Quirimbas National Park

Business Plan
2009-2019

Sean Nazerali, WWF Mozambique
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List of Abbreviations

AFD	French Development Agency
CA / AC	Conservation Areas (Áreas de Conservação)
CCPs	Conselhos Comunitários de Pesca (fisheries co-management committees)
COMDEQ	Comité de Desenvolvimento do QNP (QNP Development Committee)
CTFs	Conservation Trust Funds
DNAC	Direcção Nacional das Áreas de Conservação (National Directorate for Conservation Areas - MITUR)
DPTUR	Provincial Directorate of Tourism
DUATs	Direito de Uso e Aproveitamento de Terra (Land Use Titles)
FFEM/FGEF	French Global Environmental Fund
GOM	Government of Mozambique
INATUR	National Institute for Tourism
INP	National Petroleum Institute
MDN	Ministry of National Defence
MITUR	Ministry of Tourism
QNP/QNP	Quirimbas National Park (Parque Nacional das Quirimbas)
TDP	Tourism Development Plan
WWF	World Wide Fund for Nature

1. Executive Summary

This document has been written for the management purpose of investigating various sustainable financing methods for the QNP and evaluating their potential impact over the period 2009-2019.

The Business Plan begins with an overview of the park, followed by a review of the first Business Plan of the QNP from 2003 and a detailed look at the actual financial situation from both the cost and revenue side. The general conclusion reached is that due to lack of good data at the time, the 2003 Business Plan was somewhat optimistic in its revenue projections while understating actual operational costs.

This is followed by projections for the next ten years, looking in detail at the costs of the park, as well as the possible revenues of the park over this period. While mention is made of a series of innovative funding mechanisms that may benefit the park over this period, most are not considered in the numeric projections, as no hard data is available.

Four sources of potential revenue are examined in detail: Tourism, Government Support, the establishment of a Conservation Trust Fund, and Carbon Sequestration. The potential impact of each of these is examined under different scenarios. While each of these has the potential to cover substantially more of the operating costs of the park than is currently the case, none of them on their own will cover all operational costs. As a result, a coordinated and multi-approach strategy must be developed.

The Plan then examines the combined potential impact of these mechanisms and concludes that financial independence from donor funding is achievable by 2019, but that this will not happen without an activist position by park administration. A series of specific recommendations are given in order to achieve this goal.

To integrate sustainable financing activities into day to day park operations, the Plan recommends that lead responsibility for sustainable financing in the park be assumed by the Head of the Tourism Department, in cooperation with technical assistance to be provided in the second phase of donor support for the QNP.

2. Methodology

While a recommendation has been made that the business plans of all the Conservation Areas in Mozambique should be standardized, to date this has not been done, and no template for business plans currently exists. As a result, and after consulting the various formats of existing business plans of the National Parks (Limpopo, Bazaruto, Quirimbas 2003, Gorongosa), the decision was made to focus this business plan on the financial aspects of park management.

While most of the other Business Plans produced have included extensive treatments of the tourism potential and markets of the respective Conservation Area, the QNP is fortunate to have a very detailed and recently produced Tourism Development Plan which deals at length with these issues, as well as making detailed projections as to

future tourism trends and numbers. This discussion is therefore not reproduced here, though the conclusions are utilized extensively in the projections section.

All projections are based on actual 2009 costs, as this is the most accurate reflection of true costs. Given the fact that the park has grown substantially since its first years, an average of the five year totals would underestimate the real costs of maintaining functions at present levels.

All scenarios have been developed using the most detailed sources available and have been processed using USD as the base currency, with a fixed exchange rate of 1 EUR = 1.3 USD = 32.5 Meticais as a historical average. Projections use a conservative estimate of a long-term average USD inflation rate of 4%.

3. Introduction to the Quirimbas National Park

3.1. Vision

The Parque Nacional das Quirimbas (QNP) is unique as it has by far the largest human population living within its borders of any national park in Mozambique. This is partially because the park was created in response to requests from local communities and other stakeholders. Thus, the existence of the park must be understood as a 'bottom-up' attempt by these parties to resolve the myriad problems that beset the Province of Cabo Delgado in general, and the QNP area in particular.

As such, the vision of the park has always been one of **"Conservation for Productive Use"**.

The present park management plan sets out the Park goal as ***"to conserve the diversity, abundance, and ecological integrity of all physical and biological resources in the park area, so that they may be enjoyed and used productively by present and future generations".*** This goal is supported with six objectives:

1. to protect, conserve, and where necessary restore the ecosystem processes and the species and genetic diversity of all terrestrial and marine resources (living and non-living) in the Park area and its area of influence;

2. to promote the economic and social well-being of the park's ancestral inhabitants by the promotion of sustainable resource use strategies, by the development of ecologically sensitive livelihoods options, and by prioritising their interests in the economic opportunities deriving from the establishment of the Park;

3. to insure that all stakeholders—including but not limited to residents, tourist operators and investors, and Park management structures—share both the benefits of and the management responsibility for the Park;

4. to protect, conserve, and rehabilitate historical monuments, ruins, and other cultural resources in the park area (including local culture and tradition);

5. to stimulate and facilitate the growth of eco-tourism in the Park area, the province, and the north of Mozambique.

6. to insure the sustainability of the park itself by the adoption of appropriate fund-raising mechanisms, cost-effective operational systems, and the development of partnerships with other stakeholders and relevant research institutions.

These goals reflect the QNP's long-term concern both with the conservation of the park area and the 'conservation' of its human inhabitants; the Park is intended to be of direct benefit to local users, who will participate in the management of the Park's resources. In essence, the park is striving to implement conservation as a development strategy.

3.2. Brief History

Recommendations to declare the area a national park date from 1971, but the Mozambican Council of Ministers only declared Quirimbas in 2002 (Decree 14/2002 of 14 de Junho). The park's management plan was approved in 2004, and the first Park Warden was appointed at this time.

In financial terms, the first three years of the park (2002-2005) were characterized by very low financial backing and a low level of formal activity, with community volunteers performing most park activities during this period.

In 2005, after the singing of an intergovernmental convention between Mozambique and France, the first phase of the Quirimbas Development Project began. This phase was financed by the French Development Agency (AFD) and the World Wide Fund for Nature (WWF). In this period, the park began to develop the necessary infrastructure and personnel to function as an effective institution.

The Quirimbas Development Project runs from 2005 - 2009, and at its conclusion will have spent a total of over 6 million Euros (approximately 9 million USD) to support the park.

A second phase of extensive external support (AFD, FFEM, WWF and GOM) is to begin in 2010, running a further five years until 2014. This project will invest a further 11 million USD in the park over the five years for both operating costs and investments.

4. The First QNP Business Plan of 2003

In 2003, a business plan was drafted in preparation of the "Development of Quirimbas National Park Project". Basing itself on the QNP General Management Plan, the business plan considered three scenarios (worse, medium, and best), and showed that operating costs could be covered by revenue within 15 years, with the proviso that investments are forthcoming from donors for the establishment of park systems and infrastructure.

The 2003 Business Plan has some very strong elements:

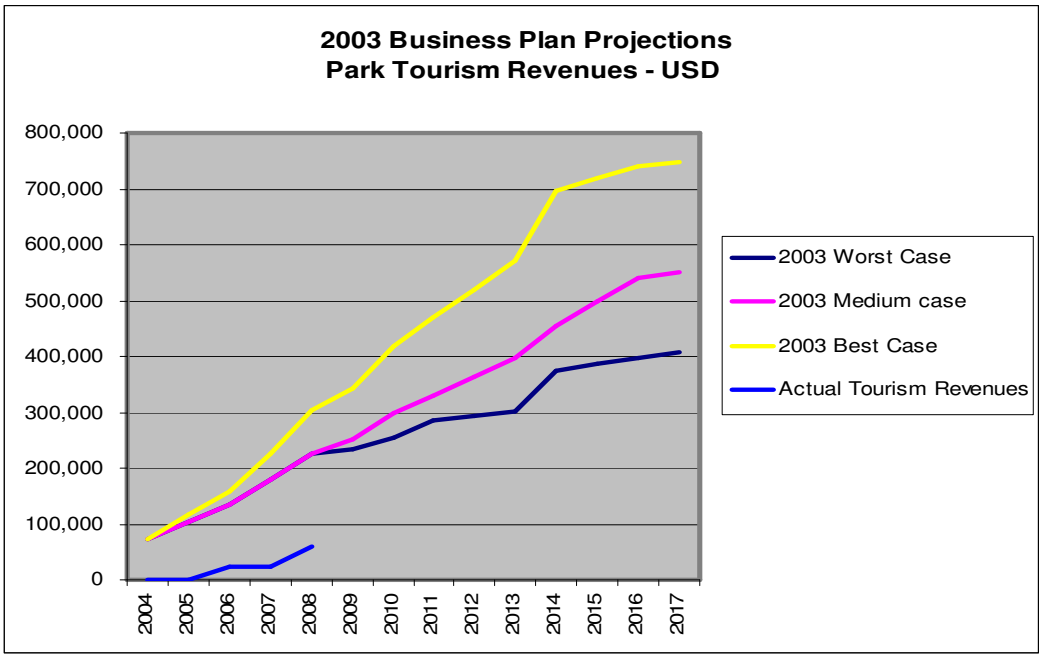
- It looked carefully at the park's Management Plan and sites identified for tourism potential, and in so doing, became the first Tourism Development plan for the park. This provided the basis for the later, more detailed Tourism Development Plan developed in 2007/8.
- It was the first detailed look at the possibilities of the park in terms of potential revenues.
- It was an excellent case study of potential financial impacts of the then recently-created table of fees for national parks (Decree Nº 27/2003).

On the other hand, experience and new information gathered over the past five years has shown that the plan also had three key shortcomings. First, the plan considered only tourism revenues, and neglected the possibilities for any other revenue generation mechanism (partnerships, government budgetary support, etc.).

Second, as a very new park that had up to that time only worked with a small group of dedicated individuals (many of them volunteers), the costs of running the park were significantly underestimated.

Finally the plan overestimated tourism growth, both in terms of the number of new operators as well as the number of actual tourist entries. Again this was due primarily to the fact that in 2003 there were no reliable sources of information on tourism flows, making useful demand projections impossible.

The end result is that overall park revenue projections in the 2003 Business Plan were overly optimistic, with real park revenues at just 26% of the "Worst Case" scenario. Combined with the underestimate of expenses, the park is still a long way from financial sustainability in 2009.



Tourism Revenues (USD)

5. Current Financial Situation

5.1. QNP Costs

Operational and investment costs can be broken down in a number of ways. The Mozambican government uses a system of cost classification (salaries, other personnel expenditures, goods, and services, with each of the last three broken down into various other sub-categories). At the other extreme, many WWF project contributions have been based on activity budgets, with each line item incorporating all costs associated with a particular activity, such as 'sanctuary creation'. The QNP Development Project, which has funded the park for the past five years, used a mix of these two systems.

Given this situation, in order to fully profit from the financial experience of five years of full operation, it is important that the real costs are correctly drawn out of the accounting systems.

This business plan divides costs in two manners:
First, costs are split into investments, salaries and running. Secondly, costs are split on a department by department basis. These two methods for allocating costs will permit a more thorough analysis of the data.

The base year for these calculations is 2009. This is a more accurate reflection of true costs than providing the totals for the entire five years of the project, given the fact that the park has grown substantially since its first years. An average of the five year totals would underestimate the real costs of maintaining functions at present levels. The only segment in which this approach makes sense is investment, and investment costs have been therefore averaged out over the full five years in the following table.

Method One – Annual Costs by Classification (USD[1])

	Per Year Total
Salaries	840,908
Running costs	1,023,127
Investments[2]	309,336
Total Operational Costs	1,864,035
Total Costs	2,173,371

[1] Using a fixed rate of 1 EUR to 1.3 USD.
[2] The per year investment value has here is the average over five years.

This method demonstrates that annual costs for the park, including all investments, are approximately 2.2 million dollars, with just under 1.9 million dollars in operational costs. This should be considered the level of spending the park needs to continue to function at present levels.

The department by department breakdown illustrates the relative weight of each area. Note that salaries of department personnel are included in 'operating costs' in this table.

Method Two – Costs By Department (USD)

USD	Investment	All Operating costs	Total Costs
Research	20,604	203,535	224,139
Tourism	78,859	97,034	175,894
Law Enforcement	134,971	451,740	586,710
Communication	20,604	84,692	105,296
Community Development	20,604	682,714	703,318
DAF	33,695	344,320	378,014
Totals	**309,336**	**1,864,035**	**2,173,371**

Both methods give us the same bottom line, with approximately 1.85 million US dollars per year being required for all operating expenses in 2009.

5.2. QNP Revenues to date

Park revenues over the life of the park have been dominated by project funds. However, for future projections, revenues are broken down into their constituent parts, and show the trends of each individually, as well as the overall picture.

5.2.1. Own Revenue

The first aspect to consider is that of own revenues, as this is for the future one of the key aspects towards long term sustainability.

5.2.1.1. Legal Framework for Park Own Revenues

The legal framework for Park own revenues is for the time being the governmental decree 27/2003, which sets the fee schedule for National Parks and Reserves. At the time, 20% of this amount was to go to the communities living in the park, via a community fund, and 80% could be theoretically returned to the park to help fund costs. Only the 20% for the community funds were however ever given back to the park.

Decree 27/2003 has been recently altered by another decree, 15/2009, which states that of the fees collected, 20% should go to the general state budget, 16% to the community fund, and 64% to the parks and Reserves. The accompanying Ministerial Diploma specifies that the entire 64% will be returned to the park that generates the revenue.

This section uses real values collected by the Park, while section 6 analyses changes in the future.

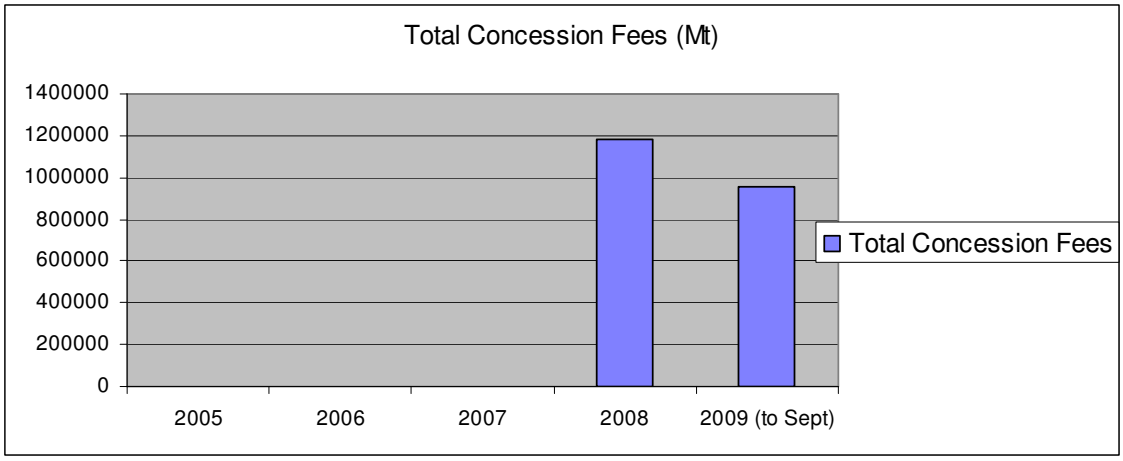
5.2.1.2. Tourism Concessions

Tourism concessions have formed the bulk of tourist revenue to date in the QNP. Concession fees under decree 27/2003 are set at a uniform 1000 MT/ha, (approx. 40

USD), regardless of the location. As a result, prime beach and island locations are heavily undervalued, and bush concessions heavily overvalued.

Along with land concessions there are also concessions for dive operators, and the flat rate fee of 24.000 MT should also be paid on a yearly basis. There are presently three dive operators in the QNP.

While decree 27/2003 came into effect in 2003, it was not implemented for several years in the QNP. This was true in particular for concession fees, whose implantation was delayed until MITUR converted existing land titles (DUATs) into special licences, a process that took until 2007. Several operators still do not have their Special Licences issued and so are continuing to pay the older (and much lower) DUAT rate. While the fees are legally obliged to be submitted by March 31st, in reality many of the operators have negotiated instalment payments with DNAC.

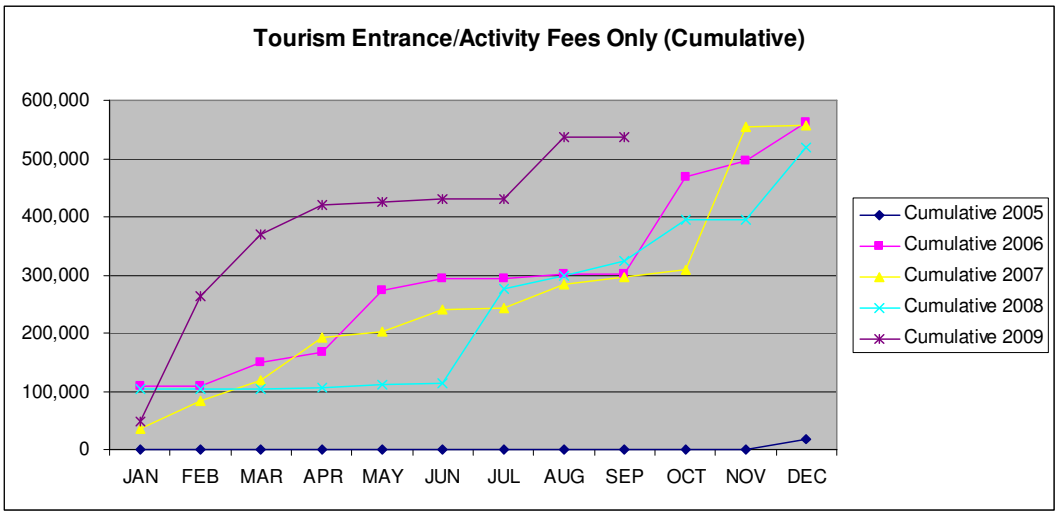


Total concession fees received in 2008 were therefore 1,185,080 Mt (approx. 47,400 USD).

5.2.1.3. Tourism Entrance and Activity Fees

Tourism entry and activity fees are collected through tourism operators. The logistics of collecting at park entry points is extremely complicated given the Park's large population, many entrance points, and the fact that the major north-south highway splits the park in half, ensuring a large number of transit passengers.

While this method is reasonably efficient, there have been problems of collection at certain periods, and statistics on the division of activity and entrance fees are nonexistent.

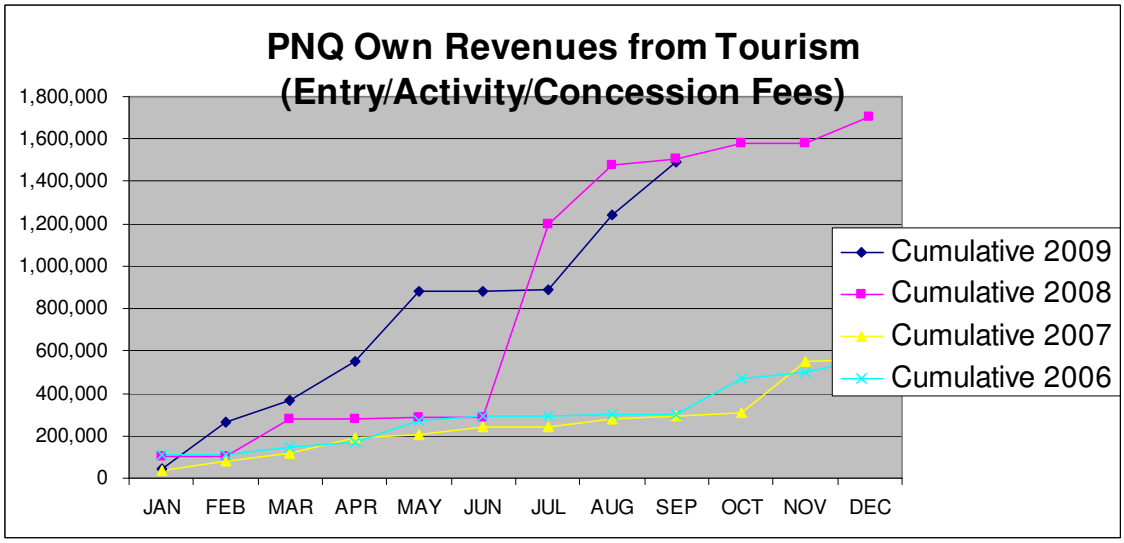


It can be seen here that following implementation in 2006, there has been a steady increase in revenue from tourism activity/entrance fees over the years. However, one needs to interpret trends in these figures cautiously, as operators often have delays in payment – for example at least one operator paid their entire 2008 fee collection in January of 2009. Conclusions drawn from the data must therefore be made cautiously.

Total tourism revenues are as follows:

	2005	**2006**	**2007**	**2008**	2009 (to Sept)	Total
MT	18,200	563,244	556,289	1,704,765	1,491,254	4,333,753
USD	728	22,530	22,252	68,191	59,650	173,350

While not substantial when considering the operating costs as calculated above, the constantly increasing trend is positive for the long term.



It is important to note that of these revenues, 20% has been given to the communities, via a community fund that rotates throughout the Administrative Posts in the Park, with each receiving in the first round 50.000Mt. As of Jan 2010, a total of 10 Administrative Posts have received this amount.

5.2.1.4. Other Own Revenue (Fines, Wood Sales)

The park also generates revenues through the levying of fines on infractions in the Park, and through the public auction sale of confiscated goods (predominantly timber). While fines at times are not inconsequential, they do not contribute to the park's actual revenues, as 50% is returned to the people directly involved in apprehending the crime, and the other 50% is deposited in the general state budget.

Wood sales have more potential to contribute as they are considered park revenue in the same way as tourist revenue. However, in the seven years of the park's existence, only one lot of wood has ever been sold (in 2006). The impact of this element on overall revenues is therefore negligible, and will not be considered in the following calculations.

5.2.2. Government Contributions

5.2.2.1. The Return of Own Revenue to the Park

The legal framework for Park own revenues is for the time being the governmental decree 27/2003, which sets the fee schedule for National Parks and Reserves. At the time, 20% of this amount was to go to the communities living in the park, via a community fund, and 80% could be theoretically returned to the park to help fund costs. While the latter has never actually occurred in the QNP, it did form an expectation of future revenues.

This problem is not unique to the QNP, as almost all the country's protected areas share the same difficulty in accessing these funds. There was a need for both a decree and then a ministerial diploma to regulate access to these funds. In 2009 the necessary Decree 15/2009 and Ministerial Diploma were approved, but it is still too early to evaluate their impact as the Diploma was only signed in November. Under these new regulations, 64% of own revenues should be returned to the park that generates them, a significant drop from the initial decree.

5.2.2.2. General State Budget Support

While own revenues have never been returned to the park, the government has contributed to the park's functioning via general budgetary support for operational expenses.

This support began in 2008 and was continued, though not substantially increased, in 2009.

Government Budget Support	2008	2009	Total
MT	4,087,614	4,116,020	8,203,634
USD	163,505	164,641	328,145

This amounts to approximately 165,000 USD per year in state budgetary support at the present time.

5.2.2.3. Salary Support

On top of the general budgetary support, there has been a small amount of direct salary support. The original agreement between DNAC and the donors was that DNAC would hire and finance two positions: the Park Warden and the head of Law Enforcement. This has been done, and this must therefore be included when calculating state support.

One of the key aspects for future sustainability is to ensure that increasing numbers of park staff enter onto the official state payroll to secure them for the indefinite future. So far bureaucratic obstacles have prevented this from occurring.

5.2.2.4. Other Ministries' Support

The final aspect of government support is that received from other ministries. This is quite a significant source of support, as is the case with the cooperation with the Ministry of National Defence (MDN). This ministry has provided not only all the weapons used in the QNP (45 Mauser rifles), but all the ammunition (approximately 4500-5000 rounds per year, both live and blank ammunition).

In addition to material support, the MDN has placed military personnel inside the QNP, paying their salaries and other benefits, and contributing to their food needs as well.

Since the funds are from another ministry, this contribution has never been captured in the Park's accounting. Based on the cost of new rifles, ammunition and rangers, the approximate value of this contribution is as follows:

Ministry of Defence Contribution (Mt)	**2005**	**2006**	**2007**	**2008**	**2009 est.**	**Total**
MDN Salaries			270,000	570,000	570,000	**1,410,000**
MDN investment (rifles)		1,760,000	1,600,000			**3,360,000**
MDN (ammunition)		184,250	335,000	418,750	418,750	**1,356,750**
Total Mt		1,944,250	2,205,000	988,750	988,750	**6,126,750**
MDN Contribution USD		77,770	88,200	39,550	39,550	**245,070**

These values have been incorporated into the operating costs calculated above (section 5.1) because they must be considered core operating expenses of the park.

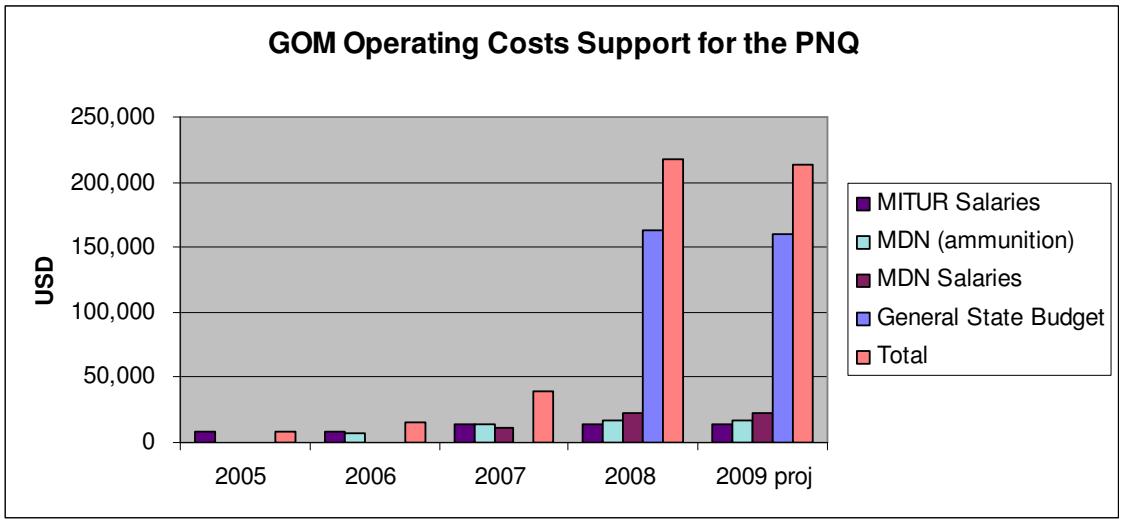
The other Ministry which has provided significant support for the Park is the Ministry of Mineral Resources. This support was raised by MITUR via the National Petroleum Institute (INP), and has its origin in the so-called 'social funds', which are contributions for social goals made by the oil companies in the country. This is actually the largest single contribution made by the state to date, and consists of approximately 250,000 USD to pay for installation of a pilot phase of electric fencing to mitigate human elephant conflict in the park.

Total Government support for the QNP has thus been:

Total Government Support (USD)	2005	2006	2007	2008	2009 (projection)	Total
General State Budget	0	0	0	163,505	164,641	328,145
MITUR Salaries	8,112	8,112	14,602	8,112	8,112	47,050
MDN Salaries	0	0	10,800	22,800	22,800	56,400
MDN (ammunition)	0	7,370	13,400	16,750	16,750	54,270
MDN Investment (Rifles)	0	70,400	64,000	0	0	134,400
INP Investment (Fence)	0	0	0	0	250,000	250,000
Total	**8,112**	**85,882**	**102,802**	**211,167**	**462,303**	**870,265**

When investment costs are removed, total government support for operation of the QNP looks like this:

Total Government Operating Costs Contribution USD	2005	2006	2007	2008	2009 proj.	Total
General State Budget	0	0	0	163,505	164,641	328,145
MITUR Salaries	8,112	8,112	14,602	8,112	8,112	47,050
MDN Salaries	0	0	10,800	22,800	22,800	56,400
MDN (ammunition)	0	7,370	13,400	16,750	16,750	54,270
Total	**8,112**	**15,482**	**38,802**	**211,167**	**212,303**	**485,865**



5.2.3. Donor Support

By far the largest component of support for the first years of existence of the QNP has been donor support. In the context of an international agreement signed between the governments of France and Mozambique, a total of 4.2 million Euros was committed to the QNP by the French government, with 3.5 million coming from the French Development Agency (AFD), and 700,000 Euros from the French Global Environmental Fund (FFEM). This amount was given to the WWF to operate the park.

In the contract, a further contribution of 1.065 million Euros was promised by WWF. In fact nearly double this amount (approx. 1.9 million Euros) has actually been spent by WWF over the first five years of the project.

Donor funding has therefore provided 90% of the total funding of the park for the past five years. It is important to point out here that this is a ***lower*** percentage than the amount originally envisaged, as the state's initial commitment was restricted to the payment of salaries for the Park Warden and Head of Law Enforcement. As is apparent from the following table, much more was contributed by the state.

(Euros)	Contract Commitments		Real Contributions	
AFD	3,500,000	65.8%	3,500,000	51.3%
FFEM	700,000	13.2%	700,000	10.3%
WWF	1,060,839	20.0%	1,949,643	28.6%
GoM	54,545	1.0%	678,238	9.9%
Total	**5,315,385**	100%	**6,827,881**	100%

Values in EUR, contribution over 5 years.

However, it is also evident that donor funding continues to be essential for the functioning of the park, and that this funding must be continued for the next period to secure the park's operation.

Fortunately for the park, all three of the major external donors, AFD, FFEM, and WWF have expressed interest in continuing their support for the QNP, and a second five year phase of external support is under negotiation.

For the medium term the park must seek to widen its traditional donor base beyond WWF and AFD and approach new potential partners in a systematic manner. In the long term of course, the goal must be to decrease dependence on external funding, however difficult this may be in practice.

5.2.4. Partnerships

One of the key ways to reduce dependence on external donors is to develop strong partnerships with other stakeholders to reduce the park's operating costs.

Key partnerships developed so far include those with tourist operators in Taratibu and Mareja, who have actively contributed large amounts of time and labour in Law Enforcement activities over a total of approximately 100.000 ha (1000 km^2). Other law enforcement partnerships have been forged with the Ministry of Defence (described above), the Provincial Directorate of Fisheries, and other tourist operators who have contributed rangers and material support to the park.

In the area of community development, there have been important partnerships with various NGOs working in the area of the park, as well as with the District government administrations. The park has not only developed some guidelines for agriculture in the park, but has created a technical working group channel the energies of all stakeholders towards contributing to the park's management plan. Some tourist operators have also contributed significantly to local development, but this too needs to be more widely applied.

Some research partnerships exist with both local higher education institutes such as the Catholic University and the Lúrio University, as well other entities who have carried out research activities in the area and shared the results with the park. On the whole, however, external research has not been guided by the park's needs, but has instead been carried out by implementing/contracting bodies with a small amount of input from park staff.

In effect, partnership development has been done by the QNP, but it needs to be expanded to make it more focused on achieving park goals and reducing the core operating costs, as well as with an eye to its potential for raising revenues for park operations.

6. Financial Projections

The following chapter is devoted to exploring the various sources of funding and expected levels of revenue needed to cover core operating costs. To do this, this assessment begins with cost projections for the park.

6.1. Cost Scenarios – Introduction

Actual park needs are calculated in this business plan using 2009 as a base, with the level of activity in 2009 considered as the base scenario. These costs are then split into 'core' and 'ideal' operational programs, with only core costs being used to calculate a minimum necessary level of activity for the park to function effectively.

As above, costs are first split into investments, salaries and running costs for both core programs and ideal programs. Second, costs are divided all on a department by department basis. These two methods for dividing costs will permit a more thorough analysis of the data.

6.1.1. Base Scenario

The base scenario was presented above in section 5.1, and so will be only summarized here, grouped by classification and then by department.

Annual Costs by Classification (2009 - USD[1])

	Per Year Total
Salaries	840,908
Running costs	1,023,127
Investments[2]	309,336
Total Operational Costs	1,864,035
Total Costs	2,173,371

[1] Using a fixed rate of 1 EUR to 1.3 USD.

[2] The per year investment value has here is the average over five years.

Annual Costs by Department (USD)

USD	Investment	All Operating costs	Total Costs
Research	20,604	203,535	224,139
Tourism	78,859	97,034	175,894
Law Enforcement	134,971	451,740	586,710
Communication	20,604	84,692	105,296
Community Development	20,604	682,714	703,318
DAF	33,695	344,320	378,014
Totals	**309,336**	**1,864,035**	**2,173,371**

Both methods give us the same conclusion: approximately 1.85 million US dollars per year is required for all operating expenses in 2009.

6.1.2. Minimum Scenario

To construct the minimum scenario, park costs are divided into core and 'ideal' expenses to illustrate what is absolutely essential to run the park.

For the purposes of this exercise, it is important to be explicit about what constitutes an "Ideal Expense". These are programs that are presently being carried out under the auspices of the park development project, but are not part of a more narrow definition of park management activities. These 'additional' activities include the following:

a. Pilot community development projects implemented through NGO partners, such the Community Development and Marine Resource Use project on Ibo, the Conservation Farming Initiatives, and the Girls' Scholarship Program.
While all of these are of importance to the park and contribute significantly to achieving its mission, they are unlikely to be continued if funds are unavailable, and would have to be done by other entities.

b. New Primary Research Activities.
Again, while these are important to understand the context of the park, they too are elements that could be discontinued if funds are insufficient. Note however that monitoring impacts of the park's work is considered an essential core activity of the park.

c. Piloting new Elephant Mitigation work.
A crucial activity in the project is determining and deciding upon these methods. After this is done, a percentage of the funds currently used for HEC will no longer be necessary. Actual HEC costs are core costs, and have been considered as such.

d. Costs of WWF technical assistance to the project. As a government institution, technical assistance would be provided solely through governmental structures.

e. Some senior salary costs. While it is essential to have senior staff, at the present moment these are almost all paid by WWF (and as such, their salaries are much higher than in government institutions). When considering

essential costs for the future, these salaries have been reduced to the level the state will pay.

Using this division, annual costs are now divided between core and additional programs.

Method One – Annual Costs by Classification (2009 - USD[1])

	Core Programs	**Ideal Programs**	**Totals**
Salaries	543,913	296,995	840,908
Running costs	566,597	456,530	1,023,127
Investments[2]			309,336
Total Operational Costs			**1,864,035**
Total Costs	1,110,510	753,525	2,173,371

[1] Using a fixed rate of 1 EUR to 1.3 USD.
[2] The per year investment value here is the average over five years.

This method shows that annual operational costs for the park, excluding investments, are approximately 1.85 million dollars, with just over 1.1 million being spent on the core programs. This should be considered the level of spending the park needs to continue to function at present levels, but without the extremely important 'ideal programs'. It is interesting to note that salaries make up a smaller percentage of the ideal program funds than core program funds, reflecting the fact that supervision of all programs is performed by senior (and better paid) core park personnel.

Turning to a breakdown by department, the relative weight of each becomes evident. Note that salaries of department personnel are included in 'operating costs' in this table.

Method Two – Annual Costs by Department (USD)

	Investment	Operating costs Core Programs	Operating costs Ideal Programs	Total Costs
Research	20,604	121,924	81,611	224,139
Tourism	78,859	78,279	18,756	175,894
Law Enforcement	134,971	390,984	60,756	586,710
Communication	20,604	65,936	18,756	105,296
Community Development	20,604	127,824	554,891	703,318
DAF	33,695	325,564	18,756	378,014
Totals	309,336	1,110,510	753,525	2,173,371

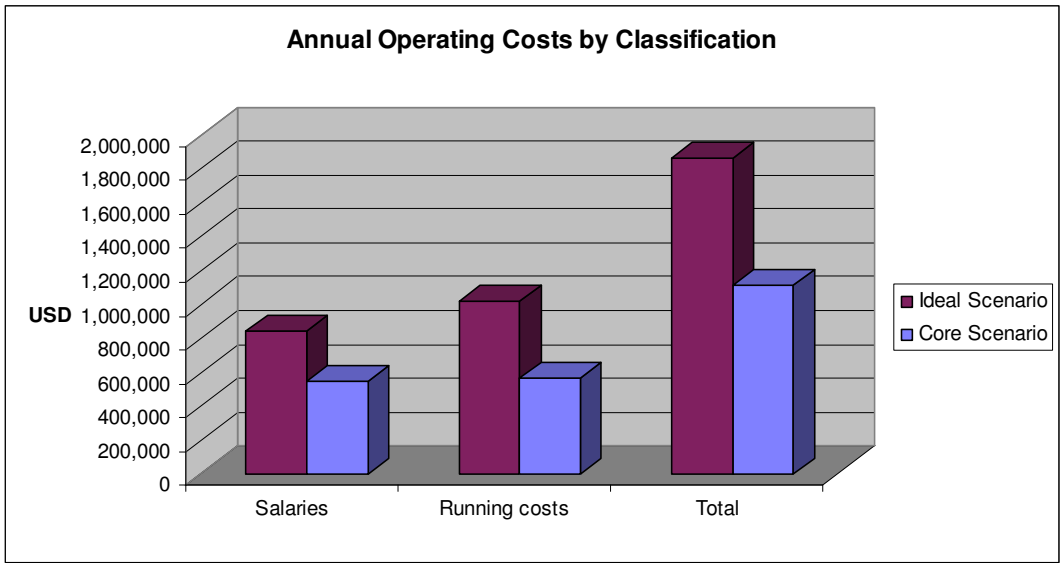
This method allows us to how park activities are structured, with a large portion of 'Ideal Programs' representing Community Development projects implemented through various partners.

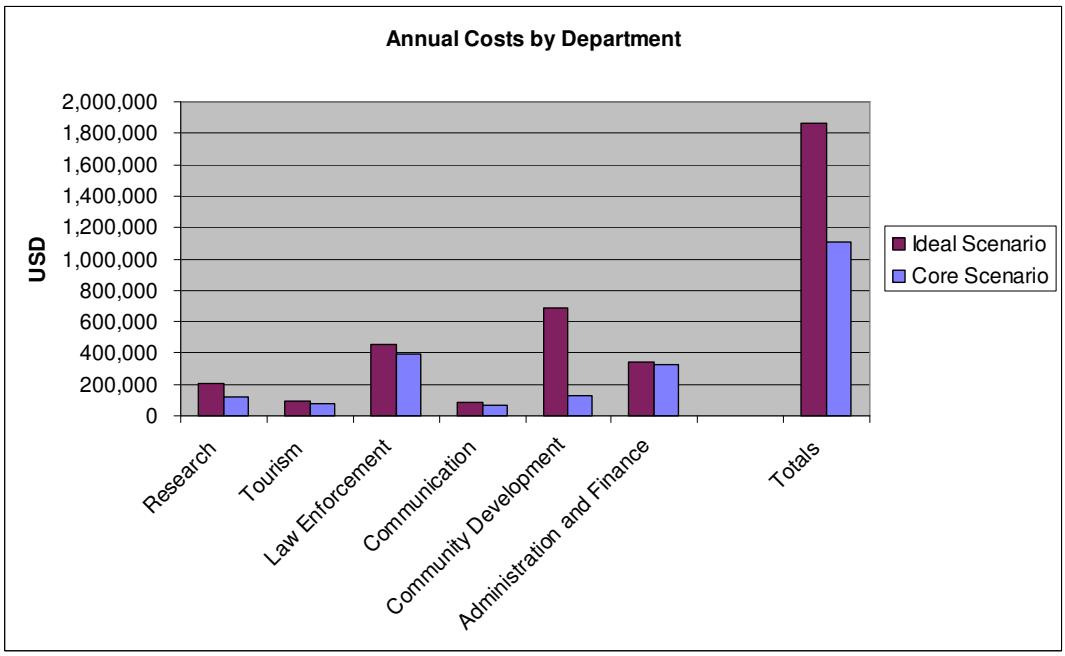
Once again, both methods result in approximately 1.1 million dollars required for core operating expenses in 2009.

There may be additional savings beyond this minimum budget; however, achieving them would require cuts in both personnel and certain key activities.

Comparison

The two scenarios are presented here on a comparative basis, showing the difference between them.

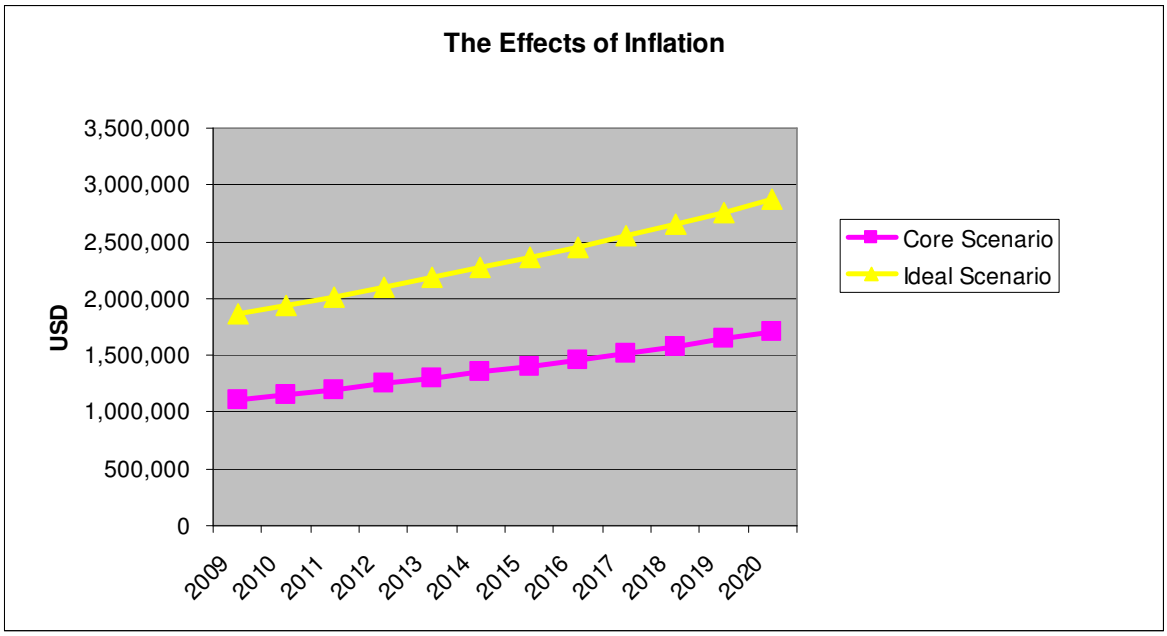




Another important aspect to consider is the effect of inflation. While most business plans do not index their projections, we feel it is important to look at this aspect, and have taken a conservative inflation rate of 4% in dollar terms. While Mozambique's annual metical inflation rate is approximately 11%, it is deemed to be more realistic to use the lower figure to allow for exchange rate compensation. Using this rate, the amount needed to operate the park increases over time, reaching 1.7 million dollars in 2020 in the minimum scenario, and 2.9 million in the base scenario.

The Effects of Inflation on Operating Costs (selected years)

Inflation Effects (USD) - Selected Years	2009	2010	2012	2015	2020
Minimum Scenario	1,110,510	1,154,931	1,249,173	1,405,150	1,709,580
Base Scenario	1,864,035	1,938,597	2,096,786	2,358,599	2,869,597



6.2. Revenue Projections

6.2.1. Tourism Revenue

The legal framework for Park own revenues is currently the governmental decree 27/2003, which sets the fee schedule for National Parks and Reserves. Up until 2009, 20% of this amount was to go to communities living in the park via a community fund, and 80% could be theoretically returned to the park to help fund costs. While an 80% return to the park never actually occurred in the QNP, the decree did form an expectation of future revenues.

Decree 27/2003 has been recently altered in 2009 by a new Decree (15/2009). Under these new regulations, 20% of revenues will go to the general state budget, 16% to the

community fund, and 64% to the parks and Reserves that generated those revenues. This means that 64% of own tourism revenues is now the amount the QNP expects to be returned to the park – a significant drop over previously promised levels.

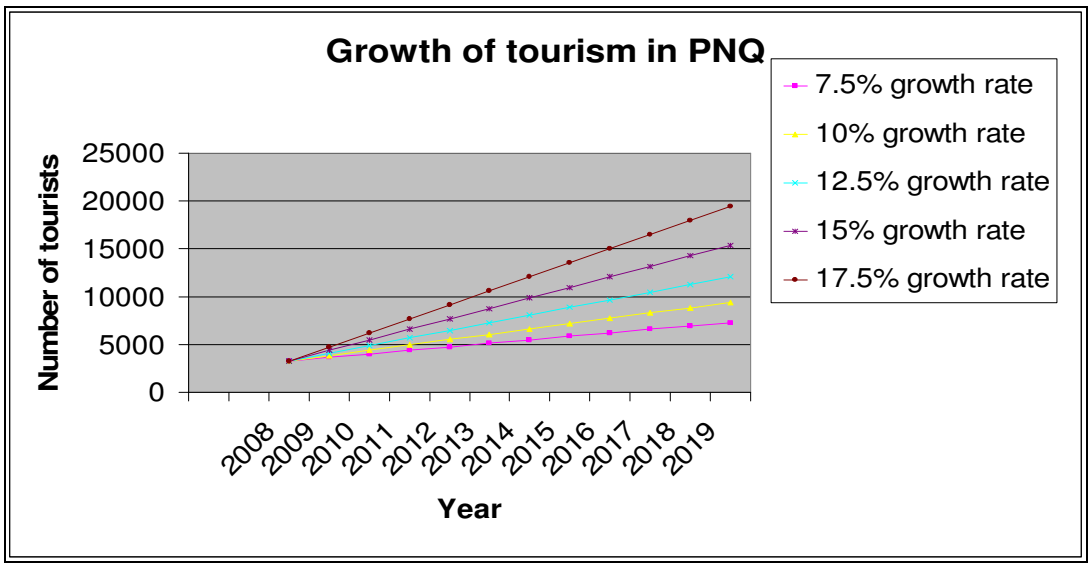
There has been much discussion within DNAC about revising the actual fees listed in Decree 27/2003, which is an essential step. The present fee structure is complex and does not properly reflect real values of either concessions or activities across the various areas. However, since future fee levels are unknown, calculations here are based on values stated in decree 27/2003, and on the changes to these fees recommended in this report.

6.2.1.1. QNP Tourism Development Plan Implications

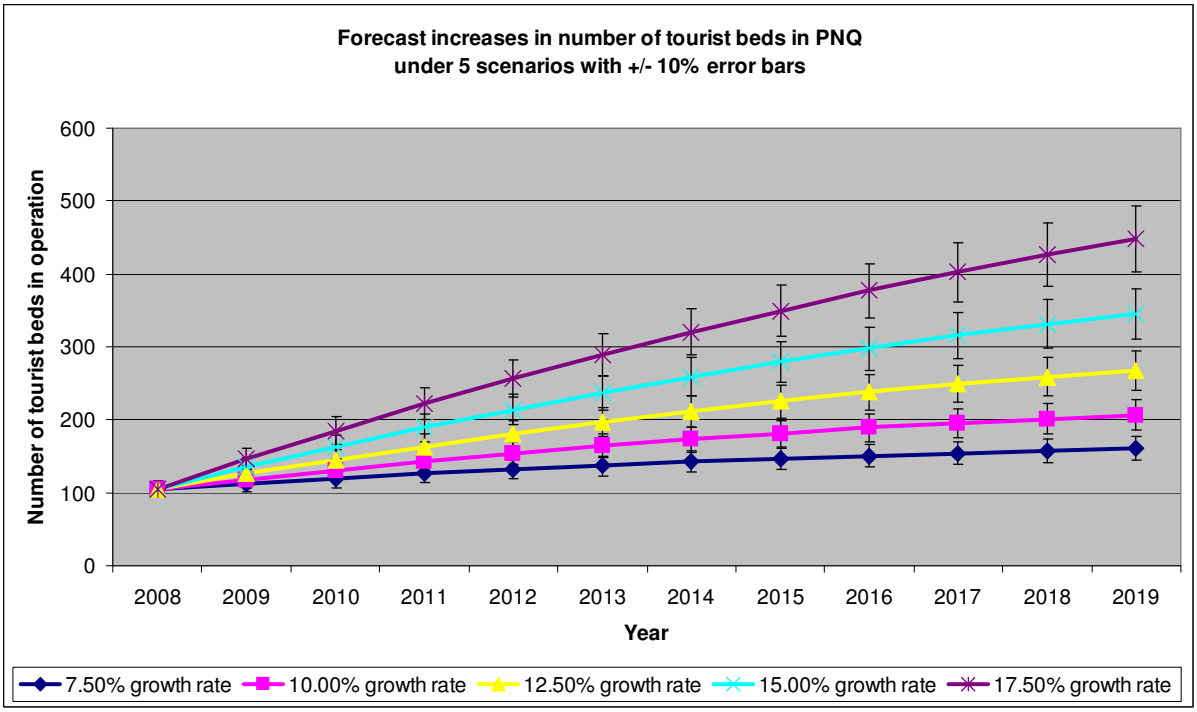
During 2007 and 2008, an international team of specialists developed a Tourism Development Plan (TDP) for the Park. The plan provides an overview of key tourist features of the QNP, and an assessment of the markets and level of demand for tourism to the QNP. It also includes projections for tourist numbers and tourism development in the QNP up to 2017. Along with these aspects, the TDP sets out strategy for development of accommodation and attractions in the QNP, and considers economic aspects of tourism and conservation. It also includes recommendations on how which tourism concessions are valued.

This Business Plan will not review all aspects of the TDP, but will only outline here the conclusions relevant to park revenues.

The TDP ran five scenarios of tourism growth in the QNP, ranging from 7.5% to 17.5% annually, averaged over ten years. While the TDP extends its projections only as far as 2017, the plan was developed before the global economic crisis, which has set back the growth in numbers approximately 2-3 years. As a result, this business plan uses an adjusted start year of 2008 rather than 2006. This is compatible with what has been observed in reality, with tourist numbers remaining stagnant during this period. The TDP is therefore used as an appropriate ten year approximation of expected future trends, and the medium projection forms the basis for this business plan's calculations.



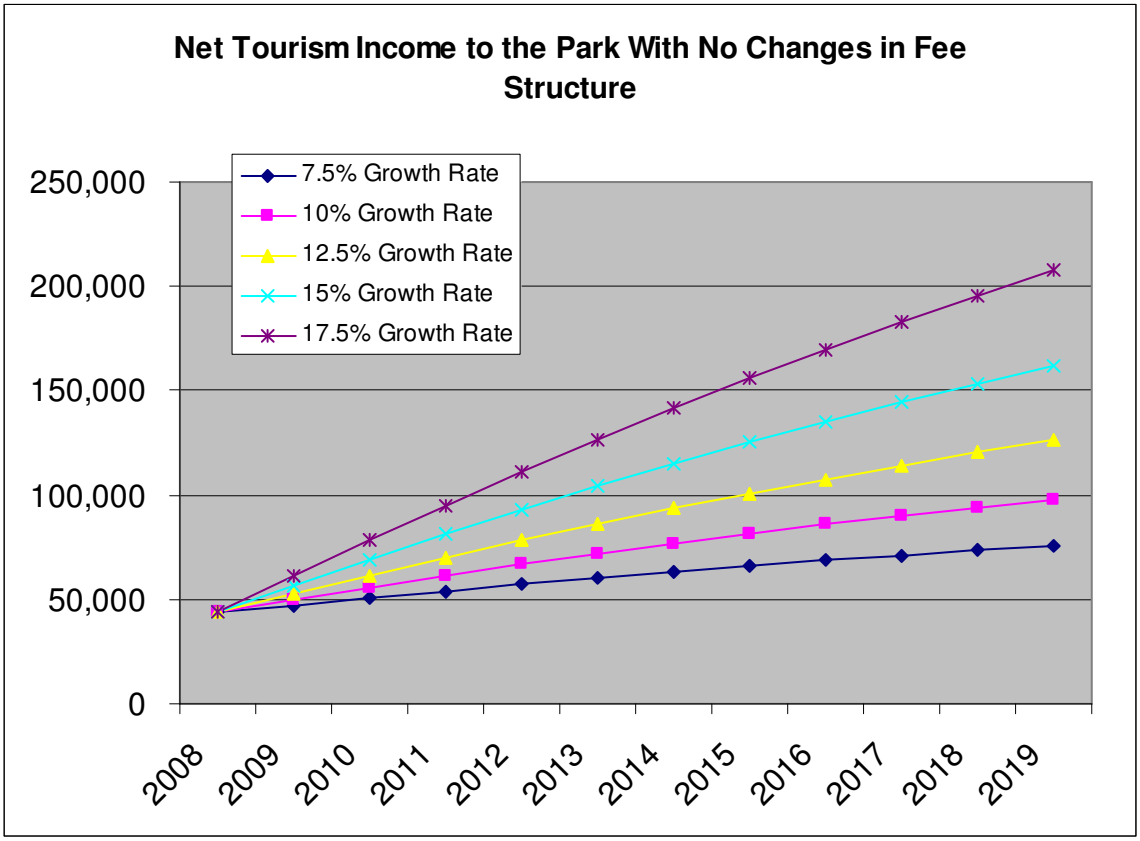
A key contribution of the TDP was to demonstrate that tourism demand must drive supply. As a result, it is growth in tourist numbers that should drive the phased opening of new concessions, and the corresponding increase in bed numbers in the park.



These numbers are the key basis upon which revenue figures for the QNP should be projected. As noted above, tourist revenue at the present time comes principally from concessions, and then from tourist entry and activity fees.

6.2.1.2. Park Fees – Projections and Possibilities

The implications of these scenarios are as follows. With a gradual increase of tourist numbers and a corresponding increase in bed numbers and new concessions, using the TDP and current revenues as a guide, net QNP revenues are expected to increase from USD $43,642 in 2008 to between $75,826 and $208,210 in 2019, with an expected value (medium scenario) of $126,088.



Net Tourism Revenue with no changes in fee structures (USD) – selected years						
	2009	**2011**	**2013**	**2015**	**2017**	**2019**
7.5% Growth Rate	47,265	54,076	60,325	66,028	71,194	75,826
10% Growth Rate	49,763	61,294	71,869	81,470	90,075	97,654
12.5% Growth Rate	52,848	70,231	86,248	100,902	114,185	126,088
15% Growth Rate	56,666	81,274	104,037	125,023	144,282	161,850
17.5% Growth Rate	61,485	95,244	126,635	155,838	182,993	208,210

It is important to remember that given the current legal framework discussed above this is 64% of the park's actual revenue collection. Under the medium case scenario (12.5% growth), the park's net revenues represent just 7.7% of the expected minimum operating costs in 2019 as calculated above.

6.2.1.3. Increasing Park Fee Revenues

The obvious conclusion is that park fees must also be altered. Decree 27/2003 provides that the Ministry of Tourism can periodically review the current fee schedule together with the Ministry of Finance. There are at present no guidelines on how this should be done and on what basis the fees may be reviewed. In this section we will discuss a number of new methods that could be introduced to increase the amount gained from tourism by the park.

A key aspect to keep in mind is the willingness to pay of the ultimate consumer, the tourist. Attempts to raise money by increasing fees significantly above this level will create resentment and deter further visitors, having thus a counter productive effect on overall revenues. One way to initiate the fee reviews is therefore to try and carry out 'willingness to pay' surveys amongst current tourists. This could provide a useful basis for thinking about the issue.

Indexing for Inflation

Indexing the fees to inflation would be an obvious first step. Were the fee schedule to be revised, taking into consideration the actual dollar inflation rate since 2003, and then using our estimate of 4% annually for the future, the total net amount of revenue in 2019 could reach $307,250, representing approximately 19% of operating costs. This is particularly important for the concession fees, which in many places are set at very low levels.

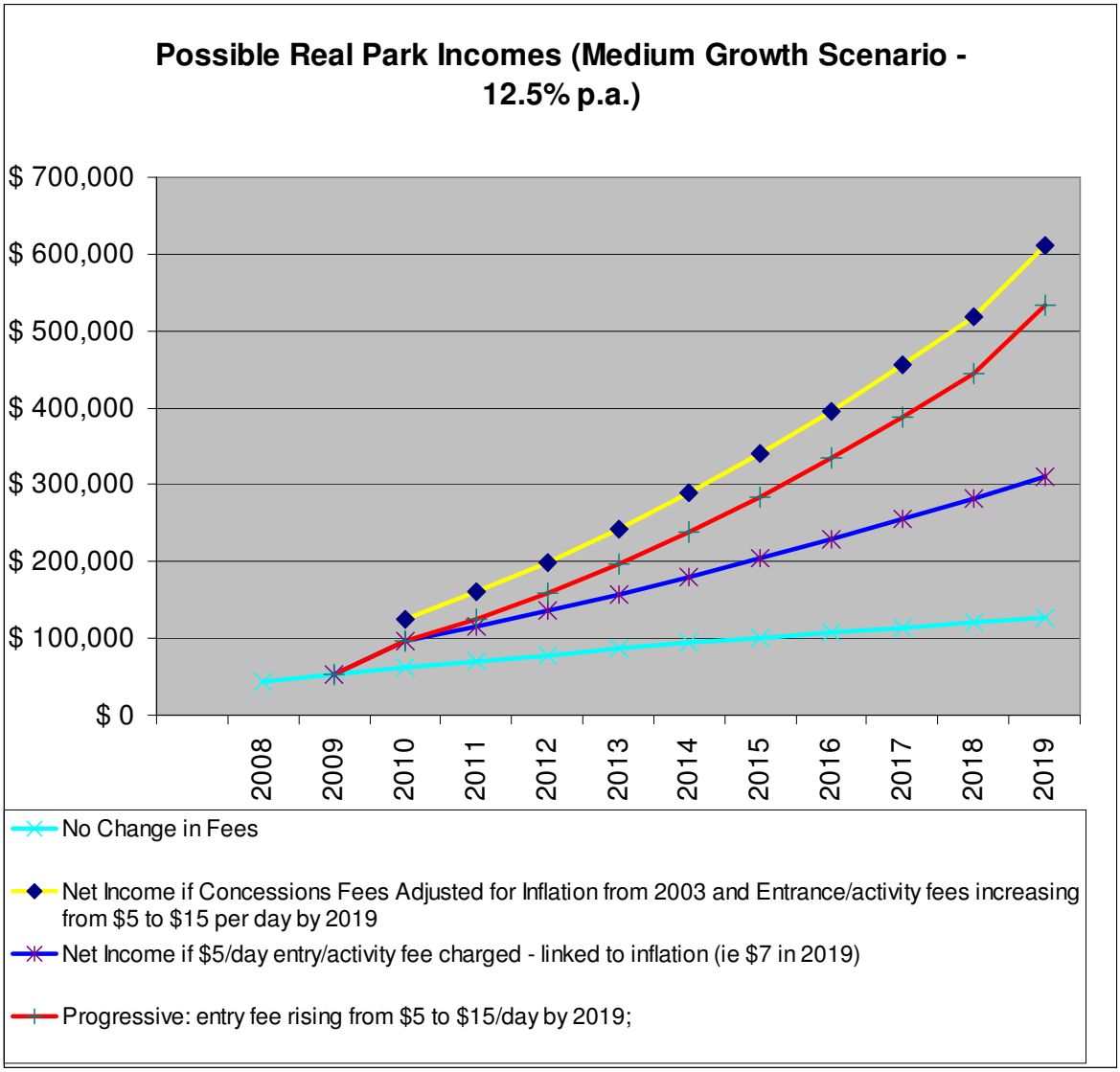
Auctions for New Concessions

The park's Tourism Development Plan, sets out the mechanisms by which all future tourism concessions could be auctioned, with the value of the concession fee being one of the determining factors. This would allow for prime sites like the islands and beachfront to better reflect their true value, with much higher taxes than the current $40/ha. Concessions in the interior would be lower than the current $40/ha rate, but would be much larger areas, probably also resulting in a larger end value being earned by the park. This would not be a complete innovation for Mozambique, as auctioning of concessions is already taking place in Gorongosa National Park, the Maputo Special Elephant Reserve, the Niassa Reserve and elsewhere. Since no data exists on the value of concessions in the park, any projection of increased value is purely speculative. However, it should be expected that prime tourism sites could achieve many times their present value if properly auctioned.

Modifying the Fee Schedule – Daily Fees

The second type of fees that are presently inadequately being applied are the activity fees. Operators have complained that the long and complicated list of fees is hard to apply and difficult to explain to guests. As a result, these fees are not being charged in a consistent manner. There are various ways to address this issue. One is to increase efforts of monitoring of the hotels and the application of fines for non-compliance.

A simpler method is to reduce entrance and activity fees to a single flat rate fee, but charge it on a ***daily*** basis. Indexed to inflation, this kind of fee could make a substantial difference to park revenues without an added bureaucratic burden. If the rate were to start at $5 /day, within 10 years, the park would be covering 12% of minimum operating costs from this source alone. Were the rate fixed at $10/day, it would cover 24% of operating costs in 2019. A $5/day fee would probably be an acceptable level for both operators and tourists for immediate introduction. This rate could then raised gradually (at a rate slightly higher than inflation – e.g. $1/yr until the $10/day equivalent level was reached.



NB. Using tourist bed-night numbers predicted under the TDP Medium Case scenario.

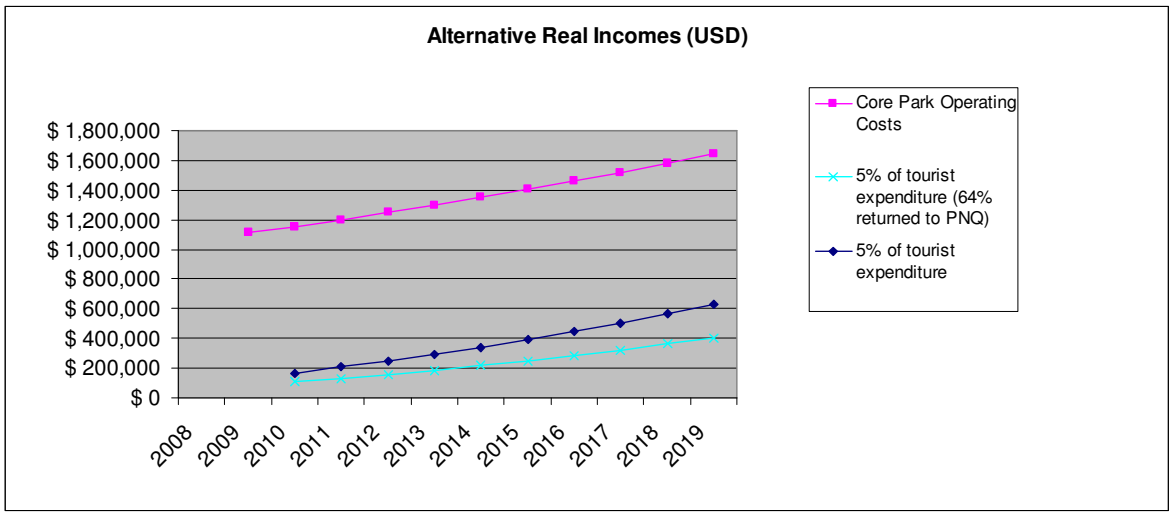
Additional Voluntary Fees

Another mechanism for increasing park revenue from tourism could be the application of voluntary fees. This concept has been broached by the park with operators with regard to community development fees, where the proposal has been to apply a percentage increase (e.g. 5%) to each client's bill, which would then be dedicated to community development in the park. This amount would be added by default to the bill, but could be refused by the client if so desired.

The potential benefit of this is quite large[1]. As the chart below illustrates, this could potentially raise over 19% of park minimum operating costs by 2019, which should

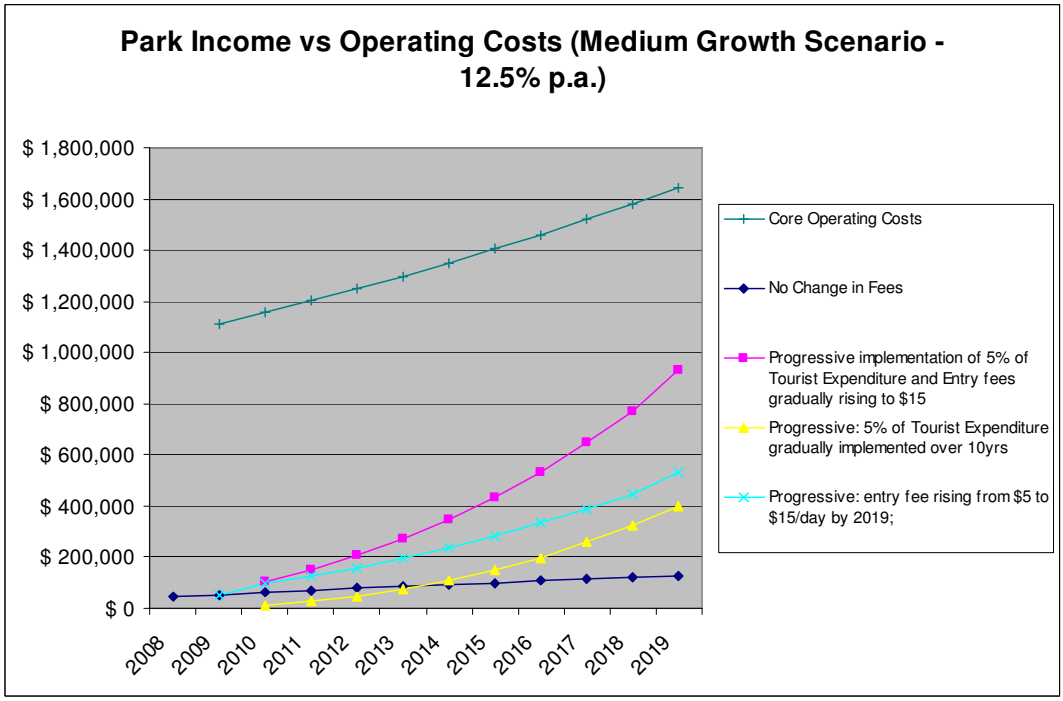
[1] Since good data here are still scarce, the following assumptions apply:
- Bed nights are distributed roughly 78:22 in high end and low end establishments (TDP estimate)
- Expenditures per night per tourist is $250 in high end and $50 in low end accommodation (estimate based on current room rates)

cover the entire costs of the community development department. As a voluntary fee, there could be possibilities to channel part of the funds directly to community programs, avoiding the redistribution fees and increasing the value of this mechanism.[2]



Conclusions

Taken together, there is clearly significant unrealized potential in developing new fee mechanisms that could increase park revenue. Adjusting concessions, changing the fees to a daily flat rate, and asking for voluntary contributions could push the total contribution of tourism to more than 60% of park operating costs. However, for this to happen, several key steps must be carried out. These are outlined in section 7.



- Inflation has been factored into these processes at 4% for USD rates (as for all other projections in this document)
- 90% of tourists pay the voluntary fee

[2] Decree 15/2009 specifically refers to the fee schedule in place (Decree 27/2003), leaving open the question of whether the breakdown would be applied to all revenue.

6.2.1.4. Other Tourism – Based Revenue

There are several other minor sources of revenue from the park to be derived from tourism. While none hold the promise of substantial benefits, they are each a small part of the overall strategy. These include activities such as the following:

- ***Merchandising of QNP products*** – This could be done in a profit-sharing manner with local community groups, adding revenue generation for both the park and local communities.
- ***Organization of Specialty Tourism*** - this is already being done by the park for certain specialty groups, particularly journalists and research groups. Partnerships are being developed with some universities abroad that could bring larger numbers of groups to the park on a regular basis in the pursuit of what is known as SAVE tourism (Scientific, Adventure, Volunteer and Educational). The key aspect from a revenue generation perspective is to ensure that not only are all direct costs (fuel, personnel time, materials, accommodation, etc.) adequately costed and covered, but that a markup of perhaps 25% is added to allow the QNP to turn these visits into revenue generating mechanisms.

6.2.2. Non-Tourism Own Revenue (new and innovative sources)

Along with tourism revenue, the park must broaden its revenue base beyond tourism to attain financial sustainability. This section examines a few of the most likely potential options, and then lists several other possible options.

6.2.2.1. Current Non-Tourist Revenue

Currently the park has three sources of revenue that are not related to tourism. These include fines, sales of confiscated materials, and a certain number of non-tourist concessions that predate the park's creation.

Fines

Fines applied to illegal activities in the park are paid to the Provincial Directorate of Finances. 50% of the value of the fine is returned to those involved in the arrest of the transgressor, and the other 50% goes to general state revenues. As a result, no part of the fine's value can be used to cover operating costs, even those costs are directly associated with the arrest in question.

Sales of Confiscated Materials

Under Mozambican Forestry law, articles involved in an illegal operation should revert to the state. However, in practice, once the fine has been paid, the articles are usually returned to their previous owner (except for illegally cut wood, which the park retains). These articles should legally be sold at public auction, and funds acquired should be treated as park revenue and be subject to the same procedures as other revenue. Regardless, since the objective of the park is to reduce illegal activities to a minimum, this should not be considered a significant nor sustainable source of revenue for the future.

Non-Tourism Concessions

Currently there are approximately 30 concessions for non tourist activities in the QNP. Most were issued before the park's creation, or in the early years before there was an effective park presence. The park is collecting yearly fees for these concessions, but since the values are so low (much less than a dollar per hectare for agricultural concessions for example), this does not represent a significant source of revenue.

However, licensing certain activities in the park and its buffer zone might provide a more substantial source of revenue. Some (carbon, fractional ownership) are discussed below, but there are other activities too. One of the key issues to resolve is the status of the buffer zone. Jurisdiction of the buffer zone is not clearly spelled out in existing legislation – a problem that is compounded by the fact that the QNP buffer zone was declared in a document issued by the Minister of Tourism rather than at the level of the Council of Ministers, reducing its legal force.

Current activities in the buffer zone include forestry concessions and hunting concessions, both of which produce a reasonable amount of revenue for the state. Just one of the forestry concessions in the buffer zone would pay over 80,000 USD to the state annually if it cut the amount foreseen in its management plan. At the moment, these values are received by the Provincial Directorate of Agriculture, with no share being given to the park.

6.2.2.2. Foundation for Conservation and Biodiversity (BIOFUND)

In 2009, a project to establish a Foundation for Mozambique's Conservation Areas was initiated, as a local Conservation Trust Funds (CTF), to be known as the Foundation for Conservation and Biodiversity (BIOFUND). CTFs are private, legally independent grant-making institutions that provide sustainable financing for biodiversity conservation and often finance part of the long-term management costs of a country's protected area system. They are public-private partnerships that can serve as an effective means for mobilizing large amounts of additional funding for biodiversity conservation from international donors, national governments and the private sector[3].

While BIOFUND is still in its infancy, there are expectations that in time it will develop into a useful provider of funds for conservation areas. While in no way expected to be capable of covering the entire funding gap of the QNP, it is hoped that within the 10 year time frame of this business plan it could provide funds to cover perhaps 20-25% of minimum operating costs. This could possibly be achieved by a Trust Fund with a capitalization of around 60-75 million dollars in 2020.[4] Many trust funds have achieved such levels of capital, however it is still too early to state with confidence that Mozambique will be a similar case.

[3] Conservation Finance Alliance (CFA). 2008. *Rapid Review of Conservation Trust Funds.* Prepared for the CFA Working Group on Environmental Funds by Barry Spergel and Philippe Taïeb.

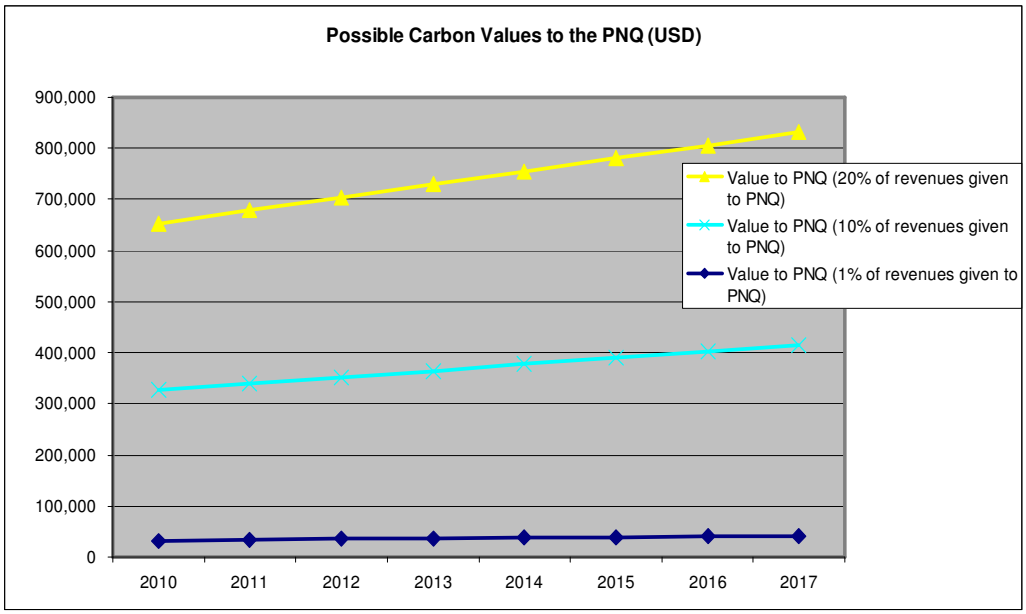
[4] Based on a 5% return on capital and a rough estimate of 10 million dollars as the minimum operating costs of the PA system in 2009.

6.2.2.3. Carbon Sequestration

Another potentially important source of funds is carbon sequestration. While also still a source in its infancy, the potential value of the carbon in the park's area is considerable. A recent study, drawing on available data, estimated the Net Present Value of carbon stocks at 7.6 million USD, with an annual value to producers of approximately 2.1 million USD in ten years time[5]. The one current carbon producer in the park actually estimates this value to be five times higher than this.

At the present time, none of the values produced by carbon sequestration are gained by park administration. However, this is such a substantial potential source of funds that in the future the park must actively and aggressively pursue this option.

The park's gain from this value should be based on a percentage of value. The figure below projects a hypothetical gain to the park of revenue sharing where 20%, 10%, or 1% of total carbon value is given to the park (subject of course to Decree 15/2009 where only 64% of this revenue is actually returned to the park itself).



This graph illustrates that a 20% revenue retention by the park would generate $832,000 in annual revenue, making this a very lucrative endeavour for the park. While these values are largely speculative at this point, the potential value of this source warrants a great deal of attention at both the park management and national levels, and pilot initiatives must be implemented to begin to take advantage of this source of funds.

The actual mechanisms by which this value is retained by the park are varied. At the present time we can identify at least four different ways in which the park could benefit:

1. Revenue sharing contract with existing carbon operator

[5] Catherine Gabrie, Héloïse You, Jean Roger Mercier. Development Programme for the Quirimbas National Park in Mozambique - Capitalisation Report. December 2008.

2. Auctioning off the carbon potential of the total protection blocks to new investors, with revenue sharing as a compulsory element.
3. Direct benefits from carbon financing though a national REDD mechanism.
4. Direct benefits by running their own carbon projects.

It is suggested that due to the specialized skills involved and the extensive management required, options one and two are preferable, with option two being the most transparent and probably the most lucrative, using a market mechanism to establish the best offers available in this new market. Concessions should be given for a reasonable time period, say 15-20 years, with mechanisms for re-negotiation as the economic conditions for the carbon market evolve.

6.2.2.4. Fractional Ownership

Fractional ownership (timeshare), based on the new law 39/2007, is a further potential source of funding for the park and protected areas in general. The mechanism by which this would benefit the park is that fractional ownership developments (which would be placed mostly in the southern buffer zone, close to the Provincial capital with good water access), would include as a prerequisite for approval an annual fee to be paid to the park.

This mechanism has yet to be explored in detail anywhere in Mozambique, so projections of possible revenue are impossible at this time. However, this potential source of revenue is worth investigating. Given the time required, and issues of obtaining land title in Mozambique, a cost-benefit feasibility study should be carried out, and the results should be carefully analysed before moving forward.

6.2.2.5. Biodiversity Offsets

The final funding mechanism to be investigated individually in this business plan is that of biodiversity offsets. These are actions undertaken by companies or governments to ensure that development need not be at the expense of biodiversity. "Biodiversity offsets are measurable conservation outcomes resulting from actions designed to compensate for significant residual adverse biodiversity impacts arising from project development after appropriate prevention and mitigation measures have been taken. The goal of biodiversity offsets is to achieve no net loss and preferably a net gain of biodiversity on the ground…

Banks are increasingly including biodiversity offsets in their loan conditions, and more companies see that voluntary biodiversity offsets make business sense and are using them as a means to secure good working relationships with communities and government authorities." [6]

This is particularly relevant for the QNP as it is presently surrounded by 7 concession areas for petroleum exploration being managed by five different operators. While prospects are still being investigated, companies have publicly stated their beliefs that a

[6] Business and Biodiversity Offsets Programme (BBOP). 2009. Business, Biodiversity Offsets and BBOP: An Overview. BBOP, Washington, D.C.

multi-billion barrel potential exists.[7] Were this to be the case, there would be strong arguments for requesting contributions to 'biodiversity offsets' in the Quirimbas National Park area.

6.2.2.6. Other Potential Sources of Revenue

Besides the obviously relevant sources explored in more detail above, there exist a vast range of sustainable financing mechanisms that have been used in various protected areas internationally. While none seem to have the potential of the sources listed above, they should continue to be considered as potential sources in the medium and longer term, and should be kept in mind in the search for financial sustainability.

These mechanisms include:

- Payments for Ecosystem Services
- Bio prospecting
- Earmarked green taxes or fees (for hotels/visas/airlines)
- Real estate and development rights
- Public-good service payments
- Climate adaptation funds for Protected Areas
- Corporate donations
- Individual donations
- Site memberships and "friends" schemes
- Partnership with private sector entities

6.2.3. Government Contributions

Government support for the QNP must come in at least three different forms:

1. Facilitating the return of own revenues to the park
2. Facilitating new forms of revenue collection
3. Ensuring direct state support to the park

It is evident that unless the first two forms of support are forthcoming, few of the mechanisms discussed above will be viable. MITUR must therefore be prepared to facilitate these processes.

Regarding direct support, government contributions to the QNP have already been substantial. As described above, in the past two years, the state has provided approximately 210,000 USD per year to the park for non-investment costs, representing about 19% of the minimum operating costs calculated above.

However, given donor restraints, this value needs to increase over the next few years to guarantee the park's functioning in the long term.

Looking forward, using the support received in 2008 and 2009 as the base, a few projections can be made based on different assumptions, as follows:

[7] Anadarko Investor Conference 2009.

Direct Government Support (USD)	2009	2011	2013	2015	2017	2019	% of Core Operating Costs in 2009	% of Ideal Operating Costs in 2019
Government Operating Costs Contribution Stable	212,303	212,303	212,303	212,303	212,303	212,303	19%	13%
Government Operating Support Rises with Inflation	212,303	229,627	248,364	268,631	290,551	314,260	19%	19%
Government Operating Support rises by a fixed 10% per year	212,303	256,886	310,833	376,107	455,090	550,659	19%	33%
Government Operating Support rises by a fixed 15% per year	212,303	280,770	371,319	491,069	649,439	858,883	19%	52.2%

Government support is a key aspect in financial sustainability, and it is possible to achieve a substantial portion of minimum operating costs through rising government support to the park. While this may seem unlikely, the park system in Mozambique, as elsewhere, is a large source of revenue for the country, and investments in conservation generally have a high rate of return compared to other similar activities. It is important that this be recognized and rewarded. Park and MITUR lobbying is essential for this to happen.

6.2.4. Donor Support

While the long term goal for the park is to wean itself from dependency on donor funds, this will require that most, if not all of the mechanisms outlined here are fully exploited. This process will take time and needs to be adequately supported.

The role for donor funding should be seen therefore as the following:

1. Support and advocacy for the establishment of the sustainable financing mechanisms outlined above.
2. Direct support for some sustainable financing mechanisms (eg BIOFUND).
3. Support for operating expenditures during the initial period while sustainable financing mechanisms are being set up.
4. Support for initial park investments.
5. Support for additional/desirable programs beyond the scope of available financing.

6.2.5. Partnerships

The final area to consider in the process of developing sustainable financing is that of partnerships. Through a judicious strategy of developing key partnerships, many of the park's operational costs can be contained or even reduced.

Key partners of the park include district governments, other governmental agencies at the provincial level, communities, tourism operators, other private sector actors, NGOs, and research institutions. Each of these sectors has a role to play in cooperation with the park on operational issues. However, the potential of certain stakeholders to

significantly contribute to the implementation of the QNP management plan (and thereby reduce direct costs to the park) must be investigated and elaborated in specific agreements, wherever possible in written MOUs.

Partnerships can also be explored for raising revenues. Examples of this are institutional partnerships with zoos, research institutions, training facilities, educational institutions, and so on. For both the park and the national level these possibilities should be carefully explored.

7. Strategies for Financial Sustainability

7.1. Is Sustainability Possible?

There are a large number of sustainable financing mechanisms available to the QNP, some of which are based on predictable assumptions such as tourist numbers, and others which are more speculative.

This analysis contains the possible implications of just four mechanisms: Tourism Fees, Trust Fund, Carbon Sequestration and Government Support.

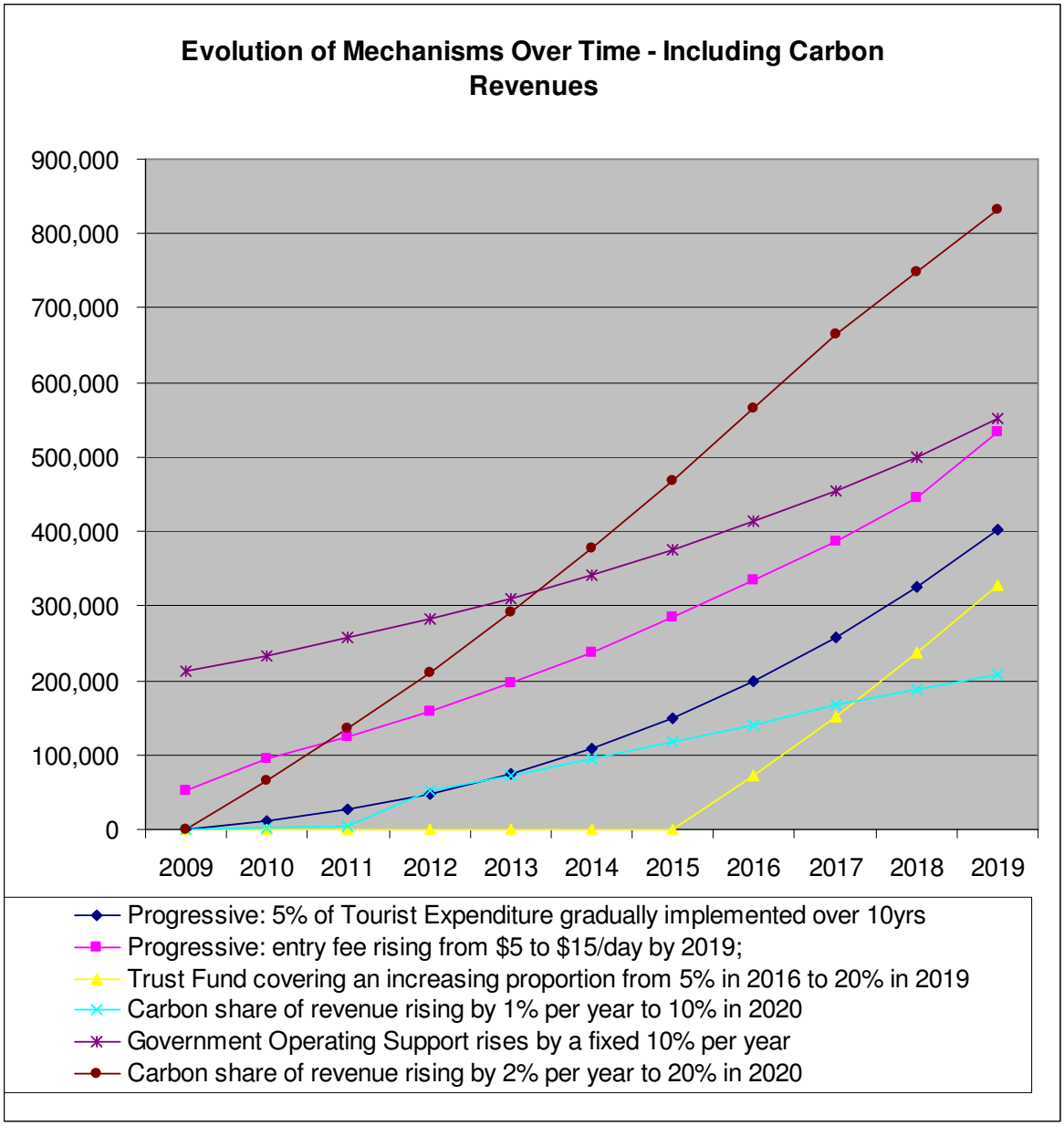
To make some projections, the following base assumptions apply:

1. Tourism growth will follow the medium path projection made in the TDP of 12.5% annual growth.
2. MITUR will permit both the revision of current fees and the application of additional fees.
3. A Conservation Trust Fund will be established and capitalized.
4. International and national conditions continue to exist to promote the carbon market in Mozambique.

Under these assumptions, while no single mechanism can completely cover costs, each of them can provide a very useful source of revenue for the future.

Rank	Individual Mechanisms	2011	2015	2019	% of Core Op. Costs (2019)	% of Ideal Op Costs (2019)
1	Government Operating Support rises by a fixed 15% per year	280,770	491,069	858,883	52.2%	31.1%
2	Carbon Value to PNQ (20% of revenues given to PNQ)	678,400	780,800	832,000	50.6%	30.2%
3	Net Income if Concessions Fees Adjusted for Inflation from 2003 and Entrance/activity fees increasing from $5 to $15 per day by 2019	160,302	340,891	611,253	37.2%	22.2%
4	Government Operating Support rises by a fixed 10% per year	256,886	376,107	550,659	33.5%	20.0%
5	Progressive: entry fee rising from $5 to $15/day by 2019;	125,274	284,463	532,723	32.4%	19.3%
6	Net Income if $10/day entry/activity fee charged - (linked to inflation-ie $14 in 2019)	181,068	328,924	511,126	31.1%	18.5%
7	Carbon Value to PNQ (10% of revenues given to PNQ)	339,200	390,400	416,000	25.3%	15.1%
8	BIOFUND - 25% Of Minimum Operating Costs	300,282	351,288	410,957	25.0%	14.9%
9	5% of tourist expenditure (64% returned to PNQ)	132,224	250,337	401,899	24.4%	14.6%
10	BIOFUND - 20% Of Minimum Operating Costs	240,226	281,030	328,765	20.0%	11.9%
11	Government Operating Support Rises with Inflation	229,627	268,631	314,260	19.1%	11.4%
12	Net Income if $5/day entry/activity fee charged - linked to inflation (ie $7 in 2019)	115,130	204,085	310,706	18.9%	11.3%
13	Government Operating Costs Contribution Stable	212,303	212,303	212,303	12.9%	7.7%
14	Carbon share of revenue rising by 1% per year to 10% in 2020	3,392	117,120	208,000	12.7%	7.5%
15	No Change in Fees	70,231	100,902	126,088	7.7%	4.6%
16	Carbon Value to PNQ (1% of revenues given to PNQ)	33,920	39,040	41,600	2.5%	1.5%

What is key to observe in this chart is the **relative** potential value of the various mechanisms explored in detail. This enables us to do a ranking of the importance of each mechanism, and therefore to prioritise which of the various financial planning strategies to pursue first. At the same time it is important to keep in mind that not all the various mechanisms have the same likelihood to succeed. Park management has many competing demands on their time, and it is vital to focus on those revenue generation avenues that have both the most potential impact and the highest probability for success.



We can therefore pick out the key priorities for the park to pursue. Looking at the chart and the graph together, several conclusions are evident:

- Government. Perhaps surprisingly, the single largest potential source of revenue for the park lies in annual increases to the contribution made by the state general budget. At the present time this source is not being given

enough attention, and a concerted lobbying effort is required to push for these regular increases to occur. The productiona dn public dissemination of appropriate and relevant economic data on the value of the park and the rate of return to the province and the country of investing in conservation areas should therefore be one of the highest priorities for the park.

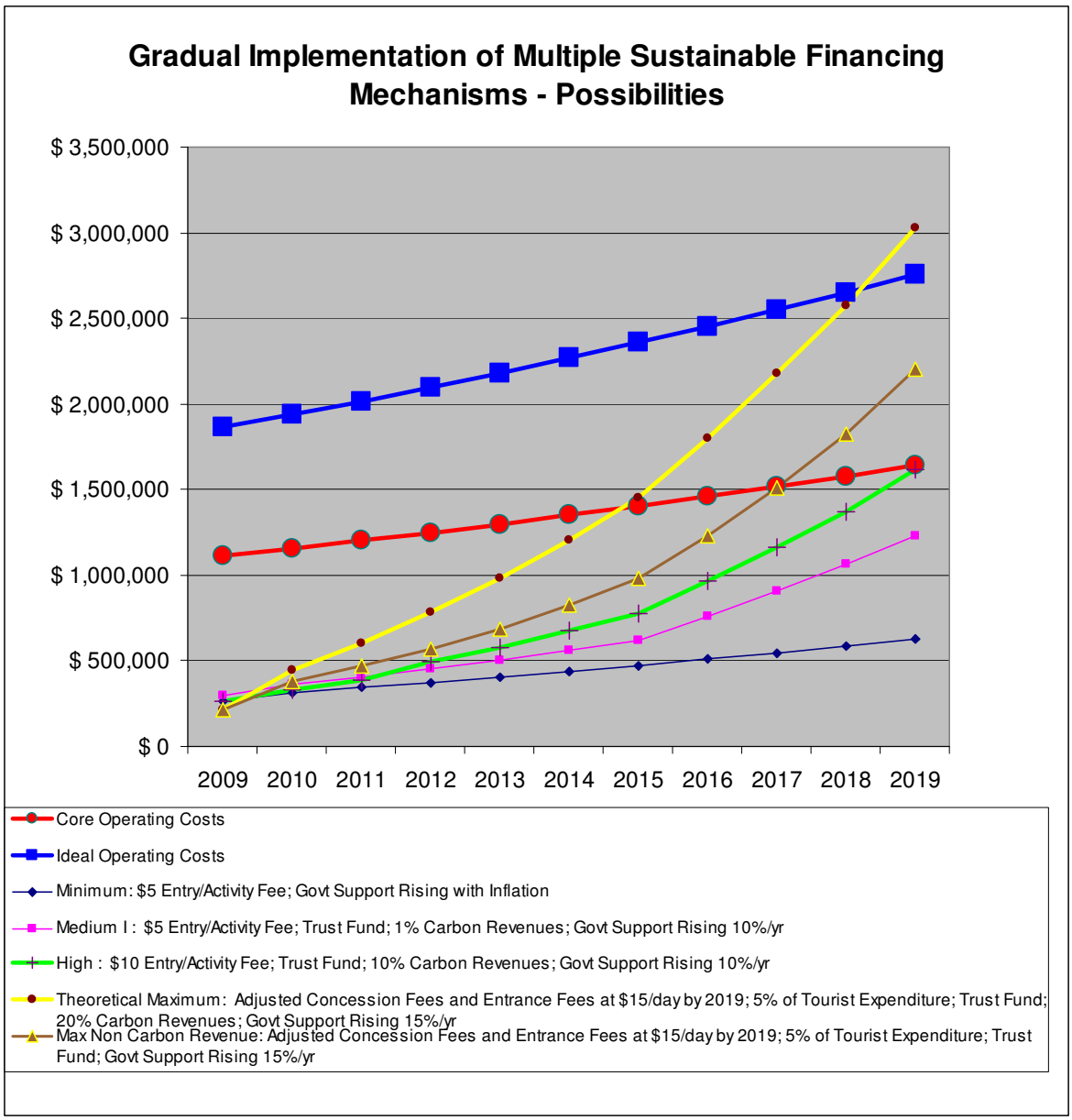
- Carbon. Although it has the second highest potential value, it also has the lowest potential value of the mechanisms examined, depending on the amounts that will be actually attained and how much will be retained by the park. Pursuing Carbon revenues is therefore a highly risky strategy, and while it may provide very large amounts of revenue, it also could end up as only a minor contributor to park coffers. Much of the regulatory and contractual framework for future partnerships will be done at the national (and international) level, and thus while the park should accompany and try to influence the process as much as possible, it should not be the primary focus of their financial sustainability strategy. Rather, the focus should be on developing solid revenue-sharing agreements with current and potential investors.
- Tourism Fees. It is obviously critical that concession fees be reviewed as soon as possible. It is also clear that a simple change from the complex series of entry and activity fees to a flat rate daily fee would significantly increase revenues immediately. The new fees must have a planned growth rate to keep up with inflation, and must be flexible enough to allow each park to develop new fee mechanisms, such as the 5% optional levy discussed here. This also can be sent to have significant potential, and should be actively pursued.
- BIOFUND Foundation (Trust Fund). While this could obviously be an important element in the overall sustainable financing plan, the park itself will have little impact on either its capitalization or its institutional development. The QNP should therefore devote very little of its management time to pursuing this initiative, although it should retain awareness of its progress and potential.

We can see then that there are a number of strategies that the park can and should pursue to achieve the goal of being financially sustainable in ten years' time. On the other hand, even the most promising of the single issue strategies outlined above will not permit the park to become sustainable on its own. In order therefore to realise its goal, the park must adopt a multi-pronged strategy and combine a number of different mechanisms together. The advantages of so doing include not only a significantly increased probability of meeting the sustainability goal, but also provides for more flexibility in the face of unforeseen future developments, allows for less dependence on any one source, and develops a series of skills within the park administration to permit it to take advantage of the many opportunities that arise.

Combined, these various mechanisms can indeed provide financial sustainability for the park, as seen by the figures below.

Rank	Combination Possibilities	2011	2015	2019	% of Base Op Costs (2019)	% of Ideal Op Costs (2019)
1	Theoretical Maximum: Adjusted Concession Fees and Entrance Fees at $15/day by 2019; 5% of Tourist Expenditure; Trust Fund; 20% Carbon Revenues; Govt Support Rising 15%/yr	603,197	1,450,642	3,032,801	184.5%	109.9%
2	Very High: $10 Entry/Activity Fee; 5% of Tourist Expenditure; Trust Fund; 20% Carbon Revenues; Govt Support Rising 15%/yr	1,512,688	2,132,160	2,932,674	178.4%	106.3%
3	Max Non Carbon Revenue: Adjusted Concession Fees and Entrance Fees at $15/day by 2019; 5% of Tourist Expenditure; Trust Fund; Govt Support Rising 15%/yr	467,517	982,162	2,200,801	133.9%	79.8%
4	High : $10 Entry/Activity Fee; Trust Fund; 10% Carbon Revenues; Govt Support Rising 10%/yr	1,017,380	1,376,461	1,806,550	109.9%	65.5%
5	High : $10 Entry/Activity Fee; Trust Fund; 10% Carbon Revenues; Govt Support Rising 10%/yr	385,553	777,690	1,620,148	98.6%	58.7%
6	Medium II : $10 Entry/Activity Fee; 5% of Tourist Expenditure; Trust Fund; 1% Carbon Revenues; Govt Support Rising with Inflation	415,266	742,336	1,619,248	98.5%	58.7%
7	Medium II : $10 Entry/Activity Fee; 5% of Tourist Expenditure; Trust Fund; 1% Carbon Revenues; Govt Support Rising with Inflation	817,065	1,167,961	1,597,651	97.2%	57.9%
8	Medium III : $10 Entry/Activity Fee; Trust Fund; 10% Carbon Revenues; Govt Support Rising with Inflation	990,120	1,268,984	1,570,151	95.5%	56.9%
9	Medium III : $10 Entry/Activity Fee; Trust Fund; 10% Carbon Revenues; Govt Support Rising with Inflation	358,293	670,214	1,383,749	84.2%	50.1%
10	Medium I : $5 Entry/Activity Fee; Trust Fund; 1% Carbon Revenues; Govt Support Rising 10%/yr	646,162	900,262	1,231,730	74.9%	44.6%
11	Medium I : $5 Entry/Activity Fee; Trust Fund; 1% Carbon Revenues; Govt Support Rising 10%/yr	405,936	619,232	1,231,730	74.9%	44.6%
12	Minimum: $5 Entry/Activity Fee; Govt Support Rising with Inflation	344,757	472,716	624,966	38.0%	22.7%
13	Minimum: $5 Entry/Activity Fee; Govt Support Rising with Inflation	344,757	472,716	624,966	38.0%	22.7%

Implementing several of the mechanisms described above make it not only possible to reach the goal of covering all the park's minimum operating costs, but could under some scenarios cover all the additional costs as well, and perhaps more. Even if carbon revenues are completely removed from the equation, financial sustainability is still possible, though this would rely on the maximum implementation of the other sources.



7.2. The Way Forward

The graph and charts presented in the previous section do not only show that financial sustainability is possible, but also clearly demonstrate that unless changes are made in the way revenues are currently generated, these more optimistic scenarios will not occur.

The experience in Mozambique (and often elsewhere) is that Protected Area Business Plans are produced at certain intervals to satisfy the external demands of donors, but are then neither used nor referred to on a regular basis. Projections and recommendations are made and then generally ignored.

This is the justification for an active stance on the part of the QNP and MITUR in developing and pursuing the various options. Without action, it is more than likely that the park will remain on the lowest curves presented above, and financial sustainability will be merely a slogan.

In order to prevent this, it is important that some steps be outlined as to how these various mechanisms should be introduced.

The following chart sets out some specific actions to be undertaken. The plan includes not only the primary four mechanisms discussed in great detail above, but also the alternatives which at the present time do not have enough data to allow us to make specific numeric predictions. These could develop into more substantial sources and could also substitute for possible lower rates of return from the primary four sustainable funding sources.

For the purposes of the table, each source of funding has been given a series of suggested actions necessary to turn this source into a reality for the QNP.

Source	**Action**	**Responsible**
Government support	• Demonstrate the economic value to the province of the park's existence • Lobby to gradually increase government budget support • Lobby for gradually increasing numbers of staff to be placed on the state payroll	QNP Research and Tourism Departments QNP Administration and DNAC QNP Administration and DNAC
Tourism Revenues	• Discuss with tourist operators and develop a proposal to DNAC on a revised fee schedule including a daily rate of at least 5 USD /pp /day • Submit to DNAC for approval • Develop MOUs with operators about the implementation of a 5% voluntary fee for community development • Develop tender procedures for the auctioning of new concessions • Suggest revision of concession fees for existing concessions using actual inflation rates since 2003 • Conduct 'willingness to pay' surveys in the PNQ to guide fee revision	QNP Tourism Department and QNP Administration, DNAC
Carbon Sequestration	• Carry out baselines of carbon potential • Develop Tender procedures for	QNP Research Department QNP Administration and

	carbon projects, including minimum percentages for the QNP rising over time • Work with national level to facilitate REDD carbon revenues for parks • Lobby for carbon revenues to be devoted directly to park management	Research Department QNP Administration and DNAC
BIOFUND (Trust Fund)	• Lobby for the acceptance and formal register of the Conservation Trust Fund by the Council of Ministers • Develop proposals to capitalize and support the Trust Fund operations	DNAC DNAC, Trust Fund Board and Administration
Merchandising	• Develop in cooperation with tourist operators and communities products for sale to the tourism market	QNP Tourism and Community Development Departments
Specialty Tourism Organization	• Ensure that proper costing of special tourist groups is carried out • Increase and publicise services the park can carry out in this field	QNP Tourism and Administration/Finance Departments
Partnerships	• Assess the potential economic value of potential partnerships • Negotiate MOUs with key partners identified	QNP Administration/Finance Department QNP Community Development Department
Donor Funding	• Continue cultivating relationships with existing donors • Develop contacts and relationships with new potential donors	QNP Administration QNP Administration
Non-Tourism DUATS	• Lobby DNAC for the emission of a new fee schedule including non-tourism land rights • Work with Ministry of Agriculture to share revenues from tourism and non-tourism concessions in the buffer zone	QNP Administration, DPTur, DNAC, MinAg
Biodiversity Offsets	• Lobby MICOA and INP to include biodiversity offsets as part of general compensation procedures for all Environmental Impact Assessments • Engage with oil/gas companies on responsible exploration and	QNP Administration and DNAC QNP Administration and DNAC, Environmental NGOs

	corporate environmental responsibility, particularly in regard to biodiversity offsets	
Fractional Ownership	• Carry out feasibility study on fractional ownership potential	Consultants
Others	• Basic feasibility assessments of other revenue generating mechanisms (PES, bio-prospecting, etc)	WWF

While the responsibilities listed here should be given to the various QNP Departments depending on the specific mechanism concerned, there needs to be one person or position identified to be the leader of sustainable financing efforts of the QNP, with clearly defined targets included in their terms of reference.

This role should be taken on in the next phase of donor-funded support by the technical assistance team, but for the longer term, we suggest that the key person should be the Head of the Tourism Department, as it is this area that is most closely aligned with revenue generation activities to date. Where other departments are involved (e.g. carbon), these should be incorporated into the strategy under the leadership of the Department of Tourism.

8. Conclusions

This document has been written for the management purpose of investigating various sustainable financing methods for the QNP and evaluating their potential impact. Four sources of revenue were examined in detail, those being Tourism, Carbon, Government Support and the BIOFUND.

The potential financial impact of each of these was examined, with the conclusion that while each of these has the potential to cover substantially more of the operating costs of the park than is currently the case, none of them on their own will cover all operational costs. As a result, a coordinated and multi-approach strategy must be developed.

If this is done, we conclude that financial independence from donor funding is achievable by 2019, but that this will not happen without an activist position by park administration. A series of specific recommendations are given in order to achieve this goal.

To integrate sustainable financing activities into day to day park operations, the Plan recommends that lead responsibility for sustainable financing in the park be assumed by the Head of the Tourism Department, in cooperation with technical assistance to be provided in the second phase of donor support for the QNP.

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