support.

The Sanctuary spans 176km2 of marine and 263km^2 of terrestrial area. The terrestrial portion is divided by a game fence, with 120km2 protected by the Sanctuary and the remainder inhabited by communities who practice slash and burn agriculture. The Sanctuary hosts 5 species of marine turtles, and dugongs are also present in its waters. It is the only protected area in Mozambique to host seven different species of mangrove.

Key features of the SBV model in São Sebastião

São Sebastião is the only protected area in Mozambique with fully delegated, private management. Since its establishment, the CA has never had any government intervention either in terms of staffing or budget allocation. However, this does not mean SBV is free to do whatever it wishes. Rather, it must operate within the limits of the law, and specifically the Authorization, which requires, among other things: (a) a minimum 74 million rand investment; (b) the employment of at least 150 Mozambicans; (c) the protection and conservation of the environment; and (d) community development and outreach. The Authorization also provides for 'regular verification inspections' and obligates SBV to submit updated five-year plans to ANAC. Within these broad outlines, SBV has significant flexibility and autonomy. It selects a Sanctuary manager to lead operations on the ground and conducts governance through a fully private board.

A second key feature of SBV is its unique tourism model. Commercial beds are limited and SBV relies heavily on residential investors, who understand that it is a conservation and community project that therefore has higher expenses than a typical holiday destination.

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[12] Internal Resolution n.° 4/2000, amended by Internal Resolution n.° 2/2003. SBV also holds Special License No. 4, issued on 26 February 2003.

[13] Development is capped at 54 residential sites and 120 commercial beds.

Performance

At only 300 km² hectares of truly protected area, SBV is a small but successful conservation area. Wildlife populations are growing, the project is financially sustainable, and community outreach programs are significant.

Ecological Performance

The Sanctuary's protected waters include nesting by the critically endangered leatherback turtle, as well as hawksbill, loggerhead and green turtles. Though turtle populations are not large, the Sanctuary's conservation efforts, including the hiring of turtle monitors, appear successful in preventing the killing of turtles and nest robbing. In 2017, the Sanctuary recorded what appears to be the first confirmed nesting and hatching of endangered hawksbill turtles on the African continent. The establishment of MPAs has also reduced overfishing and increased spillover and catch outside protected waters for adjacent communities.

On the terrestrial side, several species of wildlife have been reintroduced, and there are now an estimated 1,405 large mammals, including 120 eland, 95 waterbuck and 60 nyala. Wildlife populations are increasing and there is minimal poaching pressure. Bird species have increased in diversity by 20%, growing from 258 to 300. The Sanctuary does not host species that are highly prone to poaching, such as rhino and elephant, and does not have the budget to protect them. The Sanctuary was home to two rhinos in the past, but they were poached by an organized crime syndicate that held rangers at gunpoint. This highlights a challenge the Sanctuary faces: The Sanctuary's game rangers are not deputized, and in difficult situations, SBV must reach out to police for assistance, resulting in a time lag of at least four hours since police are not stationed nearby.

Economic Performance

The Sanctuary is the only financially sustainable CA in Mozambique. It is self-financing and does not rely on donor funding. In addition, the project has generated one billion rand—or $73.4 million—of investment (including private sector investment), far above the 147 million rand required by the original Authorization.

Social Performance

SBV works with local community leaders to define priorities and deliver social programs. It has invested over $3.5 million in community programs, including: the construction of primary schools and a health clinic, HIV and malaria education, water provision, compensation for crops lost due to HWC, and an interest-free lending program. It has also generated significant employment (over 250 permanent jobs), diversifying the skill base and incomes of people who previously led subsistence lifestyles.

Factors Impacting Performance

SBV's success can be attributed to a variety of factors.

The Model: SBV has a clear mandate, executed by an experienced and stable management team, and supervised by a strong board with both business skills and conservation commitment.

The Funding: The Sanctuary is a small, manageable area with a significant budget ($1554/km2).

The Strategy: Management has set realistic and achievable objectives. It has also engaged communities inclusively and made providing benefits to communities one of its core aims.

For example, in the establishment of MPAs, the Sanctuary engaged local communities to identify these areas, and employed people from affected areas as marine guards and skippers. SBV conducts regular, monthly meetings with traditional leaders, providing a forum for the community and the Sanctuary to raise issues and solve them together.

2.2.8 Zinave / PPF

Zinave National Park was established in 1973 to protect giraffes and roan antelopes. During the civil war, wildlife populations, including species such as elephants, lions, and elands were decimated. Zinave was later incorporated into the GLTFCA. As such, it was one of the CAs promoted by the 15-year TFCA program, launched in 1996 as a collaboration between the Government of Mozambique, the World Bank, and the Global Environment Facility. In 2015, the government signed a 10-year 'Co-Management Agreement' with PPF.

Key features of the PPF model in Zinave

The PPF partnership in Zinave is very similar to the one in Limpopo; however, in response to lessons learned, the parties modified some elements of the model. As in Limpopo, governance issues are dealt with by a Steering Committee, while day-to-day management is led by a Project Implementation Unit (composed of the ANAC-appointed Warden, a PPF Project Manager, and a PPF Financial Manager). Government exercises ultimate authority for the park and has the responsibility for selecting the Warden and Head of Law Enforcement and employs most personnel. (Note, however, that due to ANAC constraints, PPF has identified and contracted the Head of Law Enforcement and seconded this individual to the park). Revenue is not retained and follows standard Mozambican procedure.

However, the Zinave agreement gives PPF more say and involvement in two key areas, compared to its partnership in Limpopo: (1) discipline of staff and (2) development of tourism. It is also a longer-term agreement, with a broader vision for the park's development and significant dedicated funding.

Performance

Since the partnership started very recently (in late 2015), it is too early to evaluate its performance. Instead, we discuss the strategy for developing the park, and its current status.

Overall, the partnership's strategy is to develop infrastructure and 'fast track' development and tourism through significant relocations of wildlife (rather than relying on the natural increases in populations that occur due to habitat protection). The partnership envisions introducing 7000 animals over 3-4 years. It is a costly strategy, but one that is hoped will restore the park quickly. One major challenge is the presence of local communities inside the park. Approximately 15% of the park is under cultivation, and the park is effectively separated by a string of villages into two wildlife areas. Unlike Limpopo, however, the partnership is supporting relocation through the creation of a 'development node' in the hopes of attracting people to move outside the park. This strategy, if not implemented skillfully and carefully, poses a risk of attracting more people to areas near (or even within) the park.

Ecological Performance

Only one survey of Zinave National Park was accessible (Dunham et al., 2010) and therefore wildlife trends are unavailable. The populations of most large mammals in Zinave are extremely low. Elephants were effectively extirpated until the reintroduction of 7 elephants in 2016 (and an additional 2 in 2017). Ungulates are at <3% carrying capacity (Figure 2/11), and there is very low density of lion (Figure 2/12). Leopards are effectively extirpated. There is not yet any real connectivity to the other parks of the GLTFCA.

The partnership has so far focused its efforts on a 60km2-fenced sanctuary (which is currently being expanded to 180km^2). Wildlife densities are relatively high in this small area. Approximately 783 animals have been re-stocked into this area in 2017—including zebra, giraffe, warthog, impala, reedbuck and waterbuck—and the translocation of up to 7,500 animals in total is planned from 2017 to 2020. It will be important to see how these populations of introduced animals fare over time, and whether the partnership leads to the growth of wildlife populations outside the sanctuary as well. Ideally, sufficient funding would permit a significant management presence throughout the park, and not only in the fenced sanctuary, in order to allow the whole CA to recover. For the sanctuary strategy to be a success, sufficient investment must be made in the wider park in order to prevent further losses of wildlife and to prevent further human incursions. The release of wildlife from the sanctuary should only be considered once the threats in the wider CA are under control, so as to avoid the loss of wildlife that have been reintroduced at great cost.

Economic Performance

A key element of the partnership is PPF's commitment to invest $20 million over 5 years. ANAC has committed to funding most salaries (though PPF covers higher salary positions and recently employed an additional 26 rangers for the park). The 2017 budget was approximately $3.6 million, though this was mostly dedicated to initial capital investments, and it is envisioned that this number will decrease over time. Operational expenses were $217/km^2, which is higher than many CAs but still insufficient to allow for a high standard of management across the whole area. Revenues in Zinave are negligible as there is not yet any tourism.

Social Performance

A community plan, including a conservation agriculture program, is being developed and a site has been proposed for the development node.

Factors Impacting Performance

Zinave has historically been severely underfunded, which creates many challenges. While the partnership with PPF has brought a dramatic increase in spending, much of it has gone towards relocations and capital investment, while operations budgets are still insufficient, the park is understaffed, and law enforcement is focused on a very small area of the park (i.e., the fenced sanctuary). This may be because the partnership is still in its early days, and understandably plans to increase its footprint in a phased approach. It remains to be seen how this will develop over the course of the partnership.

2.2.9 Maputo Special Reserve / PPF

Maputo Special Reserve was established in 1960. It is home to valuable coastal forests that are part of one of the Earth's 25 richest and most endangered terrestrial ecoregions. MSR is part of the Lubombo TFCA, linked with Swaziland and South Africa. In 2011, the MSR boundaries were expanded to include the Futi Corridor and allow elephants to move between MSR and Tembe Elephant Park in South Africa.

MSR was supported by the 15-year TFCA program, launched in 1996 as a collaboration between the Government of Mozambique, the World Bank, and the Global Environment Facility. The program invested in infrastructure improvements (including park HQ and accommodation facilities), wildlife reintroductions, and a variety of community programs. In 2008, the government signed a seven-year 'Co-financing Agreement' with PPF, which covered the essential operating costs of the reserve. Most of the funding came from MITUR, through TFCA program support, but was managed by PPF, which employed a Technical Advisor (for wildlife and anti-poaching) and a Finance Accountant. In 2015, the reserve started receiving funding from Mozbio and PPF secured additional funding for community development, which enabled the reserve to significantly increase activities. The Agreement has been extended through December 2018.

Key features of the PPF model in MSR

The Co-financing Agreement in MSR is highly similar to the financial and technical support project model in Limpopo. PPF employs a technical advisor, as well as operations, tourism and community managers, and undertakes financial management for donor projects. The government selects the Warden, who has full authority for the park and for management of government employees, who make up 50 out of the 56 employees in the park. (Note that, though employed by ANAC, the Warden and Head of Law Enforcement receive a significant salary top-up from PPF.) A Project Implementation Unit meets monthly and makes decisions related to the project by consensus. A 'Management Committee' composed of government and non-profit representatives meets quarterly and makes governance-level decisions by consensus, including approving annual work plans and budgets.

PPF is currently in the process of negotiating a long-term 'Co-Management Agreement', which would further increase donor funding flows to the reserve. However, the new agreement has yet to be finalized, and it is not clear what form it will take. PPF's proposed strategy in MSR is similar to its approach in Zinave: to 'fast track' development and tourism via significant wildlife reintroductions.

Performance

Ecologically, MSR has a growing population of small and large ungulates (Annex D, Figure 7). Thousands of animals have been reintroduced since 2010—and 4,000 alone were reintroduced in 2017— including kudu, warthog, impala, nyala, zebra, giraffe and blue wildebeest.[14] Estimates of elephant numbers have been variable over recent years, though recent aerial surveys and responses to questionnaire surveys indicate that the population has been increasing since 2014, following a period of decline (see Figure 8 in Annex D). Carnivores are at extremely low densities (leopard) or absent entirely (lion).

[14] Reintroductions account for 31% of smaller ungulate populations and 37% of larger ungulate populations.

Economically, budgets are increasing and will hit nearly $4 million in 2017, of which $3 million represents capital investment. The government contributes approximately $50,000 toward salaries.

Socially, PPF implements a significant community development program. This includes conservation agriculture (314 participating families), training of 10-15 community health workers, and relocation support. A community lodge was opened in 2016, as a result of a joint venture between The Bell Foundation and a local community association.

Factors Impacting Performance

MSR has been prioritized by government under both the TFCA and MozBio programs—envisioned as a flagship CA, or 'calling card', for Mozambique—and as such has benefited from significant and continuous financial support for over 10 years, in addition to significant recent increases in funding from PPF. Likewise, MSR was proclaimed by the government as a priority area for tourism development, and as such the area has benefited from large private sector investment. This strong government support is a critical element in the relative success of MSR. This modest success is also explained by the fact that MSR is a relatively small reserve (1040 km^2), with a small human population (approximately 650 people), and a relatively strong ranger force (1/42 km^2-1/61km^2).

2.2.10 Banhine / PPF

Banhine National Park was established in 1973 and is part of the Greater Limpopo TFCA. It is home to a striking breadth of habitats, with extensive wetlands surrounded by arid lands. It also features one of the largest populations of wild ostriches in southern Africa (Stalmans & Peel, 2012). Banhine was previously supported by the TFCA program, and since November 2017 has received limited support from PPF under an anti-poaching contract in which PPF commits a total of $1 million over three years. PPF employs a single anti-poaching manager, while ANAC employs the remaining 40 staff in the reserve. PPF provides a significant salary top-up to the Warden and Head of Law Enforcement.

Because of the limited support and minimal management budgets, Banhine is far from its potential, and its wildlife populations are a fraction of what they could be. Management is nominal, and levels of corruption are reportedly high, with both scouts and police accused of complicity in poaching. Wildlife populations of large mammals are generally low—under 25% of carrying capacity. There are only 5-10 lions in the park, and a handful of elephants. Lion densities declined by 50% since 2014 following the retaliatory killing by livestock herders of one of the park's only two prides (Everatt, 2016). There is no current management plan and virtually no tourism or revenues.

Reasons for poor performance include:

- A nominal management presence and extremely low budgets ($35/$km^2$ in 2017, which is less than 10% of what would be needed to deliver effective management);
- Poorly trained and unmotivated scouts;
- Alleged complicity of scouts and police in poaching; and
- A lack of functional vehicles and few roads into important wildlife areas, resulting in a small anti-poaching footprint.

2.3. Comparing partnerships across key indicators

This section categorizes the CAs by model and compares how each partnership divides key roles and responsibilities between the partners. It then compares the performance of parks across several key indicators—including financial investment, conservation outcomes, and impact on local communities—drawing lessons learned where possible.

It is important to bear in mind that each CA has unique features and is situated in a particular context—in terms of its size, human population, political pressures, and the nature and level of threats—which complicates the ability to make clean and simple comparisons. In addition, we did not focus on investigating and understanding reserves without partners and gathering information on such reserves can be difficult. Nonetheless, where information was available, we tried to include reserves without partners as a benchmark for comparison. Finally, it is worth noting that it is often hard to measure the impact of partnerships, let alone compare them, because it is impossible to say with certainty what would have transpired without them. For example, there is a tendency to assume that where wildlife numbers are declining, if the partnership had not been in place, the decline would have been even worse, and that the partnership has thus reduced the rate of decline. Since an in-depth evaluation of each partnership was beyond the scope of this study, our approach has been to provide quantitative indicators where possible, while putting these numbers in context based on qualitative interviews with key stakeholders and experts with direct experience with the studied CAs and partnerships.

2.3.1 Overview of partnerships and models

Table 2/4 categorizes the various partnerships into general models. We focus especially on three partnerships—Limpopo/PPF, Niassa/WCS, and Gorongosa/Carr, while including other partnerships where information was available. We use Chimanimani[15], Magoe, Marromeu as a sub-sample of parks without management partnerships, in order to shed light on how such parks perform compared to parks with partnerships. This subsample was chosen based on our ability to obtain data for those CAs.

Table 2/4: Comparison of parks by management model

Park	Length of Agreement	Level of Approval
Delegated management: full, long-term devolution of authority		
São Sebastião	50 years	Council of Ministers
Integrated Co-Management: shared governance, shared appointment of management, and long-term devolution of day-to-day authority		
Gorongosa	25 years	Council of Ministers
Niassa (SGDRN)	10 years	Council of Ministers
Bilateral Co-Management: shared governance and day-to-day management authority		
Gilé	5 years	Ministry
Niassa (WCS)	2 years	Ministry
Financial-Technical Support to government management		
Banhine	3 years	ANAC
Limpopo	5 years	Ministry
Quirimbas	5 years	Ministry
MSR	7 years, extended for 6 years	Ministry

[15] Note that both Bazaruto and Chimanimani are supported by the MozBio program, though they do not have management partners. Micaia Foundation, with MozBio funding, supports Chimanimani by undertaking community development work. However, because this is not a partnership that supports core management of the park, we have included it in the sub-sample of parks without management partnerships.

Zinave	10 years	Ministry
NGO collaboration: support to reserve, though not to core park management		
Bazaruto	No partner agreement[16]	
Chimanimani	No partner agreement	
Managed by the State without partnerships		
Magoe	No partner	
Marromeu	No partner	

Table 2/5 below provides a quick reference and facilitates comparison of how these partnerships divide key roles and responsibilities between the partners. Several important lessons can be drawn in this regard.

- There tends to be confusion and tension regarding roles and responsibilities in the non-delegated, non-integrated models—and especially in the bilateral co-management model. This can lead to distrust and severely inhibit the success of the partnership, particularly when there is not a very clear, detailed agreement that outlines decision-making procedures for all aspects of management. Moreover, the presence of two organizations involved in on-the-ground management frequently leads to a lack of accountability and blame shifting if desired outcomes are not achieved.
- A business and/or management plan should be in place from the outset in order to align the partners and provide concrete objectives and timelines.
- Human resources and law enforcement are absolutely critical to the success of any CA/partnership. The fully delegated and integrated co-management models deal with these clearly by placing all such responsibility under a single entity with significant funding and autonomy outside the government bureaucracy. In this way, these models help insulate HR and law enforcement from political interference and respond to low government capacity. In other models, such as the financial-technical support model, government maintains responsibility and authority for human resources and law enforcement. However, this can lead to problems. First, the lack of partner role in hiring and firing is a key limiting factor in the effectiveness of the financial-technical support model, particularly in contexts of low capacity and weak governance. Second, in some partnerships, the government has insisted on maintaining authority over HR and law enforcement, but ultimately been unable to follow through by appointing sufficient and/or qualified personnel. In such circumstances, it is imperative that government be clear and realistic with the partner about what it can feasibly provide in these areas from the outset of the partnership. If government lacks the financial and technical capacity to appoint necessary personnel, it should strongly consider engaging in a devolved partnership in which the partner takes responsibility for on-the-ground management, including HR.
- A partner that provides the majority of funding for the reserve should generally have joint and formal agreement in selection of the park warden. A political or one-sided appointment can create tensions and setbacks for the partnership.

Specific lessons learned drawn from the experience of each partnership, and a summary of lessons learned by topic, can be found in Annex B.

[16] A partnership agreement was signed with African Parks in December 2017, to take effect in March 2018.

Table 2/5: Overview of partnerships and how they divide key roles and responsibilities

Partnership	Model /General Description	Governance	Management	Human Resources	Law enforcement
São Sebastião / SBV	Fully delegated, private management. Under Council of Ministers authorization, SBV implements a project with conservation, community, and ecotourism objectives. Within the broad outlines of the Authorization, SBV has high levels of autonomy.	SBV Board, with fully private composition	The SBV Board selects the Sanctuary Manager, who is responsible for day-to-day operations.	All Sanctuary staff are employed by SBV.	Law enforcement is handled by SBV, which engages local police for assistance where necessary.
Gorongosa / Carr	Integrated Co-Management. The partners equally share governance authority, and appointment of high-level management. Day-to-day management is delegated to GRP, which implements the jointly agreed management plan, with a high degree of autonomy.	Oversight Committee with 1:1 representation	Park management is led by a Warden, who is jointly selected by the parties. The Warden leads a team of 6 Department Directors. Each partner appoints 3 directors, after liaising with the other.	All staff, including law enforcement, are employed by GRP. With the exception of the Warden and Department Directors, hiring and firing of staff rests with GRP/Warden.	Led by the Director of Conservation Services (selected by the government), under the ultimate authority of the Warden.
Niassa / SGDRN	SGDRN was created as a private-public partnership between the State (51% share) and Investimentos Niassa Ltd (49% share), a private sector entity comprised of individual Mozambicans. SGDRN was awarded a 10-year management lease agreement, which provided high levels of autonomy in day-to-day management of the reserve.	Board of Directors, composed of government and private sector representatives. A majority of board members were appointed by government.	Led by an Executive Director and Warden. The Warden was generally selected by the Executive Director of SGDRN (through a tender process) and agreed to by government. The Warden reported to the Executive Director of SGDRN, who in turn answered to the Board. SGDRN had full authority over concessions.	All personnel, including the Warden, were hired and paid directly by SGDRN.	Led by the Warden, who reported to the Executive Director of SGDRN.

Partnership	Model /General Description	Governance	Management	Human Resources	Law enforcement
Niassa / WCS	Bilateral co-management. The partners agree to co-manage the park under a dual/parallel structure. No independent entity is created.	A governance body is created, composed of two individuals with 1:1 representation.	The government appoints a Warden with overall authority. The Warden works alongside a WCS manager. The two leaders collaborate in monthly planning but lead different departments on a daily basis. The warden takes the lead on political representation, community relations, and law enforcement. The WCS manager takes the lead on operational, planning, and technical activities. WCS's role with respect to concessions is unclear.	Each partner employs its own staff. Government appoints the Warden and Head of Law Enforcement and employs a handful of other staff in the park (~10-15). WCS contracts the vast majority of staff (~150), including law enforcement scouts.	Headed by the government Warden, who has ultimate authority and responsibility, and the government-selected Head of Law Enforcement. Despite being selected and appointed by government, neither of these two key management positions is currently contracted or paid by government.
Gilé / IGF	This partnership involves some aspects of financial-technical support and bilateral co-management. No joint entity created.	A governance body with 3 representatives of government and 2 representatives of IGF approves project activity plans and budgets, which currently comprise the vast majority of funding for the reserve.	The government appoints the Warden, who has full authority for the reserve. IGF appoints a Technical Advisor to work alongside and support the Warden.	Each partner employs its own staff. Government employs the warden and five scouts. IGF employs a Technical Advisor and Logistics Manager, and IGF and donors fund remaining salaries.	Law enforcement is officially led by the Warden, though most scout salaries are funded by donors.
Limpopo / PPF	PPF provides financial management and technical support. PPF essentially 'co-manages' a donor-funded project that provides the majority of funding for the park. However, key aspects of park management—such as HR and law enforcement—remain outside the direct scope of the project.	A 2:2 Steering Committee oversees project implementation.	The Warden is the ultimate authority for park. The PPF Project Manager is responsible for project implementation. A Project Implementation Unit—comprised of the Warden, PPF Project Manager, and PPF Finance Manager—meets regularly regarding project implementation.	All law enforcement rangers are employed by government. Other staff may be employed by either government or PPF. PPF employs ~10 personnel in the park (and supports the salaries of a further ~30). Government employs ~200.	Law enforcement is the authority and responsibility of the government. PPF provides advice/support only.

Partnership	Model /General Description	Governance	Management	Human Resources	Law enforcement
Quirimbas / WWF	This project was structured similar to the model in Limpopo in that WWF provided financial management and technical support, and 'co-managed' a donor funded project. The key difference was that in Phase 1 of the project, WWF hired almost all park personnel, except the Warden, making this phase more similar to a bilateral co-management model.	A 3:3 Steering Committee	The Warden is the ultimate authority for the park and is supported by a WWF Technical Advisor. In Phase 1, a Project Implementation Unit—comprised of the Warden, WWF representative, and WWF Technical Advisor—managed the project. In Phase 2, a representative of provincial government was added to the PIU and less sign-off was required by WWF for project expenses.	The Warden and Head of Law Enforcement were selected and employed by government. In Phase 1, most/all other staff was employed by WWF. In Phase 2, most staff (except technical advisors) were transitioned to the state payroll.	Law enforcement was the authority and responsibility of the government. WWF provided advice/support only.
MSR / PPF	PPF provides financial management and technical support. PPF essentially 'co-manages' a donor-funded project that provides the majority of funding for the park. However, key aspects of park management—such as HR and law enforcement—remain outside the direct scope of the project.	A 'Management Committee' consisting of representatives of government and the non-profit oversees project implementation.	The government-selected Warden is the ultimate authority for park. A PPF Operations Manager is responsible for project implementation. A Project Implementation Unit—consisting of these two leaders and other senior managers—meets regularly regarding project implementation and makes decisions by consensus.	All law enforcement rangers are currently employed by government (though PPF pays the salary of the Head of Law Enforcement). Other staff may be employed by either government or PPF. PPF employs ~6 personnel in the park. Government ~50.	Law enforcement is the authority and responsibility of government.

Partnership	Model /General Description	Governance	Management	Human Resources	Law enforcement
Zinave / PPF	PPF provides financial management and technical support, similar to the Limpopo model. PPF essentially 'co-manages' a donor-funded project that provides the majority of funding for the park. However, this agreement provides PPF with greater involvement in two key aspects of park management—discipline of staff and tourism development.	A 3:2 Steering Committee with 3 representatives of government (2 from ANAC and one from provincial government) and 2 representatives of PPF	The Warden is the ultimate authority for park. The PPF Project Manager is responsible for project implementation. A Project Implementation Unit—comprised of the Warden, PPF Project Manager, and PPF Finance Manager—meets regularly regarding project implementation.	Until recently, all law enforcement rangers were employed by government. PPF has recently hired an additional 26 rangers. PPF employs a Project Manager and an Operations Manager. PPF has also contracted and seconded a Head of Law Enforcement to the park and provides a top-up to the salary of the Warden. Government employs the remaining ~50 personnel in the park. The PIU has the right to suspend any employee who is found guilty of gross misconduct.	Law enforcement is the authority and responsibility of the government.

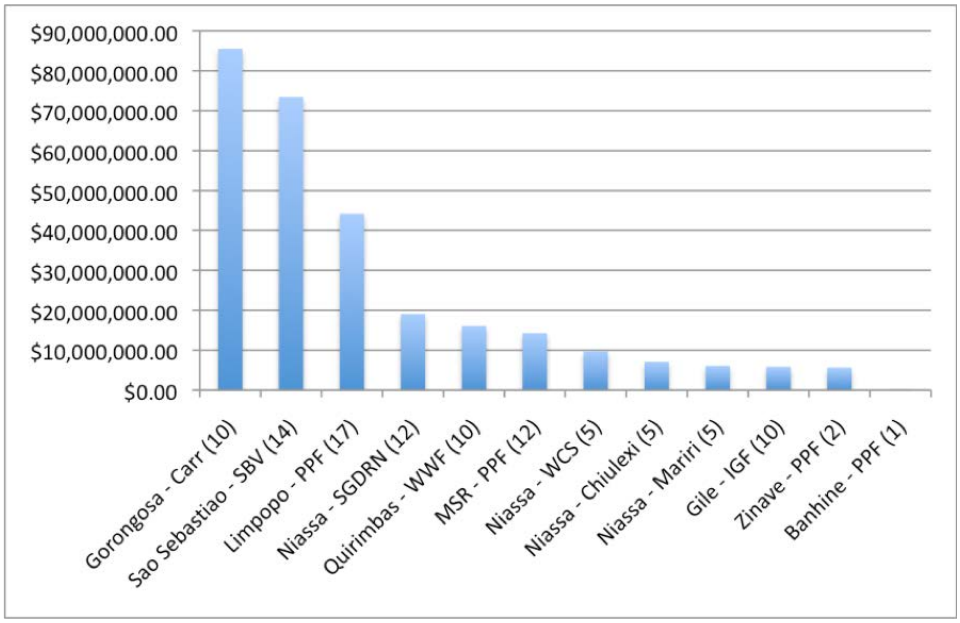
2.3.2 Financial investment

A key motivation for governments to engage in collaborative management is that partnerships are capable of infusing significant funding into reserves. Below we document:

- Total investment by partners/donors since the beginning of the partnership (Figure 2/8);
- Government funding compared to donor funding for each CA in 2017 (Figure 2/9); and
- The multiplier effect of partnerships, which leverage donor funding to increase overall park budgets (Tables 2/6, 2/7).

Note that we include the Chuilexi and Mariri concessions in Niassa in Figures 2/8 and 2/9, even though these two cases are not conservation areas, but concessions within a larger CA. We do so because the conservation partners in these concessions play a role highly similar to partners in full CAs; as such, they are distinct from typical photographic tourism or hunting concessionaires. In addition, their concessions are significant sizes that are more typical of a full-sized CA. Indeed, at 5,868 km^2, Chuilexi is larger than most national parks and reserves in Mozambique. Thus, it is useful to understand how these concessions, with management delegated to conservation organizations, fare compared to other CA partnerships, and draw from their experience insights into how such models perform.

Figure 2/8. Total investment (in capital and yearly operations) by partners/donors over the course of each partnership. The length of the partnership, in years, is included in parenthesis next to each park/partner name.[17]



[17] Note that both the São Sebastião and Niassa/SGDRN totals include funds directly spent by the partner/donors *as well private sector investments* made as a result of the partnership. By contrast, we did not include private sector investments for Niassa/WCS. This is because (1) we were not able to obtain numbers for the hunting blocks, and (2) the Niassa/WCS partnership has largely worked independent of the concessionaires, in contrast with the SGDRN partnership, which not only created the concession system as a core element of its model, but also tendered those concessions and worked closely with and monitored concessionaires.

Figure 2/9. Government and donor operational expenses per km² in 2017. The grey band shows the recommended minimum budget range of $500-900/km² (Lindsey et al., in prep).[18]

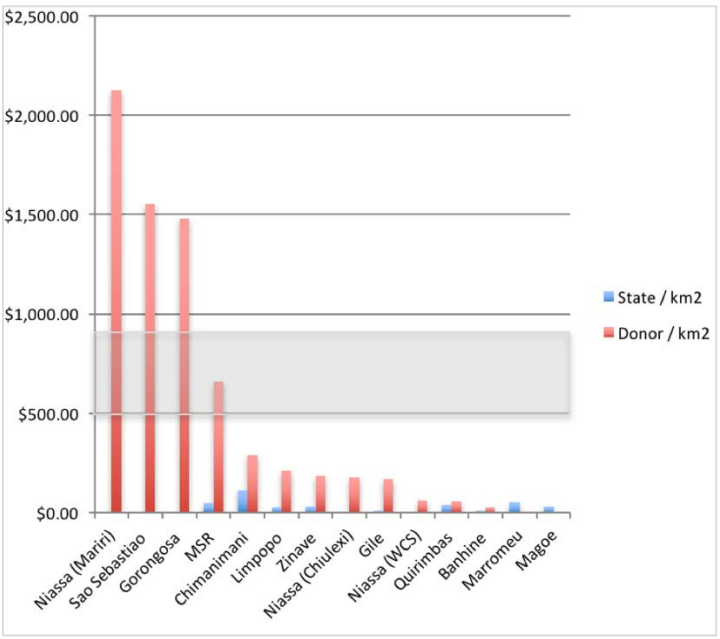


Table 2/6: Multiplier effect of partner/donor funding on total park budget in 2017

Park / Model	Annual Operating Expenditure ($/km²)	State Expenditure ($/km²)	Multiplier Effect
Delegated management			
São Sebastião	1554	0	1554
Integrated Co-Management			
Gorongosa	1484	4	376
Bilateral Co-Management			
Niassa (WCS)	61	1.1	57
Gilé	168	7.4	24
Financial-Technical Support			
Banhine	35	9.7	3.6
Limpopo	238	24.9	9.5
MSR	709	49.5	14.3
Quirimbas	93	38.2	2.4
Zinave	219	31.4	6
Government management			
Chimanimani	399	112	3.6
Magoe	51.7	51.7	1
Marromeu	30.2	30.2	1

Table 2/7: Percentage of 2017 budgets contributed by government and donors/partners (excluding revenue)

Park	Percent of 2017 Budget (opex and capex) contributed by GoM	Percent of 2017 Budget (opex and capex) contributed by Donors
Delegated management		
São Sebastião	0.0%	100%

[18] Note that donor funding for Mariri includes funding both for conservation activities within the Mariri concession as well as funding for broader conservation activities conducted by NCP across Niassa (though based in Mariri), such as the Mariri Environmental Centre, a community guardian program for 35 villages, and the monitoring of carnivore trophies.

Integrated Co-Management		
Gorongosa	0.2%	99.8%
Bilateral Co-Management		
Gilé	4.4%	95.6%
Niassa (WCS)	1.3%	98.7%
Financial-Technical Support		
Banhine	28%	72%
Limpopo*	6.6%	94.4%
Quirimbas	38.7%	61.3%
MSR	1.4%	98.6%
Zinave	2.8%	97.2%
Government management		
Chimanimani	28%	72%
Magoe	100%	0%
Marromeu	100%	0%

* Budget numbers for Limpopo include resettlement costs.

In terms of total investment, Gorongosa and São Sebastião—both long-term, devolved models—have generated by far the largest overall investments, the largest investments per square kilometer, and have the greatest multiplier effect of donor funding compared to government funding. In general, bilateral co-management and financial-technical support projects have tended to generate less external funding. This is in part because many donors are unwilling to invest in partnerships whose prospects are undermined by their susceptibility to political influence or the corruption of staff.

It is worth noting that while overall investment in Limpopo has been high, the vast majority of such spending has been focused on resettlement, leaving smaller yearly operating budgets for the park. Niassa has generated significant external funding, especially by leveraging private sector investment, but its budgets are still far below the amount needed to effectively manage a CA of its size.

Niassa, in particular, is a unique example with special complexities. We were only able to obtain 2017 budget data for overall reserve management and two conservation-focused concessionaires—NCP in Mariri and FFI in Chiulexi. We illustrate these investments separately in Figures 2/7 and 2/8, since the concessionaires in Mariri and Chiulexi act largely independently, with devolved authority, as conservation partners in the management of their concessions. If the investments by NCP, FFI, and WCS are combined and applied across the entire reserve, this raises Niassa donor support from $\$61/km^2$ to $\$115/km^2$. This is a conservative estimate of overall funding, since it does not include investments by hunting operators in Niassa, but it is still well below what would be required for effective management.

It is important to note that the above data represents direct financial outlays only. Where possible, we gathered information from government, partners/donors, and to a lesser extent the private sector. Ideally, indicators should capture the full value of what partner involvement brings—and not just dollars spent. This includes benefits that may be harder to quantify or gather data on, but that nonetheless have an enormous economic impact on the ground, such as:

- A full accounting of private sector investment (e.g., investment in photographic tourism or hunting facilities and associated infrastructure)—which often is attracted by the presence of a non-profit partner with tenure and a commitment to develop a CA.
- Indirect financial benefits—such as increases in taxes paid to government; knock-on effects of increased employment and tourism that reverberate throughout the local and national economy; growth in the value of a CA (e.g., due to increases in wildlife populations); community upliftment as a result of increased education, provision of water and other benefits; etc.

- Value of improvements in natural resources—which furnish long-term livelihoods as well as daily subsistence to local communities.
- Value of improvements in security and the rule of law.

In designing indicators (for the future) and looking at impacts (in the present), it is crucial to keep these in mind. Finally, we note a few lessons learned, drawn from interviews, that relate to financial investment:

- ***Sufficiency of funding is essential***. Mozambique's CAs are costly to manage, because they are subject to exceptionally high levels of human threat, are often depleted and underdeveloped, and are frequently remote and logistically challenging. Recent research indicates that a minimum of $500-900/km^2 is required to manage PAs effectively (depending upon the circumstances) and in some instances, >$2,000/km^2 (Lindsey et al., in prep).
- ***Continuity of funding—in addition to the amount of funding—is key***. This is a benefit of long-term partnerships that secure long-term funding. Management is able to make long-term plans and consistent progress as a result of stable, reliable funding. By contrast, reserves that rely on large institutional funding partners (e.g., USAID in Niassa, KfW in Limpopo)—though they greatly benefit from such support—sometimes face uncertainty, gaps, or delays in funding that can lead to setbacks in the reserve. Moreover, the experience of Quirimbas shows that short-term influxes of funding, without a realistic long-term commitment and plan to engrain capacity, can end up leaving little impact. This local experience is consistent with broader global experience, in which "much PA finance has been short term and focused on capital investment, with very limited support for sustaining PA structures and institutions over time," and therefore frequently fails to produce long-term sustainable outcomes (Emerton et al., 2006).
- ***Retention of revenue by parks is critically important***. When retained at the park level, revenue can be a relatively stable, flexible source of funding for the reserve, as well as an incentive to improved management and revenue generation efforts. Retention also enables timely sharing of revenues with local communities, thus strengthening the relationship between the CA and communities. The current system of remitting revenue to government creates delays (e.g., communities in Niassa did not receive their share of revenues in 2015 and 2016, a situation that was only recently rectified), and sometimes results in CAs receiving less than the amount due (e.g., Limpopo).
- ***Some CAs, despite having a partner, require more financial support***. This is particularly true of Niassa, which is of critical importance to conservation in Mozambique and yet has relatively low budgets. It is also true, to varying degrees, of many of Mozambique's other CAs, with the exception of Gorongosa. Government should not fall into the trap of assuming that because a partner is in place, a CA is 'taken care of.' Rather, the government's role in the partnership continues to be critical—such as by channeling additional support to a CA, either from the state budget or via bi- and multi-lateral funding. Still, the most important support the government can provide is political rather than financial—such as support to law enforcement with prosecutions, coordination with other state entities, and support in devising and implementing comprehensive and collaborative community development strategies.
- ***It is not only the amount of money that matters, but how effectively it is spent***. In other words, adequate funding is a necessary but not a sufficient condition for management effectiveness. The example of SGDRN shows that even relatively small amounts of funding can be leveraged effectively, while the example of Quirimbas teaches us that large sums can

be spent without significant impact. Thus, while financial investment is a key benefit of partnerships, it must be analyzed in connection with results on the ground. Key to the effectiveness of funding is the competency and commitment of staff.

2.3.3 Other aspects of economic performance: revenues, tourism, employment, and sustainability

A few key points emerge from the data on revenues, tourism, and employment (Table 2/8).

- Prior to the engagement of partners, most CAs had zero revenues, little or no tourism infrastructure, and a minimal staff complement. Thus, results shown are generally a 100% improvement on the prior status quo. Nonetheless, there is considerable room for improvement across all CAs.
- All CAs have Mozambican wardens, over 95% Mozambican staff, and usually employ at least 75% of staff from local villages, districts, and provinces.
- More devolved models tend to show promising results, though the inherent tourism attractiveness of the park—such as the coastal areas of Quirimbas and the proximity of MSR to the capital—also plays an important role.
- Impacts on the ground from tourism and employment extend beyond the numbers captured in the Table 2/8. For example, each person employed usually provides support to an entire family. Based on the household index, SGDRN estimated that it "directly contributed cash income to approximately 5,400 people in the Reserve. In a region where formal employment opportunities are scarce or negligible, SGDRN with its concession partners is the major employer in this part of northern Mozambique" (SGDRN, 2010). In addition, the information captured does not include the knock-on effects of tourism, such as the influx of cash and growth in local economies as a result of tourist spending and the provision of services to lodges.

We also measured sustainability by taking revenues as a percent of annual operating expenditure in 2017 (Figure 2/10). It is important to keep in mind that most CAs in Mozambique, as in Africa and the world, are unlikely to achieve sustainability, though it is critical that they provide as high a percentage of the required operating expenses as possible. In Mozambique, only São Sebastião is 100% financially sustainable. None of the other CAs reach more than 15% coverage of operating expenses, reflecting the weak tourism environment in Mozambique, low wildlife densities in terrestrial CAs, below-market concession fees in coastal areas, the early stage of development and restoration of many CAs which will require a long-term commitment, and other factors (Rylance, 2014; ANAC, 2015 Financial Plan).

Notably, while Gorongosa currently scores very low on sustainability, this is a reflection of a positive development—i.e., a large and growing operating budget.[19] Donors are increasingly attracted by the successes the partnership has delivered. Moreover, nearly a third of the operating budget is spent on human development work outside the park, and thus is not strictly park expenditure. Most importantly, where a long-term, committed partner is in place, the initial lack of sustainability should be understood as a necessary stage in the long-term development of the park, since large

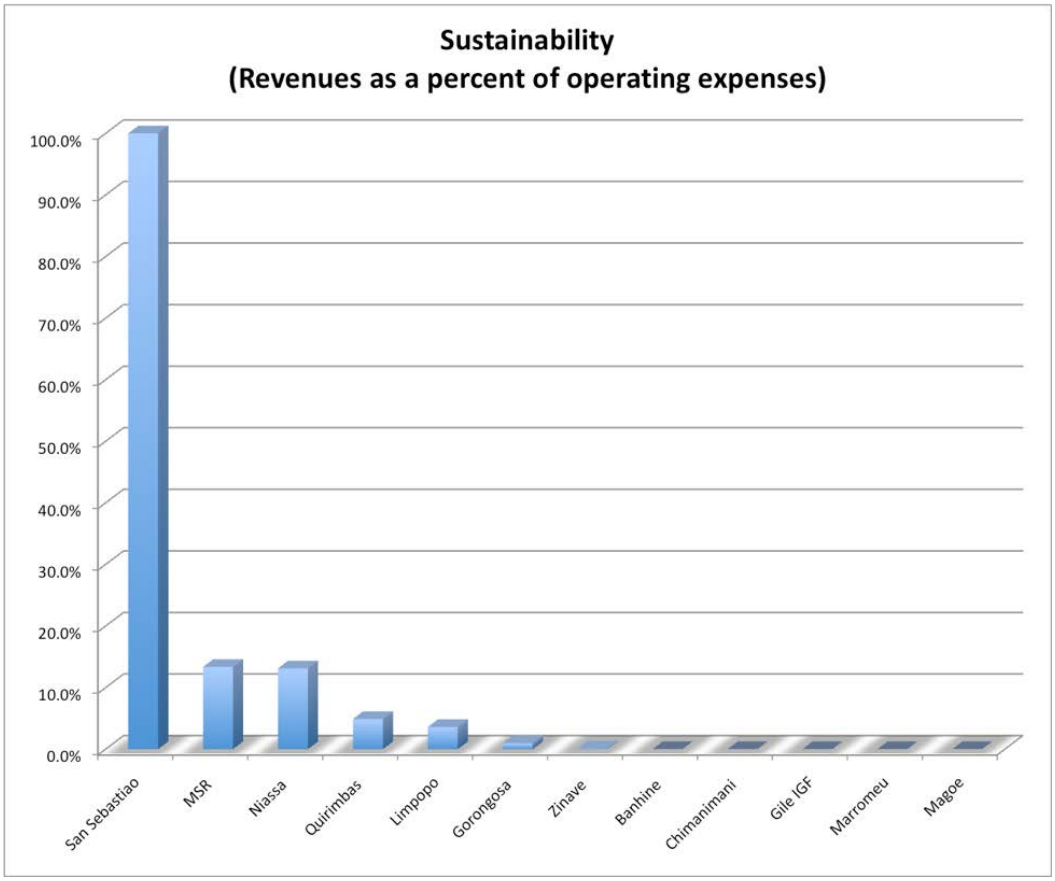
[19] It also bears mentioning that the positive trend in tourism and revenue generation in Gorongosa was reversed in 2013-2016 due to civil unrest in Sofala Province.

investments will be needed in order to restore the park to a level that will eventually generate more significant revenues.

Table 2/8: Current revenue, tourism, and employment data by CA and partnership model

Park / Model	Yearly Revenues	Tourism Development	Employment
Delegated management			
São Sebastião	$682,000 From residential and commercial bed levies	17 residential sites developed 2 commercial lodges built	Approx. 400 permanent staff (including Sanctuary and commercial lodge staff) - 98% Mozambican Sanctuary staff - 75-78% Sanctuary staff from local communities
Integrated Co-Management			
Gorongosa	$65,500 From park gate fees	1 main camp (with restaurant and conference center) 1 luxury tented camp (opening 2018)	529 permanent staff (including park and lodge staff) - 98% Mozambican - 82% from local communities 145 casual workers
Niassa (SGDRN)	$650,000 From concession fees and abate tickets	9 hunting concessions 2 photographic tourism concessions	800 permanent staff (including 120 park staff, remainder private sector staff) - 99% Mozambican - 88% from local communities
Bilateral Co-Management			
Niassa (WCS)	$337,562 From concession fees	Same as SGDRN, except 3 concessionaires have not paid 2017 fees (1 is no longer active)	150 permanent park staff 200+ permanent staff employed by conservation concessionaires (Mariri & Chiulexi) Unknown number of staff employed in hunting blocks 200+ casual workers
Gilé	Negligible	1 campsite	40 permanent park staff
Financial-Technical Support			
Banhine	Negligible	None	41 permanent staff - 98% Mozambican
Limpopo	$96,054 From gate fees	2 park camps 1 operator tented camp	210 permanent park staff - 98% Mozambican 66 casual workers
MSR	$98,505	1 community lodge	56 permanent park staff - 95% Mozambican 31 community lodge staff
Quirimbas	$41,600 From concession, gate, and activity fees	11 tourism camps/lodges	72 permanent park staff 350 private sector tourism staff 48 casual workers
Zinave	Negligible	2 rustic campsites in development	52 permanent staff - 96% Mozambican 100 casual workers
Government management			
Chimanimani	Negligible	None	54 permanent park staff
Magoe	None	None	
Marromeu	None	None	9 permanent park staff

Figure 2/10. Financial Sustainability by CA



2.3.4 Conservation Impact

In this section, we compare the ecological performance of Mozambique's CAs—both to other CAs in the region and to each other. In particular, we compare estimated densities and trends of terrestrial wildlife, including elephants, other ungulates, lions and leopards.[20] These analyses show that with few exceptions Mozambique's CAs remain under massive pressure from human threats. Overall the picture is worrisome, with Gorongosa being a clear, positive exception.

We used data from aerial census reports and from questionnaire surveys of expert respondents undertaken during the current study and by Lindsey et al. (2017). The variable nature of wildlife censuses in Mozambique, coupled with the inconsistent methods applied, mean that deriving trends and accurate populations estimates is difficult. Nonetheless, we were able to derive a number of clear patterns.[21]

Ecological performance of Mozambique's CAs relative to the region

A recent study performed by Lindsey et al. (2017) found that Mozambique's terrestrial CAs are faring poorly compared to peers in the region. In particular:

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[20] Note that we did not conduct an analysis of marine areas, since we were not able to obtain sufficient data.

[21] A more complete discussion of methods and a detailed description of the ecological performance of each CA can be found in Annex D.

- Lindsey et al. (2017) estimated the proportion of CAs in several African countries where ungulate populations (excluding elephants) were estimated to be at >50% of estimated carrying capacity (Figure 2/11). Only in Zambia and Angola were CAs considered to be performing worse than CAs in Mozambique.
- Lion populations are generally declining across Mozambique and there are no CAs in which lions are at >50% of carrying capacity (Figure 2/12).
- Black and white rhino have become almost completely extirpated from the country.

Figure 2/11. The proportion of CAs where the estimated biomass of medium-large ungulates occurred above or below 50% of estimated carrying capacity ('K') (Lindsey et al., 2017)

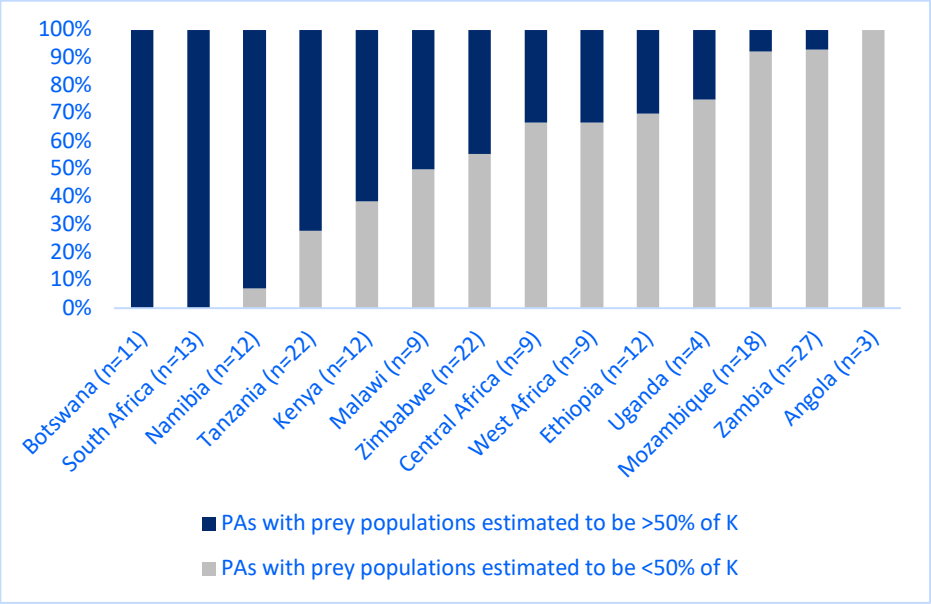
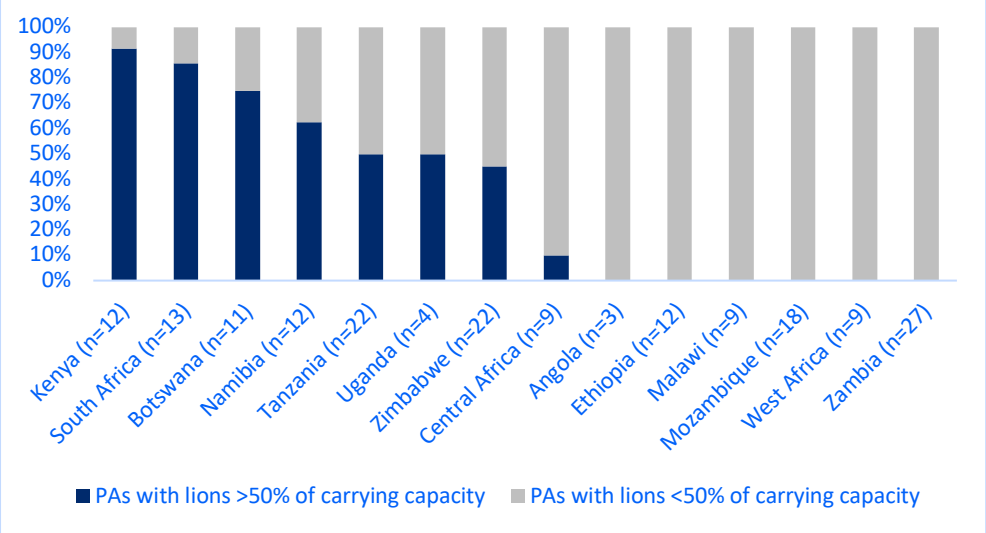


Figure 2/12. The proportion of CAs in which lions occur at >50% of estimated carrying capacity. (Lindsey et al., 2017)



Lindsey et al. (2017) also found that the threats posed by the bushmeat trade and human encroachment of PAs were considered to be more severe in Mozambique relative to many other

African countries (Figures 2/13, 2/14). The severity of threat was estimated by respondents with expertise relating to each CA (n=180).

Figure 2/13. Estimated severity of bushmeat poaching as a threat to wildlife in CAs in lion range in Africa (on a 0-5 scale, where 0 is low and 5 is severe) (Lindsey et al., 2017).

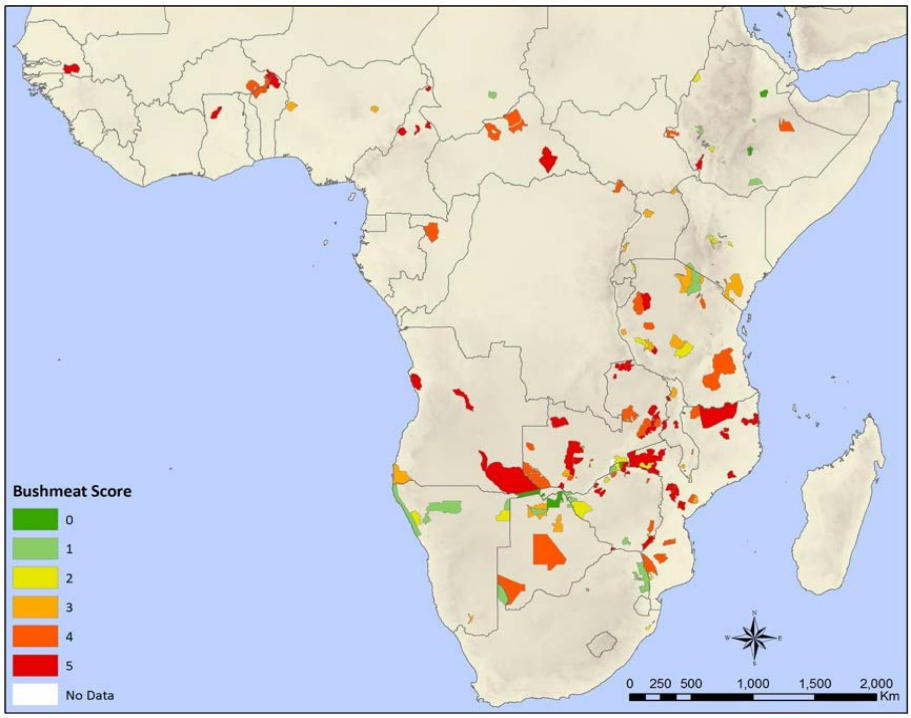
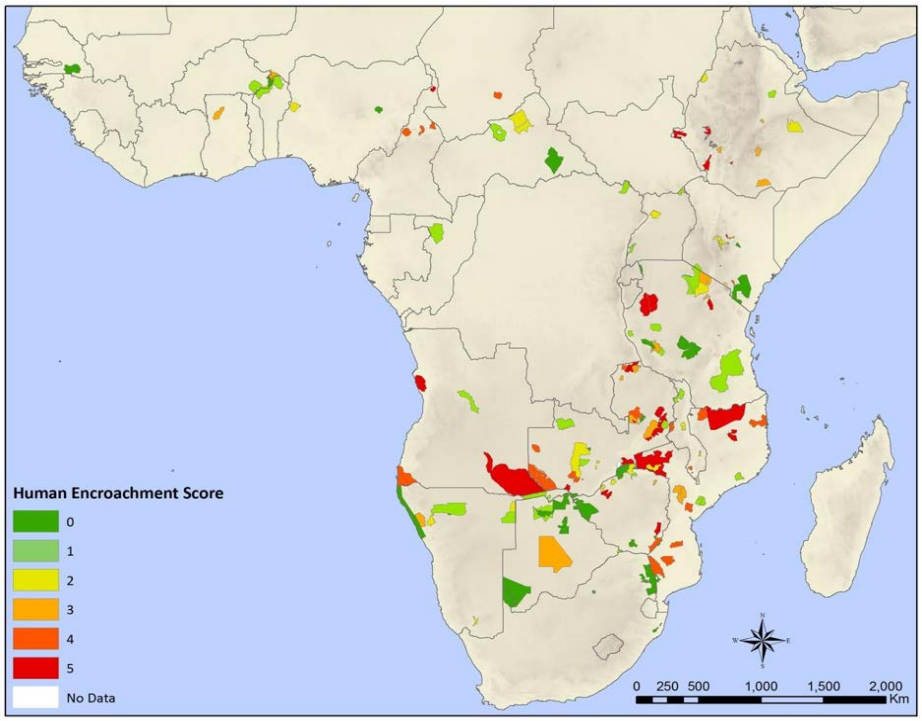


Figure 2/14. Estimated severity of human encroachment as a threat to wildlife in CAs in lion range in Africa (on a 0-5 scale, where 0 is low and 5 is severe) (Lindsey et al., 2017).



Ecological performance of Mozambique's CAs relative to each other

In Mozambique, **Gorongosa, São Sebastião and MSR** are relative bright spots—CAs in which wildlife populations are generally stable or increasing.[22] These CAs, along with Gilé, are the only CAs in which ungulate populations are not declining. Gorongosa and MSR also have solid elephant populations (Table 2/9, Figure 2/17), despite the sharp decline in the elephant population across the country in recent years (Thouless et al., 2016). Gorongosa stands out in particular. In Gorongosa, dramatic increases in herbivore populations are due mostly to natural growth; whereas in MSR, a much greater percentage of these populations are present due to recent reintroductions. Gorongosa is also the only national park or reserve in which lions are faring well and increasing,[23] whereas there are virtually no large predators left in MSR.

Niassa—by far Mozambique's largest reserve—experienced a period of recovery that lasted until 2009. The reserve has the largest percent of wildlife biomass compared to potential carrying capacity (Figure 2/15). Since 2009, however, the trends in wildlife populations have generally been declining. The situation facing elephants in Niassa is dire, as their numbers continue to crash. Niassa still has a large lion population (estimated at 800-1000), by far the largest in the country, but indications are that it is starting to decline under pressure as well. There is growing evidence of a new threat posed to lions in the reserve from targeted poaching for the commercial sale of body parts (C. Begg, pers. comm.).

It is important to note, however, that Niassa is a vast and heterogeneous place. Certain concessions under private conservation management are faring better than the rest of the reserve—namely, Mariri and Chiulexi—though they too are experiencing extreme human pressures, and in critical need of coordination and support with government and central reserve management in order to effectively counter these threats. Lion populations in these parts of the reserve are increasing, and there is a greater density of elephants. By contrast, some parts of the reserve are becoming highly transformed and depleted, such as the L1 block which includes the town of Mavago.

In **Gilé**, wildlife numbers appear to be stable though low in density, and elephants may even be increasing. Lions are absent. In **Limpopo**, wildlife populations are declining in spite of significant reintroductions. Of particular concern is a recent spike in targeted poaching of lions for their body parts. It is also concerning that domestic animal biomass is far greater than wild animal biomass and near the park's ecological carrying capacity (Figure 2/15). Wildlife densities in **Zinave** are very low, though increasing—likely as a result of the recent partnership with PPF, which has undertaken significant reintroductions. It is not clear how much of this increase is due to natural growth as opposed to recent reintroductions of wildlife. Elephant numbers are extremely low, and lions have not been reported and are probably absent. Leopards are effectively extirpated.

In areas with little or no partnership presence, the situation is particularly dire: wildlife populations occur far below their estimated carrying capacity and are generally declining. This is the case in **Quirimbas**[24], **Banhine**, and **Magoe**. An exception is **Marromeu**, where wildlife populations

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[22] Lindsey et al. (2017) also reported that wildlife populations are also considered to be increasing in Coutadas 9, 11 and 12; however, this report focuses on national parks and reserves.

[23] Lions are also considered to be increasing in a few privately managed concessions (e.g., Coutada 9, Sabi Game Reserve and Karangani Game Reserve) (H. Rosier, pers. comm; Everatt et al., in prep).

[24] This is the case for Quirimbas' terrestrial wildlife populations. We did not have data for marine populations in order to assess their status.

appear to be increasing (Beilfuss et al., 2010), with the likely exception of elephant numbers (which are believed to be declining after a period of increase) and lions (which continue to persist at much lower densities than expected from prey availability). The recovery in ungulate numbers is likely because: (1) Marromeu is surrounded by coutadas with a significant management presence, and (2) the CA is relatively sheltered from human impacts due to its swampy and inaccessible terrain, providing natural protection from poaching. Note, however, that while wildlife populations are generally increasing, they are still far below carrying capacity.

The data available on leopards is scarce and there is, therefore, an urgent need for monitoring of the species to assess status and trends. Survey respondents were of the belief that leopards occurred well below the potential carrying capacities of the majority of CAs, and in most instances, were likely to be declining (Table 2/9).

Figure 2/15. Estimates of current wild, domestic and potential biomass for Mozambique CAs.

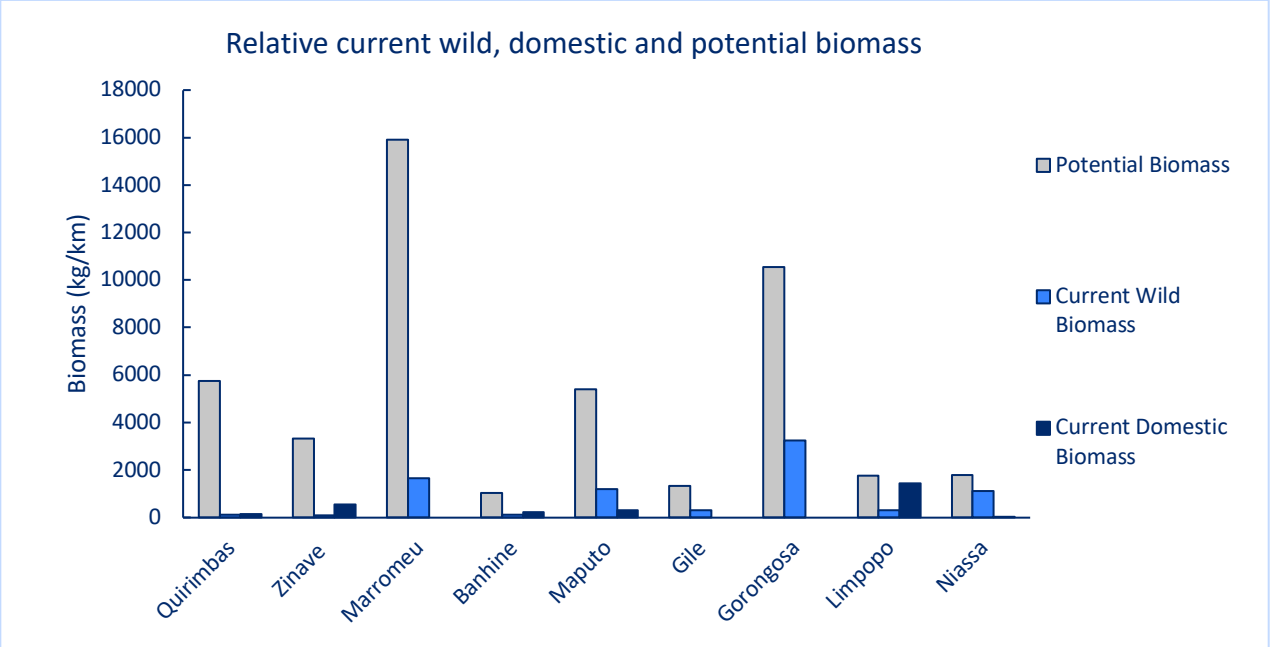


Table 2/9: Trends and population status of various terrestrial species relative to estimates of carrying capacity

CA	Ungulates (excluding elephants)		Elephants		Lions†		Leopards	
	% of estimated carrying capacity	Trend	% of estimated carrying capacity	Trend	% of estimated carrying capacity	Trend	% of estimated carrying capacity	Trend
Banhine	11	Stable	<25*	Increasing	3	Declining*	<25+	No data
Gilé	22	Stable*	<25*	Stable*	0	Absent	<25*	No data
Gorongosa	31	Increasing	26 to 50 *	Increasing	18	Increasing	<25*	Stable*
Limpopo	16.8	Declining	26 to 50 *	Declining	15	Declining	<25*	Declining
Magoe	<25*	Declining*	No data	No data	No data	No data	No data	No data
Marromeu	10	Increasing	No data	Declining	No data	No data	No data	No data
MSR	20-50*	Increasing*	51 to 75*	Increasing	0	Absent	<25*	Stable*[25]
Niassa	62	Declining	No data	Declining	44	Declining	51 to 75*	Declining*
Quirimbas	2	Declining*	<25*	Declining*	7	Declining*	<25*	Declining*
Zinave	3	Increasing	<25*	Increasing	0	Absent+	<25	Stable*

*Denotes estimates derived from questionnaire surveys, data lacking asterisk were derived from aerial surveys.

+Denotes estimates derived from spoor surveys (Everatt et al., in prep)

† Data from Lindsey et al., 2017, K. Everatt et al., in prep.

[25] It is extremely hard to know the trends of leopard populations. Only one leopard was recorded as part of a camera trap survey conducted by the Lubombo Transfrontier Conservation Area Leopard Monitoring Project in 2016. Thus, even if leopards are stable or increasing, it is from extremely low densities.

Figure 2/16. Levels of biomass of wild herbivores relative to carrying capacity in Mozambique protected areas, with corresponding levels of depletion. (Dates denote the year of the latest aerial survey available.)

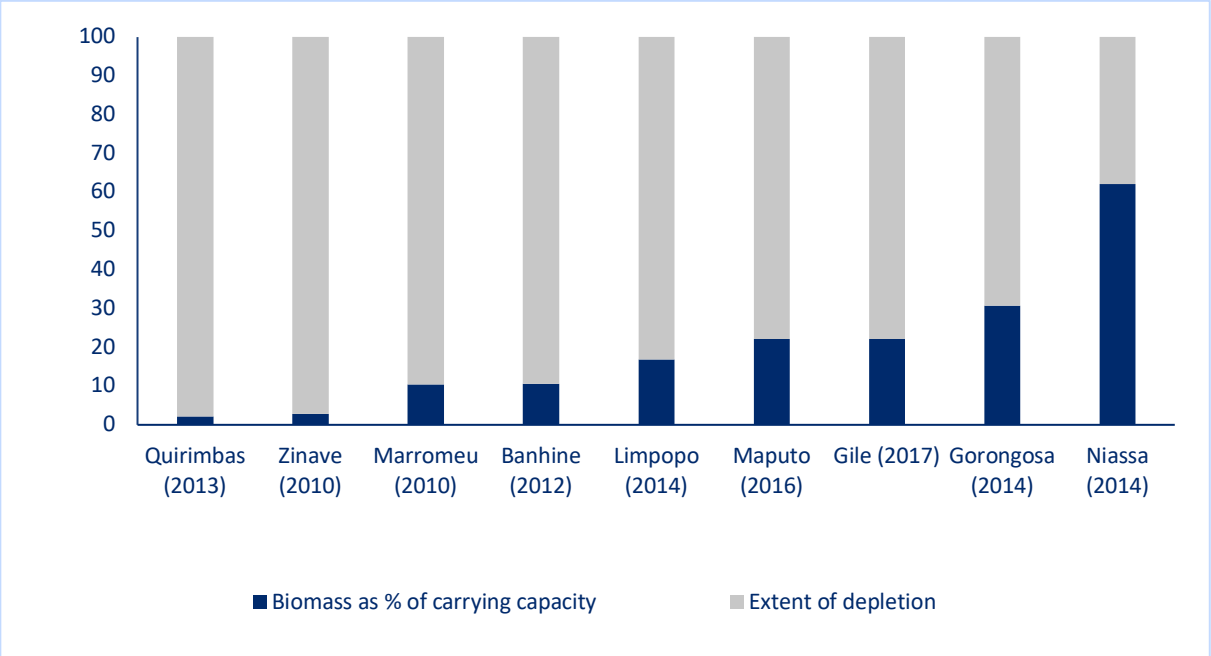
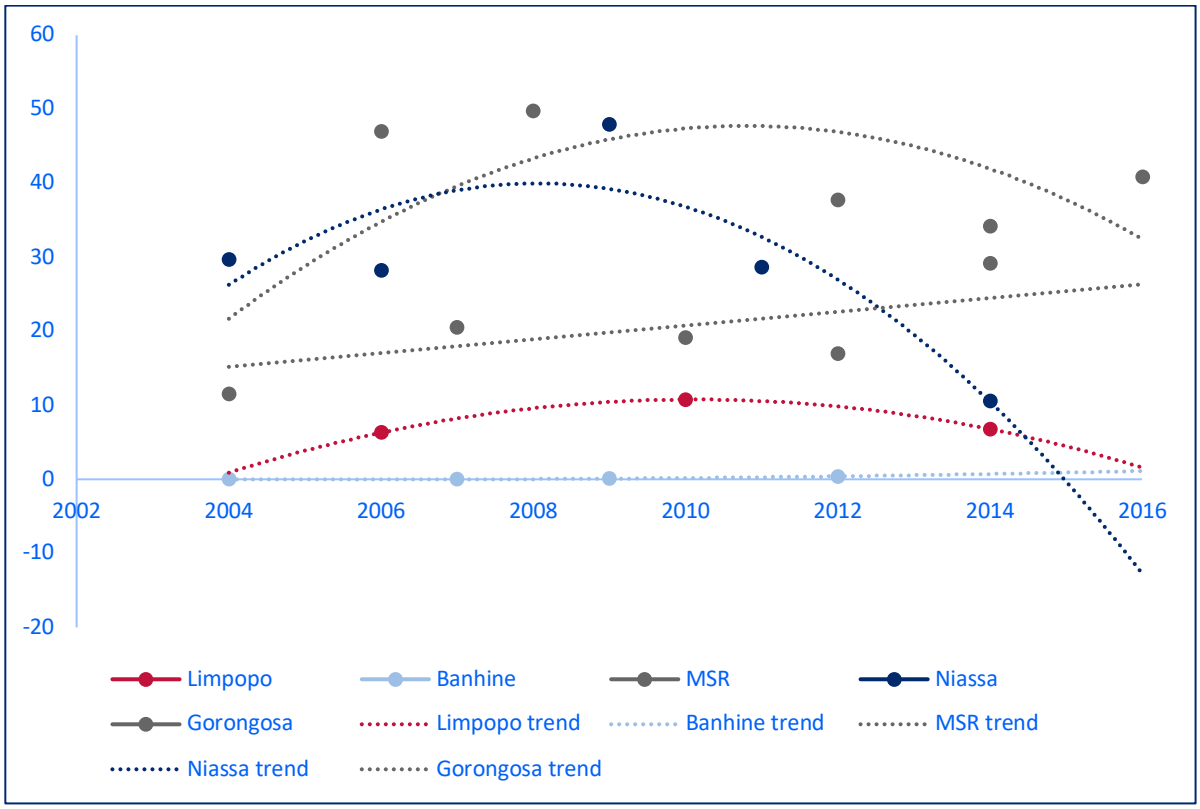


Figure 2/17. Trends in elephant numbers in selected reserves (NB the population of elephants in Niassa is not zero, but risks becoming so if current trends continue) (y-axis represents elephant densities: elephants per km2, multiplied by 100 for ease of viewing).



Major threats to Mozambique's CAs

The primary threats facing each CA are summarized in Table 2/10 below. Some overarching trends and patterns can be observed:

- Mozambique's CAs are affected by a wide range of human threats.
- Bushmeat poaching was most commonly reported as the most pressing threat.
- Other challenges are also widespread—including elephant and lion poaching, human encroachment, illegal logging and illegal mining.
- The presence of people in Mozambique's CAs represents a major barrier to management effectiveness.
- Without steps to limit human settlement in CAs, including ongoing immigration, the long-term sustainability of several CAs is in jeopardy.
- Additionally, without decisive action to tackle illegal hunting, logging and mining in CAs, the future of Mozambique's CAs and its wildlife are at serious risk.

It should come as little surprise that those CAs performing best in ecological terms are also those with the highest density of law enforcement staff (Table 2/11). Most of Mozambique's CAs have insufficient law enforcement to face the level of threat, particularly Mozambique's largest CAs—Niassa, Banhine and Limpopo. Studies show that optimum ranger density for rhino poaching is 1/9-20km^2, and for elephant poaching is 1/24-50km^2—although the precise number depends on the particular characteristics of the area and the nature of the threats it faces (Hensen et al., 2016).

Table 2/10: Estimates of the extent of cultivation and human settlement, and key terrestrial threats (as identified by experts during questionnaire surveys) (Lindsey et al., 2017)

Reserve	Estimated % of CA under human settlement or cultivation	Key threats in order of perceived severity
Banhine	8%	• Bushmeat poaching • Human encroachment • Livestock encroachment • Illegal logging • Tree cutting for charcoal • Human-wildlife conflict
Gilé	0%	• Bushmeat poaching • Illegal logging • Tree cutting for charcoal
Gorongosa	No data[26]	• Bushmeat poaching • Human encroachment • Human-wildlife conflict
Limpopo	15%	• Poaching of wildlife for body-parts (e.g., elephant, lion) • Bushmeat poaching • Human encroachment • Livestock encroachment
Magoe	10%	• Poaching of wildlife for body-parts (e.g., elephant, lion) • Bushmeat poaching • Human encroachment • Human-wildlife conflict

[26] There has been increased encroachment over the last 2-3 years due to political instability in the region.

Marromeu	No data	• Bushmeat poaching
MSR	No data	• Bushmeat poaching
Niassa	5-10%	• Poaching of wildlife for body-parts (e.g., elephant) • Bushmeat poaching • Human encroachment • Illegal mining
Quirimbas	40%	• Bushmeat poaching • Poaching of wildlife for body-parts (e.g., elephant) • Human encroachment • Livestock encroachment
Zinave	15%	• Bushmeat poaching • Human encroachment • Illegal logging

Table 2/11: Size of ranger force compared to size of CA.

Park	Size of law enforcement force	Size of CA (km^2)	Rangers / km^2
São Sebastião	62	439	1/7
Niassa (Mariri)	32	580	1/18
Gorongosa	183	4087	1/22
MSR	17-25	1040	1/42 - 1/61
Zinave	45	4000	1/89
Niassa (Chiulexi)	60	5868	1/98
Limpopo	74	11,233	1/152
Quirimbas	54	9130	1/169
Gile	25	4387	1/175
Banhine	35	7250	1/207
Niassa – WCS	89	42,200	1/474

2.3.5 Engagement with Local Communities

In this section, we provide a brief overview of the nature and degree of engagement of local communities—with respect to governance, outreach and livelihood programs, and benefit sharing.

In terms of governance, local communities are generally consulted during the development of management plans, especially with respect to zoning. Under the 2014 Conservation Law, representatives of communities will also participate in advisory management councils.

In terms of community outreach, Gorongosa, MSR, São Sebastião and the two private conservation-oriented concessionaires in Niassa have the most significant programs (Table 2/12), with Gorongosa far and away the largest. Limpopo has focused on resettlement, providing a variety of benefits to households that agree to move, but does not otherwise have a community outreach program. Other CAs have more basic, limited programs, and CAs without partners tend to have none at all. Table 2/13 illustrates the kinds of community outreach undertaken by each partnership. Note, however, that it only indicates the presence or absence of such engagement, and not the scale of the intervention.

Many CAs are also significant employers of local communities (Table 2/12). In terms of revenue-sharing, there is room for improvement, but the amounts provided nonetheless provide real benefits

when invested properly in the kinds of benefits that reach throughout communities (e.g., schools, health facilities, etc.).

Table 2/12: Financial benefits to local communities in the form of community outreach, revenue sharing, and employment. Employment includes private sector lodges except for hunting blocks in Niassa, since information was not available.

Reserve	Size of Human Population	Amount Spent on Community Outreach	20% of Park Revenues	Employment
Banhine	3000	No data	Negligible/None	30 permanent*
Gilé	0 in reserve 12,000-14,000 in buffer zone	$130,720 (yearly average since 2014)	None	30 permanent*
Gorongosa	7,000 in reserve 175,000 in buffer zone	$2,000,000 in 2017	$13,100	423 permanent 145 seasonal
Limpopo	6500	$8,139,534 since 2007 (negligible in 2017, excluding resettlement)	$15,369	158 permanent* 66 seasonal
Magoe	3736	No data	Negligible/None	No data
MSR	650	$400,000 in 2017	$15,761	65 permanent* 40 seasonal
Niassa	42,000	No data	$54,010	128 permanent
– Chiulexi	1200	$190,000 in 2017	n/a	99 permanent
– Mariri	2000	$389,837 in 2017	n/a	70 permanent
Quirimbas	95,000	No data	$6,656	338 permanent*
São Sebastião	5804	$3,500,000 since 2003	n/a	300 permanent
Zinave	5776	$100,000	Negligible/None	38 permanent* 160 seasonal

*Assumes 75% of employment is from local communities where more specific information was not available (as partners usually estimated 75-85% employment from local communities).

Table 2/13: Kinds of community outreach by partnership. (Grey indicates current programs; blue indicates programs in development).

Park	Agriculture	Alternative Livelihoods	Education	Employment	Health	HWC	Tourism (community lodge)
San Sebastiao - SBV							
Gorongosa – Carr							
Niassa – SGDRN							
Niassa – WCS							
– Mariri							
– Chiulexi							
Gile – IGF							
Quirimbas – WWF							
Zinave – PPF							
MSR – PPF							
Limpopo – PPF							
Banhine – PPF	No data. Likely limited or zero community engagement due to absence of a partner and limited ANAC budget.						
Chimanimani							
Marromeu							
Magoe							

The information in this section is intended to provide some helpful indicators on the status of community engagement in various parks with different kinds of partnerships. Nonetheless, it is

important to keep in mind that this does not capture the full value CAs provide to communities, which also includes:

- Knock-on and multiplier effects of investment and employment (Rylance, 2014); and
- The value of improved environmental services and natural capital (including fishing, forestry, etc.). This is especially critical in low-income countries, where natural capital makes up on average 36% of total wealth and directly supports the livelihoods of subsistence communities, which mostly live in rural areas (Rylance, 2014; Fitzgerald, 2015).

Finally, a few recommendations regarding partnership engagement with communities can be drawn from interviews:

- ***It is essential to have a clear delineation of authority and responsibility between the CA and local government, and to manage community expectations accordingly***. In particular, while the CA should aim to provide benefits to local communities, provision of essential services to communities is fundamentally a government responsibility. Moreover, there must be alignment of CA and district goals in terms of development inside and near the CA that is consistent with conservation; the lack of such alignment undermines the CA and leads to conflicts with communities.
- ***If other NGOs seek to work with communities in or near the CA, the CA's community department should coordinate these activities***, so as to ensure synergy, avoid working at cross purposes, and to manage expectations that may be created by outside organizations.
- ***Projects should be adaptive, but the community department as a whole should have a long-term approach*** in order to build positive relationships with local communities.
- ***Insofar as possible, projects should tie responsibilities to benefits, and draw a direct connection between the CA and those benefits through 'marketing' and 'branding' of outreach programs***. For example, revenue sharing should function as an incentive to local communities to support conservation (rather than being received as an entitlement, which is currently the situation).
- ***CA management should maintain consistent and continuous communication with local communities***, discussing activities before they begin, engaging communities in the process insofar as possible, and following up with communities, especially when something does not occur as planned.

The amount of funding available for human development in Africa exceeds that available for conservation by several orders of magnitude (Lindsey et al., 2014). Therefore, we recommend that conservation NGOs working in CAs look for opportunities to partner with human-development NGOs in order to assist with the financial burden of community engagement. In addition to accessing additional funds for a CA and its rural surroundings, such partnerships can introduce skill-sets that may be lacking within conservation NGOs.

2.3.6 Quality of Staff and Level of Capacity Building

The quality of staff and level of capacity building was especially difficult to evaluate and compare. Nonetheless, we were able to distill some key takeaways from interviews with stakeholders.

First, the quality of staff is highly influenced by:

- The ability to hire based on merit and objective criteria, free of political influence.

- The ability to attract qualified personnel by offering higher salaries and other benefits (i.e., beyond civil servant standards), and by offering them the potential to be part of an inspiring project with the necessary funding and support to succeed.
- The ability to discipline and fire non-performing and corrupt personnel, since the inability to do so lowers morale and spreads bad behavior ('Rotten apples spoil the barrel').

Second, capacity building of staff often has as much or more to do with on-the-job mentorship and the experience of working alongside skilled, committed managers as it does with 'formal, classroom training'. Capacity building also frequently requires changing habits and the 'culture of work'—which requires proper systems and accountability. Thus, training provides a foundation, but is not enough by itself to ensure capacity building.

Third, building the capacity of a CA—in terms of infrastructure, equipment, and management budgets—requires a strong, long-term commitment by the partner. The experience of Quirimbas is instructive: initial advances could not be maintained where the partner and principal donor sought to transition management back to the state after only five years; today, the terrestrial area of Quirimbas is extremely depleted. The examples of Gorongosa and the Mariri concession in Niassa also show how relatively small initial budgets can grow over time as strong, committed partners demonstrate success and attract additional funding.

Fourth, in terms of models, financial-technical support partnerships tend to struggle with the above-mentioned factors, which underpin long-term staff and CA capacity building. These models generally do not have the same ability to attract highly qualified staff or the flexibility to fire non-performing and corrupt staff. They also frequently do not have the long-term vision and ongoing commitment that is necessary to truly build capacity in extremely low capacity areas.

2.3.7 Improved Information and Knowledge

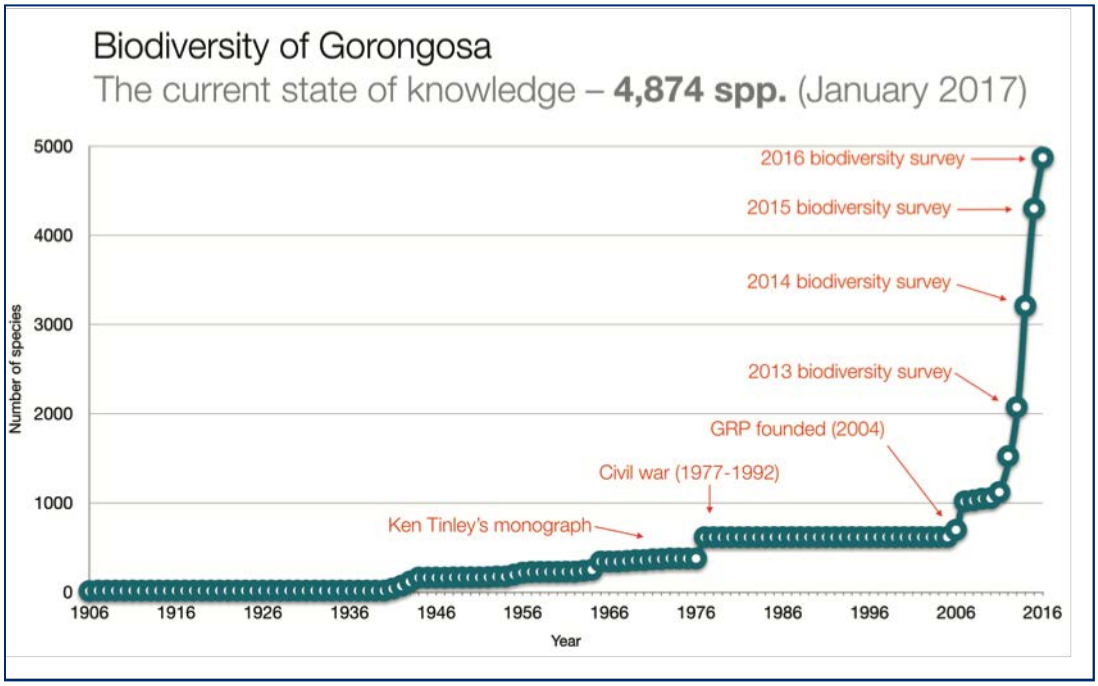
One fundamental difficulty in evaluating CAs is a lack of information—both as a starting baseline from which to compare, and on an ongoing basis. There is a need for standard indicators and an M&E framework for the CA system that enables the evaluation of partnerships on a consistent, uniform basis. Equally, each partnership should have clear indicators and timelines for achieving specific milestones in order to facilitate oversight and monitoring.

Generally, where there is no partner in a CA, there tends to be very little information available. Financial-Technical Support and other more limited partnerships tend to allow a minimum level of research or monitoring to be done in order to execute management decisions, though the level of knowledge and information regarding the CA is generally far from ideal and there are many gaps. For example, Limpopo and Niassa conduct biannual aerial surveys, which provide information on elephant populations, though information on other species is more limited and less reliable. In Gilé, patrolling rangers record large mammal encounters—a simple and useful but limited and highly imperfect source of information on wildlife population trends.

Devolved models tend to finance more research than other kinds of partnerships—though this fundamentally depends on the character of the partner, the level of funding, and the purposes and goals of the partnership. Gorongosa, for example, has conducted an extensive households survey in order to provide park management with a baseline of human activities that can allow for later monitoring and regulation (Figure 2/23). By contrast, other CAs struggle to deal with the expansion of human settlements and cultivation, as well as ongoing immigration, where there is no reliable

baseline information to reference. Gorongosa has also inaugurated the E.O. Wilson laboratory, which hosts international researchers who work alongside Mozambican colleagues and even local students. In addition to aerial surveys, which it conducts every two years, it carries out annual biodiversity surveys. When the partnership started, there were 600-700 known species in the park; 10 years later, nearly 5000 have been identified.

Figure 2/18. Increase in knowledge of biodiversity in Gorongosa National Park



In Niassa, NCP (based in the Mariri concession) carries out carnivore research for the entire reserve and ensures trophy hunting of carnivores is sustainable and rigorously monitored (Begg et al., 2017). As a result of the strong hunting regulations in Niassa (initially implemented under SGDRN) and trophy monitoring by NCP, the European Union has provided special dispensation for the export of lion trophies from Niassa. No other lions may be imported into the EU from Mozambique.

Similarly, in Quirimbas, where WWF initially played a strong role in park management, a variety of research and monitoring was conducted: including a vegetation study, carbon studies, a wild dog study, a marine turtle survey, a bird species survey, as well as studies on the human carrying capacity of the park, livelihoods in the buffer zone, and non-timber forest products. In addition, ground and aerial counts of animals were conducted, eight elephants were satellite collared in order to map their routes (with the goal of mitigating HWC), and a fish capture monitoring system was introduced. Little if any such research and monitoring would be possible without the presence of partners.

2.4. Conclusions

In this section, we summarize: (1) key challenges and threats to effective management in Mozambique, (2) the performance of CAs with partners compared to performance of CAs without partners; (3) why devolved partnership models are generally more effective than other management

models; (4) the nature and importance of government's role in CA partnerships; and (5) the importance of selecting a strong, well-capacitated, and committed partner.

2.4.1 Key challenges and threats to effective management in Mozambique

Key challenges to effective management across Mozambique's CA system are:

- **A weak enabling environment for conservation**, due to:
  - The presence of people inside CAs—and in particular the lack of controls on expanded settlement and continued immigration, associated with the lack of effective and enforced zoning, and the lack of a clear and comprehensive Mozambican policy on people and parks.
  - Inadequate political will to tackle threats such as illegal mining, illegal logging, and bushmeat and elephant poaching.
  - Challenges associated with obtaining prosecutions for wildlife crimes (especially for bushmeat poaching, but also for elephant poaching).
  - Alleged involvement of officials in illegal activities, including bushmeat poaching, illegal logging and illegal mining.

- **Insufficient funding**, including:
  - The lack of any donor support to some CAs (e.g., Magoe).
  - Inadequate management budgets in some CAs with donor support (e.g., Banhine, Niassa, Limpopo).

- **The lack of direct revenue retention and reinvestment in CAs**.
- **The lack of consistent and continuous management plans** and yearly operations plans.
- **Challenges associated with partnership agreements** (e.g., Niassa).
- **Inadequate management presence on the ground** in some CAs (e.g., Banhine, Limpopo, Zinave, Niassa).
- **Inadequate processes to allow for the selection and hiring of quality park staff, and for the firing of inept or corrupt staff**.

Partnerships, if structured properly, can address some of these issues. Other issues necessarily require the support and political will of government, and ANAC must be grown to build these critical competencies. Going forward, ANAC and its partners should carefully consider how current and proposed partnerships plan to address each of these threats.

2.4.2 CAs with partners are faring better than CAs without partners.

The evaluation of CA management models in the 2015 ANAC Financial Plan indicated that CAs under solely government management had 'incipient' or 'basic' consolidation levels, whereas those managed under devolved partnerships (i.e., Gorongosa and São Sebastião) reached an 'optimum' level in less than 20 years. The document further explained that the resources that would be required for all CAs to reach an optimal, or even medium, level of consolidation are beyond the current possibilities of Government. As such, it recommended that partnerships be a priority for ANAC in the management of CAs.

The conclusions drawn in the ANAC Financial Plan are confirmed by the present study. As shown above, levels of investment in CAs with partners are significantly higher than in CAs without partners (Figure 2/8, Table 2/6). Indeed, the amount that is invested in CAs without partners is made possible precisely because the government can rely on donors/partners to fund other CAs, allowing government to divert funds to CAs without support. CAs with partnerships are more likely to have improved ecological outcomes. The case of Quirimbas is particularly instructive: the situation improved initially with significant partnership support, declined as the partnership transitioned to a more limited financial-technical support model, and finally has left a highly embattled and depleted CA with the withdrawal of partner and donor support. Finally, CAs with partners are able to engage in at least some community outreach and development programs, and in some cases highly significant and impactful ones. CAs without partnership support simply do not have the financial or human resources to conduct community outreach. In sum, across all of the most important indicators—financial investment, conservation outcomes, and community engagement—CAs with partnerships tend to outperform CAs without partnerships.

2.4.3 CAs with devolved models are most successful.

The most successful CAs in Mozambique, across all indicators, are Gorongosa and São Sebastião—which both have highly devolved management models. In addition, within Niassa, it is the delegation of the Mariri and Chiulexi concessions to strong conservation operators that are relative bright spots in a reserve that is otherwise succumbing to severe pressures. These areas have much higher management budgets per km^2 (Figure 2/8, Table 2/6), more successful carnivore conservation, relatively less elephant poaching (though they are facing severe and increasing pressure), and the only significant community programs compared to the rest of the reserve.

Less devolved models—such as the bilateral co-management models in Niassa and Gilé and the financial-technical support models in Limpopo and several other CAs in Mozambique—exhibit mixed, and often significantly less impressive, results. They tend to have lower management budgets, and struggle to tackle conservation challenges effectively. Nor do they have strong, coherent community programs. The exception is Maputo Special Reserve, which—because of its proximity to the capital and the commitment of government—has received significant and consistent support since 2006. It also has the benefit of being a more easily manageable size (1040km^2) with a smaller resident population (~650 people) compared to other CAs.

The superior performance of devolved models is no accident and mirrors the striking successes that have been achieved regionally by African Parks in several CAs. Devolved models directly address the weaknesses of other management models (i.e., the lack of partner influence on human resources and law enforcement) and the weaknesses of local contexts (i.e., lack of government funding, low capacity, and weak governance). Perhaps for these reasons, devolved models tend to attract significantly higher levels of funding as well (Baghai et al., 2018).

The problem of financial-technical support models is that, even when they channel significant sums of money into a reserve—as is the case in Limpopo—they are less able to address the lack of management capacity (because of their lack of influence over hiring, firing, and law enforcement) or the broader context of weak governance and political influence in decision-making (which, as technical advisors, they do not have the authority to counteract). Thus, in Limpopo, millions of dollars are poured into conservation, and yet many of the park's own rangers are allegedly involved in poaching. Meanwhile, the partner investing vast sums does not have sufficient ability to remove compromised personnel. Even if compromised rangers could be fired, there is currently no capacity

to hire new rangers (due to government budgetary constraints), leading to a severely short-staffed ranger force. Meanwhile, the park has not even been receiving the legally mandated portion of park revenues back from government, which could mitigate this hole in the management budget. In short, the characteristics of financial-technical support models means there is a significant risk—especially in low capacity and weak governance contexts—that large sums of money will be spent without sufficient impact or results.

By contrast, devolved models address these challenges.

1. ***They attract and invest more funding than other models.*** Both regionally and in Mozambique, our research shows that these models tend to attract much higher levels of funding (Baghai et al., 2018; Figure 2/7, Table 2/6). It should come as no surprise that higher management budgets lead to better results, for both conservation and communities (Waldron et al., 2017). Equally important, devolved models appear to deploy this funding more effectively and efficiently than other models, for the reasons outlined below, and thus attract more funding (creating a virtuous cycle that can be observed in places like Gorongosa).
2. ***They are based on a long-term commitment and vision for improvement of a CA.*** In areas of low capacity, short-term projects have proven insufficient to have real, lasting improvements, in conservation or with communities. They tend to lead to initial results that quickly collapse as funding and other support is withdrawn. Community education and upliftment is inherently a long-term process and building relationships of trust with communities requires consistency over time, rather than different organizations coming and going with new projects every three to five years. Recovery of wildlife in highly depleted areas is also a long-term process that requires long-term planning, commitment and investment. The withdrawal of support before sufficient capacity has been built within the wildlife authority or in the absence of a concomitant increase in investment from the state is a recipe for failure, as evidenced by the experience in Quirimbas.
3. ***Devolution provides a clear management mandate—which creates accountability and avoids confusion and conflict.*** Devolution of day-to-day management to a single entity with significant autonomy provides clarity and accountability. There is no confusion regarding the roles and responsibilities of two separate organizations, from different cultures and often with different expectations. Nor is there the ability to shift blame on the other partner when something goes wrong. Devolution also provides a degree of insulation from political interference and influence, which can be critical for the long-term success of CAs. These are problems that often plague bilateral co-management and financial-technical support models.
4. ***Devolution also allows management to attract and hire qualified staff and to more effectively discipline and dismiss non-performing or corrupt personnel.*** This flexibility—in both hiring and firing—allows devolved partnerships to build strong management and law enforcement teams. The partners are able to institute a transparent, meritocratic selection process for qualified candidates. They are also able to attract qualified personnel with higher salaries, better benefits, and the conditions with which to succeed. At the same time, autonomy allows management to more quickly and effectively deal with instances of corruption, increasing accountability amongst park staff.

In short, devolved models tend to (i) channel higher levels of funding, (ii) install skilled and unified management teams, motivated law enforcement staff, and strong accountability systems, and (iii)

provide high levels of autonomy that allow for innovation and quick decision-making (iv) in the execution a long-term vision and commitment to the improvement of a CA. It should come as little surprise that in contexts of low capacity and weak governance, these attributes of devolved models have a greater likelihood of producing successful outcomes.

2.4.4 Government plays a key role in the success and failure of all partnerships models.

While devolved models have a greater chances of success than other partnership models in contexts of low capacity and weak governance, they nonetheless require the engagement of a committed government partner. Indeed, strong government support is critical for the success of *all* partnerships. The 'Roadmap' in Chapter III discusses in greater detail the role ANAC should play in relation to CA partnerships. Some important roles include:

- **Communication with stakeholders regarding the nature and importance of partnerships**. The biggest challenge to devolved models is often a mistaken perception that they involve the 'privatization' or 'selling' of national assets to foreigners—rather than being true partnerships that channel foreign investment into the strengthening of national assets. As a result, it is critical that the government consistently communicate with stakeholders at all levels, both within and outside of government, regarding the nature and benefits of these partnerships.
- **Strengthening the enabling environment for conservation**. It is essential that government take the lead in those areas which it is uniquely qualified to handle—such as passing necessary laws and policies, improving the enforcement of wildlife crimes through effective prosecutions by the judiciary, and coordinating with other ministries regarding issues relating to finance, land use planning, immigration, customs, etc.
- **Engaged governance, support and facilitation of CA partnerships—especially in coordinating with other sectors and levels of government and addressing issues relating to local communities.** Because these are national parks and reserves, it is essential that ANAC be engaged in governance level issues regarding strategy and oversight, and that it facilitate coordination with other sectors of government where necessary. Government support is also often necessary when it comes to enforcing limits on immigration and human activity inside reserves. Given that this is one of the most significant barriers to effective management of CAs in Mozambique, government support in this regard is a critical factor in the success of CAs/partnerships. Government should urgently develop a long-term vision, and a clear policy and set of strategies to address the challenges relating to communities and CAs and reduce this barrier to CA management effectiveness.

2.4.5 The selection of the partner—as well as the model—is key.

It is not only important that the government choose a strong model, but that it also select a strong partner. These are separate, though often related, issues. It is certainly true that the right people can make even an imperfect model work well. However, as explained above, a strong model can help attract, support, and retain capable personnel. With strong systems and established procedures, even inexpert managers can perform well, whereas a weak model can hamper the effectiveness of otherwise strong managers.

In evaluating potential partners, the following factors should be considered:

- A genuine commitment to producing real, on-the-ground results for both conservation and communities;
- The sufficiency of funding for the size and threat-level of the CA; and
- Experience and track record in CA management, which provides insight into the ability of a partner to effectively deploy funding. For example, African Parks and Frankfurt Zoological Society are organizations that have engaged in CA management in several countries over many years, developing standard operating procedures and a wealth of experience they can apply to new partnerships. Note, however, that while the Carr Foundation / GRP did not have prior experience in CA management, they have achieved impressive successes. Although this lack of experience created a significant learning curve at the start of the partnership, this was compensated by the organization's long-term commitment, a genuine dedication to conservation and communities, a business-minded approach to innovation and accountability, the philanthropist's evident passion, and a strong, stable and independent source of funding. Thus, it is important that potential partners be evaluated holistically, and not according to overly rigid criteria.
- The presentation of a clear management strategy that credibly addresses the key threats to the CA, and that includes a plan for (i) conservation, (ii) tourism development, and (iii) community engagement.
- A commitment to engage for the long-term and the development of a realistic, long-term plan for embedding capacity locally.

CHAPTER III: ROADMAP FOR COLLABORATIVE MANAGEMENT OF CONSERVATION AREAS IN MOZAMBIQUE

3.1. Introduction

This Roadmap is intended to guide and improve partnerships in Mozambique's CAs by providing high-level advice and direction for a future strategy. Thus, it does not address in detail all the various issues of significance related to conservation in Mozambique. This Chapter is the **strategic framework roadmap** informed by Chapters I and II, which looks ahead at the next 20 years of collaborative management in Mozambique.

This chapter:

1. Discusses **the role of ANAC** as it relates to this partnership strategy—and recommends that ANAC's role in regulation and management of partnerships, as opposed to on-the-ground implementation, be emphasized.
2. Provides a **'menu' of three, optimized partnership models** (describing the key elements and recommended structures for each)—and recommending that ANAC preferentially engage in devolved models where willing and capable partners are present;
3. Outlines a **process by which ANAC can attract and engage partners**; and
4. Analyzes the opportunities, gaps and barriers in the **existing legal framework relating to CA partnerships**.

In particular, ***we highlight the following key points***:

1. We recommend that the Government of Mozambique clarify what **the role of ANAC** should be—on the spectrum from full, on-the-ground implementer of CA management to a primarily oversight and regulatory agency. In particular, we recommend that ANAC pursue a strategy that emphasizes its role as a regulator, carrying out an implementation role in CAs only when partners are not available to do so. As such, a key part of ANAC's role will be to strengthen the enabling environment for conservation. This includes:
    a. Instituting and implementing a clear policy regarding conservation and communities that addresses key threats to CAs—such as human immigration into CAs, expanding settlement, and development;
    b. Promoting policies and regulations that encourage tourism and the financial sustainability of CAs;
    c. Coordinating with other ministries and sectors of government at all levels (central, provincial and district) in order to mainstream conservation issues, harmonize conservation and development goals, sensitize stakeholders regarding the nature and importance of CA partnerships, and facilitate permits and permissions as necessary; and
    d. Working with the police and judiciary in order to ensure wildlife-related crimes are dealt with effectively—including bushmeat poaching, poaching of species for body parts (such as ivory, pangolin scales and lion parts), illegal mining and illegal logging.

2. In addition to clarifying the role of ANAC, we further recommend that the Government adopt **a clear strategy regarding which kinds of partnership models** it wishes to engage.
    a. We provide a 'menu' of three optimized models, including recommendations regarding the key features and structures of each. The goal is to have a range of models to accommodate different situations and partner capacities, while

simplifying—where possible—unnecessary complexity and incorporating lessons learned from regional and local experience.

b. In particular, we recommend that ANAC preferentially engage in devolved partnerships where strong partners are available. Devolved models include (1) the 'delegated' model , with which African Parks has achieved impressive successes elsewhere on the continent; and (2) the 'integrated co-management' model which has proved highly promising in Gorongosa National Park. Such devolved models provide partners with clear authority and a high level of autonomy in daily, on-the-ground management to execute a shared vision—embodied in a general management plan and/or business plan. Devolved models allow the partner to build a strong team based on transparent selection processes and to quickly dismiss under-performing or corrupt personnel. These models have the greatest potential to overcome challenges of low funding, insufficient capacity, and weak governance, which characterize the Mozambican context. Experiences to date in Mozambique demonstrate the risks associated with ANAC retaining (rather than devolving) authority over key elements of CA management in the absence of the resources to effectively fulfill such roles.

c. Where partners are not available who have sufficient funding, expertise, or willingness to assume management responsibility, we recommend that ANAC engage in financial-technical support partnerships. While this is typically a looser, informal and more flexible model, we recommend a version that incorporates clear, formal, and strong governance and management structures, and that—wherever possible—is based on a longer-term agreement, funding, and vision for CA development. Financial-Technical Support models can also serve as a 'bridge' to developing a longer-term, more devolved model between the partners in the future. Current ANAC field personnel can be concentrated in CAs lacking partnerships and CAs with financial-technical support partners.

d. It must be understood that in devolving management authority, the government is not 'giving away' national assets. Rather, it is attracting investment and managing partners who are committed to strengthening the country's CAs, attracting tourism, and uplifting local communities. Government continues in a regulatory and oversight role—guiding the way in which parks are developed and managed. Even where revenue is retained at the park level, government stands to benefit economically. Since none of Mozambique's CAs are currently financially profitable at the park level (despite likely conferring net economic benefits nationally), government is essentially delegating a financial burden and responsibility to partners. The government further benefits from devolution through increased CA value, increased economic activity (due to increased investment in conservation, tourism, and community development), and increased tax receipts. As CAs become increasingly developed and financially self-sustaining under partner management, this decreases the potential government burden should it decide to assume management responsibilities in the future.

e. Resistance to devolved models is often a result of a misconception that they somehow undermine sovereignty. However, government retains overall control via regulation and oversight of partnerships. Indeed, the government plays a much greater role in CA partnerships than it does in many other instances where it engages the private sector for the delivery of public goods or for the management of

national assets—such as when it (1) engages in private-public partnerships for the development of large infrastructure projects, including major roads and ports, (2) grants concessions and licenses to oil and gas companies to extract natural resources for private gain, or (3) grants concessions to for-profit companies for the management of hunting areas (coutadas). Thus, this non-profit conservation model fits well within current government practice. Rather than being seen as 'selling' or 'privatizing' a national asset, these conservation partnerships should be viewed more accurately as engaging a 'service provider' to provide on-the-ground management and technical expertise in order to strengthen and capacitate a national asset (with the CA's Management Plan playing the role of a 'Terms of Reference' for this service). CMPs thereby help tap into global willingness to pay for African conservation, effectively sharing the burden of financing CAs with the international community. These benefits are accrued while still retaining the regulatory authority and control that are the definition of sovereignty.

3. We recommend a number of concrete steps to implement this strategy (Figure 3/1).
    a. First, we recommend that government create a new directorate within ANAC focused specifically on soliciting, regulating, monitoring, and facilitating partnerships. In particular, this directorate should: (1) concentrate on sourcing capable partners; (2) guide the process of establishing partnerships, (3) support the ongoing functioning of partnerships, such as by engaging with other sectors of government where necessary, (4) monitor the performance of partnerships to ensure adaptive management, (5) and promote regulations that strengthen the enabling environment for conservation.
    b. Second, we recommend that government works to achieve internal clarity regarding which models it seeks to engage for which CAs. For each model, government should adopt a set of guidelines that outlines the parameters for CMP agreements for each model. These should incorporate lessons learned from local and regional experience, while still being flexible and open to innovation and local contexts and needs. This will provide the new directorate with clarity in implementing its mandate.
    c. Third, we recommend that government adopt a clear and expeditious process for selecting partners and negotiating agreements. This may include designing a tender process, actively seeking out and encouraging the participation of potential partners and developing standard contracts for each partnership model. Government should also provide clarity on which institution (ANAC, MITADER, Council of Ministers) is required to finalize partnership agreements.
    d. Fourth, we recommend that the new directorate prepare a prospectus featuring CAs for which partners are sought and consider hosting an event to attract potential investors and partners to Mozambique. The prospectus would highlight unique and attractive features of CAs and describe the kinds of partnership models available.

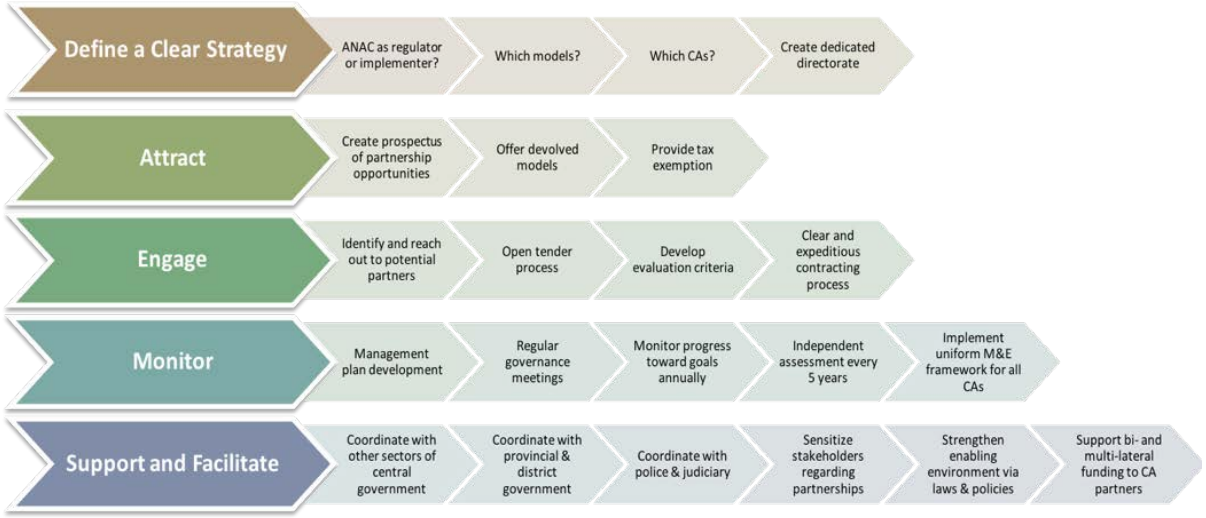
4. Regardless of model, government support is absolutely critical to the success of *all* CA partnerships. This is especially true in two key areas. First, government must urgently adopt and implement across all sectors a clear policy regarding local communities living inside CAs. Such a policy should address immigration into CAs, settlement expansion, regulation of

activities, land-use planning and zoning (ensuring that there are sections of CAs in which settlement, agriculture and other human activities incongruent with conservation goals are prohibited). Second, government must provide CA partners with strong political support in enforcing wildlife crimes. Such support must include liaising with district and provincial governments regarding enforcement and sensitizing the police and judiciary regarding the seriousness of these crimes.

5. The legal framework in Mozambique provides a solid foundation for this recommended partnership strategy. The importance of partnerships is well established in the 2009 Conservation Policy and the 2014 Conservation Law. The engagement of partnerships is also a core objective in ANAC's creation decree. Mozambique's law is open-ended and does not unnecessarily restrict the kinds of partnerships ANAC may engage. This leaves room for ANAC to adopt its own partnership strategy, such as the one proposed herein. However, there are some gaps and barriers in the law that currently inhibit the establishment and success of partnerships. For example, regulations are urgently needed to clarify the authority and protections for law enforcement rangers employed by CA partners and concessionaires. The lack of such clarity seriously hamstrings the ability of partners to tackle threats. Another difficulty is the lack of a provision in Mozambican law for the creation of tax-exempt, non-profit companies, which creates challenges for many potential CA partners. If such a provision cannot be introduced, measures should be proposed that at least guarantee tax and duty exemptions for CA partners.

6. In short, with strong partners and devolved management in more CAs, Mozambique can increasingly become a source of positive conservation outcomes, preserving the country's natural capital, attracting increasing investment and tourism, and providing long-term benefits to rural communities. Gorongosa is already captivating interest and passion and becoming a source of pride for Mozambicans—a flagship park with international recognition and fame. Under the new partnership with African Parks, Bazaruto has the potential to achieve a similar status as a marine CA. Pursuing similar models in more CAs not only represents a clear-eyed understanding of what is required to restore Mozambique's CAs, but also has the potential to create real, long-term, and sustainable benefits for the country.

Figure 3/1: Overview of actions to be undertaken as part of recommended partnership strategy



3.2. Define a clear role and an overall vision for ANAC

3.2.1 The key question: regulation or implementation?

The core question for Mozambique in the management of CAs is: where on the spectrum from *regulator* to *implementer* should ANAC be?

A 'regulatory' strategy implies a leaner ANAC, which preferentially engages in partnerships that devolve on-the-ground management authority to well-capacitated partners. Under this strategy, ANAC would focus on strengthening those skills required to attract partners, monitor and evaluate them, and support and facilitate their work. It would allow ANAC to focus limited resources in those critical areas that government is uniquely positioned to handle. This includes, amongst other things, developing and implementing policies that create a positive enabling environment for conservation. ANAC's role as a high-level policymaker, monitoring body and political partner is emphasized, while its role in implementation is limited to CAs with no partner support and CAs with financial-technical support partners.

An 'implementation strategy' requires a far larger and better-funded agency, with expertise not only in high-level regulation and supervision of CAs, but also in the numerous technical aspects of daily, on-the-ground management. Under this strategy, ANAC would mainly seek financial-technical support partners, while retaining full authority for governance and management of Mozambique's large CA network. The key difficulty of such a strategy is whether it is realistically capable of creating successful CAs—given the severe lack of human and financial resources for conservation in Mozambique, and the pressures of political influence and corruption that face CA networks in Africa. Mozambique's 135,809 km^2 CA network requires $68-135 million for optimal management (Lindsey et al. in prep), compared to a current state investment of approximately $2 million per year. Though financial-technical support models can relieve some of this financial burden, they generally attract less funding, have less influence over human resources, and are more susceptible to political interference than devolved models.[27] As a result, such models often experience less success than devolved models.

With these options in mind, we recommend that the Government develop a clear vision regarding ANAC's role and the kinds of partnership models it wishes to engage. Such clarity, by itself, can provide significant benefits—allowing ANAC to implement a partnership strategy *actively*, and empowering individuals within government to act more effectively and confidently. It would also help substantially reduce the time it takes ANAC to negotiate partnerships. Two and three-year delays in negotiations deter potential partners, create insecurity amongst donors (leading some to withdraw entirely), and contribute to drastically worsening situations in CAs.

3.2.2 The Key Recommendation: ANAC as a Regulator and Manager of Partnerships

Specifically, we recommend that ANAC pursue a partnership strategy that emphasizes its role in regulation and management of partnerships, rather than on-the-ground implementation. This is the only option that provides a realistic opportunity to protect and restore CAs with the potential to benefit conservation and communities and contribute to the local

[27] For an in-depth discussion and comparison of these models regionally and in Mozambique, please refer to the consultancy's two previous reports.

and national economy. At this stage, ANAC simply does not have the financial or technical capacity to be an effective implementer—given the size of the CA estate and reality of what is required to be successful. The evidence for this is stark: the average CA management budget is a small percentage of what is needed (likely <5%, Lindsey et al., 2016), and Mozambique's CAs are severely depleted as a result. ANAC pays a handful of salaries in the entirety of Niassa—and is not even responsible for the salaries of the warden and the head of law enforcement. ANAC pays only six salaries in Gilé, despite previous commitments to assume responsibility for the salaries for the reserve's law enforcement rangers, which are already extremely understaffed. CAs under solely state management have little or no effective management and are severely understaffed and underfunded. As a result, there is a critical need to focus ANAC's limited resources on those aspects of CA governance and management which it is uniquely positioned to handle—as a policymaker, regulator, and political partner—while engaging partners who have the skills and capacity to effectively undertake on-the-ground management.

Specifically, we recommend that ANAC seek out strong partners with technical capacity, sufficient funding, and a long-term commitment (at least 20-25 years) to meet the challenges facing CAs and enter into devolved partnership models. Where such partners are not available, ANAC should engage in financial-technical support partnerships. ANAC can focus its current on-the-ground capacity in these CAs.

This strategy harnesses the comparative advantages of both the public and private sector. It combines the innovation, flexibility, expertise, and financial backing of the private sector with the political legitimacy and local contextual knowledge of the public sector. It also maximizes investment: attracting the larger investments, and often more effective management, of devolved partners, while also engaging financial-technical support partners where other partners are not available. It further allows ANAC to focus its capacity more effectively in particular areas.

This recommendation—to emphasize ANAC's regulatory role and preferentially engage in devolved partnerships—is based on lessons learned both in Mozambique and across the region. As documented in the two prior consultancy reports, devolved partnerships tend to achieve the greatest impacts in terms of financial investment, conservation results, and community engagement. In financial terms, devolved partnerships tend to attract the largest investment and relieve government of a significant burden. They generate taxes, increase the value of a national asset, and have the potential to lead to significant growth in private sector tourism and employment, with knock-on effects that reverberate throughout rural economies where there are frequently limited alternatives. In conservation terms, they are often more effective because they attract skilled and motivated staff, and enable the nonprofit partner to act quickly, flexibly and in a unified way, without the constraints of government bureaucracy, or the confusion of roles and responsibilities that can undermine less devolved models, to respond to the threats that imperil CAs. Strengthened CAs can provide benefits—in terms of natural capital, resources and tourism—that struggling and depleted CAs cannot. These devolved partnerships tend to employ, on average, 98% Mozambican staff, and around 75% of staff from local communities. The experience of working in properly functioning CAs with strong accountability systems effectively builds local capacity. So too does the long-term approach and commitment. Indeed, devolved models tend to have the most significant, wide-ranging, and long-term community engagement programs. Finally, devolved models are the most likely to be successful in contexts of low capacity, high threats, and weak institutions and governance.

For these reasons, it makes sense to preferentially engage in devolved partnerships—that is, delegated management and integrated co-management partnerships—where strong partners are available. However, not all nonprofits have the resources or the desire to assume significant management responsibility. In such circumstances, financial-technical support partnerships may be engaged. These partnerships can offer significant improvements on the status quo if properly designed and implemented.

The presence of a partner does not always guarantee sufficient funding for a CA to achieve its full potential. There continues to be a need for government to channel financial support—from its own treasury as well as from development partners—to priority CAs that lack sufficient budgets. In the absence of sufficient funding (estimated in the range of $500-900/km^2, Lindsey et. al, in prep), it is unlikely CAs can reach a level of ecological protection that provides opportunities for wildlife-based tourism and the economic growth and diversification it can bring.

It is important to recognize that Mozambique's CAs suffer from the lack of a supportive enabling environment and strong political will, which creates severe difficulties for partners. This is manifested by the lack of effective restrictions on human settlement and ongoing immigration into CAs. In addition, there are weaknesses imposed by the lack of effective enforcement of environmental crimes (such as bushmeat and other kinds of poaching, illegal logging and illegal mining), and alleged complicity of local government officials. Moreover, there appears to be a lack of coordination amongst ministries (e.g., with respect to land use planning and development), which undermines the effectiveness of CAs. It is critical that ANAC play a strong role in tackling these challenges by working to strengthen the enabling environment for conservation in Mozambique. Without this support, it will be extremely difficult for *any* partnership model to produce successful results. Niassa, which is at a critical juncture, is a clear example of a CA that urgently requires *both* a more devolved partnership model—that empowers the NGO partner to help tackle the crisis on the ground—and the committed support of government (Box 3/1).

Box 3/1. The Case of Niassa

Niassa is a prime example of a CA in which a strong devolved model—combined with clear and committed government support at all levels to deal with key threats—is necessary to the survival of one of the most important CAs in Africa. In particular, high levels of bushmeat poaching, illegal mining, and a crisis of elephant poaching, as well as expanding human settlement, imperil Niassa's future.

In this regard, we make the following specific recommendations:

1. First, a single management entity with devolved authority at the central reserve level would allow for stronger management than the current bilateral structure where both WCS and ANAC operate without clear definition of roles and responsibilities. This management entity should directly retain revenues, which can be invested free of donor constraints.

2. Second, we recommend the creation of a broader governance board, which includes representatives of government (at various levels), the nonprofit partner, private sector operators and individuals of influence committed to conservation. This would help ensure more regular coordination, and facilitate the political support needed to protect Niassa.

3. Third, management of operators should be a central function of reserve management. The sheer size of Niassa requires devolution of authority to operators. Reserve management should support concessionaires who play a positive role for conservation and communities, and monitor, pressure, discipline and remove concessionaires who do not. We recommend that the roles and responsibilities of central reserve management and concessionaires be clarified, allowing each to be responsible for aspects of management which it is better positioned to undertake. The reserve should tender empty concessions as soon as possible. Priority should be given to leasing concessions to organizations with the resources and desire to undertake effective conservation management.

4. Fourth, in terms of strategy, what is most necessary is a fundamental and realistic appreciation of what Niassa needs to survive—the political will and support required from the government, and the scale of finances required from the partner. The situation requires a clear reckoning with on-the-ground realities, which are translated into a reserve-wide management plan, with a clear, detailed and structured plan of how to meet various milestones. Such a plan should reflect the agreement of all partners on how to address a variety of thorny issues—including managing the activities of communities and limiting the spread of settlement (i.e., clear zoning and land use planning), and combating illegal activities such as mining and bushmeat poaching. In particular, this requires the central government partner to engage strongly with district government in Niassa.

5. Fifth, central government support is urgently needed to address broader issues with district government. Nearly two full districts are located inside Niassa. Their focus is on traditional industrial development and unsustainable exploitation of natural resources, which puts them strongly at odds with the reserve, operators, and Mozambican law. District officials are allegedly complicit in illegal activities, or turn a blind eye and refuse to enforce the law. Communities resist the rule of law—rioting and threatening operators when a poacher is apprehended. Without strong, immediate government support in addressing this critical situation, it is unlikely Niassa will survive as one of Africa's last great wildernesses, or that partners will long be willing to invest millions only to be subject to intimidation and threats.

The strategy we propose fits well within current government practice. In the conservation sector, the government has experienced significant success with devolved models—such as the 'integrated co-management' model in Gorongosa and the 'fully delegated' model in São Sebastião—and has recently engaged with African Parks in Bazaruto. Indeed, the government regularly delegates management to private, *for-profit* operators in hunting areas (coutadas). Other sectors of government also take this regulatory approach. For example, the National Institute of Petroleum oversees policy, regulation, licensing and monitoring of oil and gas concessions, but is not involved at the operational level (Zeissig & Lopes, 2014). The state's role is as a regulator and holder of a participatory interest—not as an on-the-ground manager. This separation of regulation from implementation also promotes accountability and prevents conflicts of interest.

In order to implement this strategy, we recommend the creation of a directorate within ANAC that is specifically dedicated to partnerships. A summary of this new directorate's key roles and responsibilities under this proposed strategy is laid out in Table 1. A more detailed list is included in Annex D. We propose that this directorate be funded as a project of institutional donors, ensuring the ability to hire skilled and capable personnel. In this case, current ANAC staff would continue to focus on implementation work in CAs without partners or with financial-technical support partners.

Table 3/2: Roles and responsibilities of new partnerships directorate in ANAC

Role	Elements
Policymaking / Create a strong enabling environment for conservation	Develop and promote clear policies regarding local communities that address the key threats to CAs, such as growing human populations, immigration, and expanding settlement. This should include zero-settlement zones that are strictly enforced.
	Develop policies that encourage tourism and increase the financial sustainability of CAs.
	Coordinate with other sectors of government and development partners in order to mainstream conservation issues. (E.g., clarify roles of CA and district administrators, making clear that decisions of CA administrators take precedence inside the CA.)
	Ensure wildlife crimes are effectively enforced (especially poaching, logging, and mining).
Attract & Engage Partners	Find partners for CAs currently lacking donor support. Create prospectus of partnership opportunities and conduct open tenders.
	Improve partnership agreements in CAs with partners—to clarify roles and ensure partnership arrangements are adapted to the needs of the CA and realities on the ground.
	Ensure partnership agreements are concluded promptly. In Niassa, it is equally important to ensure concession agreements are properly signed and ratified.
Monitor & Evaluate Partnerships	Develop and implement standardized indicators across the CA network that enhance oversight and that encourage real results.
	Encourage the identification of concrete goals and realistic milestones for partnerships, to aid in oversight and setting clear expectations.
	Ensure business and management plans are developed, approved, and implemented.
	Actively participate in governance meetings (e.g., Steering Committee, Board).
Facilitate & Support Partners	Coordinate with other ministries and sectors of government (e.g., regarding land use and development planning, import and use of firearms, work permits, prevention of unsustainable activities).
	Coordinate with provincial and district government, especially in (i) communicating the nature and importance of CA partnerships, and (ii) issues relating to local communities.
	Coordinate with police and judiciary regarding enforcement of wildlife and natural resources related laws

3.3. Menu of management models

In this section, we outline three recommended partnership models for Mozambique and describe their key elements and structures. The goal is to simplify the wide array of arrangements, as well as to incorporate lessons learned from experiences in Mozambique and Africa generally. We recommend that government preferentially engage in long-term **delegated management and integrated co-management** models where strong partners with technical expertise and adequate funding are available. In other circumstances, the government may wish to engage in **financial-technical support** arrangements. While these models are intended as a guide, Mozambique should continue be open to innovation and experimentation, which new partners and situations may require.

3.3.1 Delegated management

The first model is fully delegated management. Examples include the majority of African Parks partnerships in the region, as well as São Sebastião Coastal Reserve in Mozambique. This model generally provides for some degree of shared governance decision-making (relating to high-level strategy and oversight), with full delegation of on-the-ground management to the private partner. The partner is given high levels of autonomy that allow for innovation, quick decision-making,

efficiency, flexibility and adaptability. As a result, key benefits of the delegated model are effective management and clear accountability in a single partner. The model is also characterized by a long-term commitment and the provision of significant funding and technical expertise. As such, this model relieves a significant burden on government, and has the potential to optimize the financial sustainability of a CA.[28] Revenues are fully retained and directly reinvested in the CA.

3.3.2 Integrated co-management

The second model is the integrated co-management model. An integrated framework is preferred to a bilateral structure because it creates cohesion and avoids the confusion, disunity, discord and duplication that often come with parallel leadership and staffing by two separate organizations.[29] An integrated structure also provides greater autonomy and flexibility to the management entity (one of the key success factors of delegated partnerships), and inherently allows for greater transparency (e.g., one set of financial accounts visible to both partners). Like the delegated model, the long-term partnership of a trusted and committed non-profit with a willing government partner can unlock funding that may not otherwise be available. As a result, it can infuse significant resources into the CA and lay the groundwork for increased financial sustainability. Examples include the partnership with Frankfurt Zoological Society in Gonarezhou National Park in Zimbabwe, and the partnership with the Carr Foundation for Gorongosa National Park.

This model shares many similarities with the delegated model—governance is shared, and management is devolved to a partner entity. The key differences are that in the integrated co-management model, the government and private partner (1) are equally represented on the governance body, and (2) have equal say in the selection of senior management. The warden is generally selected by the partner with the participation and approval of the government. The heads of departments may also be jointly selected by the partners, though they are ultimately paid and employed by the partner. Revenue is retained and directly reinvested in the CA. We caution, however, that the risks associated with co-management are greater than they are with delegated management. These risks include confusion of roles and poor cooperation and coordination of activities between the state and nonprofit partner. While these risks are largely mitigated in the integrated model and can be further allayed by the appointment of highly skilled individuals, they nonetheless remain.

3.3.3 Financial-Technical Support

The third model is a financial-technical support model. This is the most widespread and varied model across the continent. The version we recommend creates formal structures at both the governance and management levels for project-related decision-making. This provides greater clarity than other such partnerships that operate in a looser, ad hoc manner. In this model, government retains official authority for the governance and management of the CA. There is, however, shared governance (through a Steering Committee) and management (through a Project Management Team) of the

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[28] A more detailed description of this model can be found in Chapter I.

[29] For a detailed description of the differences between the bilateral and integrated co-management models, please refer to the Chapter II.

project, which in many cases provides the vast majority of funding for the CA. Revenue is often not retained at the park level, though there are significant benefits to doing so.

We recommend engaging this model where a strong, well-capacitated devolved partner is not available. Some non-profits do not have adequate resources or expertise to assume significant responsibility, or philosophically believe it is not their role. Nonetheless, they are able and willing to offer funding and technical support to a government partner. A financial-technical support partnership can also later transition into a more integrated, devolved partnership over time (e.g., if trust is built between the partners or additional funding is sourced).

Anecdotally, financial-technical support projects appear to work best when:

- They are based on clear, detailed, written agreements;
- They are based on a long-term vision for and commitment to development of a CA;
- There is solid government commitment to and funding for core management of the CA, and high level and local political support;
- There are capable, committed government staff in key positions who are willing to collaborate with a partner;
- The non-profit enjoys local status and tax exemption, and its role is clearly defined;
- The non-profit has a high degree of technical competency and experience;
- Donor support is sufficient to accomplish the agreed objectives, which address the key 'pain points' or challenges facing the CA; and
- Population pressures on the CA are not severe.

3.3.4. Attracting and engaging partners

To date, ANAC has responded to partners that have come forward on their own initiative and submitted proposals to support CAs. Given the importance of CA partnerships, however, there is a clear need to transition from this reactive and ad hoc mode to a proactive, strategic process for engaging partners.

On a fundamental level, the most important things ANAC can do to attract partners are:

1. **Have a clear vision of which models it is willing to engage.**
2. **Have a clear, expedited process for establishing partnerships.**
3. **Provide partners the autonomy and flexibility to be successful by engaging devolved models where possible.**
4. **Support partners by creating an enabling environment for success.**

Engaging in CA management is a reputational risk for potential partners and minimizing that risk by adopting the above recommendations is an important way to attract partners. Similarly, investors are more likely to commit funds if they believe there is a real chance of success. This is one of the reasons Gorongosa continues to attract investment, despite already having greater funding than other CAs, and why African Parks is so successful at raising funds for their projects around the continent. Thus, if ANAC wishes to attract additional partnerships, the above recommendations should form the core of its strategy.

Defining a clear strategy

Defining a strategy for CA partnerships gives confidence to donors and partners and also ensures more swift and clear negotiations, reducing the potential for confusion and complication. In defining a strategy, the critical questions for government are: (1) **which models** to engage, (2) with **which partners**, and (3) in **which CAs**.

As explained above, we recommend that ANAC preferentially engage in devolved partnerships (i.e., delegated management and integrated co-management models) where strong partners are available. The benefits of devolved management to experienced and committed partners is not limited to any one context and therefore should be strongly considered for all CAs. Still, the government should prioritize some parks for devolved management—such as complex CAs with significant challenges (e.g., Niassa), or CAs with potential that a strong partner can transform into flagship CAs that attract tourism and maximize financial sustainability (e.g., Bazaruto, MSR). By the same token, government may be more able to handle smaller, more remote CAs with relatively less pressures on its own, though such areas will still require significant financial investment over the current status quo.

Over time, ANAC may wish to expand the current scope of partners to include local, Mozambican nonprofits (as they gain resources and expertise), as well as philanthropic arms of for-profit corporations (particularly those engaged in the extraction and exploitation of the country's national resources). For example, in Zambia, Kalumbila Minerals Ltd., a mining company, has created the Trident Foundation to carry out corporate social responsibility work, including a financial-technical support project for the West Lunga National Park.

3.3.5 Attracting and soliciting partners

The next step is to create a brochure or prospectus featuring CA partnership opportunities for potential partners. Such a document would include:

- Highlights of unique and valuable features of the CAs, their tourism potential, and key conservation challenges that need to be addressed;
- Clear descriptions of the kinds of partnership arrangements the government is open to for each CA; and
- A description of the process for entering into such agreements—including defined steps and timelines, and identification of criteria on which proposals will be evaluated.

In terms of process, open tenders provide trust and transparency. If undertaken, these can be supplemented by active, informal reach outs by the government to reputable individuals or organizations it believes would make strong partners, in order to encourage their participation. Figure 3/2 below is an example of a formal process advertised to investors by Uganda.

Figure 3/2: Excerpt from prospectus published by the Republic of Uganda detailing the process for pursuing co-management opportunities

3.3.6 Engaging and contracting partners

The third element of attracting partners is ensuring a clear and expeditious process for negotiating agreements. First and foremost, it is important that partnerships be based on a clear, shared vision for the development and management of the CA. This should include agreement on the rights, responsibilities, and restrictions relating to local communities. In particular, the partners should specifically address how to protect the ecological integrity of the CA in light of the presence of local communities, how to regulate and limit human migration, and how to conduct community development. This vision for the CA can be embodied in a draft management and/or business plan—which addresses each of the main threats and opportunities for the CA and provides specific steps to be undertaken. Such a document should identify concrete goals and milestones for success that can be used as a basis for evaluating the progress of the partnership. This serves two critical purposes: first, it provides a clear mandate to management; second, it aligns the partners and manages expectations, forming a strong foundation for the partnership. It ensures that the most basic issues and challenges regarding the CA are addressed head on: What are the key threats to the CA and the main barriers to effective management? How can the partnership be structured in order to help overcome these challenges?

Equally important is the negotiation of the agreement itself, which lays out the respective roles and responsibilities of the partners in CA governance and management.

In order to ensure an expeditious process, government should have a clear idea—as part of its overall strategy and well in advance of negotiations—of what it is willing to agree to with regard to each of the elements. ANAC may even wish to develop standardized agreements for each model it chooses to adopt. These standard contracts can serve as starting points for negotiation, which can then be tailored to the particularities of specific partnerships.

Finally, the government should be clear about what level of approval is necessary for each kind of partnership agreement. It may be proposed that the Council of Ministers pass a resolution (such as one adopting this Roadmap) that expressly states that devolved partnerships for CAs are formally recognized and ratified by all sectors of government. This could avoid the lengthy delays of requiring each individual such agreement to be approved by the Council of Ministers.

3.4. Overseeing and facilitating partnerships

3.4.1 Monitoring and evaluating partnerships

A key aspect of ANAC's regulatory role is the oversight of partnerships. This includes:

1. **Monitoring and evaluating the progress of individual partnerships.** This should occur in two principal ways: (1) annually through the governance structures of the partnership, based on goals and milestones set out by the parties at the beginning of the partnership; and (2) by ensuring independent evaluations every five years. Indicators may relate to financial investment, economic impacts, biodiversity, law enforcement, human resources, and community outreach.

2. **Periodically comparing the progress of partnerships across Mozambique based on standard indicators**[30] in order to understand what works best and learn from experience. Note, however, that the importance of some indicators may vary (or be weighted) depending on the context of a CA, its stage of development, and/or the length of the partnership in place. The effective implementation of such indicators fundamentally requires baseline biodiversity, community, and financial/economic information in order to detect changes over time.

The ultimate goal of this M&E process is to ensure that where partnerships are not performing, answers are sought as to why. Are partnership interventions—such as wildlife reintroductions, anti-poaching strategies, tourism development, and community outreach programs—creating lasting successes on the ground when evaluated in subsequent years? If not, is the underlying problem due to the partnership structure, a lack of sufficient funding, underperformance by the nonprofit and/or government partner, or something else? Where partnerships are enjoying success, can lessons be identified and disseminated? These are the kinds of questions monitoring and evaluation of partnerships should seek to address.

3.4.2 Supporting and facilitating partners

The Government of Mozambique has a critical role to play in the success of *all* partnerships. It is critical that ANAC and MITADER support and facilitate partnerships in the various ways, including:

- ***Coordinating with other sectors of central government***. (E.g., tax and duty exemptions, return of CA revenues, timely authorizations to import and use firearms, work permits).
- ***Developing a clear policy and improved legal framework regarding human settlement in CAs***, including enforced zonation and strict no-settlement zones.
- ***Coordinating with provincial and local government,*** especially on issues relating to local communities, as well as land use and development planning in and near CAs.
- ***Coordinating with police and judiciary*** regarding the enforcement of wildlife and natural resources laws. ANAC has an important role to play in the sensitization and education of role players outside park boundaries, whose role in actively pursuing and successfully prosecuting environmental crimes is paramount. Despite positive changes in the law, apprehended poachers are often released with little or no penalty, and fines that are issued frequently go unpaid.
- ***Communicating with stakeholders regarding the nature and importance of partnerships***.

[30] A uniform set of indicators has already been recommended in the 2014 Monitoring & Evaluation Manual as part of the MozBio project.

- ***Developing policies and regulations that create a strong enabling environment*** for conservation and that allow partnerships to be successful.
- ***Supporting the channeling of bi- and multi-lateral funding to priority CAs in need of financial support***, which may include CAs that have partner support.

3.5. Legal framework

This section identifies the opportunities, barriers and gaps in Mozambique's legal framework relating to CA partnerships. Section 3.5.1 addresses the laws directly relating to CA partnerships, and Section 5.2 discusses other legal issues that impact partnership success.

3.5.1 Legal framework for CA partnerships

Mozambican law provides a solid foundation for CA partnerships. For nearly 20 years, the government has repeatedly recognized these partnerships as a key feature of its conservation strategy (Table 3/2).

Table 3/2: Government laws and policies relating to CA partnerships

Government Law/Policy	Section relating to partnerships
Forestry and Wildlife Law of 1999 (Law 10/99, Article 33)	Allows management of CAs to be "delegated" to the private sector
Conservation Policy of 2009 (Chapter III) & Conservation Law of 2014 (Article 4)	Promotes establishment of partnerships "involving local and national authorities, local communities, the private sector and non-governmental organizations" so as to "enable the economic viability of this policy"
ANAC Creation Decree (Decree 9/2013 of 10 April, Article 3)	Identifies as one of ANAC's five principle objectives: "to establish partnerships for the management and development of Conservation Areas"
ANAC Financial Plan of 2015	Recognizes the limited financial resources of ANAC and declares: "The search for more partnerships is an important strategy for ANAC."
ANAC Strategic Plan 2015-2024	"[R]ecognizes the need to involve other actors and partners to ensure the resources needed for the effective and sustainable management of CAs," and specifically identifies management models including "public-private partnerships", "management by the private sector", and "management by NGOs", as well as community management and government management.

In short, there is a broad opening for the promotion of CA partnerships in Mozambique. However, there remain some gaps and barriers in the legal framework that may inhibit the development and operation of partnerships. These include:

1. **A lack of clarity regarding the kinds of partnerships that can and should be engaged, as well as the policy and procedure for doing so—for which this Roadmap provides a proposed solution.** This lack of clarity inhibits the efficient and effective development and operation of CA partnerships. It is critical that the issues raised herein be followed up by the promulgation of a clear policy regarding CA partnerships, the creation of a dedicated directorate within ANAC, and the education of ANAC's own personnel and relevant stakeholders regarding this new strategy. Given the strong

foundation in the Conservation Law for partnerships, there is ample authority for such policy development.

2. **The lack of any provision for the swift and easy creation of local non-profit companies that benefit from tax exemption.** Unlike a wide variety of other countries, Mozambican law does not include a provision for the creation of tax-exempt, non-profit corporations. This creates obstacles for the partners the government wishes to attract. An explanation of the current legal entity options and their limitations can be found in Annex I. Of the current options available, the most attractive and widely used is the creation of a national subsidiary, or representation, of an international non-profit (Law no. 55/98). In the long term, it would be beneficial for the government to create a provision in the law for non-profit corporation status based on international best practice. This would allow for a relatively simple and quick process for establishing non-profit companies and provide broad tax-exemptions if certain requirements are met, at least for CA partnerships. This would permit, for example, the creation of local, special purpose, non-profit entities, created jointly by the partners, and tasked with the management of a particular CA. This is the form CA partnerships take in many countries in the region.

3. **A lack of clarity regarding the extent of authority and indemnity for law enforcement rangers employed by CA partners and concessionaires.**[31] This lack of clarity leaves scouts and the partners who employ them in a very precarious position. The very people on the front lines of poaching crises, facing poachers with AK-47s, are often not allowed to carry weapons that would allow them to protect themselves and the CA (i.e. automatic or semi-automatic weapons), and even risk being prosecuted and jailed if they engage with poachers. This situation requires an urgent remedy. Regarding law enforcement, there is an urgent need for:
    - A clear policy and procedure for deputizing privately-employed scouts in CAs, concessions, and coutadas.
    - A clear statement of the rights and protections of deputized and community scouts—including powers of arrest, kinds of firearms that may be used, conditions of such use, and the scope of indemnity if a poacher is injured or killed.
    - A clear statement of the rights and indemnities of scouts that receive official police or ANAC-authorized training but are not formally deputized.

3.5.2 Other legal issues that impact the success of CA partnerships

A variety of other issues in the broader legal framework also impact the success of CAs and partnerships and would benefit from enhanced clarity or reform. These include:

1. ***Reforming concession and other fees to reflect market realities, as recommended in ANAC's 2015 Financial Plan***. Such a reform has the potential to greatly enhance the financial sustainability of CAs with high tourism potential, while making private sector investment more feasible in areas with lower tourism potential.

[31] For an explanation of the current law and its gaps, refer to Annexes H and I.

2. ***Reforming land tenure policies for concessionaires and ensuring that concession contracts that are granted are fully ratified***. In light of the incipient state of the tourism industry in Mozambique, longer concession leases are often necessary to incentivize the private sector to invest in CAs and to allow private investors to break-even on their investment.[32] Potential renewals should be evaluated at least 2-3 years in advance of expiration and confirmed for concessionaires who have contributed positively to the area. Withholding such confirmation makes the concessionaire's land tenure insecure and discourages further investment. Similarly, government should ensure that concession contracts are properly ratified, since the failure to do so can unnerve donors and cause them to withdraw funding support.

3. ***Reforming the labor law in order to provide increased flexibility for employers***. The current law does not provide for 'at will' employment and requires a series of restrictive, slow, and onerous procedures if an employer wishes to remove someone who is not performing or who is suspected of illegal or corrupt activity. The burdening of CAs with non-performing and corrupt staff is one of the primary reasons for the under-performance of Mozambique's CAs. Given the magnitude and immediacy of the threats that CAs face, the inability to quickly dismiss such personnel creates serious problems. A lack of clear accountability can quickly compromise the motivation of staff, leading to a poor work ethic and increased corruption. Thus, greater flexibility is urgently needed in the labor law as it relates to CA personnel. In addition, the government should relax restrictions on hiring of foreign nationals, especially given the unique and varied expertise CA management requires. Partners should be permitted to hire foreign nationals so long as the partner agrees to hire and mentor a national for the position.

[32] By way of just one example, the Gorongosa LTA Evaluation found that "the tourism development lease period of 12 years given to the Visabeira Group is too short to break-even on the investment and encourage other investors in the park, especially in a context of adversity motivated by political instability." This is equally important in coutadas, where shorter 5-10-year leases incentivize hunting operators to extract resources from the land without investing in the long-term sustainability of the CA and its wildlife populations.

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ANNEXES

Annex A: Institutional Reform of ANAC and Public-Private Partnerships for the Management of Conservation Areas

This Annex sets forth a suggested policy to reform ANAC and provides a clear strategy to engage public-private partnerships in order to improve the management of Mozambique's Conservation Areas.

Background

The 2014 Conservation Law (No. 16/2014, amended No. 5/2017) establishes a national system of conservation areas (CAs) with the objectives of ensuring the conservation of nature and biological diversity and promoting sustainable development. Mozambique has a large CA estate with the potential to create significant, long-lasting benefits for conservation and for people. The protection of CAs is critical to ensure the sustainability of priceless ecosystem services—such as food, clean water, timber, non-timber forest products, medicine, climate regulation, flood protection, soil regulation, etc.—as well as the development of the economic benefits of tourism and other opportunities presented by biodiversity conservation. This is especially important in Mozambique, where over 80% of the population depends on biodiversity to sustain their livelihoods (MITADER, 2015).

However, there is a lack of financial resources and technical capacity in Mozambique to provide for the protection and management of CAs. One of the poorest countries in the world, Mozambique is also challenged by limited government revenues generated through tourism, and limited investment in training and education for the skill sets needed to further develop the conservation ecosystem in Mozambique. Average state funding of CAs in Mozambique ($34/km^2) is much lower than regional peers ($187/km^2 in Zimbabwe, $2,500/km^2 in Kenya, $2,720/km^2 in South Africa), and far lower than the recommended minimum of $500-900/km^2. Mozambique's 135,809 km^2 CA network requires $68-135 million per year for optimal management, versus a current state investment of approximately $2 million. In addition, many CAs were severely depleted during the civil war, and continue to be subject to severe and growing human pressures—including human settlement and encroachment, poaching (e.g., for bushmeat, ivory, pangolins, lion parts, sea turtles, etc.), and illegal extraction of fisheries, minerals, and timber.

Partnerships with non-governmental organizations and the private sector offer the possibility of transforming this challenge into an opportunity—allowing Mozambique to infuse international funding and technical expertise into CAs, thus increasing the chances of unlocking their economic potential and restoring their ecological value. The Government of Mozambique has recognized this by designating partnerships as a key element of its conservation strategy for almost 20 years. Over this period, the importance of such partnerships has been repeatedly recognized in Mozambican law and policy: in the Forestry and Wildlife Law (No. 10/1999, Article 33); the Conservation Policy of 2009 (Chapter III); the Creation Decree of the National Administration for Conservation Areas (No. 9/2013), the Conservation Law (No. 16/2014, Article 4); and most recently in the 2015 ANAC Financial Plan and the 2015-2024 ANAC Strategic Plan.

This policy paper builds on this foundation by providing a clear strategy for the Government of Mozambique to guide the establishment and functioning of CA partnerships and maximize their effectiveness in safeguarding the country's precious natural capital and providing long-term, sustainable benefits to rural communities.

Recommendations

In support of these goals, it is recommended that the Council of Ministers endorse the following principles.

Overall Strategy: Public-Private Partnerships for Conservation Areas

ANAC shall pursue a strategy that emphasizes its role in the formation, regulation, and management of partnerships, rather than on-the-ground implementation of activities in CAs. As such, ANAC shall pursue delegated management models, based on long-term agreements (i.e., 20-25 years with an option to renew). Devolved management models are associated with the most impressive examples of success—across all indicators, including financial investment, conservation outcomes, and community engagement. This is the case both in Mozambique and in Africa more widely (Baghai et. al, 2018; Baghai & Lindsey, 2017).

If no partners can be identified with sufficient and sustainable funding, expertise, and willingness to assume long-term management responsibility, government should engage in financial-technical support partnerships. A financial-technical support model can, in some cases, serve as a 'bridge' to developing a longer-term delegated model in the future. ANAC shall continue its role as a direct implementer in: (i) CAs with financial-technical support partners, and (ii) CAs without partners.

This strategy offers a number of benefits:

- It simplifies partnership models, incorporates lessons learned from regional and local experience, and allows government to remain open to a range of models to accommodate different situations and partner capacities.
- It enables government to be proactive, instead of reactive, in engaging partners, and to substantially reduce the time it takes to negotiate partnerships. This is important because delays deter partners, create uncertainty amongst donors, and contribute to worsening situations in CAs.
- It effectively harnesses the comparative advantages of the public and private sector—combining the innovation, flexibility, expertise, and financial resources of the private sector with the political legitimacy and local contextual knowledge of the public sector.
- It allows government to focus limited resources and capacity more effectively in those areas which it is uniquely positioned to manage.
- It maximizes investment, attracting larger investments and often more effective management through delegated management partners, while also engaging financial-technical support partners as needed.
- It benefits the country economically. Even where revenue is retained at the park level, government stands to benefit economically through increased CA value, increased economic activity (due to increased investment in conservation, tourism, and community development), and increased tax receipts. As CAs become increasingly developed and financially self-sustaining under partner management, this decreases the potential government burden if it decides to reassume management responsibilities in the future.

- It constitutes a clear response to the reality of the current lack of financial and technical capacity, and as a result provides the best chance of preserving the country's natural capital, attracting increasing investment and tourism, and providing long-term benefits to rural communities.

Some may perceive such partnerships as undermining sovereignty over significant portions of national territory. On the contrary, government retains full regulatory authority, oversight, and control over all CAs. Indeed, government and the public stands to gain significantly as depleted CAs are rehabilitated. Thus, conservation partnerships should be viewed more accurately as engaging a 'service provider' to provide on-the-ground management and technical expertise in order to strengthen and capacitate a national asset, promote tourism, and uplift local communities. Partnerships thereby help tap into global willingness to pay for African conservation, effectively sharing the burden of financing CAs with the international community. These benefits are accrued while retaining the regulatory authority and control that are the definition of sovereignty.

Indeed, CA partnerships fit well within current government practice. In the conservation sector, the government has experienced significant success with devolved models—such as the 'integrated co-management' model in Gorongosa National Park and a 'fully delegated' model in São Sebastião Coastal Reserve (see details in full report). Similarly, the government has recently engaged African Parks in Bazaruto Archipelago National Park. Moreover, the government regularly delegates management to private, for-profit operators in hunting areas (*coutadas*). Other sectors of government also take this regulatory approach. For example, the National Institute of Petroleum oversees policy, regulation, licensing and monitoring of oil and gas concessions, but is not involved at the operational level (Zeissig & Lopes, 2014). This separation of regulation from implementation promotes joint accountability and prevents conflicts of interest. Similarly, the government regularly engages in private-public partnerships for the development of large infrastructure projects (Law No. 15/2011), including major roads and ports. Thus, this non-profit conservation partnership model fits well within current government practice.

Implementation: Institutional Reform of ANAC

To execute this strategy, a new directorate shall be created within ANAC that is dedicated specifically to soliciting, regulating, monitoring, and facilitating partnerships. This directorate should be staffed by personnel who are hired through transparent, competitive selection processes.

In particular, this directorate shall have as its mandate: (1) sourcing capable partners; (2) creating a streamlined and simplified process for establishing partnerships, (3) supporting the ongoing functioning of partnerships, such as by engaging with other sectors and levels of government as necessary, (4) monitoring the performance of partnerships to ensure adaptive management, (5) and promoting policies and regulations that strengthen the enabling environment and thereby enhance the success of CA partnerships.

Attract partners

In order to attract capable partners, the new directorate should:

- Execute a clear vision, based on a clear strategy as articulated above, and a clear understanding of the pros and cons of different partnership models.
- Develop prospectuses for priority CAs for which partners are sought.

- Actively solicit strong partners, such as by hosting international events for potential investors.

Create a streamlined process for establishing partnerships

A streamlined process is also important for attracting partnerships and engaging the support necessary to protect and restore CAs. To ensure a streamlined process, the new directorate should:

- Elaborate specific guidelines and parameters for partnerships in Mozambique.
- Establish an expeditious timeline and process for tendering CAs and negotiating partnerships.
- Create and use standard contract templates as a starting point for negotiations (while retaining flexibility).

Support partnerships

Active and continuous support of partnerships is critical. Indeed, such support is perhaps the most important role government plays to ensure successful partnerships. Such support includes:

- Interfacing and liaising with other sectors and levels of government as necessary (e.g., regarding land use planning, import and use firearms, securing work permits for foreign nationals, ensuring that unsustainable activities inconsistent with CAs do not occur).
- Coordinating with provincial and district government, especially regarding issues relating to local communities.
- Supporting the enforcement of environmental crimes (wildlife, timber, fisheries, etc.), particularly via coordination with police, the judiciary, and local government.

Monitor and evaluate partnerships

The primary goal of monitoring and evaluation is to ensure that where partnerships are not performing, answers are sought as to why and management is adapted accordingly. To ensure meaningful M&E, the new directorate should:

- Identify concrete goals and milestones for each partnership.
- Ensure that standardized monitoring and evaluation (including census) techniques are applied across the CA estate.
- Engage actively in partnership governance bodies and ensure that management and/or business plans are developed, approved, and implemented.

Promote policies that create a strong enabling environment

A central element of this strategy is *government's role in strengthening the enabling environment for conservation*. This is the necessary foundation for the success of all partnerships, regardless of model, and requires several actions by government:

i) *Develop, adopt and implement across all sectors a clear policy regarding local communities living inside CAs*. This policy should prohibit immigration into CAs, limit settlement expansion, regulate activities, coordinate land-use planning and promote effective zoning.

This will ensure that there are sections of CAs in which settlement, agriculture and other human activities incongruent with conservation are prohibited.

ii) *Clarify the respective roles and responsibilities of CA administrators and district administrators.* This will clarify that if there are differences of opinion or conflicting decisions, the decisions of CA administrators take precedence within CA boundaries.

iii) *Provide strong political support in enforcing environmental laws*—such as those prohibiting poaching (for bushmeat, ivory, pangolin scales, lion parts, sea turtles and sea cucumbers, etc.), and illegal extraction of fisheries, minerals and timber. This requires liaising with district and provincial governments regarding law enforcement, addressing evidence of alleged complicity of local officials and police, and sensitizing the police and judiciary regarding the seriousness of these crimes.

iv) *Revise regulations and promote policies so as to encourage tourism and the financial sustainability of CAs.* Tourism can contribute significantly to GDP (WTTC, 2015) and that wildlife tourism is a major component of the tourism market in Africa (UNWTO, 2014).

v) *Ensure coordination and mainstreaming of conservation issues across ministries and other sectors of government.*—e.g., relating to issues of work permits for foreign nationals, tax-free import of equipment and firearms for CA partners, etc.

vi) *Establish clear procedures for privately-employed law enforcement or community scouts in CAs. This will allow for an important component of law enforcement to qualify as deputized or community scouts under the law, and clarify the authority and protections.* This relates to authority to carry automatic or semi-automatic firearms, authority to make arrests, and indemnity in case of death or injury that occurs as a result of confrontation with suspected poachers.

vii) *Allow CA partners to create local, non-profit organizations with tax-exemption*, according to international best practice.

viii) *Provide greater legal flexibility and reduce restrictions on CA partners relating to the hiring of qualified personnel and firing of non-performing or corrupt staff.*

ix) If/when the new decentralization structure is approved, *government should provide a clear definition of roles and responsibilities of various government representatives as relates to CA*s.

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Annex B: Summary of Key Lessons Learned in Mozambique's Collaborative Management Partnerships

Table 1: Key lessons learned by topic

Topic	Key Lessons Learned
Roles & Responsibilities	• **Human resources and law enforcement are absolutely critical to the success of any CA/partnership.** Delegated management and integrated co-management models respond in the clearest ways to these challenges because they allow for the hiring of top quality staff and the removal of non-performing staff, and because they undertake high quality law enforcement. By contrast, the lack of partner role in hiring and firing and law enforcement is a key limiting factor of the effectiveness of the financial-technical support model, particularly in contexts of low capacity and weak governance. Non-performing or corrupt staff greatly undermine morale and efficacy, and in some cases imperil CAs by actively cooperating in illegal activities. • There tends to be confusion and tension regarding roles and responsibilities in non-delegated, non-integrated models—especially in the bilateral co-management model. This can lead to distrust and severely inhibit the success of the partnership, particularly when there is not a very clear, detailed agreement that describes decision-making procedures for all aspects of management. Moreover, the presence of two organizations involved in on-the-ground management frequently leads to a lack of accountability and blame shifting. One way to mitigate this is to ensure that a partner who provides the majority of funding for a reserve has joint agreement in selection of the warden. • **A business and/or management plan should be in place from the outset in order to align the partners and provide concrete objectives and timelines.** • **A long-term commitment is critical in CAs that are seriously depleted or imperiled.**
Financial Investment	• **Sufficient funding is essential.** Mozambique's CAs are especially costly to manage, and recent research indicates that a minimum of $500-900/km2 is required for effective management. • **Continuity of funding is also important.** This is a benefit of long-term partnerships that secure long-term funding. Additionally, the experience of Quirimbas shows that short-term influxes of funding, without a realistic long-term commitment, can end up leaving little impact. • **Retention of revenue by CAs is critically important.** When retained at the CA level, revenue can be a relatively stable, flexible source of funding, as well as an incentive to improved management. Retention also enables timely sharing of revenues with local communities. • **Some CAs, despite having a partner, require additional support.** Government can play an important role in partnerships by channeling additional support to a CA via bi- and multi-lateral funding. In cases such as Niassa, where a CA is subject to extreme levels of human threat, there is a need for stronger government support. This includes engaging with district administrators, the police and the local judiciary to ensure that offenders are rapidly and effectively dealt with, ensuring that permits and permissions are allocated in a timely fashion (e.g., for the import of essential equipment such as firearms), etc. • **It is not only the amount of money that matters, but how effectively it is spent.** While financial investment is a key benefit of partnerships, it must be analyzed in connection with results on the ground. Key to the effectiveness of funding is the competency and commitment of staff.
Conservation Impact	• **Key factors associated with conservation success are: a long-term partner, with strong funding, a commitment to both conservation and community development, and a devolved model** that provides flexibility and autonomy. • Mozambique is unique in the region in that people live inside almost all CAs. In addition, there is little effective restriction on immigration into CAs. As a result, **human pressures on CAs are massive and increasing. Government support in addressing this core issue—both in terms of policymaking and political support—is absolutely essential** to the success of CAs. Specifically, land-use planning must guarantee areas free of human settlement, and restrictions on immigration into CAs must be effectively enforced. Development activities should be conducted so as to attract communities outside of CAs. Ideally, repatriation of communities in some or all CAs should be considered. • **Effective law enforcement—to address poaching (bushmeat, elephant and lion), illegal mining, and illegal timber extraction—is urgently needed.** This requires

	government support and strong political will. Wildlife crimes must be dealt with severely and consistently. As such, there is a need for awareness raising and capacity building in the police and judiciary.
Community Engagement	• **It is essential to have a clear delineation of authority and responsibility between the CA and local government, and to manage community expectations accordingly.** In particular, while the CA should aim to provide benefits to local communities, provision of essential services to communities is fundamentally a government responsibility. • **Projects should be adaptive, but the community department should have a long-term approach** in order to build positive relationships with local communities. It should also coordinate activities of other NGOs and development organizations, so as to ensure synergy and manage expectations. • **Projects should tie benefits to responsibilities, and draw a direct connection between the CA and those benefits** through 'marketing' and 'branding' of outreach programs. • **The CA should maintain consistent communication with local communities,** discussing activities before they begin and engaging communities throughout in the process.
Quality of Staff & Capacity Building	• **Quality staff is absolutely essential to CA success.** Key to ensuring quality staff are: hiring that is free of political influence; attracting qualified personnel by offering higher salaries and other benefits; and the ability to discipline and fire non-performing and corrupt personnel. • **Capacity building has as much to do with on-the-job mentorship and the experience of working alongside skilled, committed managers as it does with 'formal, classroom training.'** It also requires proper systems and accountability. • **Building capacity of a CA—in terms of infrastructure, equipment, and management budgets—requires a strong, long-term commitment by the partner.**

Table 2: Key lessons from the experiences of specific partnerships

Partnership	Lessons Learned
Gorongosa	• Autonomy provides flexibility that is critical to effective on-the-ground management and building a strong team. • Substantial, sustained levels of funding enable success. This success, in turn, often attracts additional funding. It gives donors confidence that a strong team is in place that will use funds effectively, and creates a virtuous cycle of funding and conservation success. • A long-term commitment is key to success in CAs that are seriously depleted or imperiled. • Structuring the partnership as a single integrated entity with one leader on the ground provides clarity and avoids potential conflicts that arise with having two leaders from two different organizations. It is important that this leader have the ability to bridge the cultural gaps between the two organizations. • A dual conservation–human development approach allows the partnership to leverage donors interested in conservation as well as donors committed to human development. It also generates goodwill amongst local communities.
Niassa / SGDRN	• A non-profit foundation model provides several advantages over a for-profit company structure—including potential for broader engagement of stakeholders, which is particularly important in an area as large and complex as Niassa. It also facilitates fundraising and minimizes potential misperceptions regarding the nature of the partnership. • Government support and communication with stakeholders is critical for a devolved model. Government needs to continuously communicate internally and externally regarding the need for and nature of the partnership so as to prevent potential misperceptions. • Revenue retention is critical as it can provide a significant, flexible, reliable source of funding, free from the restrictions and unpredictability often associated with donor funding. • External funding does not necessarily mean a CA is 'taken care of', and continued government support in soliciting funding from bi- and multi-lateral aid agencies is important.

	• Even though a partnership is engaged as a conservation area management entity and not a development agency, the lack of a coherent and structured community program can leave CA management vulnerable to politically-motivated attacks.
Niassa / WCS	• A reserve of the size and complexity of Niassa requires strong government engagement and support, regardless of the partnership model in place. The lack of an 'enabling environment' makes effective conservation extremely difficult. Examples include the lack of restrictions on human settlement and immigration, the weak response of government to threats such as illegal mining and bushmeat poaching, and the long delays imposed on NGO partners relating to issues such as sourcing appropriate firearms to combat the poaching crisis. • The partnership agreement should clearly define roles and responsibilities with respect to all aspects of management and provide for clear decision-making processes. The lack of a clear structure and shared vision of the model leads to tension and mistrust. • A co-management partner should have joint agreement in selection of the park warden. A political or one-sided appointment can hamstring a reserve and create tensions in the partnership. • A clear business and/or management plan, with a strategy for dealing with the reserve's biggest threats, should be in place from the outset in order to align the partners and provide concrete objectives. This should be based on a realistic understanding of what is necessary in terms of resources, regulations, and the role of each partner. • Bilateral co-management is challenging, and often leads to conflict and blame-shifting between the partners. The lack of a unified team and unified finances creates friction and mistrust. Moreover, in a context of weak governance, where the potential for corruption or political interference is high, a bilateral co-management structure is unlikely to work well. • Funding is critical, but not sufficient, for success. It must be paired with local knowledge and experience, and a clear vision for the future of the reserve. • For Niassa in particular, the relationship with and management of operators is critical. Concessionaires can create a significant presence on the ground and multiply the impact of central reserve management if engaged properly.
Limpopo	• The lack of partner role in hiring and firing is a key limiting factor in the effectiveness of the financial-technical support model, particularly in contexts of low capacity and weak governance. • A partner that is investing considerable sums of money into a reserve should have a say in the selection of the park warden. • Formal Steering Committee and Project Implementation Unit structures provide an avenue for collaboration and clear, joint decision-making. They also ensure financial transparency, which builds trust. These structures optimize the functioning of the financial-technical support model. Nonetheless, this model has generally proven insufficient to effectively and efficiently tackle the challenges in Limpopo. • The presence of communities inside a CA can create serious challenges for its development, and needs to be addressed with a clear plan and strong government commitment and support. • Wildlife reintroductions should not be undertaken until such time as poaching is under control.
Gilé	• Project funding of salaries allows flexibility in hiring and firing, which is an extremely important tool in ensuring a good team is in place for the reserve to operate. • Subcontracting of specialized partners for projects (e.g., conservation agriculture, development of REDD+ programs) can work more smoothly and effectively than trying to do such work 'in-house' when the co-management partner itself does not have such expertise. • Communication, information sharing, and involvement of government at all levels (district, provincial, and central) is an essential element in creating a strong, positive relationship between the partners.
Quirimbas	• Short-term 'projects' are unlikely to create lasting results in complex, high-threat environments. In such contexts, a long-term commitment and clear partner mandate are strongly advised. • Downsides of a financial-technical support model include a lack of accountability and limited scope. Large sums of money may be spent but have limited impact

	since key decisions that are critical to CA success remain outside the scope of the project (e.g., relating to HR, law enforcement, land use planning). • The financial-technical support model is also problematic because revenues are not retained at the CA level. This creates a situation in which partners invest millions in the reserve, but there may be relatively little contribution from government, and even the revenues due to the park do not necessarily materialize. This creates a disincentive to partner and donor involvement and investment. • The needs of the CA must be realistically ascertained from the outset, with a funding and sustainability strategy developed accordingly. • The government partner should be realistic about what it will take to develop the capacity it desires. For example, insisting on full authority over law enforcement even though it does not yet have the resources and systems required to effectively execute this responsibility is a recipe for failure in a CA that faces serious threats from wildlife crime. • The private partner must also be realistic about what it will take to develop the necessary capacity, and be willing to commit to long-term support and involvement as necessary. • In places as densely inhabited as Quirimbas, it is especially important to clarify the roles and responsibilities of park management and district government, and ensure regular coordination. Conservations organizations should not be expected to fulfill the roles of government and development agencies.
São Sebastião	• A fully delegated model can achieve impressive successes, but still requires government engagement and support. In the case of SBV, government has more than once issued special licenses in contradiction with SBV's exclusive rights. This unnerves and discourages investors, and undermines the financial stability of the model. It has also resulted in significant financial losses, requiring SBV to divert funding away from conservation and community work in order to deal with expensive legal proceedings. • To enhance the government role in the partnership, it would be useful to have a government seat on the board of the project. This would allow the government to exercise its role both in oversight of the project (as regulator) and assistance to the project (as partner). • Institutionally, a foundation (or other non-profit) structure, as opposed to a company structure, would allow management to increase and diversify funding by seeking external support.

Annex C: Methodology for Ecological Analysis of Mozambique's Conservation Areas

We derived wildlife trends and biomass estimates for Mozambique's CAs from data obtained from published and unpublished aerial surveys (Table A). Deriving estimates of wildlife trends for the different CAs was challenging due to inconsistencies in the methods employed and in the degrees of effort applied between consecutive surveys of the same CAs.

Counting animals

There is large variation in the robustness (and thus usefulness) of the wildlife surveys which have been conducted in Mozambique. Few surveys were designed and conducted following robust statistical frameworks which account for detection error (i.e., Distance, Mark-recapture or total counts), and therefore few surveys of Mozambique's CAs are able to provide reliable estimates of wildlife densities or even reliable inferences of wildlife population trends.

The density of a species in a CA is the most useful parameter as it can be related to ecological carrying capacity and can provide a metric to track trends in wildlife populations (abundance and distribution). Indices (i.e., number of animals counted per kilometer), can be useful for identifying trends in wildlife abundances or distribution; however, they fail to account for variability in detection or distribution of animals (changes in vegetation, surface water, etc.) and are subject to both Type I and Type II statistical errors, indicating relationships that don't exist and/or failing to identify relationships that do exist.

The most reliable density estimates come from total counts and the robust sampling methodologies of 'mark-recapture' and 'distance sampling'. Each of these methodologies can be effective, depending on the circumstances. Total counts require the probability of detection to be 1 (that is, no animals in the survey area are missed) and so work well for elephant, buffalo and waterbuck in the open grasslands of Gorongosa, but are not appropriate for areas which contain ironwood thickets, such as central Limpopo. Estimating densities using total counts from the air becomes progressively less reliable with decreasing body size, increasing vegetation structure, increasing topographical ruggedness and for species with more cryptic anti-predator behaviour (i.e., species which hide rather than flee).

In cases where survey methods and effort were comparable among years but where the area covered each year was different (e.g., Gorongosa and Banhine) we presented density estimates based on data collected only from similar habitat types (e.g., grasslands only). In cases where survey effort was similar between years but analysis differed (e.g., Maputo Special Reserve), we considered raw count data as an index. In cases where the data was neither accurate nor precise, entire surveys had to be disregarded (e.g., the 2006 and 2010 surveys of Limpopo). In cases where detectability of some species was different between surveys (smaller species counted from varying transect widths) and detectability not considered, we omitted smaller species (Limpopo). Data were unavailable to estimate trends for some CAs (e.g., Zinave, Gilé). We caution that even after manipulating the data to allow for comparisons to be made between years, possible biases exist as few of the surveys employed robust analyses to consider detection probabilities, such as distance and some surveys differed in their attempts to minimize bias associated with detection rates. For instance, Stephenson's (2010) survey of Limpopo assumed perfect detection within a 400m wide transect while the survey of Grossman et al. (2014), also of Limpopo, assumed perfect detection using a 200m wide transect. It is thus likely that the 2014 survey is far more accurate than the 2010 survey, particularly for smaller species whose detection rates wane quickly with distance.

For each CA, we derived *population trends* (presented as relative abundance or density) for:

- all small ungulate species (including bushpig, bushbuck, grey duiker, red duiker, oribi, impala, nyala, reedbuck, steenbok, warthog);

- large ungulate species excluding elephants (including buffalo, eland, hartebeest, kudu, sable, roan, waterbuck, wildebeest and zebra); and
- elephants.

We estimated *total biomass* per square kilometer for each CA based on the latest and most accurate aerial census data. Ungulate species of <30 kg were omitted from this analysis of biomass as their detection rates from aerial surveys are considerably less accurate than larger species. To compensate for this lost biomass we added 10% of the total estimated biomass of the larger species following the assumption that smaller species contribute an average of 10% of the total biomass of a savannah system (following Lindsey et al., 2015). We then compared current standing biomass estimates for each CA with carrying capacity estimates derived following Lindsey et al. (2015). Lindsey et al. (2015) estimated the carrying capacity of Mozambican CAs based on the rainfall and soil type in each area. Detailed methods are presented in Box 1 at the end of this annex.

Questionnaire surveys

To complement data from aerial surveys, further insights into the status of and trends in wildlife populations were derived from Lindsey et al. (2017) and from questionnaire surveys conducted during the course of the present study. Lindsey et al. (2017) provide data on lion numbers and compared these to estimates of carrying capacity for the species. During the survey conducted as part of this study, respondents were asked to indicate whether leopard populations were increasing, stable or declining and to estimate leopard density relative to likely carrying capacity. Lindsey et al. (2017) also provided insights into the key threats facing CAs in Mozambique (and many other countries). Respondents were asked to rate several threats to wildlife on a 0-5 scale to indicate the severity of the threat. In addition, respondents were asked to estimate the proportion of the CA that was occupied by human settlement or cultivation.

Table A: Detailed notes on aerial surveys used to estimate wildlife populations

CA	Notes and Caveats
Banhine National Park	• Banhine was surveyed using total counts from a helicopter of blocks during 2004, 2007, 2009 and 2012. However, the selected blocks were not consistent. As a result, comparisons could only be made between the 2004 and 2007 surveys, and separately between the 2009 and 2012 surveys. The 2009 and 2012 survey blocks included the majority of the most productive wetlands (95%) and grasslands (85%) and little (10%) of the surrounding sandveld-mopane habitats, which make up the majority of the park. Biomass estimates were made based on the 2012 data, where the total area was calculated as the area covered by the surveyed blocks. Total counts were comparable between 2004-2007 and between 2009-2012 but not across all surveys.
Gorongosa National Park	• Repeated surveys have been undertaken in Gorongosa since 2000. A combination of fixed wing aircraft (2004) and helicopter (2000-2007, 2007, 2010, 2012) surveys were undertaken across varying percentages of the park; some conducting line-transect sampling and others using block counts.
Limpopo National Park	• White (2006) conducted (by helicopter) a total count of elephant and buffalo along many of the drainages in Limpopo. No statistical frameworks were applied nor has there been a repeat of the survey, and therefore this survey has little value either in providing a reliable estimate of abundance or density or as an index that can be used to detect trends. • Stephenson (2010) conducted (by fixed-wing aircraft) a systematic line transect survey of the entire park. Animals were counted within an 800m wide strip and the Joly (1969) method was used to calculate animal densities. The survey pooled all detections within an 800m strip without accounting for a decreasing detection rate with distance from the observer, and thus likely underestimated the actual number of animals per area sampled. Because the spacing between sample strips was three times the width of the strip itself there is also considerable bias for species with limited but clumped distribution (such as elephants, buffalo and impala, which live in herds). In addition, the data collection method is of little value for smaller or cryptic species, including most species smaller than kudu. Estimates of density of the sampled area (sample strips) were then extrapolated across the entire park by multiplying these numbers by three. • Stephenson (2013) conducted a replicate of the 2010 survey, however some of the metadata from the survey was lost, making it difficult to know if the differences in relative densities observed, which could have indicated trends, were real or were products of a poor survey (Type II error). This survey was omitted from our analysis. • Grossman et al. (2014) conducted a systematic line transect survey following the same transects as Stephenson (2010, 2013), but reduced the transect widths from 400m to 200m as a way of increasing accuracy by increasing detection probability. • Because the 2006 survey provided only a minimum count from a sub-sample of the park and the following three surveys (2010, 2013, 2014) estimated total abundances without considering detection probabilities, in order to estimate trends we elected to: (1) consider minimum counts only (2) of species with higher relative detection rates (buffalo, elephant, giraffe, kudu, nyala, waterbuck, wildebeest and zebra) (3) from a sub-sample of the total park that was surveyed by each study (the Shingwedzi River basin). However, in spite of these data manipulations the differences in strata width between surveys continues to induce bias resulting from decaying detection probabilities associated with distance from observer. • Faced with these inconsistencies between surveys, we could therefore only justify comparing estimates of species with relatively higher detection probabilities from 2010/2013 surveys (i.e., buffalo, elephant, giraffe, kudu, nyala, waterbuck, wildebeest, zebra, cattle and shoats). Raw counts could not be compared between surveys as the surveyed area of each strata between surveys differed. • Strip transects are less accurate at estimating abundances of species that are rare and/or heterogeneously distributed, as a chance miss can underestimate true abundance and a chance capture can overestimate true abundance. • Biomass estimates were made from Grossman et al. (2014) being the most recent and most accurate survey.
Maputo Special Reserve	• Methodologies were comparable between most surveys conducted in Maputo Special Reserve between 1998 and 2016, and thus it was possible to estimate rough population trends, using raw counts as population indices, for several herbivore species. These indices, however, do not account for detection biases and thus provide only rough estimates of wildlife trends. Efforts were made to employ more robust analytical approaches (Distance sampling) for species with sufficient detections, thus enabling more accurate descriptions of these species trends.

Zinave National Park	• A fixed-wing aerial survey, undertaking line transect sampling was used to survey Zinave in 2009. Fifteen percent of the park was sampled totalling approximately 559 km2. No comparative data is available to estimate trends, however authors have noted marked increases in livestock and human settlements in Zinave, as well as drastic human expansion between Zinave and Gonarezhou National Park in Zimbabwe—which is likely to impede any connectivity prospects for mega-fauna species.

Box 1: Detailed methods for estimating carrying capacity.

Total biomass of large herbivores in natural communities can be predicted by the quality and quantity of available plant biomass (Coe *et al*. 1976, Bell 1982, East 1984, Fritz & Duncan 1994), which are themselves dependent on a number of variables, including rainfall, temperature, evapotranspiration and soil nutrients, amongst other things.

In southern and eastern Africa, Coe *et al*. (1976) showed that large herbivore biomass was positively related to annual rainfall, with a linear relationship below 700 mm and a curvilinear relationship above 700 mm. Above 900 mm, herbivore biomass declined. This result was obtained by regressing the standing crop biomass of herbivores from 24 ecosystems (including plains and lightly wooded savannah s) against mean annual rainfall for each ecosystem. Standing crop biomass was estimated as the sum of the live weights of all individuals occupying a given area, which was determined by multiplying the number of each species (obtained from census data) by their average live weight (obtained from Bothma 2010), then summing the biomasses of all species making up the community.

Although useful, this relationship between rainfall and mammalian biomass did not take into account the quality of plant material available to herbivores, which is primarily dependent on soil nutrient availability. This is important because herbivore biomass is influenced by the quality of forage available, and not just the quantity. As an example, in southern and eastern Africa, miombo woodlands generally occur on leached soils with low nutrient availability (Smith & Allen 2004), and the resultant poor-quality vegetation supports a lower biomass of large herbivores than would be predicted from the rainfall-biomass relationship of Coe *et al*. (1976) (East 1984). This is despite the fact that miombo areas generally experience a relatively high mean annual rainfall of 850-1400 mm.

To take the soil nutrient status of ecosystems into account, East (1984) regressed the total biomass of 25 large herbivore species against rainfall using the same methods and similar datasets as Coe *et al*. (1976), but additionally included three categories of soil nutrient status: high, medium and low (with low nutrient category being further subdivided into rainfall areas of <700 mm and > 700 mm). Large herbivores were divided into two groups according to habitat preference: 1) arid savannah species that had a peak in standing crop biomass in areas with an annual rainfall of <820 mm and; 2) moist savannah species that had a peak in standing crop biomass in areas with an annual rainfall of >1,000 mm. Herbivore species <10kg (e.g. duiker spp., *Raphicerus* spp., and *Neotragus* spp.) were excluded because they are relatively hard to count and often do not feature in aerial censuses.

In areas with medium or high soil nutrients, the biomass of both arid and moist savannah species increased in a linear fashion with annual rainfall between 200 mm and 1,200 mm (areas with over 1,200 mm were not included in the analyses). In areas with low soil nutrients, the relationship between herbivore biomass and rainfall was more complex, with differences in the rainfall-biomass relationship occurring at annual rainfalls >700 mm. In low soil nutrient areas, the biomass of arid savannah species increased up to about 700 mm rainfall, then declined, while for moist savannah species, biomass continued to increase up to 1,200 mm rainfall. In addition, both East (1984) and Fritz & Duncan (1994) showed that ungulate biomass was considerably lower in areas with low soil nutrients, with the latter indicating that, for a given level of rainfall, the biomass of large ungulates was about 20x higher on rich soils than on poor soils.

In this report, the potential standing crop biomass of large herbivores was determined for each protected area by multiplying the potential biomass per unit area (kg/km^2) (estimated using linear regression of the data provided by East (1984)), by the surface area of the PA. Regression equations were determined using the software programme GraphPad Prism and data were separated according to the soil nutrient status of the PA (medium/high & low) and the habitat adaptation of the ungulate species (arid adapted species & moist adapted species). The category low soil nutrient/arid adapted species was further divided according to rainfall (<700 mm & >700 mm). Five regression equations were used in total and potential biomasses (kg/km^2) were determined using the interpolation tool in the statistical software. Estimates for rainfall were determined from the literature, while soil nutrient status was measured in two ways: 1) indirectly using vegetation types

identified from the literature and vegetation maps (Wild & Fernandes 1968); and 2) directly using soil maps (Jones et al. 2013).

For each PA, the proportion of the area covered by different vegetation or soil types was estimated, and this was used to approximate the proportion of land covered by medium or low quality grazing/browsing habitat for herbivores. However, given the broad scale of soil and vegetation maps, the fact that many PAs are large and have variable rainfall, and the fact that the two predictor variables (soil nutrient quality and rainfall) do not explain all the variability in ungulate biomass in protected areas (East 1984, Fritz & Duncan 1994), the standing crop biomasses calculated here are considered estimates only.

Annex D: Details of Ecological Analysis of Mozambique's Conservation Areas

Detailed insights into the ecological performance of Mozambican CAs

Covering 801,590 km^2, including approximately 135,809 km^2 of land gazetted towards wildlife protection, Mozambique provides an important contribution, or potential contribution to the conservation of African wildlife. However, wildlife in Mozambique has undergone a series of challenging eras. During colonial times, sport hunting of elephants and rhinoceroses lead to steep declines in the numbers of those species (Ntumi et al., 2009). The rinderpest pan-zootic of 1896 killed off huge herds of buffalo and other cloven-hoofed wildlife. In the last century, tsetse control programmes resulted in the culling of massive numbers of antelopes until the 1960's (Timberlake, 1998). Wildlife suffered further pressure during the ten-year war of independence (1964-1974) and subsequent twelve years of civil war (1980-1992) (Hatton et al., 2001). For instance, several species of wildlife in Gorongosa National Park, Mozambique's flagship National Park, were almost entirely hunted out, including for the export of ivory, by warring troops. Niassa National Reserve and Limpopo National Park were spared the worst impacts, in the former because of its remoteness and in the latter because wildlife was able to disperse from the adjacent Kruger National Park in South Africa.

Following independence, the country lost much of its wildlife management capacity and expertise with the emigration of Portuguese nationals. After the wars, Mozambique's wildlife experienced a protracted period of uncontrolled harvesting for bushmeat and ivory. During the early 1990s wildlife conservation efforts were bolstered by the formation of a wildlife management authority overseeing wildlife protection and management of the country's national parks and reserves (Hatton et al., 2001). Subsequently, several NGOs formalised collaborative management agreements with the government to support the development of the country's protected areas. However, Mozambique's CAs have remained under severe pressure from illegal activities (Lindsey & Bento, 2012; Everatt, 2016). Unlike most other countries in the region, Mozambique has chosen to allow human settlement in all categories of CAs, despite clear evidence that conservation outcomes are compromised by settlements within protected areas.

In this annex, we provide additional, detailed insights into the ecological performance of Mozambique's CAs, using data from aerial census reports and from questionnaire surveys undertaken during the current study and by Lindsey et al. (2017). We present data on estimated densities and trends of wildlife and on the primary threats facing each PA. These analyses show that with few exceptions Mozambique's CAs remain under continued massive pressure from human threats.

Table 1: Summary of the performance of terrestrial wildlife populations in CAs

Wildlife Population	Performance across Mozambique's CAs
Ungulates (excluding elephants)	The biomass of ungulates appears to be declining in all of the CAs assessed, with the exception of Gorongosa, MSR, São Sebastião and possibly Gilé. In several CAs—notably Banhine, Quirimbas and Zinave—ungulate populations occur far below their estimated carrying capacity. Black and white rhino have become almost completely extirpated from Mozambique.
Elephants	Elephants are generally faring poorly in the CAs assessed, with the exception of Gorongosa and MSR, where they are believed to be increasing. The situation facing elephants in Niassa is particularly dire, as their numbers continue to crash.
Lions	Lions are faring poorly and in decline in the CAs assessed, with the exception of Gorongosa (and in a few private concessions such as Coutada 9, Sabi Game Reserve and Karangani Game Reserve) (H. Rosier, pers. comm.; Everatt, unpublished). In no CA do lions occur at >50% of estimated carrying capacity. By far the largest lion population occurs in Niassa, but indications are that it has also started to decline, as a result of habitat fragmentation due to a growing human population, indiscriminate bushmeat snaring and targeted lion poaching.
Leopards	The data available on leopards is scarce and there is an urgent need for monitoring of the species to assess status and trends. Survey respondents were of the belief that leopards occurred far below the potential carrying capacities of the majority of CAs assessed, and in most instances, were considered to be declining.

Banhine

Densities of smaller antelope species appear to have increased between 2004-2007, though decreased slightly between 2009-2012 (Figure 1). Elephants showed an increase between 2009-2012 (Figure 2), however the very low numbers of elephants counted (n=1 in 2009, n=5 in 2012) lends biases to estimates. Cattle and shoats also showed a significant decrease in abundance between 2009-2012. Lion densities declined by 50% since 2014 following the retaliatory killing by livestock herders of one of the park's only two prides (Everatt, 2016).

Approximately 8% of Banhine is affected by human settlement or cultivation. The primary threats to wildlife in Banhine are: bushmeat poaching (including shooting from vehicles), human and livestock encroachment, and illegal logging and tree-cutting for charcoal.

Figure 1. Smaller herbivore (bushpig, grey duiker, impala, oribi, reedbuck, steenbuck, warthog) and larger herbivore (kudu, buffalo, nyala) population trends in the Banhine National Park, 2004 to 2012, from total count aerial surveys of central grasslands.

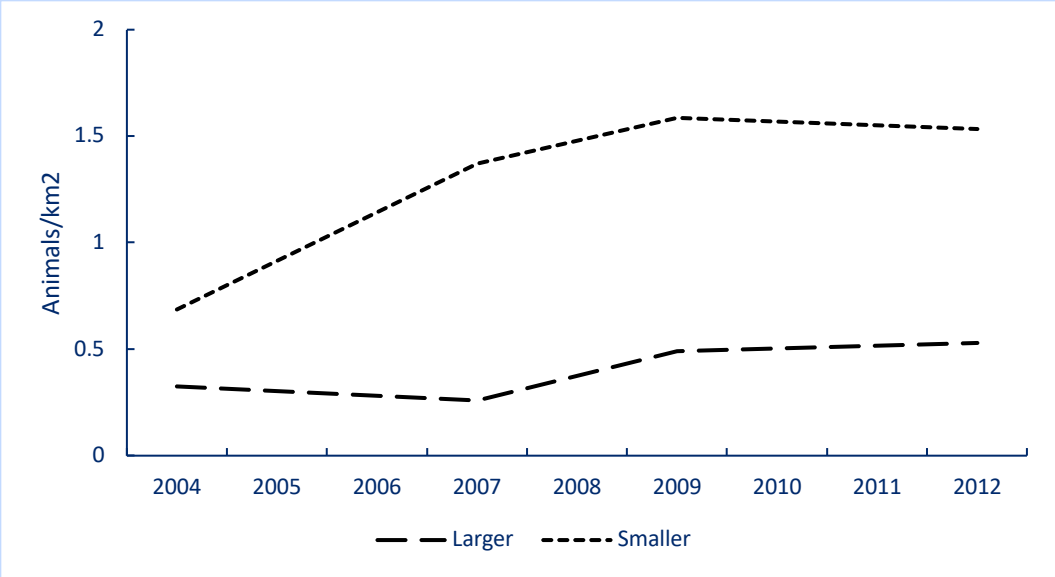
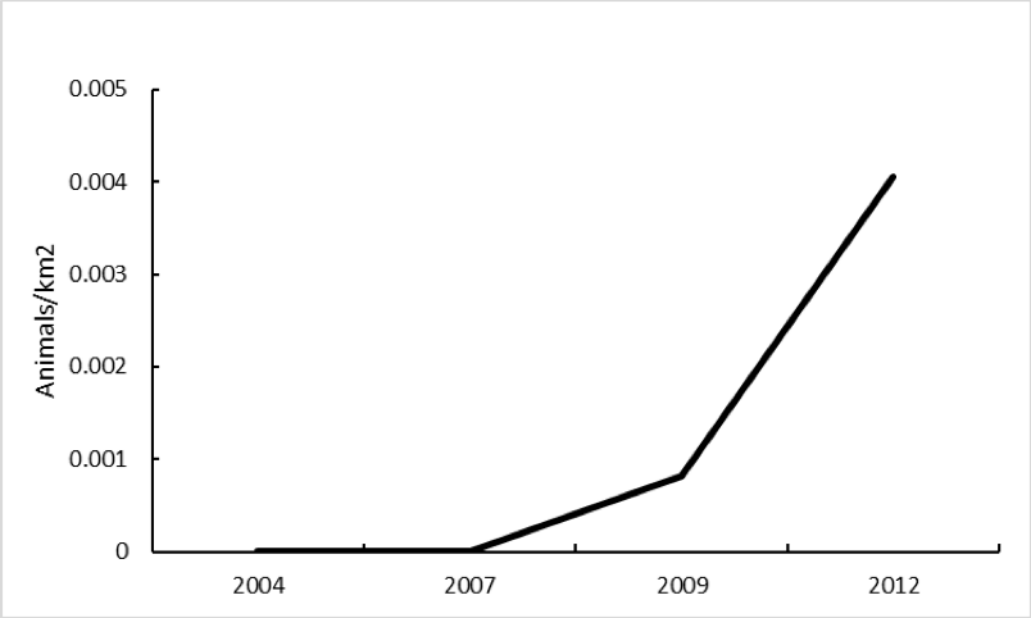


Figure 2. Elephant population trends in the Banhine National Park, 2004 to 2012, from total count aerial surveys of central grasslands.



Gilé

Data were not available for the analysis of wildlife trends in Gilé. Several species are known to have been extirpated from the reserve in recent history, including black rhinoceros, wildebeest, zebra and likely buffalo and eland. Buffalo have since been successfully reintroduced (IGF, 2010). Two wildlife reintroductions have been undertaken in Gilé: 20 buffalo in 2012 and then 47 buffalo, 15 zebra and 20 wildebeest in 2013. Ungulate populations were considered by the survey respondent to be stable or increasing, but remain at low densities. Lions are considered to be absent and leopards are rare.

Gilé is the only reserve in Mozambique without human settlement. The primary threats to wildlife in Gilé are believed to be bushmeat poaching and habitat destruction through illegal logging and burning

for charcoal. Illegal logging has been particularly severe, and elephant poaching has emerged recently as a problem.

Gorongosa

In Gorongosa, herbivore populations, including elephants, have generally been on the increase from the extreme low densities left in the park after the independence and civil wars (Figures 3, 4). Survey respondents indicated that the number of large mammals in the park increased from 15,000 in 2007 to >70,000 in 2014. Lion populations in Gorongosa are also considered to be increasing and are now estimated to number more than 80 individuals (P. Bouley, pers. comm.). Leopards are present, but occur at densities much lower than would be expected from the habitat and prey availability. Over the last 2-3 years, Gorongosa has been affected by an increase in illegal settlement which is believed to be associated with political unrest that was experienced in the area. Key threats facing wildlife in Gorongosa include the bushmeat trade, human encroachment and human-wildlife conflict.

Gorongosa has a large management budget, which is the highest of any national park or reserve in the country. Gorongosa also has a scout force of 183 rangers, who have had a significant impact on illegal activities. For example, about 4,160 wire snares and 180 traps were removed, 31 homemade shotguns were confiscated and 142 poachers arrested and taken to court from January to mid-August 2013. Effective patrolling is nonetheless constrained by the terrain (only 30-40% of the park is accessible to management by vehicle), flooding conditions during the rainy season, and limited radio coverage. Patrolling effort and coverage was further reduced in 2013 and 2014 by occupation of part of the park by RENAMO soldiers, who burnt some ranger outposts (Munthali & Macandza, 2015). Consequently, not all of the park is effectively managed, though the conservation footprint is gradually expanding year on year.

Figure 3. Larger herbivore (buffalo, eland, hartebeest, hippo, kudu, nyala, sable, waterbuck, wildebeest, zebra) and smaller herbivore (bushbuck, bush pig, grey duiker, red duiker, impala, oribi, reedbuck, steenbok, warthog) population trends in the Gorongosa National Park, 2007 to 2014, from total count aerial surveys of central grasslands and wetlands.

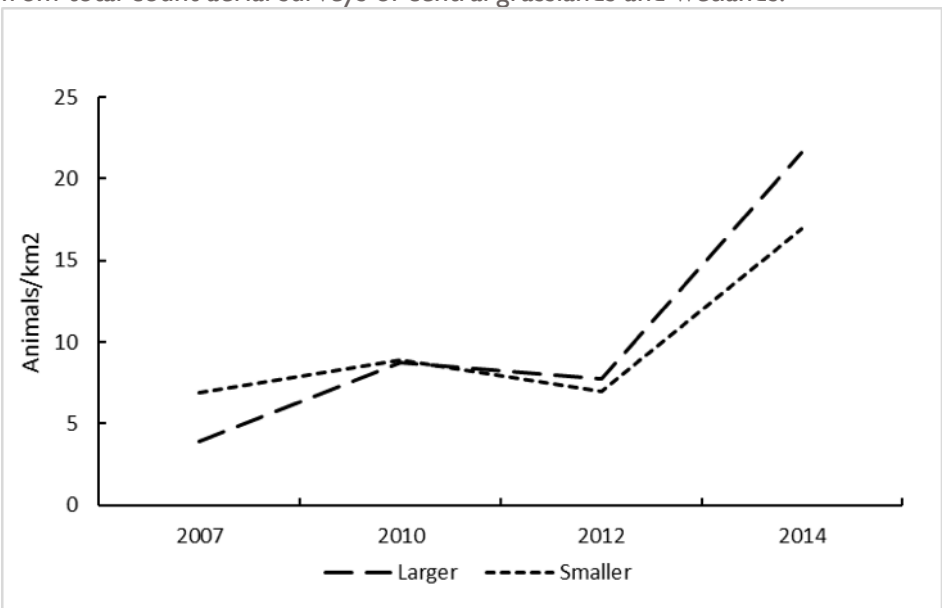
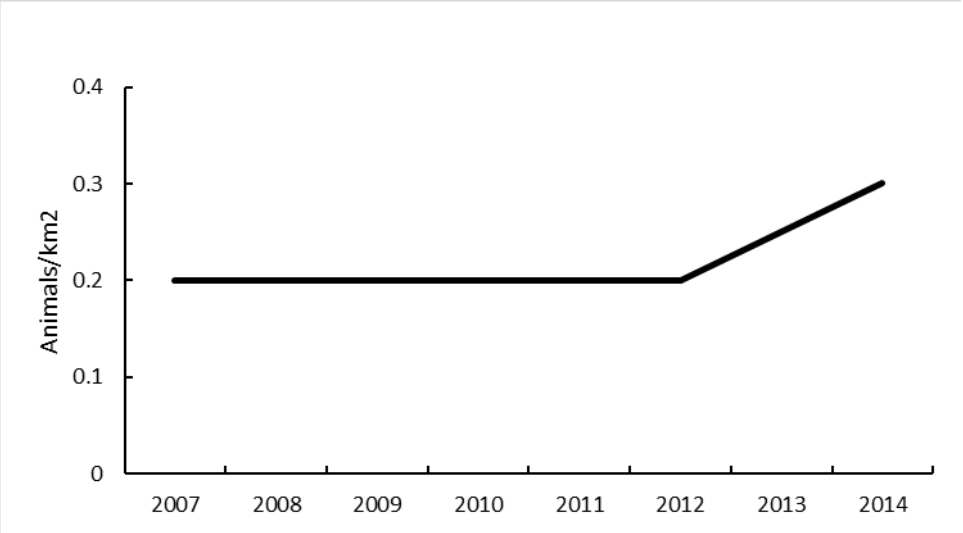


Figure 4. Elephant population trends in the Gorongosa National Park, 2007 to 2014, from total count aerial surveys of central grasslands and wetlands.



Limpopo

The total abundance of larger species increased during 2010 and 2014, a trend mostly attributable to an increase in buffalo, kudu and nyala (Figure 5). Several of the rarer species—including sable, wildebeest, giraffe—appear to have become less common during the same period, though reliable data were not available. A total of 4,850 animals have been reintroduced into Limpopo since 2001, including: 111 elephants, 10 white rhinos and 2,154 impalas. All of the rhinos were subsequently poached. When Limpopo was gazetted, there were considered to be as few as 100 elephants. Numbers increased to approximately 1,500 in 2010, but are now declining rapidly, and are estimated at around 500. Similarly, lions have undergone a 68% decline in abundance between 2013 and 2017, from 66 lions down to 21 as a result of targeted poaching for body-parts (Everatt, in prep). Leopards occur at low densities and are well below their likely carrying capacity.

An estimated 15% of Limpopo is under human settlement or cultivation. There have been significant efforts to relocate communities living in the park, but by 2016 only 30% of the people have been successfully resettled. Limpopo remains occupied by six hunter-agro-pastoralist communities with a combined herd of approximately 35,699 cattle and 8,140 shoats, together representing over 75% of this park's estimated ungulate abundances. Domestic stock in Limpopo contributes an additional combined biomass of 4,993 kg/km^2, which alone takes up the majority of the ecological carrying capacity of the park. The presence of these domestic herds in the park effectively reduces the amount of wildlife that Limpopo can sustain.

The main threats to wildlife in Limpopo are believed to be:

Poaching of wildlife for body parts. Elephant poaching has increased significantly during recent years, resulting in population declines due to both increased mortality and elephants likely moving back into Kruger National Park. Additionally, there has been a significant and disturbing increase in targeted poaching of lions.

Bushmeat poaching. The impact of bushmeat poaching was likely compounded by the severe droughts experienced during 2015-2016, which resulted in the failure of crops planted by communities living inside Limpopo.

- Human encroachment and associated habitat destruction.

Figure 5. Larger herbivore (buffalo, wildebeest and zebra) population trends in the Limpopo National Park, 2006 to 2014, from line transect aerial surveys. Reliable data on smaller herbivores were not available (Annex D).

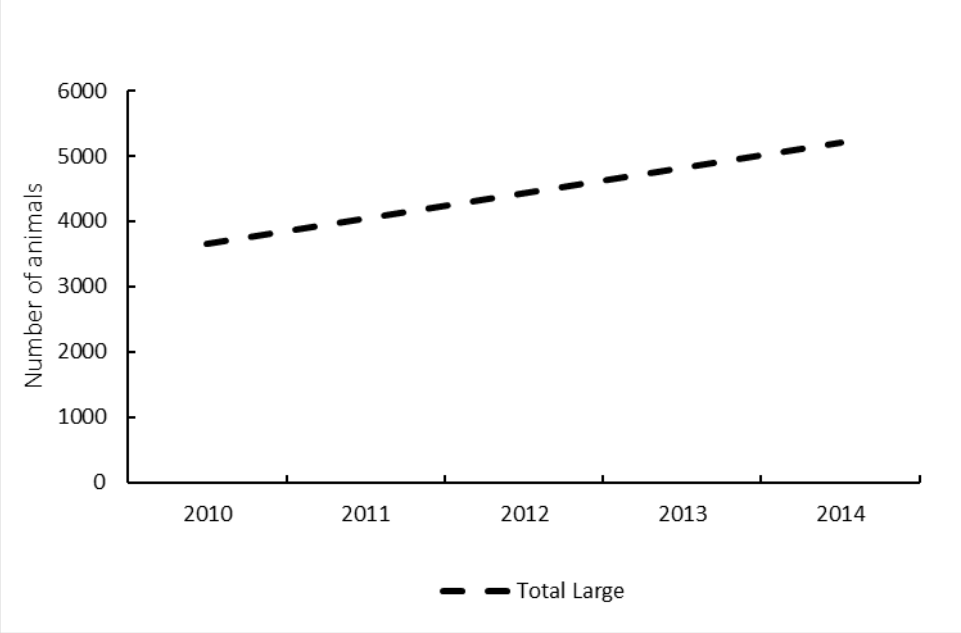
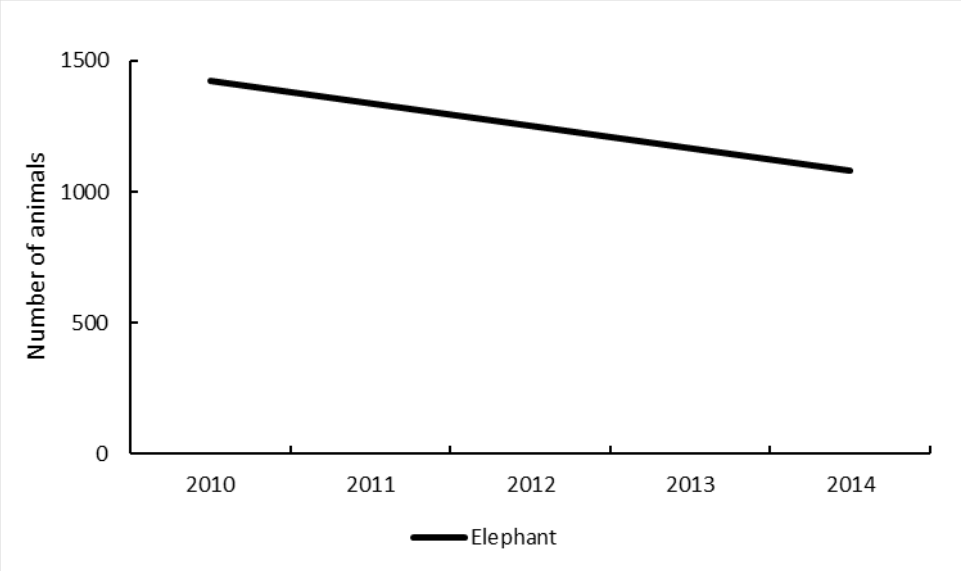


Figure 6. Elephant population trends in the Limpopo National Park, 2006 to 2014, from line transect aerial surveys.



Maputo Special Reserve

The numbers of both smaller and larger ungulates have increased significantly in MSR from 2012-2016 (Figure 7), although 31% of the smaller and 37% of the larger ungulates present were reintroduced during that time. Estimates of elephant numbers have been variable over recent years, though recent aerial surveys and responses to questionnaire surveys indicate that the population is

increasing (Figure 8). Lions are absent, and leopards are at extremely low densities. Bushmeat poaching is considered the most significant threat to MSR (J. Simoes, pers com).

Figure 7. Smaller herbivore (bushbuck, grey duiker, red duiker, reedbuck) and larger recently introduced herbivore (giraffe, wildebeest, zebra) population trends (minimum counts) in the Maputo Special Reserve, 2006 to 2016, from line transect aerial surveys of full reserve.

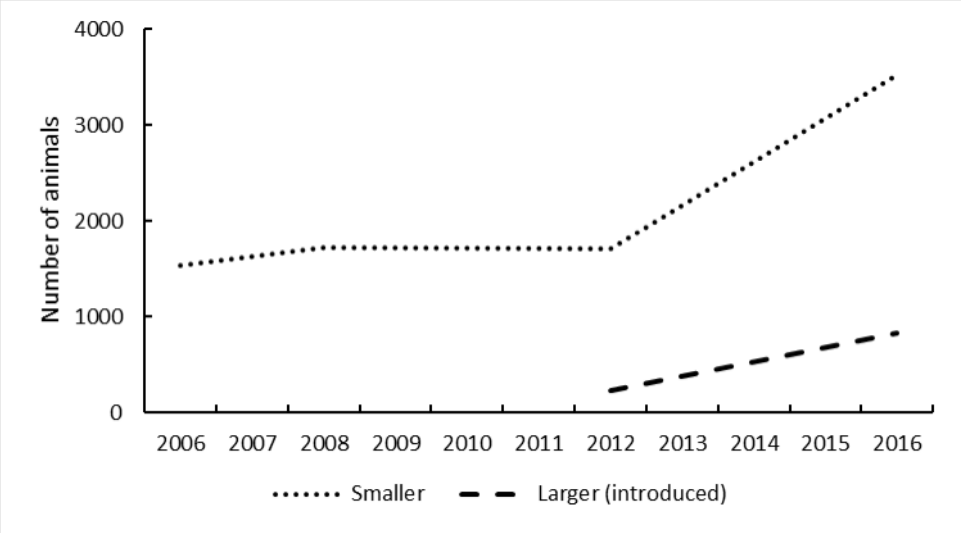
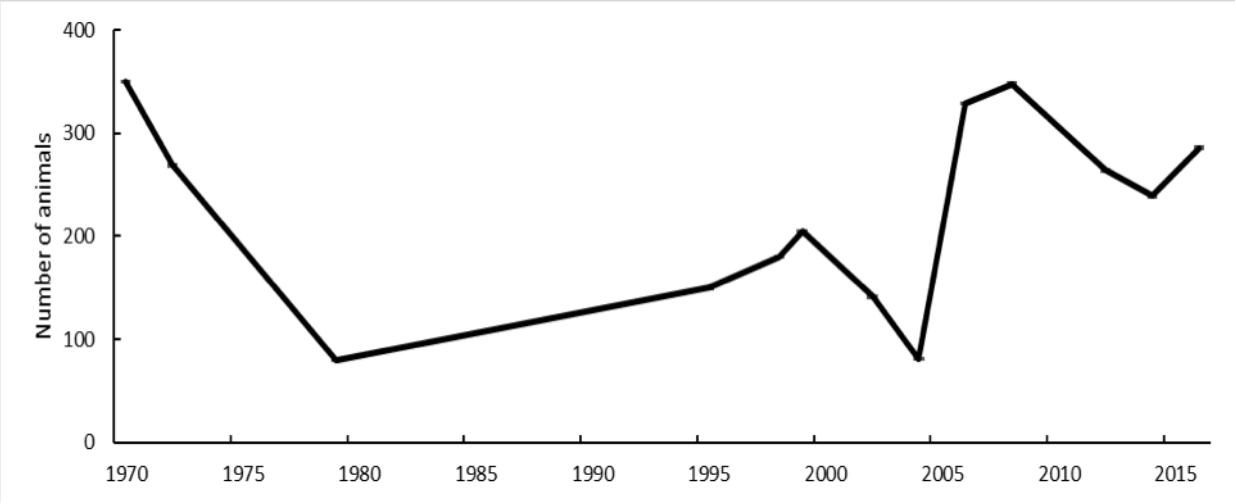


Figure 8. Elephant population trends (minimum counts) in the Maputo Special Reserve, 1970 to 2016, from aerial surveys of full reserve.



Magoe

Magoe lacks any current donor support and the budget from the state is very modest. This means that the CA has little or no protection from human threats. As a result, populations of elephants, other ungulates and lions are all well below carrying capacity and are considered to be declining. However, no aerial census data were available.

Marromeu

Populations of buffalo, waterbuck, sable and eland are generally increasing from all-time lows which occurred during the late 1990s and early 2000s (Figure 9). Elephant numbers have increased since the 1990s but are likely once again in decline (Figure 10). Lions are rare despite the fact that prey availability is relatively high, suggesting unsustainable hunting or poaching. Current threats facing wildlife include mass die offs due to flooding and likely bushmeat poaching. Wildlife biomass occurred at about 10% of estimated carrying capacity.

Marromeu does not have a partnership arrangement, but benefits from the fact that it is geographically isolated and inaccessible, which makes illegal activities more difficult than in many other CAs. Lindsey et al. (2017) gathered survey data from the concessionaires of Coutadas 11 and 12, which are adjacent to Marromeu. The respondent indicated that ungulates occurred at high densities and were increasing. Lion numbers were considered to be low, but increasing. The primary threat to wildlife in the area was considered to be bushmeat poaching.

Figure 9. Larger herbivore (buffalo, eland, hartebeest, kudu, sable, waterbuck, wildebeest, zebra) population trends in Marromeu complex, 1968 to 2008, from aerial surveys of Marromeu and adjacent Coutadas 10, 11, 12 & 14.

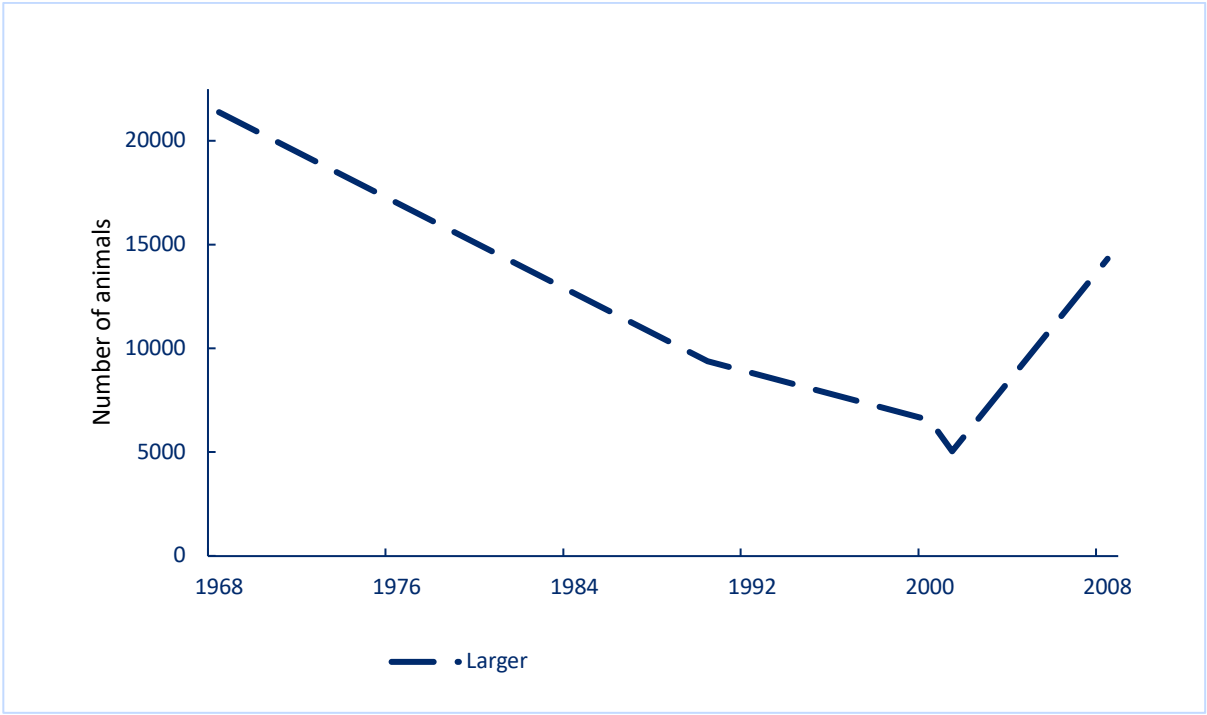
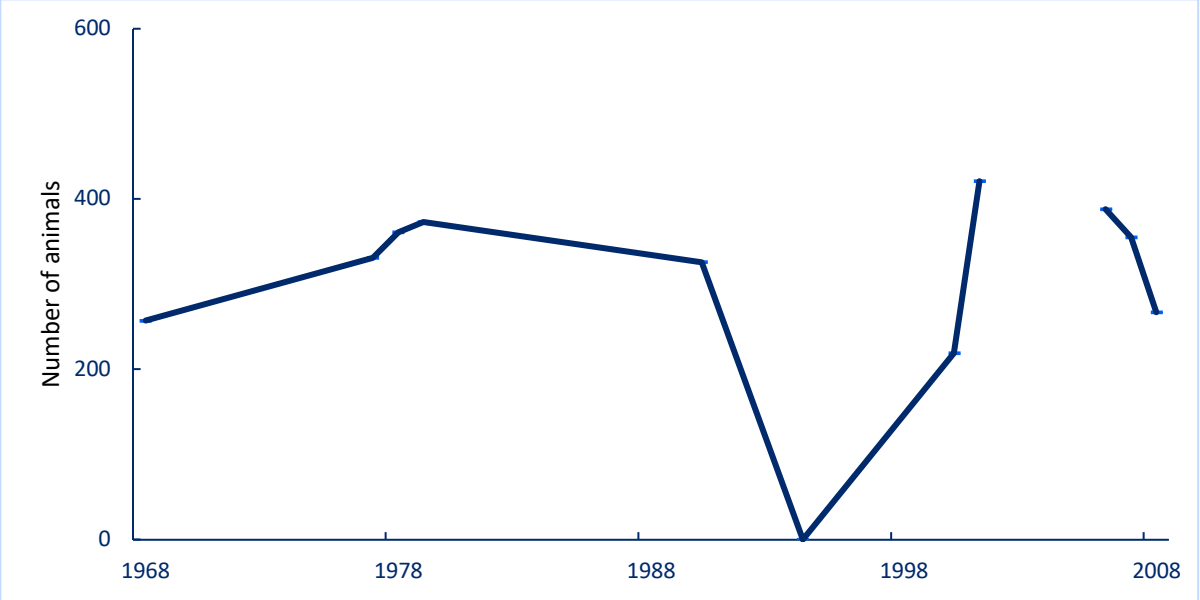


Figure 10. Elephant population trends in the Marromeu complex, 1968 to 2008, from aerial surveys of Marromeu and adjacent Coutadas 10, 11, 12 & 14.



Niassa

Wildlife populations in Niassa were generally increasing until about 2009 when most species began to decline (Figure 11). Elephant populations have declined precipitously in recent years due to intense, sustained and ongoing poaching pressure (Figure 12).

Niassa has the country's largest lion population and the species occurs at a higher proportion of estimated carrying capacity than in any other CA in the country. Lion numbers increased until 2012, but numbers have now begun to decline (Beggs, pers. comm.). Niassa has a significant leopard population, though little or no data exist on numbers or trends. Booth & Dunham (2014) estimated that 900 elephants were poached during 2007-2010, and that 1,000 were poached in 2011 alone. The elephant population dropped from a peak of >20,000 in 2009 to a 2016 estimate of perhaps 3,500 individuals. The number has likely declined significantly since the last aerial survey was conducted in 2016.

Niassa has a population of 40,000-50,000 people living in the reserve, and an estimated 5-10% of the reserve is under human settlement or cultivation. Niassa is affected by a wide array of threats, including:

Severe elephant poaching.

Bushmeat poaching. Niassa suffers from high levels of bushmeat harvest both for local consumption and trade to nearby urban centres.

Illegal mining. The reserve has come under pressure from the influxes of large numbers of illegal miners, resulting in the degradation of river systems and a variety of challenges associated with the presence of large numbers of people, such as poaching.

Human encroachment and habitat fragmentation. The reserve is suffering ongoing habitat destruction due to the encroachment of the reserve with people. Niassa is becoming gradually

fragmented—with wildlife populations doing well in some patches, but gradually disappearing from others.

Lion poaching. There is growing concern regarding targeted poaching of lions for their body parts in Niassa.

Figure 11. Larger herbivore (buffalo, eland, hartebeest, kudu, sable, waterbuck, wildebeest, zebra) and smaller herbivore (bushpig, bushbuck, grey duiker, impala, reedbuck, warthog) population trends in Niassa, 1998 to 2014, from line transect aerial surveys of the full reserve.

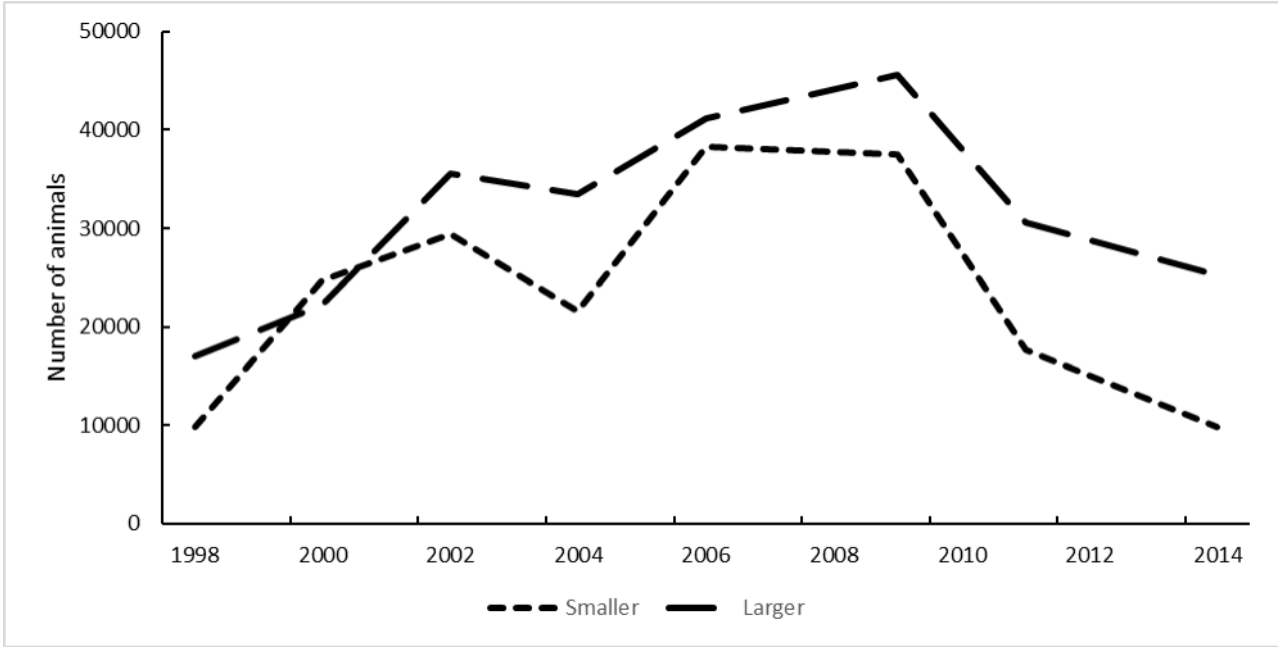
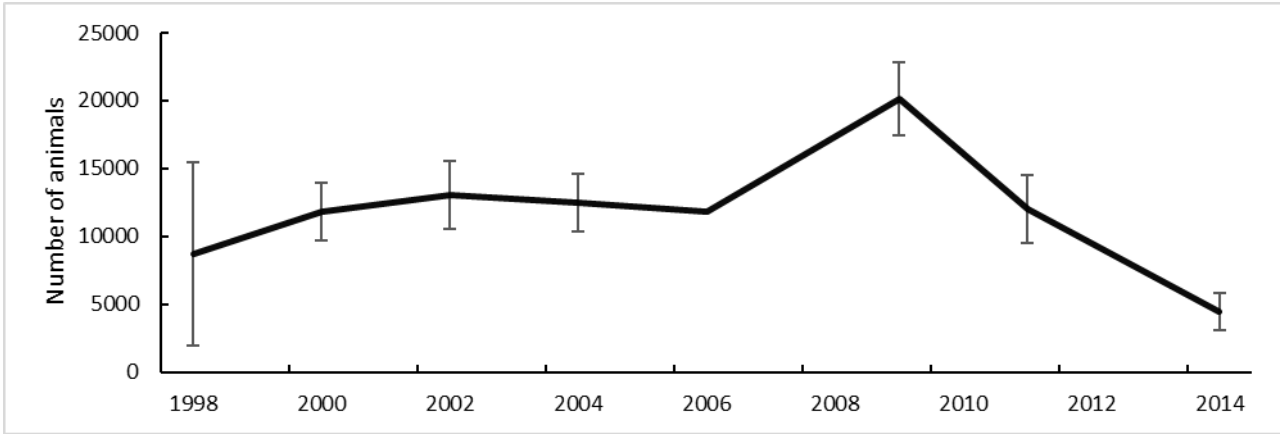


Figure 12. Elephant population trends in the Niassa National Reserve, 1998 to 2014, from line transect aerial surveys of the full reserve.

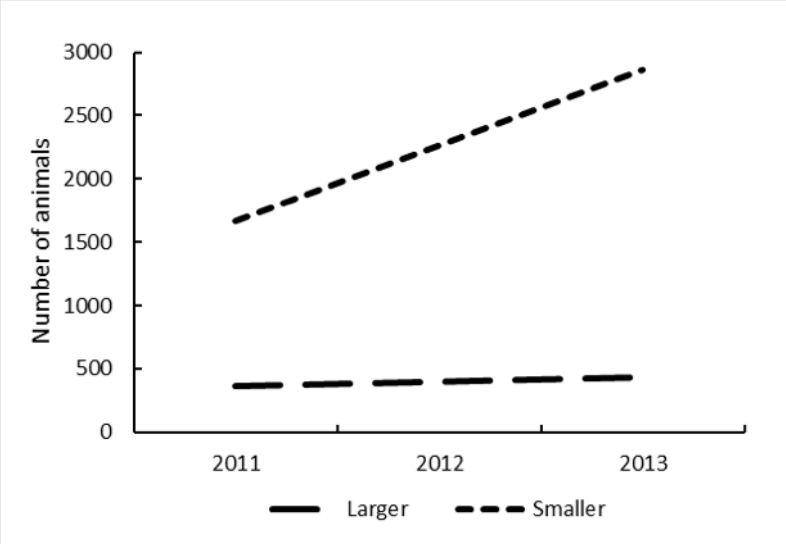


Quirimbas

Populations of ungulates in Quirimbas are severely depleted with current terrestrial biomass at 2.1% of estimated carrying capacity (Figure 13, Table 1). Despite indications of stable or increasing ungulate populations between 2011 and 2013, survey respondents considered populations to be declining. Elephant, lion and leopard numbers are also severely depleted and populations of all three

are considered to be declining (Table 1). Elephant numbers dropped from 2,000 in 2008 to 517 in 2011. While there is no apparent trend in elephant numbers between 2011 and 2013, the later survey recorded that 49% of all elephants seen were dead, indicating a poaching crisis and a catastrophic decline (Craig, 2013). An estimated 40% of Quirimbas is under human settlement or cultivation. The primary threats to wildlife in the reserve are believed to be bushmeat poaching, ivory poaching, and human encroachment. A key challenge identified by survey respondents has been the involvement of law enforcement staff in activities such as illegal logging and poaching. An additional challenge has been the release of poachers by the courts due to alleged corruption.

Figure 13. Larger herbivore (buffalo, eland, hartebeest, kudu, sable, waterbuck, wildebeest, zebra) and smaller herbivore (bushpig, bushbuck, grey duiker, impala, reedbuck, warthog) population trends in the Quirimbas National Reserve, 2011 to 2013, from line transect aerial surveys.



São Sebastião

São Sebastião covers a fenced land area of approximately 250km^2, in addition to a further 50km^2 of ocean. When the project commenced, there were only a few small wildlife species. Several species of wildlife were reintroduced into the sanctuary, and there are now an estimated 1,405 large mammals occurring in the area. This includes 120 eland, 95 waterbuck and 60 nyala, among others. Wildlife populations are increasing and there is minimal poaching pressure. The one failure related to wildlife management was the loss of rhinos that were introduced into the area. The sanctuary does not have elephants. A marine protected area has been established with the objective of limiting the unsustainable fishing that was previously occurring in the area and recovering fish stocks for communities in adjacent areas. The goal is also to protect iconic marine species such as the five species of turtle that occur in the area, and dugongs. Both terrestrial and marine anti-poaching patrols are undertaken to protect natural resources in the area.

Zinave

We were only able to ontain one survey of Zinave (Dunham et al., 2010) and therefore wildlife trends are unavailable. Herbivore populations are considered to be well below carrying capacity in the park, with current biomass at only 2.9% of estimated carrying capacity, though giraffe, impala, zebra and wildebeest were re-stocked into a small (60 km^2) fenced sanctuary inside the park in 2000.

Currently (2017) there is a second re-stocking initiative supported by PPF, which has included approximately 10 elephants and 700 other large ungulates (PPF, pers. comm.). Wildlife densities are relatively high in the fenced sanctuary. Outside of the sanctuary there are low densities of impala, kudu, oribi and one herd of approximately 60 buffalo. Elephants persist in Zinave in very low numbers. There are no lions or other large predators inside of or around the sanctuary (Everatt, unpublished) and very low densities of lions elsewhere. Leopards are effectively extirpated.

Zinave is effectively separated by a string of villages into two wildlife areas and an estimated 15% of the CA is under human settlement or cultivation. The primary threats to wildlife in Zinave are considered to be bushmeat poaching, human encroachment and illegal logging.

Annex E: Key Roles of Proposed ANAC Directorate for Partnerships

Role	Elements
Policymaking / Create a strong enabling environment for conservation	**Develop and promote clear policies regarding conservation and communities that address the key threats to CAs**—such as growing human populations and illegal activities (e.g., bushmeat, lion and elephant poaching, mining, and logging). Some examples of potential policy areas for elaboration, clarification, and/or reform include: - Human immigration into CAs - Regulation of activities of local communities inside CAs - Measures to allow for the transparent selection of qualified staff and for the rapid dismissal of inept or corrupt staff - Allowing CAs with trusted partners to retain revenues for direct reinvestment - Clarification of the rights and protections of law enforcement scouts employed by CA partners and concessionaires
	Develop and promote policies that encourage tourism and increase the financial sustainability of CAs. Examples include: - Establish tenure terms for concessionaires that encourage long-term investments and allow for profitability - Establish concession fees based on market values - Allow retention of revenues by CAs - Review the visa regime to enhance the attractiveness and competitiveness of Mozambique as a tourism destination - Develop supportive infrastructure
	Coordinate with other sectors of government and development partners in order to mainstream conservation issues. - This may include: - Clarifying the respective roles and responsibilities of CA administrators and district administrators, making clear that—in situations of conflict—the decisions of CA administrators take precedence within CA boundaries - Coordinating with other ministries to harmonize conservation and development goals - Strictly enforcing land use planning and zonation of CAs, and creating inviolate no-settlement zones - Liaising with other ministries and departments to ensure that development activities are focused in areas that draw people out of CAs rather than attract them inside - Engaging development partners to support the work of conservation partners by investing funds in community development work that improves the prospects of CAs
	- Ensuring that wildlife crimes are effectively enforced (especially poaching, logging, and mining). This may include: - Continuously sensitizing the different role players in the judicial system and local government about the need to actively pursue and deal with environmental crimes (including, e.g., by providing training opportunities). - Investing in intelligence and investigations to tackle the illegal trade in wildlife products - Courtroom monitoring to ensure that laws are properly enforced
Attract & Engage Partners	**Source partners for CAs currently lacking donor support.** This may include: creating a prospectus of partnership opportunities, conducting open tenders, and informally reaching out to potential partners.

	Improve partnership agreements in CAs that currently have partners—to ensure that roles are clarified and partnership arrangements are adapted to the needs of the CA and the realities on the ground. Adapt agreements in CAs that are currently underperforming to address key bottlenecks that undermine success.
	Ensure partnership agreements are concluded promptly. The lack of a proper agreement creates insecurity, undermines partner authority, and scares off donors, exacerbating problems on the ground. In Niassa, it is equally important to ensure that agreements with concessionaires are properly signed and ratified. A clear partnership strategy is the first and most important step in expediting the negotiating process. ANAC may also wish to consider the development of standard contracts to further facilitate the negotiation process.
Monitor & Evaluate Partnerships	**Develop and implement standardized indicators across the CA network** that allow ANAC to exercise oversight and that encourage real on-the-ground results. This may include, amongst other things, indicators that reflect how the partnership is building long-term local capacity.
	Encourage the identification of concrete goals and realistic milestones for individual partnerships to aid in oversight and to set clear expectations.
	Ensure business and management plans are developed, approved, and implemented.
	Actively participate in governance meetings (e.g., Steering Committee, Oversight Committee, Board).
Facilitate & Support Partners	**Coordinate with other ministries and sectors of government** where necessary (e.g., regarding land use and development planning, authorization to import and use firearms, work permits, taxes/fee exemptions, land use planning and development in or near CAs, permits and licenses, etc.).
	Coordinate with provincial and district government, especially in (i) communicating the nature and importance of CA partnerships, and (ii) issues relating to local communities.
	Coordinate with police and judiciary regarding the enforcement of wildlife and natural resources laws
	Support the channeling of bi- and multi-lateral funding for conservation and development in ways that help CAs, including CAs with partners.
	Build a social learning institution or convene annual workshops on partnerships for stakeholders throughout the country in order to coordinate and share lessons.

Annex F: Key Elements of Each Partnership Model

Table A: Key features and structures of the delegated management model

Model	Category	Key Elements and Structure
DELEGATED MANAGEMENT	Agreement	• Management Agreement • 20-25 years, option to renew or automatic renewal if not specifically canceled
	Institutional structure	• Single entity with specific purpose of long-term management of CA • Non-profit company or foundation
	Governance	Shared by partners
	Body	• May take the form of a Board, Steering Committee, or Oversight Committee
	Composition	• Partner appoints majority (e.g., 4 out of 7) of members, including Chairperson o Typically includes persons from the partner organization's leadership, as well as persons of influence and stature within the host country who have a passion for conservation, such as ex-business leaders and politicians who can play a role in advancing the project in the country • Government appoints minority of members o Typically representatives of central, provincial and/or local government • May include community representatives, depending on circumstances
	Role	• Strategy, oversight, political support, fundraising support • Approves: o General Management Plans (also submitted to and approved by government/Ministry) o 5-year Business Plans o Annual budgets and work plans
	Operation	• Meets 3-4 times a year • Strives to make decisions by consensus; falls back to majority vote only when necessary
	Management	Delegated
	Warden	• Selected by partner, after liaising with government, which formally appoints • May be a foreign national
	Structure	• The Warden has ultimate authority over the CA, including hiring and firing of staff and operations. • If the Warden is a foreign national, the Deputy Warden should be a local. The Warden and Deputy work closely together to oversee management of the CA, with a view to the Deputy growing into the role of Warden. In general, an expat Warden may take the lead on operational, technical and budgetary issues, while the local Deputy takes the lead in interfacing with the Ministry and local communities, and dealing with political and external-facing issues.
	Human Resources	• All staff is employed by (or seconded to) the special purpose entity. • A single set of policies and procedures applies to all staff. • The partner should train and place as many nationals as possible in key positions.

	Law Enforcement	• A Head of Law Enforcement is selected by the partner and reports to the Warden. • Law enforcement rangers are typically seconded from government (so as to maintain their authority to carry weapons and make arrests). • Disciplinary proceedings for seconded rangers may be joint, but the Warden has the right to have any individual removed from the CA on his sole authority.
	Tourism	Authority for tenders and concession management is with the partner on the ground, subject to the parameters of the management plan and the guidance of the governing body.
	Finance	There is unified budgeting under the special purpose entity.
	Investment	• The partner channels significant investment into the CA. • The government may, but need not, contribute financially. Government contribution can be a powerful signal to donors that boosts fundraising. However, the most important support government can provide is political and policy support, working to create an enabling environment that is conducive to success, allowing revenue retention at the CA level, and effective channeling support from development and cooperation partners.
	Revenues	• Revenue is 'ring-fenced' at the CA level—i.e., all revenues are directly retained and reinvested in the CA, rather than being remitted to central government. This promotes financial sustainability and positive incentives for CA personnel. • Profits, in general, should not be expected at the CA level (although net economic benefits at a national level are highly likely). In the event future profits are generated, they should be shared equally, with the partner agreeing to invest 100% of its share in the CA.
	Process	• The partnership should be based on agreement to a long-term plan and vision for the CA, including how the CA should be developed and how local communities should be managed and engaged. This plan should be approved by the appropriate government ministry, and as such forms the foundation of and roadmap for the partnership. • Partners should provide for independent, 5-year evaluations of the partnership. The agreement may set out conditions under which the government can end the partnership (e.g., if a minimum funding level is not reached) • The government's leadership and support in handling issues of politics, policy, and permits—across all levels and sectors of government—is essential to success.

Table B: Key features and structures of the integrated co-management model

Model	Category	Key Elements and Structure
INTEGRATED CO-MANAGEMENT	Agreement	• Management Agreement • 20-25 years, option to renew or automatic renewal if not canceled
	Institutional structure	• Single entity with specific purpose of long-term management of CA • Non-profit company or foundation

	Governance	Equally shared by partners
	Body	• Board, Steering Committee or Oversight Committee
	Composition	• Government and partner appoint equal numbers of members (e.g., 1:1, 2:2, 3:3) • All members appointed should be thoroughly committed to the goals of the partnership (otherwise the likelihood of success is significantly diminished). It may be helpful to have some members with business as well as conservation experience, as well as persons of influence and stature in the country who can help advance and support the aims of the partnership.
	Role	• Strategy, oversight, political support, fundraising support • Approval of: o General Management Plans (also submitted to and approved by government/Ministry) o 5-year Business Plans o Annual budgets and work plans
	Operation	• Meets 3-4 times a year • Makes decisions by consensus; falls back to majority vote only when necessary. The agreement should specify who has a casting vote in case of a tie.
	Management	Devolved / Autonomous
	Selection of Warden	• Selected by partner who liaises with government • Ideally, should be a local with the required skills and qualifications.
	Structure	• The Warden has ultimate authority over the CA, including operations and hiring and firing of all staff. • Department directors lead individual areas of operation under the authority of the Warden. Department Directors should be jointly approved by the Board or Oversight Committee.
	Human Resources	• All staff is employed by (or seconded to) the entity. • A single set of policies and procedures applies to all staff. • Hiring and firing of rank and file staff is under the authority of the Warden.
	Law Enforcement	• A Head of Law Enforcement reports to the Warden. • Law enforcement rangers may be seconded from government (so as to maintain their authority to carry weapons and make arrests) or employed directly by the entity (with legal authority derived from the government-appointed warden). • Disciplinary proceedings for seconded rangers may be joint, but the Warden has the right to have an individual removed from the CA on his/her sole authority.
	Tourism	• Authority for tenders and concession management is with the management entity on the ground, subject to the parameters of the management plan and the guidance of the governing body.
	Finance	There is a single, unified budget under the special purpose entity.
	Investment	• The partner channels significant investment into the CA. • The government should ideally contribute financially, though in some cases this may not be necessary. Note that government contribution can be a powerful signal to donors that boosts fundraising.
	Revenues	• Revenue is 'ring-fenced' at the CA level—i.e., all revenues are directly retained and reinvested in the CA, rather than being remitted to government.

		• Profits, in general, should not be expected. However, in the event of future profits are generated, they should be shared equally, with the partner agreeing to invest 100% of its share in the CA.
	Process	• Clear roles and responsibilities are especially critical in co-management models and should be spelled out in detail in the agreement. • The partnership should be based on agreement to a long-term plan and vision. This should be approved by the appropriate government ministry, and as such forms the foundation of and roadmap for the partnership. • Partners should provide for independent, 5-year evaluations of the partnership. • Once again, the government's leadership and support in handling issues of politics, policy, and permits—across all levels and sectors of government—is essential to success.

Table C: Key features and structures of the financial-technical support model

Model	Category	Key Elements and Structure
FINANCIAL-TECHNICAL SUPPORT	Agreement	• Project Agreement or MOU (which should be written and signed) • 10 years, with option to renew or automatic renewal if not specifically canceled. (Shorter terms of engagement are not ideal, but may be agreed if the situation requires. For example, government should be open to shorter term engagements if that is all that such organizations are capable of, provided that such shorter term engagement does not preclude the longer term engagement of a stronger, more committed partner.)
	Institutional structure	• The government and partner retain their separate organizational structures; no joint or special purpose entity is created. • The government retains full authority. The non-profit advises and supports the CA through donor-funded projects that are agreed to with the government.
	Governance	Government has overall authority for the CA. However, there is shared governance of the project, as outlined below.

	Body	Project Steering Committee
	Composition	• The Steering Committee may have equal representation (2:2) or greater government representation (3:2). • Donors and other key stakeholders may also attend Steering Committee meetings.
	Role	• Strategy and oversight of the project • Political and fundraising support • Approval of annual budgets and work plans
	Operation	• Meets 3-4 times a year • Decisions by consensus
	Management	Government has authority for management of the CA. However, the project is co-managed with the partner.
	Selection of Warden	• Selected by government, after liaising with partner o Note that where the partner provides the majority of funding for the CA, there should be mutual agreement on the selection of the warden. Without a strong working relationship on the ground, the project is unlikely to be successful.
	Structure	• The Warden has authority for the CA, including hiring and firing of government staff. • A Project Management Team is composed of the Warden, a non-profit Project Manager and non-profit Financial or Operations Manager. Decision-making is by consensus. Expenditures of project funds require two signatures.
	Human Resources	• Each partner has full authority to hire/fire its own staff. • The partner may offer salary top-ups or other incentive schemes to encourage strong performance of key government staff. • In some cases, the partner may employ significant numbers of staff in the CA. This increases the partner's ability to ensure discipline and accountability of staff.
	Law Enforcement	• Law enforcement is the authority and responsibility of the government. The partner provides advice and support. • Law enforcement rangers are often employed by government; however, where there is a severe lack of resources, they may be employed/paid by the partner/donor, which enables the partner to ensure discipline and accountability under more flexible employment structures compared to civil servant labor laws.
	Tourism	Authority for tenders and concession management is with the government, subject to the parameters of the management plan and the guidance of the Steering Committee.
	Finance	• For smaller projects, there may be separate CA and project budgets. • For large projects that provide the majority of funding for the CA, there should be a unified budget administered by a single Financial Manager, who is employed by the partner on behalf of the CA.
	Investment	• Partner channels significant investment into the CA via its donor relationships. • The government contributes financially, at the very least paying the base salaries of its own employees.
	Revenues	• Revenue is not necessarily retained at the CA level, though consideration should be given to allowing revenue retention. Where there is a trusted, long-term partner, it can be extremely beneficial to retain and directly reinvest revenues. Such revenues are often critical to the CA as they can pay for necessary budget items without the rules and restrictions that often apply to donor funding.

	Process	• A clear plan and vision for the CAs should be agreed to by the partners from the outset, with concrete goals and timelines, and clearly specified roles and responsibilities regarding all aspects of governance and management. This should form the basis for subsequent monitoring and evaluation of the progress of the partnership, and evaluations of where the partnership is not performing and how it can be improved. • Partners should engage initially with an open, rather than a fixed plan, and tailor projects to local needs and conditions. • Communication and willingness to collaborate, as well as a longer-term approach (where possible), is essential.

Annex G: Criteria for Selecting Conservation Area Partners

Criteria	Issues to Consider
Experience & Track Record	• **What is the partner's specialty and experience?** For example, African Parks and FZS have decades of experience specifically with park management in Africa; some NGOs have particular experience with community engagement and governance. The Carr Foundation, while not experienced in conservation when it initially engaged in Gorongosa, had a passion, long-term view and business-minded commitment to effectiveness that subsequently contributed to its success. Note that it is not always necessary or possible for a partner to have all the desired characteristics in-house. ANAC may wish to encourage partners to subcontract or partner with specialists in particular areas where it does not have expertise. For example, in Gilé, IGF has undertaken reserve management responsibilities, while subcontracting out carbon, agriculture and community development work where it does not have specific expertise. In other cases, a conservation organization may wish to work with NGOs with specialized anti-poaching capabilities. • **What is the partner's portfolio of conservation activities? What is its track record in achieving positive on the ground results?** New partners with a limited track record or less financial clout may initially be engaged in financial-technical support projects, with the possibility of evolving the relationship into a longer-term devolved model in the future.
Funding	• **What level of funding is the partner able to commit initially? What level of funding are they likely to attract over time? What is their track record in regards to funding?** Management budgets for some partners—such as Gorongosa and the Mariri concession in Niassa—have grown impressively from their initial starting points, since strong and committed conservation partners attract increasing funding over time. Thus, it is important to look at the characteristics of the partner and their potential to generate funding, and not only at initial funding numbers. Success breeds success and a partner is likely to raise increasing amounts of funding if they can demonstrate a clear mandate to act and effectiveness in the field.
Vision for the CA	• **What is the partner's vision for the reserve?** How do they plan to implement and effectuate it? Is that plan realistic given the threats and opportunities in the particular CA? • Does the partner understand the unique complexities and political and legal context of Mozambique? • What is the partner's plan to build local skills and capacity?
Long-term Commitment	• **Is the partner able and willing to make the long-term commitment necessary for development of the CA?**

Annex H: Key Items for Partnership Negotiations

Elements	Key Aspects	Specific Issues / Examples
GOVERNANCE		
Legal Framework	Legal entity	• What form will the partnership take? (e.g., joint special purpose entity, non-profit, foundation)
	Legal instrument	• Nature of the agreement: e.g., MOU, (co-) management agreement • Length of the agreement, option to renew, and conditions/procedures for early termination (e.g., material breach, mutual agreement, lack of funding) • How are disputes resolved?
	Legal responsibility	• Liability, indemnity, risk management (e.g., assets, staff, law enforcement)
Oversight & Strategy	Governing body	• E.g., Steering Committee, Board • How is authority for governance-level decision-making allocated between the partners? • What is the composition of the governance body? Who is represented? How are representatives chosen? What is the balance of representation? Who is the chairperson, and what are his/her powers?

Elements	Key Aspects	Specific Issues / Examples
	Decision-making	• What kinds of decisions is the governance body empowered/required to make? (e.g., approve management and business plans, annual work plans and budgets, reports, etc.) • How is decision-making conducted (e.g., consensus, majority)? Who makes the final decision in the event of conflict or stalemate? How often and where does the body meet?
	Monitoring & Evaluation	• Who receives reports and monitors progress of the partnership? • What are the indicators and milestones to evaluate progress? • Is there provision for independent evaluation every 5 years?
Finance	Budget	• Who is responsible for fundraising? What commitments does government make regarding supporting applications for international donor funding? • Who pays for what? (e.g., salaries, infrastructure, operations, equipment) • Is sufficient funding secured to meet the needs and tackle the threats facing the CA? Is a minimum funding contribution required by one or both parties? • How are finances managed? Who has authority for bank accounts and check signatures? • What are the financial reporting requirements? • Are audits conducted?
	Revenues	• How is revenue defined and what are the various sources of revenue? • Is revenue retained or remitted to government? • If any surplus is generated, how is it handled?

Elements	Key Aspects	Specific Issues / Examples
	Taxes	• What is the tax status of the partner and/or joint entity with respect to all manner of taxes, duties, or levies? • Is there tax exemption for: equipment, vehicles, services?
Appointment of Senior Management		• Who selects/appoints senior management? (e.g., warden, head of law enforcement, department heads) • How is this decision made? (E.g., open tender)
Role of Government		• What commitments does government make with respect to securing permits, permissions, licenses (etc.)—for example, with respect to wildlife reintroductions, import/use of firearms, work permits for foreign nationals, operation of commercial lodges?
MANAGEMENT		
Management Structure	Organigram	• Who exercises authority for the CA on a daily basis? What is the management structure? At what level and how are decisions reached? • Who does the Warden report to? How often?
	Autonomy	• How much independence does management have in relation to the government bureaucracy with respect to all the various aspects of operations?
Planning	Strategic, operational and activity planning	• E.g., General management, business, and annual operations plans/budgets • How are these (a) developed and (b) approved? • How often are they revised? • What is the timeframe for submission and approval?

Elements	Key Aspects	Specific Issues / Examples
Law Enforcement		• Who is responsible for law enforcement operations? • Who pays, hires/fires, and disciplines law enforcement staff?
Human Resources		• Who is responsible for salaries? • Who has hiring/firing authority? Who is responsible for disciplinary procedures? • What process is required for hiring/firing? • What is the process/conditions for hiring foreign nationals? (e.g., best effort to find and employ qualified nationals, quota for foreign nationals) • What is the plan for building local capacity? • What policies and procedures apply?
Operations		• Who is responsible for various aspects of operations? - Ecological management - Infrastructure - Tourism tenders/concessions, and ongoing management - Research & Monitoring
Community Engagement	Outreach	• How is the community defined? • Who carries the responsibility for engaging the community, and how is this achieved? (e.g., in planning, management, outreach activities) • How is the spread of human settlement and activities to be regulated/addressed, and how/by who are such regulations to be enforced?

Elements	Key Aspects	Specific Issues / Examples
	Land Use	• Who must approve land use concessions (a) inside the CA, (b) in the buffer zone? • Can CA management restrict community access to designated areas of the CA?
OTHER CONSIDERATIONS		
Exclusivity		• Who decides whether other NGOs can operate inside CA boundaries and/or the buffer zone? How is the decision made? Under what conditions should this be permitted?
Relationship Building		• What are the key characteristics that have been critical to the success/failure of previous collaborations? How was trust built? (E.g., regular meetings, financial transparency). How can these lessons be incorporated into the institutional framework and structure of the partnership?
Standard Clauses		• Force Majeure, dispute resolution, etc.

Annex I: Legal Framework for CA Partnerships

This Annex provides additional explanation of the three main legal issues raised in the Roadmap:

1) Lack of a clear policy and procedure regarding CA partnerships.
2) Lack of tax-exempt, non-profit company status in Mozambican law.
3) Lack of clarity regarding the scope of authority and indemnity for law enforcement rangers employed by CA partners and concessionaires.

1. Lack of clear policies and procedures for CA partnerships

Mozambican law provides a solid foundation for CA partnerships (Roadmap, Table 2). As such, it is not necessary to look to other legal instruments for authority to establish partnerships. However, it is natural to consider the Public Private Partnership Law / Mega Project Law ("MPL"), No. 15/2011, of 10 August, and its Regulation, Decree No. 16/2012, of 4 July—which establish rules for contracting, implementing and monitoring various types of joint ventures between public and private partners. This law, in its current form, is not directly applicable to CA partnerships. Rather, it was designed to regulate large-scale, *for-profit* infrastructure projects, such as the Maputo and Beira ports.

The MPL defines a public-private partnership ('PPP') as "an undertaking in a public domain area, excluding that of mineral and petroleum resources or in an area of provision of public services, in which, under contract and with full or partial financing of the private partner, that partner undertakes, vis-à-vis the public partner, to accomplish the necessary investment and to operate the respective activity, for the efficient provision of services or goods the availability of which to users is the responsibility of the State to guarantee." It provides three potential procedures for engaging PPPs: (1) the general rule is public tender, though the law does provide for the possibility of (2) a limited call for tender by prior qualification or two-stage tender, and (3) even for negotiation and direct award. The grant of a PPP may take one of three forms: a concession, operating, or management contract. The law stipulates a maximum duration of 10, 20, or 30 years depending on the type of contract.

The PPP law is clearly designed to regulate large, *for-profit* investments in infrastructure. Indeed, Article 3 specifically excludes "non-profit public-private partnerships of an altruistic, social, humanitarian, cultural, sporting or other similar nature." Article 7 requires the implementing entity to be a special purpose vehicle ('SPV') that takes the form of a "commercial company" that is ultimately listed on the stock exchange. Article 12 states that the "Main Purpose" of partnerships includes ensuring that the price paid for services covers costs and provides a profit. The law further requires various financial guarantees, and applies award fees and concession fees to approved partners that would be inappropriate in the non-profit context.

Regionally, not-for-profit, biodiversity conservation PPPs (as opposed to more traditional for-profit tourism endeavors) are a relatively new concept, and so they are not well established within legal frameworks. Countries like Malawi, Rwanda and Uganda have promulgated broad PPP laws that, unlike Mozambique, may encompass conservation initiatives. Notably, though, these countries all engaged in conservation partnerships well before PPP laws were passed. Other countries appear to engage partnerships based on other, more general legal and policy footing, as Mozambique has done to date (EIU, 2015).

Going forward, Mozambique may seek to regulate CA partnerships under the Conservation Law or modify the PPP law to include non-profit initiatives. CA partnerships do fit within the general objectives of PPPs, as defined in the law—that is, the "efficient, qualitative and quantitative provision of pubic goods and services to users and the economic appreciation of the property assets and other national resources integrated in that undertaking" (Art. 12). Including CA partnerships within this general PPP framework could potentially assist with inter-ministerial recognition and coordination. On the other hand, CA partnerships are a unique kind of public-private partnership and require particular consideration. Regulating CA partnerships within the Conservation Law is not only likely a more feasible option, but one that would allow for a procedure tailored to their unique context and characteristics (e.g., their non-profit character, the need for flexibility in contract duration, etc.).

2. Lack of tax-exempt, non-profit corporation entity in Mozambican law

In Mozambique, legal entities for charitable or social interest can be created as an:

- Association;
- Foundation; or
- National subsidiary of an international non-profit.

Associations are regulated by Law no. 8/91 and defined as voluntary legal entities created by people who decide to unite for a common purpose, which does not involve the enrichment of the association's members. However, association status has generally been considered too weak for the large projects undertaken by CA partners. Moreover, associations are generally formed by Mozambican residents, rather than being an appropriate form for foreign entities to engage with government partners in order to create a joint entity for CA management.

A second option is to create a foundation. This may be a viable, long-term approach for some CAs—and indeed it has been discussed as a possibility worthy of investigation with respect to Niassa. However, creating a foundation is a lengthy and difficult process, requiring approval by the Council of Ministers. As a result, there are very few foundations in Mozambique, and the ones that do exist are usually associated with very high-profile persons. Moreover, there is no specific legislation regarding foundations[33], and as a result they have weak legal grounding and there is a lack of clarity on what they can and cannot do. For these reasons, foundations are not a general solution for the creation of CA partnerships in Mozambique.

A third option is to create a national subsidiary, or representation, of an international nonprofit (Law no. 55/98). This allows an international non-profit to operate in Mozambique, subject to formal approval by government authorities and periodic renewal authorization. This is the approach most frequently adopted by CA partners, given the relative clarity and ease compared to other options. However, this approach also has limitations: by nature, it is only open to international nonprofits, and does not permit the creation of a joint venture with local institutions, organizations, or individuals. It also complicates the creation of special purpose entities, with the sole objective of developing and managing a CA, as many international nonprofits have a larger range of activities. Finally, these entities face several limitations compared to for-profit companies (e.g., relating to ease of acquiring work permits for foreign staff, the bank system, etc.).

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[33] Instead, they are regulated by the general provisions of the Civil Code (Articles 157-166 and 185-194).

Because of these limitations, several partners have resorted to organizing themselves under the law as private, for-profit companies—even though they act as non-profits whose goals are conservation and community development. Examples include SGDRN in Niassa, SBV in São Sebastião, and Mariri Investments in the L5S block of Niassa. However, this 'solution' has proven problematic, creating unnecessary hindrances and time- and resource-consuming challenges related to taxation, fundraising, and importing necessary equipment. This is a serious concern: funding is one of the key determinants of success in CA management, and conservation fundraising is already challenging without additional legal obstacles.

In order to facilitate partnerships in the interim, it would be useful for ANAC to develop a brief overview of the legal system for potential CA partners that describes options for legal entity status. In general, for international partners, recognition as a local representation of a foreign non-profit is the most appropriate option in the short term. In the long term, it would be beneficial for the Government of Mozambique to create a provision in the law for non-profit corporation status based on international best practice. This would allow for a relatively simple and reasonably quick process for establishing non-profit companies, and provide broad tax-exemptions if certain requirements are met. This would permit, for example, the creation of local, special purpose, non-profit entities, created jointly by the partners, and tasked with the management of a particular CA.

3. Lack of clarity regarding law enforcement scouts employed by partners

A third critical legal issue is the lack of clarity regarding the authority and indemnity of law enforcement scouts employed by CA partners. There is also no clear policy and procedure for how this situation should be handled. In particular, there is a lack of clarity regarding:

(1) the right of privately-employed and community scouts to carry and use firearms, especially automatic and semi-automatic weapons;
(2) other rights of privately-employed and community scouts, such as authority to make arrests and conduct searches;
(3) the protections afforded privately-employed and community scouts in case of confrontations with poachers, particularly if a suspected poacher is shot and killed;
(4) the policy and procedure regarding the deputizing of scouts, as well as the rights and indemnities of deputized scouts; and,
(5) the rights and protections afforded to foreign nationals engaged in law enforcement in CAs.

Currently, CA partners handle this situation in various ways:

(1) Some have the employment contracts of privately-employed scouts signed by the government-appointed Warden, thus 'transferring' government authority through the warden to the scouts.
(2) Others have succeeded in deputizing rangers.
(3) Finally, some partners—especially concessionaires—have had scouts undergo trainings authorized by ANAC or carried out by the police. These scouts receive a certificate to carry limited kinds of firearms (shotguns and rifles), which however is far from adequate since poachers are often armed with automatic weapons.

The current situation leaves scouts and the partners who employ them in a very precarious position. In effect, it has created a situation in which the government is frequently asking partners to help with

anti-poaching, and at the same time essentially 'tying one hand behind their back,' rendering them vulnerable to injury or death at the hands of poachers and other illegal actors. This situation requires urgent remedy by government.

The 2014 Conservation Law provides a foundation for the empowerment of private scouts. Article 50 states that law enforcement activities in CAs may be carried out by "deputized, community, and state agents", and Article 52 states that these agents have the right "to use and carry firearms."

However, there is still a need for:

- A clear policy and procedure for deputizing privately-employed scouts in CAs, concessions, and coutadas.
- A clear description of what is required to qualify as a 'community scout' under the law;
- A clear statement of the rights and protections of both deputized and community scouts—including powers of arrest, the kinds of firearms that may be used, the conditions of such use, and the scope of indemnity if a suspected poacher is injured or killed during a confrontation;
- A clear understanding of the rights and indemnities of scouts that receive official, police/ANAC-authorized training but are not formally deputized.

The creation of the natural resources police, which is empowered to carry automatic weapons and make arrests, has been helpful in some CAs, but coordination is often difficult, since the natural resources police are a separate entity under a different command structure and do not necessarily have the same level of bush training as park rangers. In practice, this has sometimes led to confused lines of command and difficulty coordinating efforts. As a result, clarifying the status of privately-employed scouts—and in particular, empowering those scouts employed by trusted partners with the full and necessary scope of rights and protections to successfully deal with poaching crises and other illegal activities in CAs—is urgently needed.

In the case of Niassa, this situation has led to a full blown crisis. What is needed is: (1) the financial resources and flexibility to hire and fire trusted scouts, (2) who are well-trained, legally empowered, and properly equipped to tackle threats, and (3) who fall within a single command structure at the central reserve management level, which coordinates closely with scouts employed by private operators.

In order for these reforms to be meaningful, they must be complemented by strong political will from provincial and district government inside the CA and from the police and judiciary outside the CA. If illegal actors that are apprehended at significant cost and effort by rangers are simply set free without punishment, then no amount of partner support will be able to stem the tide of illegal activity that threatens Mozambique's CAs.

Annex J: Summary of Legal Issues Relating to CA Partnerships

Legal Area	Specific Issue or Relevant Law	Opportunity, Barrier, or Gap?	Recommendation
CA Partnerships	Broad promotion of partnerships in: • Forestry and Wildlife Law of 1999 (Law 10/99, Art. 33) • Conservation Policy of 2009 (Chapter III) • Conservation Law of 2014 (Art. 4) • ANAC Creation Decree (Decree 9/2013 of 10 April, Art. 3) • ANAC Strategic Plan 2015-2024	Opportunity	
	No clear policy or regulation regarding specific kinds of partnerships to engage	Gap	Adopt clear policy within ANAC/MITADER, taking into account the recommendations in this report. Council of Ministers Resolution adopting this Roadmap and endorsing devolved partnerships.
	No clear policy or regulation regarding the process for engaging partnerships	Gap	Develop clear policy within ANAC/MITADER, taking into account the recommendations in this report.
Legal Entity Status	No provision in the law for creation of tax-exempt, non-profit company. Current non-profit options for CA partners are limited to: • Associations (Law 8/91) • Foundations • National subsidiary of international non-profit (Law 55/98)	Gap / Barrier	Promote development of non-profit company option in Mozambique over the long term. If necessary, this may be specifically for CA partnerships. In the meantime, provide legal overview of options to prospective partners.

Institutional Arrangement	No unit within ANAC to promote, assist and monitor partnerships	Gap	Create a dedicated directorate with clear goals and terms of reference, and engage staff with clear job descriptions through open tenders.
Law Enforcement—Lack of clarity regarding rights and protections of privately-employed scouts	Lack of clarity regarding the rights of deputized, community, and other privately-employed scouts—including (1) scope of rights to carry and use firearms, especially automatic and semi-automatic weapons; and (2) rights to make arrests and conduct searches	Gap / Barrier	This urgently requires clarification in the law—in such a way as to enable CA partners and concessionaires to employ law enforcement scouts who can safely and effectively address threats to CAs.
	Lack of clarity regarding the protections afforded to deputized, community, and other privately-employed scouts in case of confrontations with poachers (or other illegal actors), particularly if a suspect is injured or killed.	Gap / Barrier	This urgently requires clarification in the law—in such a way as to enable CA partners and concessionaires to employ law enforcement scouts who can safely and effectively address threats to CAs.
	Lack of clarity regarding the policy/procedure for becoming a 'deputized' or 'community' scout under Art. 50 of the Conservation Law	Gap / Barrier	This urgently requires clarification in the law—in such a way as to enable CA partners and concessionaires to employ law enforcement scouts who can safely and effectively address threats to CAs.
	Lack of clarity regarding the rights/protections of foreign nationals involved in CA law enforcement	Gap / Barrier	This urgently requires clarification in the law—in such a way as to enable CA partners and concessionaires to employ law enforcement scouts who can safely and effectively address threats to CAs.

CA Fees	Current fee structures apply uniformly across CAs and do not account for differing market realities	Barrier	Current fee structures should be reformed in order to promote and optimize tourism, as recommended in the 2015 ANAC Financial Plan.
Land Tenure for Concessionaires	Current policies disincentivize long-term investments when they restrict concessions to very short periods (e.g., 5-10 years), do not confirm renewals at least 2 years in advance, and/or do not ensure that concession contracts are legally ratified.	Barrier	Land tenure policies for concessionaires should be revisited and reformed in order to encourage long-term investments, while giving government the ability to hold concessionaires accountable and remove those that are not fulfilling their commitments.
Labor Law	Both the law applicable to civil servants and the general labor law applicable to the private sector (23/2007) create cumbersome restrictions and lengthy processes for employers that wish to remove personnel (who may be underperforming or corrupt). This is especially problematic in CAs which are often understaffed and facing enormous threats.	Barrier	Reform labor law to provide greater flexibility to CA partners to quickly remove personnel who are not performing or who are reasonably suspected of corruption.

Annex K: Methodology by Chapter

Here we lay out the methodology taken to develop the research for Chapters I and II.

Chapter I

Research

This chapter is based on prior research conducted by the authors in 2016. Research consisted primarily of:

1. Interviews with government and non-profits involved in collaborative management partnerships; and
2. An international symposium in which stakeholder experiences and perspectives on collaborative management partnerships were gathered.

Interviews

Interviews included (1) high-level representatives of conservation organizations, conducted to understand the strategy and motivations of partners, as well as (2) park-level representatives with specific and detailed knowledge of the structure, functioning, strengths and weaknesses of the particular partnership. Interviews were also conducted with (3) central government officials, and (4) government wardens and park-level representatives.

In total, 70 interviews were conducted, comprising 23 representatives of government wildlife authorities (from 17 countries), 45 representatives of nonprofits (from 21 local and international organizations), and 2 independent consultants with experience in multiple PAs.

Symposium

A three-day international symposium was organized in Gaborone, Botswana in July 2016 through the Southern African Development Community TFCA network. It was attended by over 100 experts involved in collaborative management in Africa, representing wildlife authorities from 10 countries (Botswana, Kenya, Malawi, Mauritius, Mozambique, Namibia, South Africa, Swaziland, Zambia, Zimbabwe), 20 non-profits, as well as the private sector, communities and donors. The symposium included a workshop in which participants were divided into working groups based on the model with which they were most experienced and asked to discuss key elements of their model, lessons learned, success factors and challenges.

Scope

In accordance with the Terms of Reference, this consultancy is focused on evaluating partnerships between government and non-profits with the goal of improving the management of national parks and reserves. The chapter does not address partnership models for community land, nor does it include partnerships whose primary objective is financial profit, such as concessions to hunting or photographic tourism operators. Nonetheless, both community engagement and tourism development are key aspects of the partnership models that are the focus of this report, and are therefore discussed in that context.

Chapter 2

Research was conducted between July 25, 2017 and November 25, 2017. It consisted of the following key elements:

1. An inception field visit to Maputo and kickoff workshop;
2. Literature review;
3. Interviews of persons with direct experience with CA partnerships; and
4. Site visits to Limpopo National Park, Gorongosa National Park, and Niassa National Reserve.

Inception visit & workshop

An inception field visit took place in July to meet with stakeholders—including representatives of USAID, Biofund, the World Bank, and ANAC—and to clarify the scope of the consultancy. This culminated in a workshop in which key stakeholders from throughout Mozambique's CA network were invited to attend. The workshop included presentations by representatives of six CAs[34], and was followed by a meeting of the Oversight Committee, which was tasked (in collaboration with the consultancy team) with selecting the partnership models for study. It was decided that the consultancy would provide an overview of Mozambique's major CMPs, with more detailed evaluations of three CAs, which would be selected for site visits. In order to look at the range of models currently being implemented in Mozambique, it was decided that those three CAs should be:

1. Limpopo National Park, an example of a financial-technical support model.
2. Niassa National Reserve, an example of a bilateral co-management model.
3. Gorongosa National Park, the closest example in Mozambique to a delegated model.[35]

Literature review

A review of available documents was conducted, including previous consultancy reports, project documents and evaluations, general management plans, aerial surveys, etc. A full list of materials relied upon can be found in the bibliography.

Site visits

Three site visits were conducted to Limpopo, Gorongosa and Niassa between September 25, 2017 and October, 2017. The purpose of the field visits was to (1) engage a wider variety of stakeholders

[34] Presentations were delivered by representatives of: (1) WCS – Niassa National Reserve; (2) PPF – Limpopo National Park, Zinave National Park, Maputo Special Reserve, and Banhine National Park; (3) GRP/Carr Foundation – Gorongosa National Park; (4) African Parks – prospective partnership with Bazaruto Archipelago National Park; (5) Santuário Bravio de Vilanculos – São Sebastião Coastal Reserve; and (6) IGF – Gilé National Reserve.

[35] Gorongosa is more accurately described as an 'integrated co-management model' under the framework outlined in Chapter I. However, this is also a highly devolved model that shares many key characteristics with the delegated model.

than could otherwise be interviewed, and (2) 'ground truth' observations from documents and interviews. Given time limitations, in-depth evaluations of each park were not conducted.[36]

Scope and limitations of research

As per the Terms of Reference, the focus of this consultancy is on partnerships between government and non-profit partners to improve the management of national parks and reserves. Accordingly, this chapter does not address partnership models for community land, nor does it include partnerships whose primary objective is financial profit (such as concessions to hunting or photographic tourism operators). Nonetheless, both community engagement and tourism development are key aspects of the partnership models that are the focus of this report, and are therefore discussed in that context. In addition, community and private sector representatives were interviewed where possible for their views on the partnerships studied.

Second, since an in-depth assessment of the effectiveness of all current and past partnerships in Mozambique was beyond the scope of the consultancy, evaluations of the partnerships were based largely on existing data and reports, as well as interviews with stakeholders and data provided by them, without the possibility of verifying all such data. Where possible, we sought to gather a variety of perspectives from a number of stakeholders in order to provide a realistic, 360-degree picture of how partnerships were performing.

Interviews

A total of 58 interviews were conducted with key persons directly involved in each of the studied partnerships. Interviewees included representatives of conservation partners, ANAC (at central and park level), provincial and district government, private sector, donors, and independent conservation experts. A list of interviewees and survey respondents is provided below.

Financial data regarding partner expenditure in CAs were based on partner records and interviews with representatives of partner organizations, while government expenditures were based on information provided by BIOFUND.

NGO Partners	
Alessandro Fusari	IGF Foundation
Pedro Muagara	Gorongosa Restoration Project
Mark Stalmans	Gorongosa Restoration Project
Mike Marchington	Gorongosa Restoration Project
Antony Alexander	Peace Parks Foundation
Peter Leitner	Peace Parks Foundation
Anabela Rodrigues	Formerly SGDRN
Vernon Booth	Formerly SGDRN
Antonio Branco	Formerly Madal / SGDRN
James Bampton	Wildlife Conservation Society
Alastair Nelson	Wildlife Conservation Society

[36] This method is consistent with our regional study, in which we relied on documentation and interviews to survey and categorize 38 CAs.

Rob Craig	Wildlife Conservation Society
Innocent Musunje	Wildlife Conservation Society
Andrew Marshall	Wildlife Conservation Society
Thomas Prin	Wildlife Conservation Society / FFI
Sean Nazerali	Formerly WWF
Helena Motta	Formerly WWF
Guillaume Van Wyk	Santuario Bravia de Vilanculos
Government Representatives	
Mateus Muthemba	Administrator of Gorongosa National Park
Baldeu Chande	Administrator of Niassa National Reserve
Cornelio Miguel	Administrator of Limpopo National Park
Cidalia Mahumane	ANAC
Felismina Langa	ANAC
Raimundo Matusse	ANAC
Leovigildo Jose	ANAC
Francisco Pariela	ANAC
Rezia Cumbi	ANAC
Julieta Lichuge	ANAC
Armindo Araman	ANAC
Agostinho Nazare	ANAC
Joao Ventura	ANAC
Paulo Barros	ANAC
Valentina Madope Mabjaia	FNDS
Paulo Zucula	Former Board member of SGDRN
Inocêncio Elias Sotomane	Former Board member of SGDRN
Iassine Alabe	Permanent Secretary of Mecula District, Niassa
Catia MacArtur	Judge, Mecula District, Niassa
Herminio Manhique	Attorney, Mecula District, Niassa
Manuel Jamaca	Administrator, Gorongosa District
Atanasio Jujumen	Provincial Directorate of Land, Environment and Rural Development – Sofala Province
Feliciano Ngovene	Leader of Chinhangane Community, Massingir District
Gracinda Natalia Carlos	Secretary for Economic Activities, Massingir District
Private Sector	
Colleen Begg	Niassa Carnivore Project / Mariri Investments
Keith Begg	Niassa Carnivore Project / Mariri Investments
Matt Rice	Chiulexi Conservancy / FFI
Mark Rose	FFI

Alison Mollon	FFI
Howard Hunter	Professional Hunter, Niassa
Derek Littleton	Luwire / Niassa Wilderness Trust
Holly Rosier	Rio Save Safaris
Rui Monteiro	Owner, TurConsult
Donors	
Peter Weinart	KfW
Anna Reiner	EU
Pierre Walter	AfD
Bruno Nhancale	World Bank
Madyo Couto	MozBio
Independent	
Francis Masse	Researcher
Richard Davies	Ecologist / Consultant

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