THE RESTORATION OF GORONGOSA NATIONAL PARK:

A PROJECT TO CONSERVE WILDLIFE WHILST ASSISTING IMPOVERISHED COMMUNITIES.

A Case Study Research Report

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by

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the international business school in Africa This report is not confidential. It may be used freely by the Graduate School of Business.

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I certify that except as noted above the report is my own work and all references used are accurately reported in the footnotes.

Signed:

Michael Yeats

THE RESTORATION OF GORONGOSA NATIONAL PARK, MOZAMBIQUE: A PROJECT TO CONSERVE WILDLIFE WHILE ASSISTING IMPOVERISHED COMMUNITIES.

ABSTRACT

The goals of conservation and those of poverty alleviation are deeply interwoven. In a world where the natural environment is increasingly under threat, conservation is an important driver in the protection of vulnerable wilderness areas, whilst having the potential to improve the lives of the poor.

These conservation areas may be important to richer, western societies, but in Africa tangible values such as jobs and economic growth are of the upmost importance. Eco-tourism has been proposed to developing countries as a solution to their environmental and economic challenges. It has superior prospects for economic growth, lower environmental impacts, and a more positive human development influence than any other industry.

This case study looks at the multifaceted restoration projected of Gorongosa National Park located in central Mozambique, North West of Beira. This unique project is driven by an American philanthropist Greg Carr who has committed his time, money and resources to this endeavour. The Carr Foundation has entered into a 20 year contract with the Mozambican Government to run and restore Gorongosa National Park. The aim is to hand back an economic and socially sustainable park.

KEYWORDS:Poverty Alleviation, Eco-tourism, Wildlife Conservation, Social
Transformation, Economic Growth, Financial Sustainability.

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I. THEORETICAL OVERVIEW

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1. CONSERVATION: WHY IS IT SO IMPORTANT?

Environmental conservation is often associated with trying to keep things untouched, by preserving ecosystems from human destruction. (Child, 2009) The desire to protect nature can be traced far back in history. However the conceptual rationale for conservation has evolved rapidly. (Child, 2009) Child explains that this is as a result of changes in economic and political circumstances, as well as our evolving scientific understanding of nature.

Conservation can be defined as:

"An approach that concerns the long-term viability of ecosystems within the context of resource and environmental management projects. Conservation involves a concept of protection that does not prevent humans from intervening in natural processes; it is rather a philosophy for managing the environment without resultant waste or depletion." (Leveque & Mounolou, 2003, p. 226)

In a world where the natural environment is increasingly under threat, conservation is an important driver in the protection of these vulnerable wilderness areas. Ferraro and Simpson (2002) maintain that intact ecosystems provide important global services, such as the regulation of climate and the protection of biodiversity.

The expansion of the agricultural frontier has put humans in direct conflict with wild animals and uncultivated landscapes. (Sanderson, 2005) This is supported by Child where he states that, "the political economy of park and wildlife conservation needs to adapt to a new globalised and commercialised world, especially to address poverty and political marginalization of parks and people living with wildlife." (Child, 2009, p. 12)

These natural environments are increasingly under threat as pro human development activities supersede those of conservation. This is supported by Sanderson who emphasises that water, harnessed by dams and canals, serves human activities and not natural ecosystems and their processes. Their construction for the betterment of human society has had dramatic effects on natural ecosystems. (Sanderson, 2005)

However, conservation does not need to be a one-sided affair and both wild life and communities can benefit from the relationship. There are a variety of approaches that yield both commercial outputs and ecosystem protection as joint products. (Ferraro & Simpson, 2002) Examples include ecotourism, biodiversity prospecting, non-timber forest product extraction and selective logging.

In the case of ecotourism this involves the use of relatively undisturbed ecosystems as inputs which are combined with purchased inputs such as capital and labour, to produce a valuable output, such as tourist excursions. (Ferraro & Simpson, 2002)

2. POVERTY: A GLOBAL PROBLEM

Chronic poverty is a varied and complex phenomenon. Poor people expend enormous amounts of energy in order to survive and in trying to better themselves and their children. But with few assets, little education and chronic ill health, their struggle is mostly futile. (Prowse et al., 2008) The millennium development goals strive to halve absolute poverty by 2015. However this would still leave around 800 million people living in absolute poverty. (Prowse et al., 2008)

"Poverty is not simply about having a low income: it is multidimensional deprivation hunger, under nutrition, dirty drinking water, illiteracy, having no access to health services, social isolation, and exploitation."

(Prowse et al., 2008, p. 7)

In an ever changing world globalisation is creating further obstacles for the poorest, as they are exposed to new and perhaps greater hazards such as the financial crises, economic restructuring, increasing food prices and global warming. (Prowse et al., 2008)

Correspondingly, the conviction has grown that strategies to address poverty need to incorporate a variety of objectives and actions if it is to be reduced permanently and the poor are to move beyond the poverty line. (Agrawal & Redford, 2006)

Prowse et al (2008) concludes that widespread chronic poverty occurs in a world that has the knowledge and resources to eradicate it and therefore argues that tackling chronic poverty should be the global priority for our generation.

3. CONSERVATION AND POVERTY: BRINGING THE TWO TOGETHER

Aligning the goals of conservation with the lives and needs of ordinary people is crucial. Child emphasises that when people live with wildlife and have formal rights to manage it, the combination has positive consequences. He therefore states that protected areas should ultimately serve the societies to which they belong, because if these societies value them, the benefit to global society will automatically follow. (Child, 2009)

Nature has assets that are crucial to human well-being alongside having significant economic value. Sanderson (2005) believes that it is a matter of great concern that large scale wildlife conservation takes place predominantly in heavily human inhabited ecosystems, where much is to be gained or lost. For it is in these areas that a great deal of the world's rural poverty and biodiversity can be found and therefore the goals of conservation and those of poverty alleviation are deeply interwoven. (Kareiva, 2010) This is supported by Sanderson (2005) where he states that the relationship between economic growth, rural development, poverty alleviation and the conservation of nature will influence the course of biodiversity in the coming decades.

Conserving the wilderness, outdoor recreation and public access may be important to richer, urban societies, but in Africa tangible values such as jobs and economic growth are of primary importance. (Child, 2009) However, Walpole and Wilder (2008) emphasize that conservation organizations have the potential to improve the lives of the poor in many places where they operate. Wood (2008) maintains that more than ever, tourism has superior prospects for economic growth, lower environmental impact, and more positive influence on human development than any other industries in the poorest nations. This is particularly the case in rural areas where persistent poverty has been difficult to address. Walpole and Wilder (2008) argue that conservation organisations in these areas have a duty to ensure that conservation does not make the poor worse off.

Ferraro and Simpson (2002) reinforce the argument that currently the citizens of rural African countries receive few of the global benefits derived from their ecosystems. However, burdened as they are with limited resources and a myriad pressing of social needs, they are no longer in a position to provide their ecosystem services for free.

Conservation can also benefit people and reduce poverty in less obvious ways. Biodiversity underpins human well-being through its involvement in ecosystem services such as pollination, clean air and flood control (Ash & Jenkins, 2007). As these services decline it is the poor that suffer more than the rich. Their greater direct dependence on locally sourced ecosystem goods and services such as food, fibre, medicines and watershed protection increases their vulnerability to shortages in these goods. (Shackleton, et al., 2007) Tallis et al. (2008, p. 1) elaborate on this, stating that, "people depend on nature, and people too often damage nature, thereby endangering their own health and well-being." In many cases natural resources act as a safety net (e.g. subsistence farming) rather than a route out of poverty, but either way conserving functioning natural ecosystems will benefit the poor. (Walpole & Wilder, 2008)

3.1 CHALLENGES

Even though some countries have succeeded in various kinds of development strategies, the search for such practical answers to creative ways of aligning conservation with the needs of the local people has been frustrated by the complications of rural life in the age of globalization. (Sanderson, 2005) Sanderson believes that even though certain approaches have yielded productive results, the overall effort to create a more conservation oriented or even a more poverty oriented style of growth and development, has fallen short of the mark.

Holmes (2010) suggests that this is as a result of rural communities having to deal with decision makers they can rarely reach. He elaborates that communities living around protected areas will probably never meet those who make the decisions about how their park is run. (Holmes, 2010) With the increasing involvement of international NGOs and aid agencies, many of the decisions about conservation policy are made hundreds or thousands of miles away from the protected areas, in political arenas that local people have no access to. (Holmes, 2010)

This is further complicated by conservation strategies which are often driven by the desire to create a more "authentic" nature, valued for its distance from human activity. (Holmes, 2010) The development of protected areas as zones of limited economic use involves not only physically removing communities from these areas but also breaking down their social and historical network. (Holmes, 2010)

This can create conflict in communities as those wanting to use the natural resources for their livelihood may consider the conservation regulations to be illegitimate and immoral. (Holmes, 2010) Understanding conservation induced displacement is an important concern, not because of what has happened but because of what could happen in the future.

Central to displacement and the resistance to conservation is the continuation of banned livelihood practices. (Holmes, 2010) "Acts of illegal hunting or farming are not just a livelihood activity to provide income or food, but an implicit challenge to the ban on these same activities." (Holmes, 2010, p. 193) Holmes (2005) explains that this is because those resisting conservation view these activities as their traditional right. (Brokington et al., 2006,

p. 2)

In summary there are a multitude of challenges that need to be resolved but the "ultimate challenge facing conservationists today is not only to reconcile errors of the past but also to determine how to shape human interactions with nature in landscapes of which people are a part." (Brockington, Igoe, & Schmidt-Soltau, 2006, p.2)

3.2 SOLUTIONS

3.2.1 ECOTOURISM

Ecotourism is a term that was created by Mexican ecologist Hector Ceballos-Lascurain in the early 1980's. (Weaver, 2008) It is the subset of sustainable tourism that focuses on responsible travel to natural areas worldwide. It is documented as having created sustained positive economic impacts, in regions of high ecological importance, through its attraction of tourists interested in viewing wildlife. (Lindberg et al., 1998 in Wood 2008) As a result of the economic potential that it could bring to underdeveloped areas, ecotourism has been proposed

to developing countries as a solution to their environmental and economic challenges. (Duffy, 2002)

Ecotourism can be defined as:

"a sustainable, non-invasive form of nature based tourism that focuses primarily on learning about nature first hand, and which is ethically managed to be low impact, non-consumptive, and locally orientated (control, benefits and scale). It typically occurs in natural areas, and should contribute to conservation of such areas." (Fennell, 2008, p. 24)

A useful scale that was developed by Wallace and Pierce in Fennel (2008, p. 21) suggests that tourism may be defined as ecotourism if it addresses six key principles, including:

- 1. A type of use that minimizes negative impacts to the environment and to local people;
- 2. The awareness and understanding of an area's natural and cultural systems and the subsequent involvement of visitors in issues affecting those systems;
- 3. The conservation and management of legally protected and other areas;
- 4. The early and long-term participation of local people in the decision-making process that determines the kind and amount of tourism that should occur;
- 5. Directing economic and other benefits to local people that complement rather than overwhelm or replace traditional practices (farming, fishing, social systems)
- 6. The provision of special opportunities for local people and nature tourism employees to utilize and visit natural areas and learn more about the wonders that other visitors come to see.

Since its inception ecotourism has been a contentious concept both in study and in practice because it challenges our ability to reconcile commerce and self-interest with more unselfish endeavours such as conservation and the well-being of others. (Fennell, Moran-Cahusac, & Nowaczek, 2008) This is backed up by Duffy (2002) where she argues that ecotourism is in fact 'Green Capitalism' and that it cannot provide radical sustainable development as put forward by its supporters. She maintains that ecotourism is a business that has to compete alongside other businesses and therefore its primary focus is on profit rather than conservation. (Duffy, 2002) However she emphasizes that the positive aspect of a strategy based on ecotourism is that it enables conservation to be financially sustainable, even in developing countries where Government resources are scarce. (Duffy, 2002)

POSITIVES OF ECOTOURISM

Tourism is a powerful economic tool for lesser developed countries. It has been demonstrated that in richly bio-diverse zones, ecotourism has a strong role to play not only in the conservation of natural resources, but also in the alleviation of poverty. (Wood, 2008)

The World Tourism Organization (2001) released a declaration on harnessing tourism for the Millennium Development Goals. The declaration emphasised that tourism is often the main and sometimes the only means of sustainable economic and social development in developing and least developed countries.

This statement is reinforced by the World Tourism Organization (2001) where they maintain that tourism/ecotourism is the only service sector that provides concrete trading opportunities regardless of the country's level of development. Furthermore it is the major source of foreign exchange for less developed countries, outside of petroleum. Wood (2008) corroborates the view that tourism is the only service industry where there is a growing positive balance of trade flowing from developed countries to developing countries, with 41 out of the 50 poorest nations now earning 10% of their exports from tourism.

Ecotourism is not an industry that is free from the challenges created by the drive for economic growth. It is an industry that is not about selling a commodity, but rather about selling the value of a service; the quality of the attraction and the level of luxury being offered. (Wood, 2008)

The positive spin off is that tourists are willing to pay more for a pristine environment, which is most frequently located in rural areas. These are the very same areas which the Millennium Development project has identified as high poverty regions. (Wood, 2008) This is beneficial as labour is required to maintain these operations, resulting in local employment. Given that excellent service is expected, there is a strong argument for development agencies to invest in human resources training. This improves the competitiveness of the destinations, leading directly to better profits and potentially better tips being paid to local employees. (Wood, 2008)

The protection of natural forests is a major challenge facing Africa. Charcoal production is the foremost cause of deforestation in many natural forest areas. This in turn has a direct negative effect on the natural catchment area. By developing an eco-tourist industry in these sensitive bio-diverse areas, the tourism sector will place pressure on the Government to become serious about nature conservation, thereby forcing them to clamp down on deforestation.

In conclusion, the positives of ecotourism can be viewed as a means of tourism where revenues are generated in a environmentally sensitive way, whilst providing environmental education to communities and involving local people in the decisions and the running of the park. (Ross & Wall, 1999) Thereby both conservation and development will be promoted in a sustainable manner. (Ross & Wall, 1999)

NEGATIVES OF ECOTOURISM

Ecotourism is frequently quoted as being worthy in theory but people lack the principles to put it into practice. (Wheeler in Butcher, 2008) This is confirmed by Wall in Higham (2008, p.429) where he states that:

"Ecotourism is often advocated as being a sustainable form of tourism but imprecision in terminology clouds basic issues and there are strong economic, ecological and cultural reasons for believing that, even in its purist forms, ecotourism is likely to present substantial challenges to destination areas, particularly if it competes for scarce resources and displaces existing uses and users."

The promises of economic opportunities, employment creation, the empowerment of communities and the genuine contribution to environmental management and conservation are the potential benefits of a 'successful' ecotourism project. (Higham, 2008) Yet increasingly questions have been raised around the failure of delivery on the promises put forward by ecotourism. (Cater, 2008) It has been demonstrated that relatively few of the promised benefits of ecotourism accrue to the local people. (Wells and Brandon in Higham, 2008) This is confirmed by Cater (2008) where she argues that where employment opportunities do arise and are awarded to local people, it is most commonly restricted to low-skilled, low-paid, usually seasonal and short-term employment. This is backed up by Abdelal and Koelbel (2009) where they highlight that the ecotourism industry is often criticized for hiring cheap local labour whilst providing few opportunities for locals to advance to prominent positions within these organizations. In some cases profit shares are tabled to the local communities but economic returns are seldom forthcoming. Instead, the majority of the

benefits to local communities, is received from the sale of goods and services e.g. curios, traditional cuisine, community cultural tours etc.

Ecotourism can create a variety of problems and is therefore crucial that all stakeholders be consulted prior to implementation of any policy. Failure to do this may result in a breakdown in the relationship between the various stakeholders with potentially dramatic outcomes.

Rose and Wall (1999) deduce that ecotourism like any other industry that is striving to become sustainable, should be considered in the contexts of both the natural environment and the aspirations of the local community. This is reinforced by Fennell et al (2008) where they confirm that it is extremely difficult to achieve sustainable development using ecotourism, without the cooperative efforts of all the actors. Furthermore Brandon and Margoulis in Cater (2008) suggest that the unconditional acceptance of ecotourism as a sole development strategy by local communities is improbable and unrealistic. Cater (2008, p.57) reinforces this view by stating that, "poor households' income needs are not fixed and are likely to aspire beyond just holding their own economically." She elaborates further, saying that these households may be forced to divert or supplement their income with less sustainable activities, particularly when the dimension of seasonality of tourism is added into the equation. (Cater, 2008)

Ecotourists are willing to pay for a pristine environment, hence a commercial value for this non-use of natural capital is established. (Butcher, 2006) In developing an ecotourism project, natural capital is required to attract foreigners. Natural capital implies a value rooted in the natural resource itself, and hence a value that can be realized only by leaving it untouched. (Butcher, 2006) If the natural resource is transformed or destroyed, so too will the prospect of developing ecotourism commercially, as well as the economic benefits arising from this. (Butcher, 2006) However, basing social development on natural capital in this way, dictates how far and in what direction a community can advance. Therefore any development that transforms the nature of the relationship between the community and their natural environment is termed unsustainable. (Butcher, 2006) This unfortunately results in a conflict situation for the community. They need ecotourism to bring in investment which results in the generation of income and the resultant improvement of their livelihoods, but they are then curtailed as to what they can or cannot do with their land and natural resources. In Tanner's paper titled "Biodiversity Conservation against small scale farming" he proposes that it would be easy to believe that biodiversity conservation and poverty reduction are convergent

objectives. However he argues that this is often not the case and this win-win scenario frequently does not unfold. There is a fine line between regular high density wild life tourism and low density 'do no harm' ecotourism. This is expanded on by Bjork (2008) where he states that high density tourism developments degrades habitats and landscapes, deplete natural resources, disturb the economic system and generate waste and pollution.

It is interesting how the following paradox has unfolded, in that by introducing unprecedented numbers(i.e. high density) of people and alien substances (car emissions etc) to the most delicate and remote areas of the planet, ecotourism has the potential to cause the destruction of what it was intended to protect. (Fennell, Moran-Cahusac, & Nowaczek, 2008) This is supported by Tallis et al (2008) who confirm that expanding ecotourism in attractive natural areas can stimulate the immigration of people hoping to benefit from expanding economic opportunities.

Wunder (1999) adds that an increase in tourism may have negative effects on the environment. For example, increased local food production for tourism demand may lead to deforestation, or the production of curios for tourists which may contain wood or feathers from threatened species.

Therefore ecotourism if not controlled, may lead to increased pressure on local resources and the environment, degrading the natural beauty that people initially travelled to view and enjoy.(Tallis, et al, 2008) The trade off is therefore high prices and less visitors versus average prices and more visitors, in the old fashioned economies of scale model.

3.2.2 PRO-POOR TOURISM

Pro-poor tourism has been developed over the years as a means to increase the net benefits for poor people. It is not a specific niche or product but rather an approach to tourism development and management. (Ashley, Goodwin, Meyer, & Roe, 2004a) Various types of tourism ventures may be involved, from a small lodge to a tour operator. The most important factor is not the type of company or the type of tourism, but that poor people receive an increase in the net benefits from tourism. (Ashley, Goodwin, Meyer, & Roe, 2004a)

The aim of pro-poor tourism is to enhance the linkages between tourism businesses and poor communities so that tourism's contribution to poverty reduction is increased and poor people

are able to participate more effectively in product development. (Ashley, Goodwin, Meyer, & Roe, 2004a)

There are three main pro-poor strategies that can be used: (Ashley, Goodwin, Meyer, & Roe, 2004b, p. 1-2)

- Strategies that focus on economic benefits. Aspects of this include strategies to increase employment and local wages, to increase business opportunities for the poor, and to develop a collective community income (e.g. lease fee, revenue share).
- 2) Strategies to increase other non-cash livelihood benefits. Aspects of this include strategies that focus on capacity building and training, addressing competing uses of natural resources, improving access to services and infrastructure, and improving social and cultural impacts of tourism.
- 3) Strategies that focus on policy, process, and participation. This involves creating more supportive policy and planning frameworks, increasing participation by the poor in decision making, encouraging pro-poor partnerships with the private sector, and increased dialogue and communication between the major stakeholders.

POSITIVES OF PRO-POOR TOURISM

Given the many challenges that continue to constrain economic development in lesser developed countries, mechanisms have been proposed to level the economic playing field within the tourism industry. Pro-poor tourism has been hailed as one of the best mechanisms, as it is geared towards the best interests of the local communities through the implementation of strategies created to benefit the poor. (Fennell, 2008)

In an interesting observation it was found that although responsible forms of tourism such as ecotourism aim to bring socio-economic benefits to communities, they are not necessarily designed to alleviate poverty as in the pro-poor strategies agenda. (Neto in Fennell, 2008) If left to their own devices, tourism and ecotourism can fall into the capitalist trap, having negative effects on the surrounding communities, with their focus being on profit and not community upliftment. (Harrison, 2008)

It is therefore important to have strategies and frameworks in place to 'curb' the narrow profit focus of most western business models. (Harrison, 2008) This is where pro-poor to tourism

helps balance the scales. Pro-poor strategies help integrate the capitalist model with poverty alleviation.

NEGATIVES OF PRO-POOR TOURISM

The negatives of pro-poor tourism are similar to that of ecotourism in their failure to deliver on promises to the poor. (Fennell, 2008) For example the limited generation of sustainable permanent jobs as well as the exclusion or removal of the community from conservation areas. (Fennell, 2008)

It is also difficult to distinguish between what is pro-poor tourism and what is not. As a result Harrison (2008) has researched the definition of pro-poor tourism to see whether it is a distinctive development tool. He concluded that it was easier to explain what pro-poor tourism was not, than to explain what it is. (Harrison, 2008) He further clarifies that pro-poor tourism is, "neither anti- capitalist nor hostile to mainstream tourism, on which it relies; it is neither a theory nor a model, and is not a niche form of tourism; it has no distinctive method, and is not only (and sometimes not at all) about the poor." (Harrison, 2008, p.864) Until such a time as when pro-poor tourism has clearly defined principles and strategies there is no guarantee that pro-poor tourism will provide any concrete benefit to the community.

3.2.3 PAYMENT FOR ENVIRONMENTAL SERVICES (PES)

An alternative approach to encouraging the conservation of endangered natural ecosystems is to pay for conservation performance directly. (Ferraro & Simpson, 2002) This is supported by Wunder (2007) where he states that there is growing belief that payment for environmental services represents a new and more direct way to promote conservation.

Ferraro and Simpson (2002) explain that in this approach, domestic and international actors make payments to individuals or communities to protect the ecosystem, thereby supplying public services of an ecological value.

The benefits of PES projects are numerous. Wunder (2007) believes that PES has an advantage where there is the need to address difficult trade-offs, by bridging the interests of land owners and external actors by means of direct compensation.

As natural habitats shrink, environmental services previously provided for free of charge are becoming increasingly threatened and this emerging scarcity makes them potentially tradable. (Wunder, 2007) The core idea of PES, as explained by Wunder (2007) is that external beneficiaries of environmental services make direct contractual *quid pro quo* payments to local landowners and land users in return for them adopting land and resource uses that secure ecosystem conservation and restoration.

There are four main types of environmental services that can be sold: (Tallis, et al, 2008)

- 1. Carbon sequestration and storage
- 2. Biodiversity protection
- 3. Watershed protection
- 4. Protection of landscape beauty

Tallis et al (2008) explain that the benefits of this approach are that the funds can be used to compensate people who suffer lost economic opportunities in order to protect environmental services. They give the following example:

"If a rural poor community was asked to take actions that reduce farm productivity in order to protect and regulate water supply, those farmers would be compensated for the reduced productivity they experience." (Tallis et al, 2008, p. 9458)

According to Tallis et al (2008) a number of authors have recently argued that there are strong links between environmental services and sustainable development, particularly development efforts that aim to reduce rural poverty. However these successes do not come without their challenges.

CHALLENGES

There are various challenges when trying to implement a workable PES system. In developed countries it is a great deal easier as they are backed by robust legal structures that are easily enforced. However in developing countries this is not the case, with most of the countries experiencing weak and limited governance. (Wunder, 2007)

Wunder (2007) explains that the difficulty lies in the need to monitor the service that the end users are paying for. Disputes may arise where service buyers withdraw from a PES contract as they feel that they are not getting what they paid for. Conversely, service providers may also pull out (or renegotiate the terms) of a PES scheme if changing conditions provoke them to do so. (Wunder, 2007) For example, communities that are paid to protect their natural forests are now enticed by timber companies to cut down the forests as the return for the timber is greater than the payment for the protection of the forests.

This is further complicated by land tenure rights in developing countries. Here many land users do not have formal land title deeds and this puts into question their entitlement to receive PES payments. (Wunder, 2007) An additional factor that Pagiola et al (2003) draws to our attention is that these insecure property rights potentially expose the poor, who are dependent on the natural ecosystems for their livelihood. The increase in the value of their ecosystems may result in these communities or individuals being displaced for their lucrative asset. (Pagiola, Arcenas, & Platais, 2003) However Wunder (2007) proposes that in these cases, service buyers should not look at land rights but at land and resource control when making payments.

Another distinct disadvantage is that in the developing world payments being made for environmental services come from donor money rather than from the service users, as they lack the financial capacity. (Wunder, 2007) Many of the PES initiatives are either loosely monitored or not monitored at all. Payments are made up front instead of continuously, and in good faith rather than being truly contingent on service provision. (Wunder, 2007) Therefore Wunder (2007) believes that the hardest criterion to meet for a PES to be successful is that of conditional commitments and monitoring.

Unfortunately enthusiasm over the payment for ecosystem services as a strategy for enhancing conservation support is far outpacing credible evidence of what is possible and how to best achieve it. (Tallis et al, 2008) Additional research needs to be conducted to further support the current theories around PES projects.

4. OTHER CHALLENGES

4.1 THE POLITICAL ECONOMY OF WILDLIFE POLICY

The interest in Africa's wildlife has grown into a highly profitable industry. It ranges from extravagant 5 star wildlife safaris to an array of wildlife documentaries. This dedication to wildlife results in millions of dollars being donated every year to international conservation organizations, all on the premise that without this funding Africa's magnificent animals could be faced with destruction. (Gibson, 1999)

Gibson (1999) questions why, despite this intense interest in Africa's wildlife, there is relatively little research examining the importance that wildlife plays in the political economy of African Countries. Gibson (1999) highlights the fact that wildlife has enhanced wealth, threatened lives, destroyed crops, provided patronage resources, cemented relationships and inspired social protest. This has taken place before, during and since the arrival of Europeans to Africa. He then deduces that given the significance of wildlife to these economies it has become an important political commodity.(Gibson, 1999)

This has led to political scrambling for these natural resources which are then used as a tool by Governments to effect their agendas. As the Governments realize how profitable these regions are, they slowly assume control of the valuable cash resource. In the case of the Okavango Delta where the land and the natural resources have become an area of conflict, Government has assumed control of most of the natural resources in the area. (Magole & Magole, 2009) The transverse rights which are removed from local communities are then sold off to international bidders, with the communities in effect being locked out in the cold.

This is where the conflict lies. In most ecotourism ventures the communities that depend on the natural resources are removed and locked out of what was historically their land and their means of survival. As these communities struggle to survive on the outskirts of the resource rich parks, tension, frustration and eventually desperation take effect and the communities start to reclaim what they feel is rightfully theirs. Poaching increases and the downward spiral starts as conservation and human survival become intertwined in conflict.

As African countries have moved from colonial to independent rule, colonial wildlife policies have generally remained in place. (Gibson, 1999) This has been contrary to pre-independence

rhetoric and the ruling parties' election mandates, where they campaigned around providing communities greater access to their national parks. (Gibson, 1999)

The failure to act on their election manifestos is the result of Government and its officials realizing the potential of these tourism revenue streams followed by the lack of governance and corruption. (Gibson, 1999) Ecotourism has thus become a vehicle for individuals to hide behind, in order to gain access to the attractive revenues.

4.2 LAND RIGHTS

The history of Africa is synonymous with the struggle for access to land. "The power of the land issue to invoke emotional responses and political action spills over into questions of ownership, usage, development practices, resource management and ultimately, citizenship and identity politics." (Anseeuw & Alden, 2010, p. 1) Anseeuw and Alden (2010) highlight the failure of African Governments to recognize and resolve enduring disputes emerging from land claims. These have triggered extended protests and violence, disrupting vital production and in some cases even destabilizing once acclaimed success stories.

Laurent (2010) reminds us of the failures of land redistribution in previously colonized countries. Landless peasants, small and commercial farmers are consistently the losers in this never-ending tendency of dominant groups to seize land for their own use.

Tanner (2010) discusses how the interface between agriculture and ecotourism is a growing area of dispute. This is due not only to the repeated denunciation of the negative effects of agriculture on the environment, but also to the increasing constraints that environmental conservation places on small scale farmers and rangeland management.

The issues surrounding land rights and land uses become an interesting dilemma. Depending on who wants the land determines what it is good for. According to Anseeuw and Alden (2010) competition between different types of farmers to access land for agricultural and nonagricultural activities has been a major source of conflict for decades in many countries.

In the case of a land claim by a community on agricultural land, the argument against the claimants is that allowing the land claim to be successful would threaten food security, as small scale farming is not productive. (Tanner, 2010) However in the case of an ecotourism initiative where the developers are trying to negotiate communities to move off the land, the

argument put forward is that small scale farming can be successful and that the communities would be able to generate income by growing produce to supply the lodges with their needs.

In both these cases the party that generally wins is the party with the largest amount of money, the highest education and the most experts to support their argument. (Laurent, 2010) The poorer communities, with a lack of money and access to proper legal resources stand little chance of opposing such ventures.

Laurent (2010. p. 131) argues that, "this new kind of situation, where farmers are confronted with ecological requirements and the strengthening alliances between ecological lobbyists and large landowners, is a potential source of major land crisis for the near future." Furthermore she highlights that currently, rural households are not in a position to present scientific arguments on the appropriateness of conservation methods proposed, nor are they able to offer alternative scenarios. (Laurent, 2010)

The absence of individual land title deeds amongst poor communities in developing countries is discussed in great detail by Hernando de Soto in his book, 'The Mystery of Capital.'(De Soto, 2000) De Soto (2000) puts forward that a large portion of the world's wealth lies in the hands of poor communities, yet they are unable to use this asset to generate wealth. In most cases there are no individual title deeds or the land is owned by a community, hence it is difficult to get a consensus on what should be done if an opportunity should arise. (De Soto, 2000)

Lapeyre (2010) discusses how land acquisition for tourism in the form of nature conservancies can lead to tensions and bring about social exclusion among previously deprived populations. This is therefore not always the most favourable solution. Anseeuw and Alden (2010) agree that ecotourism is often presented as the perfect alternative, enabling rural communities the right to access nature based wildlife and financial resources through tourism. However the lack of transfer of secure rights to local populations perpetuates land exclusion, whilst having minimal legal recourse in cases of dispute.

4.2.1 THE CHALLENGES OF LAND RIGHTS IN MOZAMBIQUE

Post the end of the war in Mozambique the Government was concerned that the existing land laws did not protect the poor. It felt that in its current state it would not attract investors to the war ravaged country that was desperate for foreign direct investment. (Tanner, 2010) Having been confronted by this challenge, the Government implemented an innovative new land act that protects customary rights, whilst promoting investment and development.(Tanner, 2010)

As explained by Tanner (2010), most rural households have acquired customary land rights which are legally equivalent to those of official state land use. These rights allow communities to negotiate with investors and the state, thereby securing agreements to promote local development and reduce poverty. The law also empowers local communities to participate in land and natural resources management, including the allocation of rights to investors. (Tanner, 2010)

However the fast-tracking of private sector land applications is creating land use concentration which could fuel future conflicts. (Tanner, 2010) He goes on to explain that even though the progressive mechanism of community consultation is applied, it does not bring real local benefits to communities. (Tanner, 2010) He feels that the current legislation regarding land rights is legally recognized but still unprotected in practice. The current land grab situation places land in the hands of those who believe that they are more capable of developing these natural resources. This is creating conflict with the existing local inhabitants. (Tanner, 2010)

The national parks created during Mozambique's colonial rule have created an interesting land standoff. The parks and other official hunting reserves remain public domains, where in theory no one can live, farm or hunt. However most of these areas have significant resident populations. (Tanner, 2010)

These communities are claiming historic rights to areas of land which they appropriated during the war and the years of neglect that followed. They claim that they are merely "reoccupying" the land from which they were removed during colonial rule. (Tanner, 2010) In these situations the communities find themselves in conflict with both the State and private firms now securing management contracts for tourism or safari hunting businesses. Tanner (2010) explains that the issue is even more complex in the new national parks created since independence, where the communities claim pre-existing rights.

The critical debate is whether these communities' rights cease to exist when a new park is declared, or whether they remain, subject to existing conservation legislation.

Tanner (2010) suggests that a possible solution for Mozambique is negotiated settlements in the same manner as the Makuleke case in the Northern section of the Kruger National Park. Here the community acquired the land and now shares in the revenues from the ecotourism operations in that area.

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5. CONCLUSION

Ecotourism has an important role to play in the changing African landscape. It has the ability to create jobs, improve the living conditions of communities and ultimately provide economic opportunities that were previously never possible, all whilst protecting the environment. However reality is never so perfect and although ecotourism is in many cases worthy in theory, people often lack the moral to put it into action. (Wheeler in Butcher, 2008)

The successful implementation of ecotourism is fraught with many challenges and risks. Two issues predominate:

Firstly, there are the challenges associated with the restoration and conservation of the park and its wildlife. Ecotourism is only possible if there is a pristine natural resource that tourists are willing to pay to visit. Therefore the protection of this resource is paramount to the success of the project. This is possible only if the local communities can be convinced that it is in their best interests to protect the environment.

Secondly the sustainability of ecotourism is dependent on the successful upliftment of the local communities through job creation and education, thereby ensuring that all the stakeholders benefit from the project. The difficulty here is that in that poor households income needs are not always fixed and they may aspire to beyond just holding their own economically. This is not helped by the seasonality of the ecotourism industry.

In many developing countries isolated rural communities have almost been forgotten by the rest of the world. These communities tend to be highly impoverished, there being little or no employment in the area. Yet they often find themselves living alongside large pristine conservation areas. By matching the needs of international tourists with the development goals of local Government, ecotourism can provide these areas with much needed economic stimulus so that they can grow their economies, whilst uplifting the surrounding communities.

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II. CASE STUDY

THE RESTORATION OF GORONGOSA NATIONAL PARK:

A PROJECT TO CONSERVE WILDLIFE WHILST ASSISTING IMPOVERISHED COMMUNITIES.

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MOZAMBIQUE

Mozambique is located on the east coast of Southern Africa. It is a country of great potential and many contrasts. It is ranked among the 20 poorest countries in the world and finds itself ranking 165 out of 169 in the human development index.¹ Around half of the population live below the poverty line with an average life expectancy at birth of 48 years. Its population is remarkably young with 10 million out of its total population of 20 million being children.²

Around 70% of the population lives in rural areas, where the majority of the people eke out a living from subsistence farming. However more recently recurrent drought has resulted in people moving towards urban and coastal areas in search of work and food.³

In 1992, Mozambique emerged from a 16 year civil war where roughly 1 million people lost their lives, more than 5 million were displaced, 8 million faced starvation and the limited infrastructure was destroyed or had fallen into ruin.⁴

However since the end of the war the Mozambican economy has grown at a healthy pace experiencing an average economic growth rate of 9% between 1997 and 2003.⁵ GDP growth has remained high and the Mozambique economy has not been adversely affected by the financial crisis, with GDP growth in 2008 exceeding 6.5%.⁶ Given its successes it is seen as one of Africa's best examples of post conflict resolution and economic recovery.

¹ UNDP. (2010). Statistics. Retrieved November 19, 2010, from Human Development Reports: <u>http://hdr.undp.org/en/statistics/</u>

² UNICEF. (2009). *Mozambique: Overview*. Retrieved November 19, 2010, from UNICEF: <u>http://www.unicef.org/mozambique/overview_2927.html</u>

³ UNICEF. (2009). *Mozambique: Overview*. Retrieved November 19, 2010, from UNICEF: http://www.unicef.org/mozambique/overview 2927.html

⁴ Hanlon, J., & Keynes, M. (2010). Mozambique: 'The war ended 17 years ago, but we are still poor'.

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⁵ UNICEF. (2009). *Mozambique: Overview*. Retrieved November 19, 2010, from UNICEF:

http://www.unicef.org/mozambique/overview_2927.html

⁶ UNICEF. (2009). *Mozambique: Overview*. Retrieved November 19, 2010, from UNICEF:

http://www.unicef.org/mozambique/overview_2927.html

Yet Mozambique is faced with some alarming challenges. HIV and AIDS are the greatest threat to Mozambique's development. There are roughly 1.6 million people living with HIV and AIDS, with some 350,000 children having lost their parents to AIDS related illnesses.⁷ Coupled with periodic floods and drought, poor rural families struggle to recover from the blows of natural disasters and debilitating illness.⁸ One of Government's biggest challenges is to translate its economic gains into the health and well being of its people over the medium and long term.

GORONGOSA NATIONAL PARK

HISTORY

Gorongosa National Park (GNP) is situated in Central Mozambique, a 200 kilometre drive inland, North West of Beira. (Appendix 1) It is named after Mount Gorongosa which overlooks the park and lies at the southern tip of the 4000km long African Rift Valley or Urema trough as it is known in this area.⁹ It was proclaimed a game reserve by the Portuguese Government in 1921 and in 1960 was made a National Park, recently celebrating its 50th Anniversary.¹⁰

The park is 4367 square kilometres in size. This is made up of the original 4000 sq km's of the park and an additional 367 sq km, which comprises all the land 700 m above sea level around Mt Gorongosa. This additional land was officially incorporated into the park only in July 2010.¹¹ In addition to the reserve, a further 3,300 square kilometres encircles the park in the form of a buffer zone.

Gorongosa is one of the greatest conservation opportunities in the world today with the 4000 square kilometre park once having supported some of the densest wildlife populations on the African continent. It had more predators than South Africa's Kruger National Park, denser

⁷ UNICEF. (2009). *Mozambique: Overview*. Retrieved November 19, 2010, from UNICEF:

http://www.unicef.org/mozambique/overview_2927.html

⁸ UNICEF. (2009). *Mozambique: Overview*. Retrieved November 19, 2010, from UNICEF:

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⁹ Tinley, L. (1979). Drawn from the Plains: Life in the Wilds of Southern Africa. London: Collins.

¹⁰ Tinley, L. (1979). Drawn from the Plains: Life in the Wilds of Southern Africa. London: Collins.

¹¹ Interview with Todd Hasselbeck, Chitengo Camp, Gorongosa, 14 October 2010

herds of elephants and buffalo than the Serengeti, and thousands upon thousands of plains animals.¹²

However, during the Mozambique civil war, hunting and poaching was endemic with almost 95% of the large mammal population being killed.¹³

Gorongosa was the scene of frequent battles between the rebel army movement of the Mozambique National Resistance (RENAMO) and the ruling party Frelimo. During the conflict the local wildlife was slaughtered by both factions. Elephant, wildebeest and buffalo were killed for meat, whilst lion were shot for sport or ended up starving as their prey was wiped out.¹⁴ In addition, ivory was used by the warring factions to trade for arms and ammunition.

As a result the destruction of the natural wildlife was staggering. Out of 14,000 buffalo only 50 survived; 2,200 elephant were reduced to 108; 2,000 impala were wiped out; of 3,000 hippopotamus only 50 remained; of 3,000 zebra just 65 survived; wildebeest were gone; 500 lion were down to 6; all kudu were gone. cheetahs, wild dogs, hyenas, and jackals were apparently exterminated; of the leopards, no one could say.¹⁵

However, Gorongosa was fortunate, in that between 1968 and 1972 an ecologist by the name of Ken Tinley was invited by the Fauna and Flora department of the Portuguese Government to conducted ecological studies of the park.¹⁶ As a result of his research he drew up a comprehensive framework detailing how GNP should ideally be run. This involved stipulating adjustments to the park's boundaries as well as detailing an overall park plan, to cater for tourist viewing, research and education, wilderness areas and the cropping of game as a source of food for the surrounding communities.¹⁷ This framework is currently being followed by the management of GNP as they try to rehabilitate the fragile ecosystem and so enabling it to run at its optimal potential.

¹² Schacochis, B. (2009, July). The Gardener of Eden. *Outside*, pp. 76-109.

¹³ Gorongosa National Park (a). (2007). *Restoration Project*. Retrieved June 12, 2010, from Parque Nacional de Gorongosa Mozambique: http://www.gorongosa.net/en/page/restoration/restoration-project

¹⁴ Gorongosa National Park (a). (2007). *Restoration Project*. Retrieved June 12, 2010, from Parque Nacional de Gorongosa Mozambique: http://www.gorongosa.net/en/page/restoration/restoration-project

¹⁵ Gorongosa National Park (a). (2007). *Restoration Project*. Retrieved June 12, 2010, from Parque Nacional de Gorongosa Mozambique: http://www.gorongosa.net/en/page/restoration/restoration-project

¹⁶ Tinley, L. (1979). Drawn from the Plains: Life in the Wilds of Southern Africa. London: Collins.

¹⁷ Tinley, L. (1979). Drawn from the Plains: Life in the Wilds of Southern Africa. London: Collins.

The dark days of GNP seem to be behind it as the new guardians of the park attempt to restore it to its former glory. Hunters, photographers and wildlife tourists used to remark that Gorongosa must be the 'place where Noah unloaded his ark.'¹⁸ Hopefully this will be uttered again in the near future.

THE PROJECT

In 2004 an American philanthropist by the name of Greg Carr arrived at GNP. Carr came to Mozambique in 2002 after being introduced to and then encouraged by, the UN Ambassador for Mozambique to see if he would be able to help his impoverished country.¹⁹ Subsequent to his first visit, Carr began researching potential conservation projects in Mozambique and in 2004 he jumped on board a helicopter with Government officials where he would be shown six promising project sites. It was on this trip that he first came across Gorongosa, where he now finds himself during large parts of the year.

Initially a Memorandum of Understanding was signed by Carr and the Mozambican Government, which allowed him to assume the management of the park on a provisional basis. However in June 2008, the Carr Foundation signed a 20 year, \$40 million contract with the Government to restore the park to its former glory. The 122 page contract explicitly states the commitments of the various parties in order to achieve both ecological restoration and sustainable economic development.²⁰ The end goal of the restoration project is the handing over of a rejuvenated national asset that is financially sustainable.²¹

There are daily challenges that need to be addressed but without the intervention of the Carr Foundation it is likely that there would have been nothing left.

¹⁸ Schacochis, B. (2009, July). The Gardener of Eden. *Outside*, pp. 76-109.

¹⁹ Schacochis, B. (2009, July). The Gardener of Eden. *Outside*, pp. 76-109.

²⁰ Pringle (b), R. (2010, October 12). *The Rebirt of Gorongosa National Park*. Retrieved November 2, 2010, from The Huffington Post: http://www.huffingtonpost.com/rob-pringle/the-rebirth-of-gorongosa_b_760444.html

²¹ Gorongosa National Park (a). (2007). *Restoration Project*. Retrieved June 12, 2010, from Parque Nacional de Gorongosa Mozambique: http://www.gorongosa.net/en/page/restoration/restoration-project

THE PLAN

The restoration of Gorongosa National Park needs to be guided by a plan that incorporates all the various stakeholders. This is emphasised by Greg Carr where he states in Schacochis (2009, p. 106)²² that:

"To make things work in rural Africa, you've got to be hands on, as you run a real risk of making things worse if you intervene from a distance."

This confirms the notion that in rolling out the project, all the parties need to be consulted and committed to the vision and mission of GNP for it to work. The main stakeholders comprise the staff, the Mozambique Government and the local communities.

The Gorongosa project management plan²³ is divided into four main segments:

- *I. The Vision and Mission Statements (Appendix 2): To protect and restore the GNP ecosystem and its wildlife whilst helping to alleviate poverty through ecotourism and other conservation and economic development programs.*
- **II. The Ecological Plan:** Will be created with the help and support of the Mozambican Government, local communities, donor agencies, non-Governmental organisations and visiting scientists.
- **III. The Sustainable Business Model:** Will help to ensure that revenues from tourism and other activities fully support the project's long term goals, as for the project to be successful the park must financially support itself for the foreseeable future.
- **IV. The Zoning Plan:** This will show how different areas of the park and buffer zone can and should be used. Each Zone's use will be guided by careful consideration of the Gorongosa ecosystem's long-term health and the well-being of the local communities.

²² Schacochis, B. (2009, July). The Gardener of Eden. *Outside*, pp. 76-109.

²³ Gorongosa National Park (e). (2007, November). *Restoration Project: Management Plan*. Retrieved June 12,
2010, from Parque Nacional de Gorongosa Mozambique:

http://www.gorongosa.net/en/page/park_mgmt_plan/management-plan

CREATING A SUSTAINABLE NATIONAL PARK

"The goal of the restoration project is to be able to walk away from the park in 20 years time knowing that it is financially and socially sustainable and therefore ensuring its long term survival."²⁴

In order for the park to be sustainable it needs to be more than financially viable. It needs to be ecologically stable and the social challenges of the communities around the park need to have been addressed. Therefore the success of the park depends on the combined successes of conservation, tourism and social upliftment as these three areas are directly related and intertwined.

For example, tourists want to see animals and pristine beauty. In order for this to happen communities need to refrain from hunting and destroying the natural environment. The visiting tourists create a demand for food and other services which in turn create opportunities for small local businesses to develop. If there are no animals there will be no tourists and therefore no economic growth.

As Greg Carr highlights in Schacochis (2009, p. 106)²⁵:

"to barricade Gorongosa from its surrounding communities, is both unfeasible and perhaps morally arrogant. Creating an artificial separation between integrated ecosystems and social patterns would have minimal effect on the three practices that most endanger the park: slash and burn agriculture, charcoal production, and hunting."

"The key to all this, of course, is to galvanize everyone with a financial stake in conservation." (Carr in Schacochis, 2009, p. 105)²⁶

CONSERVATION AND PROTECTION

Gorongosa has tremendous topographical diversity.²⁷ From Urema lake 16 metres above sea level to wide open savannah with life saving flood plains, from fever tree and palm forests to

²⁴ Interview with Todd Hasselbeck, Chitengo Camp, Gorongosa, 14 October 2010

²⁵ Schacochis, B. (2009, July). The Gardener of Eden. *Outside*, pp. 76-109.

²⁶ Schacochis, B. (2009, July). The Gardener of Eden. *Outside*, pp. 76-109.

traditional bush and tropical rainforests on Mt Gorongosa, towering 1863 metres above the park.²⁸

Post the end of the civil war people moved out of the cities and back into the countryside in search of food. As a result 5000 people invaded the park creating 11 settlements in 5 areas.²⁹ This has had a negative impact on the park. Livestock and exotic plants have been introduced and in one case the construction of a school has blocked natural elephant migrations.³⁰

"One of the goals is to restore the integrity of the park by encouraging the communities to move outside the parks boundary."³¹

"Currently there are around 2,500 people living within the park, having a direct impact on the parks natural resources."³²

Recently a land mark agreement was signed between one of the communities in the park and GNP. The basis of the agreement is to relocate around 250 families to 40 hectares of arable land outside of the park. In addition GNP will construct schools, a health care centre as well as educating the community on how to farm, as historically they are a fishing community.³³

It has taken GNP 3 years to negotiate this deal as the community has been wary of leaving the park. Furthermore GNP has had to fight for the allocated land as the initial land allocation was not suitable for intense farming. GNP realised that in order for this relocation or any future relocations to be successful, the land that communities are allocated needs to be compatible with the promised outcomes of the initial agreement. The reason why this is so important is that if the communities are not satisfied and perceive that they were better off in the park, they may attempt to move back to reclaim their previous livelihood.³⁴

²⁷ Cohane, O. (2007, December). *Conde Naste Traveler*. Retrieved November 03, 2010, from Conceirge.com: http://www.concierge.com/cntraveler/articles/11634?pageNumber=5

²⁸ Interview with Todd Hasselbeck, Chitengo Camp, Gorongosa, 14 October 2010

²⁹ Interview with Carlos Pereira, Chitengo Camp, Gorongosa, 16 October 2010

³⁰ Interview with Carlos Pereira, Chitengo Camp, Gorongosa, 16 October 2010

³¹ Interview with Carlos Pereira, Chitengo Camp, Gorongosa, 16 October 2010

³² Interview with Todd Hasselbeck, Chitengo Camp, Gorongosa, 14 October 2010

³³ Interview with Todd Hasselbeck, Chitengo Camp, Gorongosa, 14 October 2010

³⁴ Interview with Todd Hasselbeck, Chitengo Camp, Gorongosa, 14 October 2010

In order to conserve and protect the wildlife GNP is currently focusing on three main areas: Ecosystem Management, Wildlife management and Law Enforcement.³⁵

ECOSYSTEM

Ecosystem management involves restoring the savannah and grasslands; controlling fires and protecting and replanting Mt Gorongosa's forests.³⁶

"Lake Urema is central to the complex multi-faceted workings of the park, with animal movement being dictated by the size of the lake. In the wet season the lake expands up to 210 sq km in size pushing animals outwards but once the rain stops it slowly contracts drawing the animals with it until it is merely 10 sq km in size."³⁷

The recent inclusion of Mt Gorongosa into the park is as a result of Tinley's research and the realisation that it is the major source of GNP's water. The protection of this catchment area is essential to ensure the health and variety of the park's ecosystem, as well as that of the surrounding communities.³⁸

Pedro Muagura is in charge of the Mt Gorongosa's forestry project. He explains that deforestation is a major problem with local observers believing that unless the forest's current rate of destruction is halted within the next five years, the opportunity to save the forest will be lost forever, along with the amazing biodiversity of Gorongosa.³⁹

"Mt Gorongosa is a unique place and is home to some 3000 people. They have their own unique language 'Chi Gorongosi' which is indigenous to this area."⁴⁰

³⁵ Gorongosa National Park (c). (2007, November). Restoration Project: Conservation. Retrieved June 12, 2010, from Parque Nacional de Gorongosa Mozambique:

http://www.gorongosa.net/en/page/conservation/conservation

³⁶ Gorongosa National Park (c). (2007, November). Restoration Project: Conservation. Retrieved June 12, 2010, from Parque Nacional de Gorongosa Mozambique:

http://www.gorongosa.net/en/page/conservation/conservation

³⁷ Interview with Carlos Pereira, Chitengo Camp, Gorongosa, 16 October 2010

³⁸ Tinley, L. (1979). Drawn from the Plains: Life in the Wilds of Southern Africa. London: Collins.

³⁹ Vourlias, C. (2009, May 13). Travel: Mozambique - Life Returns to Gorongosa. Retrieved November 3, 2010,

from Guardian.co.uk: http://www.guardian.co.uk/travel/2009/may/13/mozambique-safaris-gorongosa-wildlife

⁴⁰ Interview with Todd Hasselbeck, Chitengo Camp, Gorongosa, 14 October 2010

Currently there are around 1000 people making their way up the mountain as they search for new land to grow crops (beans, potatoes).⁴¹

"The land is cleared in the most destructive manner by burning the forest down and in many instances they don't even harvest the timber."⁴²

The destruction is being driven by poor farming techniques that render the land almost useless in 2 to 3 years. This is further exacerbated by the movement away from subsistence agriculture to more low scale commercial agriculture.

All the land 700m above sea level is now part of the Gorongosa National Park. Nevertheless people are still moving into the park to illegally cut down trees. It is difficult to monitor and prevent this deforestation, as effective enforcement needs communication, resources and transport.⁴³

Muagura⁴⁴ explains that the nursery project involves planting grasses, fruit trees and hard woods below the 700 m contour line to try and restore the forests and prevent any further erosion. He also suggests that more creative ways need to be adopted to encourage farmers to move down the mountain, such as providing irrigation and electricity to farmers farming on the foothills of the mountain.

The near complete extermination of the bulk grazers has resulted in grasses growing too high and thick. This has two further consequences: firstly the higher grass makes run away fires more destructive, with animals standing little chance of survival. Secondly there is less food for the smaller herbivores resulting in reduced populations.⁴⁵ In addition the lack of large mammals, such as elephant, has resulted in the encroachment of low thorn scrub.⁴⁶

⁴¹ Interview with Todd Hasselbeck, Chitengo Camp, Gorongosa, 14 October 2010

⁴² Interview with Pedro Muagura, Chitengo Camp, Gorongosa, 13 October 2010

⁴³ Interview with Pedro Muagura, Chitengo Camp, Gorongosa, 13 October 2010

⁴⁴ Interview with Pedro Muagura, Chitengo Camp, Gorongosa, 13 October 2010

⁴⁵ Interview with Carlos Pereira, Chitengo Camp, Gorongosa, 16 October 2010

⁴⁶ Interview with Carlos Pereira, Chitengo Camp, Gorongosa, 16 October 2010

In order to rehabilitate the grass lands GNP is re-introducing animals into the park to beef up their populations. On the 12th of November 2010, 20 buffalo and 47 wildebeest were released deep inside the Park public viewing area.⁴⁷

Mozambique constantly appears to be on fire. The horizon is smoggy and gives the impression of being in a large polluted city rather than in the pristine wilderness.

Slash and burn farming techniques cause widespread destruction to both the buffer zone and to the park. In order to prevent this, communities are continuously educated on the negative effects of this method of crop clearing. To negate the destruction from runaway fires the park conducts controlled burns. To date they have control burnt 350 sq km of the park. However, nearly 950 sq km of land has been burnt by uncontrolled slash and burn fires.

*"This works out to be nearly one quarter of the park having been damaged by out of control fires. In one case a fire almost destroyed the animal sanctuary."*⁴⁸

WILDLIFE

As highlighted earlier, around 95% of the large mammals were destroyed during the war. However the bird and reptile population remained relatively untouched, with Gorongosa boasting some 400 kinds of birds including the Green Headed Oriole which can be found only on the slopes of Mt Gorongosa.⁴⁹

In 2006 GNP fenced off a 23 square kilometre area for a wildlife sanctuary which is used to habituate animals before releasing them into their new environment. This facility forms part

⁴⁷ Muala, D. (2010, November 12). *News & Events: Gorongosa National Park Releases More Buffalo and Wildebeest into the Floodplain of Lake Urema - the Heart of the Public Viewing Area*. Retrieved November 22,

^{2010,} from Parque Nacional da Gorongosa Mozambique: http://www.gorongosa.net/en/news-

event/121110_Buffalo_Wildebeest_Release/gorongosa-national-park-releases-more-buffalo-and-wildebeest-into-the-floodplain-of-lake-urema--the-heart-of-the-public-viewing-area

⁴⁸ Interview with Carlos Pereira, Chitengo Camp, Gorongosa, 16 October 2010

⁴⁹ Gorongosa National Park (c). (2007, November). *Restoration Project: Conservation*. Retrieved June 12, 2010, from Parque Nacional de Gorongosa Mozambique:

http://www.gorongosa.net/en/page/conservation/conservation

of their re-introductory program where until 2012 they are annually releasing zebra, wildebeest and buffalo into the park.⁵⁰

When it comes to the park boundary, unless there is a natural border like the Pungue River in the south, there is no physical separation between the park and the buffer zone. There are no game fences to keep the animals in and the poachers out.

*"Game fences are hugely expensive and are generally only effective for keeping in lions. They also prevent animals from moving along their migration routes."*⁵¹

In GNP's case its fence is the buffer zone which has been staked out with markers showing where the park ends and the buffer zone begins.⁵²

The concept of a buffer zone has been explained in great detail to the local communities to prevent them from encroaching on the park. They have also had explained to them the consequences of illegally killing animals within the park or in the buffer zone.

Keeping people out is not the only problem, with GNP having to be vigilant regarding keeping elephants within the park. On the southern border along the Pungue River, communities farm alongside the river's edge. Elephants having a strong affinity for farm crops especially pumpkins, cross the river to raid local farms.⁵³ This places the elephants at risk of getting killed as they come into contact with humans. GNP needs to prevent any human/ animal contact, which they attempt to achieve on two fronts.

Firstly they have been encouraging the farmers in the Vinho community to plant their crops more than 100 meters away from the river bank thereby preventing the elephants from seeing or smelling the crops. The locals can further discourage elephants by planting chillies next to their crops and using bee hives as a deterrent.⁵⁴

Secondly GNP strives to keep the animals in the park. This is achieved by monitoring the banks of the river, making sure that they are steep at all times as elephants do not like

⁵⁰ Gorongosa National Park (c). (2007, November). *Restoration Project: Conservation*. Retrieved June 12, 2010, from Parque Nacional de Gorongosa Mozambique:

http://www.gorongosa.net/en/page/conservation/conservation

⁵¹ Interview with Todd Hasselbeck, Chitengo Camp, Gorongosa, 14 October 2010

⁵² Interview with Todd Hasselbeck, Chitengo Camp, Gorongosa, 14 October 2010

⁵³ Interview with Carlos Pereira, Chitengo Camp, Gorongosa, 16 October 2010

⁵⁴ Interview with Todd Hasselbeck, Chitengo Camp, Gorongosa, 14 October 2010

descending down steep banks. They also use scouts with smoke to drive elephants away from the boundaries of the park. This is extremely labour intensive and therefore not really sustainable in the long term⁵⁵

As a result of sustained hunting over the years, certain animals have become aggressive towards humans. During the war elephants became nocturnal in order to escape being hunted and in a recent incident an aggressive elephant cow charged and over turned a game viewing vehicle with tourists inside. Fortunately, no one was injured.⁵⁶ They are currently debating as to whether they should put this elephant cow down. Given the park's history this will further traumatize the fragile elephant population. These are some of the legacies of the past that the park's management needs to take into account when managing the wildlife population.

LAW ENFORCEMENT

Protecting the natural assets of Gorongosa, be it from ecological threats or just keeping visitors safe is a park priority. GNP has set up a dedicated team of rangers who are trained to protect visitors, control fires and to stop any poaching activities. These rangers are stationed around the park at each of the 21 out posts.⁵⁷

Nevertheless poaching is still a major problem, due in part to the park's limited road network (only 15% of the park being serviced) and the inability of the scouts to patrol such a vast area. Viewing the GNP satellite report is extremely frustrating as it shows the location and number of poachers, all made visible by the number of fires within the park. However they are unable to react due their limited resources.⁵⁸

Despite this the anti poaching team has caught 455 people and recovered 1333 snares in the last six months.⁵⁹ In one instance they even arrested a teacher from a local school who had been poaching within the park.

⁵⁵ Interview with Todd Hasselbeck, Chitengo Camp, Gorongosa, 14 October 2010

⁵⁶ Interview with Carlos Pereira, Chitengo Camp, Gorongosa, 16 October 2010

⁵⁷ Gorongosa National Park (c). (2007, November). *Restoration Project: Conservation*. Retrieved June 12, 2010, from Parque Nacional de Gorongosa Mozambique:

http://www.gorongosa.net/en/page/conservation/conservation

⁵⁸ Interview with Carlos Pereira, Chitengo Camp, Gorongosa, 16 October 2010

⁵⁹ Interview with Carlos Pereira, Chitengo Camp, Gorongosa, 16 October 2010

Illegal fishing within the reserve is concerning and poachers are decimating natural fish stocks. Communities living in the park are allowed to fish but may only do so in a sustainable manner. However in reality large amounts of dried fish have been confiscated by park authorities.⁶⁰

The effect of the illegal fishing is further complicated by a story of good intentions with unintended consequences. An initiative to prevent and ultimately eradicate malaria by handing out Mosquito nets to local communities, has had an astonishing effect on the natural environment. Instead of the nets being used as they are intended, to prevent being bitten by the anopheles mosquito, the nets are used by local fisherman with alarming efficacy. Furthermore since the nets are coated with permethrin, used to kill mosquito's these chemicals are working their way into the water system killing the fish larvae. This could potentially have a dramatic effect on future fish stocks.⁶¹

In order to combat the poaching and illegal fishing GNP is now considering hiring a helicopter which is to be stationed at Chitengo Camp. This would allow the park authorities to react to poaching activities deep within the park's borders. The helicopter would also double up as a tourist attraction, where tourists can pay for tours over the park. However this might have an unfavourable reception from the luxury camp providers who sell a tranquil and serene experience.

UPLIFITING IMPOVERISHED COMMUNITIES

Gorongosa National Park finds itself in an interesting conundrum. To a complete outsider, the role players are in the conservation business restoring Gorongosa National Park. However with 250,000 mostly impoverished people sitting on its doorstep GNP is also playing an important social upliftment role in the area.⁶² In order for the restoration of the park to be successful the needs and concerns of the 250,000 people that live in the park's buffer zone need to be met.

⁶⁰ Interview with Carlos Pereira, Chitengo Camp, Gorongosa, 16 October 2010

⁶¹ Interview with Carlos Pereira, Chitengo Camp, Gorongosa, 16 October 2010

⁶² Interview with Todd Hasselbeck, Chitengo Camp, Gorongosa, 14 October 2010

As per the mission statement the restoration of Gorongosa National Park promises to:

*'improve the lives of people living near the park and to generate economic development in central Mozambique.'*⁶³

The most likely question is:

'How do you incentivise and convince the park's 2,500 villagers, along with the 250,000 people living in the surrounding buffer zone, to move from a livelihood of slash and burn agriculture and poaching, to one of planting trees and protecting wildlife?'

GNP sees itself achieving this by providing Economic Development, Health and Social Development, Conservation Education and Planning.

HEALTH AND SOCIAL DEVELOPMENT

The majority of the people surrounding the park are subsistence farmers, living in basic mud and thatch houses. They are malnourished and therefore vulnerable to disease and famine. Health care clinics are few and far between, resulting in limited access to adequate medical treatment.

The Carr Foundation and its donor partners, the Portuguese Institute for Development Assistance (IPAD) and USAID, have in the last four years made a significant difference to the local communities through various projects which will be discussed below.

Vinho, the closest community to Chitengo Camp is located on the southern boundary of the park on the edge of the Pungue river. It is within walking distance of the Chitengo camp and 50% of the park's employees reside there.⁶⁴ In June 2008 a clinic, constructed by the Carr Foundation but run by the Mozambique Government, was handed over to the local community. (Appendix 3)

The clinic has significantly improved the health and wellbeing of the surrounding community due to increased accessibility to basic health care. Previously the closest health clinic was

⁶³ Gorongosa National Park (a). (2007). *Restoration Project*. Retrieved June 12, 2010, from Parque Nacional de Gorongosa Mozambique: http://www.gorongosa.net/en/page/restoration/restoration-project

⁶⁴ Interview Domingos Muala, Chitengo Camp, Gorongosa, 14 October 2010.

located at Chitengo camp and villagers had to deal with crossing the crocodile infested and sometimes flooding Pungue River.⁶⁵

The clinic is currently being run by two nurses, one female and one male. They live in the village, having had two permanent homes built for them by the Carr Foundation. Furthermore the health and sanitation of the village has been strengthened by the construction of borehole well points, enabling the community access to clean potable water. (Appendix 3)

Currently a second health clinic is under construction on the main road between Gorongosa and Villa Gorongosa for the benefit of the Nhanguo community of roughly 2,000 people. (Appendix 4) In the words of the Secretariat of the Regulo Nhanguo,

"Gorongosa has given our community opportunities that we would have never have had before. It is a good relationship with the aim of helping the people."⁶⁶

In addition to the clinic, GNP and its partners have over the last two years provided the Nhanguo community with health education, latrines and access to clean potable water.⁶⁷

The Carr foundation believes that in order for the clinics and schools to be sustainable they need to be run by the Mozambican Government. They have an explicit agreement with the Government confirming that it is willing to help in the construction of these facilities, but that they need to be run without the Carr Foundation to ensure continuity.⁶⁸

In addition to the clinics there is a community health care program being run by volunteers from Mt Sinai Hospital in the United States. This involves research into malaria, diarrhoea and pneumonia. They have three local employees who are conducting health questionnaires with 9 communities. The questionnaires cover a range of questions, from the impact of Gorongosa on their current lives, to family medical history including deaths, births, illnesses etc. The survey targets women and its aim is to gather information to determine what areas of

⁶⁵ Interview Domingos Muala, Chitengo Camp, Gorongosa, 14 October 2010.

⁶⁶ Interview with Secretariat of the Regulo Nhanguo, Nhanguo Clinic, 15 October 2010.

⁶⁷ Interview with Secretariat of the Regulo Nhanguo, Nhanguo Clinic, 15 October 2010.

⁶⁸ Interview with Todd Hasselbeck, Chitengo Camp, Gorongosa, 14 October 2010

treatment and health challenges need to be addressed in order to ensure the health and wellbeing of the local population.⁶⁹

Lastly, a proposal has recently been submitted to USAID to obtain funding for a health care program for the surrounding area. The program aims to provide an ambulance that is to be stationed at the Gorongosa Community Education Centre, situated on the park's border. The ambulance will be staffed by one doctor, one nurse and one agricultural consultant. The ambulance will resemble a roving hospital which will visit remote and poorly serviced communities.

"This is an improvement on the current situation where there is one doctor in Villa Gorongosa and most patients have to walk up to 20 km to get medical assistance."⁷⁰

A strong emphasis of the Health and Social Development project is to educate the local communities. The aim is to have one administrator per village with whom to communicate. The administrator then disseminates the information back into the community. It is also planned to help communities build health care structures to be used by the community health care workers, trained with basic skills to test for malaria, HIV AIDS mother to child prevention as well as to be birth attendants.⁷¹

The program will further provide scholarships for vulnerable children who are extremely poor or who may have been orphaned as a result of AIDS.

"The plan is to provide 12 children with tuition and books so that they can attend the nearby Villa Agricultural School."⁷²

The agricultural consultant's role is to train a representative from each village whose responsibility it is to roll out the latest farming techniques. The representative will then function as intermediary, liaising between the villagers and the agricultural consultant.⁷³

⁶⁹ Interview with Melanie Hale, Chitengo Camp, Gorongosa, 13 October 2010

⁷⁰ Interview with Melanie Hale, Chitengo Camp, Gorongosa, 13 October 2010

⁷¹ Interview with Melanie Hale, Chitengo Camp, Gorongosa, 13 October 2010

⁷² Interview with Melanie Hale, Chitengo Camp, Gorongosa, 13 October 2010

⁷³ Interview with Melanie Hale, Chitengo Camp, Gorongosa, 13 October 2010

EDUCATION

Education is critical for the development of any region. The future prosperity in most areas lies in the hands of the youth. By improving their life prospects and opportunities, Gorongosa will be able to ensure future sustainability.

GNP believes that education needs to be tackled on two fronts, Conservation Education and Basic Education.⁷⁴

Gorongosa is teaming up with local communities to help improve the basic education system. In many communities around the park, children are taught in huts or under the shade of large trees. This has led the Carr foundation to fund the construction of a new school the 'Escola Primaria Completa Do Vinho' in the Vinho village, where 711 children between the ages of 6 and 18 attend school daily. (Appendix 3) This is in stark contrast to their previous class room, which was under the shade of the mango and baobab trees.⁷⁵

Teachers have also received additional training, but they are still faced with the challenges of having relatively basic teaching resources, coupled with large classes (8 teachers for the 711 children) where sometimes four students share a desk meant for two. (Appendix 3)

Conservation education is also important for the park's survival. The construction and completion of the Community Education Centre (CEC) which, once opened, will be used to educate the surrounding communities on the economic benefits of conserving the area's magnificent natural resources.⁷⁶

Educating the children of the local communities is important to the conservation of the park, as they are the future of these communities. At the Vinho school, the children are given talks by a Gorongosa game scout on the effects of poaching on the natural environment. Pictures are shown to the children to highlight how unsustainable agricultural practices have a dramatic affects on the environment and therefore their communities. Furthermore trips are

 ⁷⁴ Gorongosa National Park (d). (2007, November). *Restoration Project: Education*. Retrieved June 12, 2010,
 from Parque Nacional de Gorongosa Mozambique: http://www.gorongosa.net/en/page/education/education
 ⁷⁵ Interview Domingos Muala, Chitengo Camp, Gorongosa, 14 October 2010.

Interview Domingos Muaia, Chitengo Camp, Gorongosa, 14 October 2010.

⁷⁶ Gorongosa National Park (d). (2007, November). *Restoration Project: Education*. Retrieved June 12, 2010, from Parque Nacional de Gorongosa Mozambique: http://www.gorongosa.net/en/page/education/education

being arranged to take the school children to visit Mt Gorongosa. This will enable the children to see pristine natural forests, destroyed forests and the nursery rehabilitation project.

Explore Gorongosa (EG) Camp is in the process of developing a bursary fund for the education of children with potential. This will include the funding of school tuition and then hospitality training.

*"We will identify these kids by inviting the kids from the area, to join us in camp over their holidays and on regular school trips to the park."*⁷⁷

Furthermore a training centre is being established for permaculture practices near Mt Gorongosa to educate the local communities to move away from slash and burn agriculture techniques.

*"Explore Gorongosa will support this project by paying for the trainers to come up from Zim and SA.*⁷⁸

ECONOMIC DEVELOPMENT

In the past there has been little economic development, with insufficient industry in the area. As a consequence communities have had to resort to sustainable agriculture, charcoal manufacturing, fishing and in some cases, poaching in order to survive.

In order to promote economic development, Gorongosa aims to provide training, create jobs, introduce sustainable agricultural methods and support projects that are developed by the communities themselves.⁷⁹

GNP currently employs around 600 people in various positions within the park and as it develops with the addition of further ecotourism operators, new job opportunities will be created.⁸⁰ Currently there is only one private operator within the park. It operates a luxury

⁷⁷ Interview with Rob Janisch, Explore Gorongosa Camp, Gorongosa, 15 October 2010

⁷⁸ Interview with Rob Janisch, Explore Gorongosa Camp, Gorongosa, 15 October 2010

⁷⁹ Gorongosa National Park (b). (2007, November). *Restoration Project: Community*. Retrieved 12 June, 2010, from Parque Nacional de Gorongosa Mozambique: http://www.gorongosa.net/en/page/community/communities

⁸⁰ Interview with Carlos Pereira, Chitengo Camp, Gorongosa, 16 October 2010

tented camp called Explore Gorongosa (EG) and hires 16 people from the surrounding community.⁸¹ (Appendix 6)

In addition to the jobs created by the park, small projects have been established to service the needs of GNP and which have created employment opportunities.

A project was established to encourage the Vinho community to grow fruit and vegetables which are then sold to the park for use in the restaurant and for daily staff consumption.

Furthermore individuals within the Canda community have been employed by the park to grow and maintain tree nurseries on Mt Gorongosa, in a type of payment for economic service (PES) scheme. This has diverted local farmers from clearing additional land and they are now planting trees to reduce soil erosion.

Another promising project that is being run by the park is a fruit drying factory in Villa Gorongosa. The project was developed out of a need to preserve large amounts of fresh produce that would normally rot in the absence of refrigeration facilities and the impossibility of transporting the fruit and vegetables to other markets. The fruit drying plant prevents this unnecessary wastage and opens up a potentially lucrative revenue stream. However, the end product needs some further development in order to upgrade the packaging and presentation.⁸² Unfortunately the factory has temporarily been shut down as they are looking for a new manager. Todd Hasselbeck rightfully points out that this project is out of the scope of the GNP's mandate and should be privately run in conjunction with the park.

In addition, a curios business is being developed by Explore Gorongosa. A small range of products, from coat hangers to toast racks, is being made from the snare wire and melted down traps found in the park. The project will involve the fulltime employment of two ladies from Vinho-Bebedo and will also make use of the wives and families of their camp staff. Explore Gorongosa aim to sell the range of products at both their camp and Chitengo. As the business grows they hope to sell the products further afield in SA, the UK and the USA.⁸³

Transport companies have also benefited from business generated by the park. Shuttles are run between Beira and Gorongosa bringing tourists from Beira International Airport. This sector is bound to grow as Mozambique becomes a major world tourist destination.

⁸¹ Interview with Rob Janisch, Explore Gorongosa Camp, Gorongosa, 15 October 2010

⁸² Interview with Todd Hasselbeck, Chitengo Camp, Gorongosa, 14 October 2010

⁸³ Interview with Rob Janisch, Explore Gorongosa Camp, Gorongosa, 15 October 2010

Envirotrade, a Mauritius-based company with offices in the UK and South Africa, operates within the GNP buffer zone. It has developed a business model using the sale of carbon offsets to support the conservation and management of existing forests, as well as the planting of new ones.⁸⁴ They currently have a project where 35,000 hectares within the buffer zone has been earmarked for rehabilitation.⁸⁵ Envirotrade works with the local communities by introducing new farming techniques which enrich rather than exhaust the fragile forest soils, whilst encouraging the reforestation of their land. The reforestation project then forms part of their carbon sequestration scheme (Payment for Economic Service) where the carbon credits that are created are then traded and the money paid back to the local communities.⁸⁶

CHALLENGES

Economic development does not come without challenges. Some of the more notable ones are highlighted below.

In constructing the school, clinic and water points in the Vinho village, management were was concerned about the social impact that this would have on the park, given the villages' close proximity to the park's boundary. By increasing the standard of living of the Vinho Community, the improved social services have encouraged people to migrate towards the Vinho village from other outlying areas.⁸⁷ This increasing population has had both a social and an environmental impact, with an increase in petty crime, poaching and the destruction of the natural environment within the buffer zone.

The devastation is highlighted by satellite photographs showing before and after pictures, five years apart, in an old hunting concession in the Vinho buffer zone.⁸⁸ The pictures show land in the process of desertification, due to both poor farming techniques and water not being as abundant or consistent as it used to be. Once pristine fishing grounds have been destroyed, as

⁸⁴ Envirotrade. (2009). *Projects: Gorongosa Community Carbon Project*. Retrieved November 16, 2010, from Envirotrade: http://www.envirotrade.co.uk/html/projects_gorongosa.php

⁸⁵ Envirotrade. (2009). *Projects: Gorongosa Community Carbon Project*. Retrieved November 16, 2010, from Envirotrade: http://www.envirotrade.co.uk/html/projects_gorongosa.php

⁸⁶ Envirotrade. (2009). *Projects: Gorongosa Community Carbon Project*. Retrieved November 16, 2010, from Envirotrade: http://www.envirotrade.co.uk/html/projects_gorongosa.php

⁸⁷ Interview with Carlos Pereira, Chitengo Camp, Gorongosa, 16 October 2010

⁸⁸ Interview with Carlos Pereira, Chitengo Camp, Gorongosa, 16 October 2010

a result of river courses being altered. This is worrying as the destroyed land in the buffer zone will cause communities to encroach on the park, as they seek new arable land.

"The greatest threat to the park is that from human encroachment."⁸⁹

Having learnt from the Vinho example GNP feels that any development that occurs outside the park should be done in a manner that draws the community away from the park's boundaries, so as to prevent future confrontations between animals and humans.⁹⁰

Similarly, the fresh produce initiative in Vinho Village has had a mixed success, with the farmers producing more than what the park is presently able to consume. This has resulted in large amounts of unused food going to waste causing communities to feel despondent. It was proposed by the farmers that they should be provided with a vehicle that would enable them to take their produce to other nearby markets.

Skills shortages are a major challenge for the Luxury Tour Operators.

"No one in the region knows understands tourism and the civil war was worst here."⁹¹

Explore Gorongosa has had to invest time and capital into their employees. This has involved hospitality training, English lessons and teaching basic life skills such as hygiene, saving money, budgeting etc. Fortunately Explore Gorongosa have a full time trainer working at their camp. Over the last 18 months they have worked closely with their employees and have managed to train them up to a high standard.

*"We also ensure that our staff learn all the jobs in the camp, so that they can do a bit of everything and fill in for absentees etc. It's called 'Faz Tudos' – Do everythings."*⁹²

⁸⁹ Interview with Carlos Pereira, Chitengo Camp, Gorongosa, 16 October 2010

⁹⁰ Interview with Carlos Pereira, Chitengo Camp, Gorongosa, 16 October 2010

⁹¹ Interview with Rob Janisch, Explore Gorongosa Camp, Gorongosa, 15 October 2010

⁹² Interview with Rob Janisch, Explore Gorongosa Camp, Gorongosa, 15 October 2010

ECOTOURISM

"The restoration and long term sustainability of Gorongosa National Park depends on ecotourism."⁹³

In the 1960's there was such an abundance of wildlife, it was rumoured that in three hours at Gorongosa you would see what other people would see at the Kruger National Park in three days.⁹⁴

Just as elsewhere in Africa, ecotourism provides tremendous potential for economic development in rural areas of Mozambique. The ultimate goal is for the park to generate enough money to fund its own existence, whilst providing jobs and enticing tourists to spend money. This includes the critical objective of improving the lives of the surrounding communities in such a way that they are better off than they would have been if they used same land in some other way.⁹⁵

Since the start of the project tourists have been trickling back, growing from less than 1,000 in 2005 to around 3,842 in 2008. This is still way below the 20,000 visitors that visited Gorongosa annually during its golden years but it is a positive move in the right direction.⁹⁶

As an ecotourism destination Gorongosa has enormous potential. Mozambique has been marketed as the perfect beach and bush holiday destination with 2,500 kilometres of mostly pristine coastline and plentiful island locations such as the Quirimbas archipelago.⁹⁷

Gorongosa is easily accessible with direct flights from OR Tambo International or Maputo International Airport to Beira International Airport. It is rumoured that low cost airline 1Time will be flying to Beira by the end of next year (2011) bringing additional competition into this market.

⁹³ Gorongosa National Park (a). (2007). *Restoration Project*. Retrieved June 12, 2010, from Parque Nacional de Gorongosa Mozambique: http://www.gorongosa.net/en/page/restoration/restoration-project

⁹⁴ Interview with Carlos Pereira, Chitengo Camp, Gorongosa, 16 October 2010

⁹⁵ Pringle (b), R. (2010, October 12). *The Rebirt of Gorongosa National Park*. Retrieved November 2, 2010, from The Huffington Post: http://www.huffingtonpost.com/rob-pringle/the-rebirth-of-gorongosa_b_760444.html

⁹⁶ Schacochis, B. (2009, July). The Gardener of Eden. *Outside*, pp. 76-109.

⁹⁷ Interview with Rob Janisch, Explore Gorongosa Camp, Gorongosa, 15 October 2010

It has been an exciting time at Gorongosa. They have recently advertised in the local press that applications are now open for the seven available ecotourism resort tenders in Gorongosa. This is the start of a crucial phase in the Gorongosa restoration project. The financial sustainability of the park is pegged upon the success of these operations.

Around twelve applicants are expected to apply for the tenders with the best seven receiving ecotourism licences. GNP has conducted the tender process in the clearest and most transparent manner possible, to prevent any possible political interference.

*"The application is comprehensive and requests information up to the last detail as we only want to attract applicants who are serious contenders."*⁹⁸

*"Given its central focus and importance to Gorongosa, the concessions are pie shaped and extend outwards from Urema Lake."*⁹⁹

Each concession is allowed only one operator but they have the potential to establish multiple camps. The camps will need to be environmentally friendly relying solely on reusable energy such as solar panels. They will however be allowed to use a generator in cases of emergency. No bricks and mortar will be permitted in the construction of the lodges. The camps will therefore be semi-permanent structures that can be dismantled, returning the environment back to its original state within two years.¹⁰⁰

Each concession has its own unique attractions. The Buena Vista concession is located on the slopes of the valley allowing it breath taking views across the valley. It is much cooler as a result of its elevated location but is far away from the plains of Lake Urema. The Buena Vista (old Portuguese Lodge) and Maria concessions both have remnants of permanent structures on site. These foundations can be used by the operators to build permanent structures.¹⁰¹

With the additional operators they believe that they will add another 300 to 350 beds to the park, a significant increase from the existing 50 beds. However this is still trivial given the size of the Park. The camps will target the luxury ecotourism market, being priced above \$500 per person per day.

⁹⁸ Interview with Todd Hasselbeck, Chitengo Camp, Gorongosa, 14 October 2010

⁹⁹ Interview with Todd Hasselbeck, Chitengo Camp, Gorongosa, 14 October 2010

¹⁰⁰ Interview with Todd Hasselbeck, Chitengo Camp, Gorongosa, 14 October 2010

¹⁰¹ Interview with Todd Hasselbeck, Chitengo Camp, Gorongosa, 14 October 2010

"Chitengo Camp is to be retained for the average visitor who has come to the park with his entire family."¹⁰²

With the advent of the new operators it is believed that at least another 140 direct jobs will be created within GNP, thereby indirectly impacting on the lives of around 1000 people.¹⁰³

MOVING FORWARD

Until the park is financially sustainable, GNP will need to rely on funding from the Carr Foundation, its donor partners USAID, IPAD and the Mozambican Government. This funding is crucial to the success of this project as until the tourism infrastructure is fully operational and the camps are attracting tourists in profitable numbers, the park will need financial support.

The Carr Foundation is contributing \$40m dollars over 20 years and is supported by its donor partners who have contributed on numerous projects. For example, a recently constructed Community Education Centre (CEC) was paid for by the tripartite funding from the Carr Foundation, USAID and IPAD to the tune of around \$2 million dollars. The CEC is a crucial educational tool that is needed by GNP to educate the surrounding communities. (José Sunza, 2009) This infrastructure funding is critical both for conservation and for community upliftment. More clinics, schools and water boreholes need to be established as communities demand access to basic services.

However what is of concern is that the world's economy has changed. IPAD is funded by the Portuguese Government and with austerity measures being adopted by many Euro Zone countries such as Greece, Ireland, Italy and Portugal, future funding may be limited. Furthermore the Portuguese Parliament recently voted to adopt a 2011 austerity budget to reassure markets that the country could fend off a debt crisis and avoid following the fate of Greece and Ireland. The Government is attempting to reduce the Nation's budget deficit from 9.3% in 2009 to 4.6% in 2011. (Govan, 2010)

In order to stimulate the American economy the FED has pumped money into the economy. This will need to be paid back at some stage resulting in an increase in Government taxes

¹⁰² Interview with Todd Hasselbeck, Chitengo Camp, Gorongosa, 14 October 2010

¹⁰³ Interview with Todd Hasselbeck, Chitengo Camp, Gorongosa, 14 October 2010

and/ or possible austerity measures. USAID is funded by the United Sates Tax payers which could lead to a cut in their NGO funding.

GNP believes that in five to six years time, tourism will be fully operational bringing in around \$2 million to \$3,5 million per year, sufficient to cover the running costs of the park. These figures are based on an occupancy rate of 30% for the nine month tourist season and will be made up of the following components payable to GNP by the tourism operators.¹⁰⁴

The park will receive a conservation fee of \$30 per person per night, a once off park entrance fee of \$15 and a 10% commission will be charged on the total revenue generated by each camp. This will represent a cost of between15% to 20% of the operator's revenue.

Furthermore, based on the target of approximately 350 beds¹⁰⁵ this works out to be 105 (350 x 30% occupancy) bed nights per day which equates to 28,350 bed nights a year. If each tourist stayed on average four days this would equate to around 7087 tourists required to visit GNP annually. If this is increased to an average of 7 days it would be 4050 tourists.

Given that 20,000 people visited GNP annually during its hey-day, it seems likely that these figures are attainable.

The Gorongosa restoration project is as multifaceted as the place it seeks to rehabilitate.

"It is driven by hundreds of Mozambicans from all kinds of background, and by a charismatic American philanthropist. But there are also key roles for geologists, biologists, vets and anthropologists, for children from the village across the river and for tourists, for medical students from Mt. Sinai and tree students from the US Forest Service, for big-time organizations like USAID and IPAD and for smart individuals with good business sense."¹⁰⁶

Gorongosa has received a host of reviews from around the world and is on the tip of the tongue of most tour providers who are looking to offer their clients something new, unique and inspiring.

¹⁰⁴ Interview with Todd Hasselbeck, Chitengo Camp, Gorongosa, 14 October 2010

¹⁰⁵ Interview with Todd Hasselbeck, Chitengo Camp, Gorongosa, 14 October 2010

¹⁰⁶ Pringle (a), R. (2010, August 9). *Green: Where the Rift Valley Ends*. Retrieved November 3, 2010, from The Huffington Post: http://www.huffingtonpost.com/rob-pringle/where-the-rift-valley-end_b_675733.html

The story has been on 60 minutes TV show in the United States. National Geographic has created a documentary on it (The Lost Eden). It has appeared in newspaper travel supplements from the Guardian UK to the New York Times. Articles have graced the pages of glossy magazine such as FT 'How to spend it', Marie Claire, Cosmopolitan, Outsider, and Conde Naste Travel Magazine etc.

Gorongosa is slowly becoming the iconic reserve that it was once known to be. The animals may not be at their legendary numbers of the past but this will take time. As tourists flock back to the park, so will the much needed tourist spend contribute to the upliftment of the lives of the local communities.

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CONCLUSION

The restoration of Gorongosa is a remarkable project fraught with many challenges. The Carr foundation and its donor partners USAID and IPAD have made a considerable impact in an extremely impoverished area all in a short period of time.

The success of the project is largely as a result of the passion and commitment of the people behind this extraordinary venture. The approach has been professional and comprehensive with no stone being left unturned. This is coupled with the realisation that this is not just a conservation project but also a human project. It is supported by a business approach where individuals with business experience work alongside conservationists- a foreign concept in this industry but all the more likely to create a sustainable business model. This has further been strengthened by the Carr foundation's philosophy that communities need to be involved in all decision making processes, as the project's future sustainability is reliant on the various stakeholders' visions being aligned.

The restoration project has been successful on numerous fronts.

Animal numbers are recovering. For example a herd of 150 buffalo, introduced a few years ago, has tripled to 450.

In addition, realising that the park's future is dependent on the sustainability of its water source, GNP has managed to incorporate the land on Mt Gorongosa into the National Park. The protection of this valuable water source is paramount to GNP's survival. Much work still has to be done to convince communities that, from the economic and environmental, point of view, the destruction of this forest would be to the detriment of all stakeholders and, most importantly, all future generations.

Furthermore after years of discussion, GNP has negotiated the resettlement of a community that has been living within the park. The relocation of this community and hopefully other existing communities will enable GNP to restore the park's integrity by removing the destructive influence caused by humans, livestock and exotic plants.

Socially, the restoration project has had a marked improvement on the lives of the surrounding communities. New schools, clinics and water points have been constructed, improving the health, well being and education of local communities. The success of these

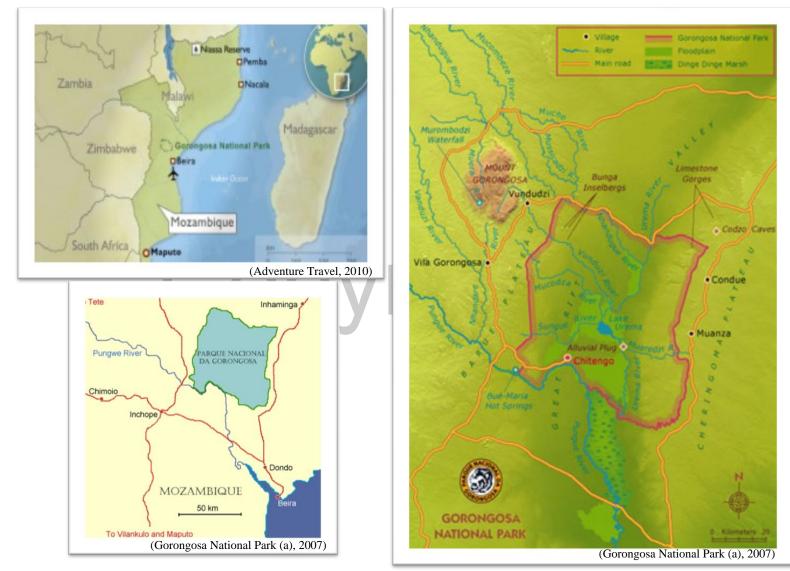
developments has ensured that GNP has gained the respect and support from the majority of the local communities.

However GNP's successes are coming off a low base with many communities teetering on the edge of poverty. The provision of basic services is just a start as these communities could potentially demand that historic social imbalances be addressed. These people are capitalistic by nature and it is sometimes difficult to see for how long communities can be convinced to live just above the poverty line. Furthermore, unless the surrounding buffer zone and other outlying areas are protected from total destruction by current farming techniques, communities will move towards and encroach on the park where they will be able to find water and arable farm land. The situation where a starving population surrounds a wildlife oasis is unsustainable and therefore to be avoided at all costs.

The Vision and Mission statement of GNP (Appendix 2) stipulates that its goal is to protect and restore the ecosystem and its wildlife, whilst helping to alleviate poverty through ecotourism and other conservation and economic development programs.

The restoration project in its infancy has achieved these goals to various degrees. It has been successful in protecting and restoring the ecosystem but it will take many years before it is completely revitalised. Poverty alleviation has occurred on a widespread level with communities benefiting directly from the restoration project. However there are still numerous social challenges that need to be addressed, such as high unemployment and limited access to services in some communities.

The tender applications for the Ecotourism concessions in GNP close on the 30th of November at 4pm. As the next chapter dawns upon Gorongosa we can only watch and hope that the park will continue to grow from strength to strength, whilst continuing to have a positive impact on the local communities.



APPENDIX 1: MAPS - MOZAMBIQUE AND GORONGOSA NATIONAL PARK

APPENDIX 2: MISSION STATEMENT

MISSION STATEMENT¹⁰⁷

Gorongosa National Park is a Mozambican treasure that provides environmental, educational, aesthetic, recreational, and economic benefits to all humankind.

We recognize the fundamental interdependence of human and ecological systems and that lasting nature conservation and human development in the Gorongosa ecosystem can only be achieved through innovative, sustainable land use practices, policies, and lifestyles.

Therefore:

- We will protect and restore the natural structure, functions, and processes of Gorongosa National Park and improve the health, education, and standard of living of human communities near the Park, by implementing an adaptive, science-based management plan.
- We will draw upon multidisciplinary teams of ecologists, hydrologists, social scientists and other specialists to monitor Park ecosystems; we will conduct management activities to ensure that biodiversity in all its facets is maintained within limits of acceptable change.
- We will create a mutually beneficial relationship between the Park and the communities by assisting them in the establishment of their land rights, resource management practices, and democratic and socioeconomic institutions. We will train and employ community members for Park positions and we will seek community support of the Park's conservation strategy.
- We will stimulate economic activity in central Mozambique through the encouragement of private sector park-related businesses. We will disseminate knowledge through public education programs and engage national and international stakeholders in our decision-making processes.
- We will adhere to a responsible financial model wherein Park income generated from ecotourism, donations, and environmental products and services meets the requirements of this ambitious mission.

¹⁰⁷ http://www.gorongosa.net/en/page/plans_reports/mission-statement

APPENDIX 3: VINHO VILLAGE



Vinho Community Health Clinic



Escola Primaria Completa do Vinho



Baobab Tree School



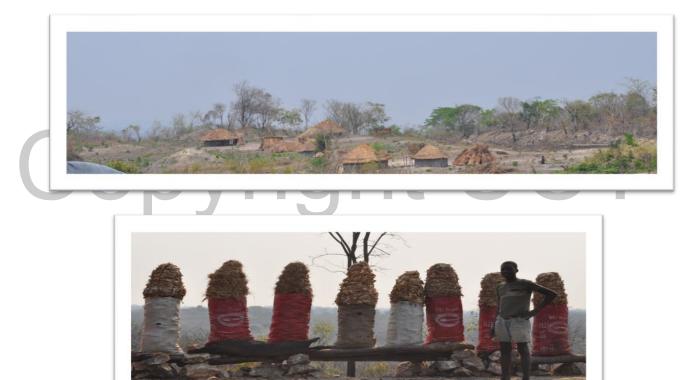
School Classroom



APPENDIX 4: NHANGUO COMMUNITY







Bags of Charcoal

APPENDIX 5: GORONGOSA NATIONAL PARK





Urema Flood Plain



APPENDIX 6: EXPLORE GORONGOSA LUXURY TENTED CAMP

| Explore Gorongosa: Employee Breakdown | | |
|--|-----|--|
| Area | No. | |
| Villa Gorongosa | 7 | |
| Canda | 2 | |
| Vinho-Bebedo | 4 | |
| Nhambita | 1 | |
| Chimoio | 1 | |
| Dondo | 1 | |
| Total | 16 | |



EXPLORE

gorongosa national park mozambique

Our luxury walking safaris, Explore Gorongosa, are the first private safari activity to be offered within Mozambique's Gorongosa National Park.

Although predominantly a mobile walking safari product, **Explore Gorongosa** also provides guests with firsthand insights into the innovative restoration project underway within the Park. Through walking and waterbased safaris (season dependent), guests will be introduced to this amazing yet fragile ecosystem. Our highly experienced regional guide will lead guests on this wonder-safari through the ever-changing eco-zones, incredible birding and abundant game viewing opportunities of Gorongosa.

Situated near Beira in central Mozambique, Gorongosa National Park is one of Mozambique's flagship conservation areas with a remarkable history; before the onset of civil war in the 1970's, the Park was considered one of Africa's finest with large populations of herbivores and predators alike. Now the Park is seeking to re-establish the wildlife numbers of the past for the benefit of Mozambique and the continent as a whole, a project initiated by the Government of Mozambique and the Carr Foundation.

Through our Explore Gorongosa experience, we invite you to come and join in us on this wild journey - the restoration of one of Africa's great biodiversity hotspots.

www.exploregorongosa.com

Owned, managed and marketed by One Africa. For bookings and enquiries, email info@oneafrica.co.za

EXPLORE GORONGOSA: FACT FILE

| TARGET MARKET | Gorongosa really does appeal to everyone! Special interest to birders, seasoned Africaphiles interested in exploring the emerging Mozambican safari industry, and responsible travellers who will appreciate the innovative approach being applied to restoring this renowned National Park |
|----------------------|---|
| GUESTS | Maximum 8 per safari |
| TYPE OF SAFARI | Predominantly walking (with canoeing & mekoro safaris in wet season) and game- drives in an open Land Cruiser incorporating night drives. Nights at semi- permanent luxury tented camp and wilderness mobile fly camps |
| LENGTH OF SAFARI | We recommend a 3 night, 4 day safari which will ensure guests get to experience the full safari with a possible add-on night at Chitengo Camp. Flexible specialist safaris (esp. birding) are available on request. For guests already booked at Chitengo, we recommend that they spend one night with us at Explore Gorongosa for an 'experience top-up'! |
| DAILY TRAIL DURATION | Approximately 2-4 hrs per session in the cooler parts of the day |
| ACTIVITY LEVEL | Easy to moderate with multiple stops. Note: The months of October and November can be really warm and although the activities will be structured around shaded areas, guests are encouraged to prepare for this |
| SEASONS | Gorongosa is seasonally restricted due to heavy rains over the local summer and the Park is closed between mid-December and mid-February There are two seasons to our Explore Gorongosa product: a Wet Season and a Dry Season . Each season offers a unique and varied experience, and guests are encouraged to explore the Park with us during both seasons! • Dry Season : This runs from 1 st May through to the 15 th December (depending |



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| El | provides a water-based experience that is wholly different and unique from that if the Dry Season. Birding opportunities at this time are exceptional. The exact starting dates will be advertised at the beginning of each year and is dependent on the intensity of that summer's rainfall |
|---|--|
| BEST TIME TO VISIT | The months of July to September are the coolest and driest months, whilst September and October have some of the better game-viewing out on the floodplains. Best birding is early or late in the season, with great activity as the surface water subsides around April, May & June. In the late wet season (February through to April) punting via dugout <i>mekoros</i> and canoeing are the preferred modes of transport. Seasonal variations in vegetation and wildlife densities make it essential that you return to explore Gorongosa again and again at various times of the year! |
| SPECIAL INTEREST SAFARIS | We offer seasonal special interest safaris - once-off expeditions with specific focus on one of the myriad distinctive features of planet Gorongosa such as birding specials, big game reintroduction, community give back experiences and photographic workshops |
| WILDLIFE | Gorongosa National Park has an impressive species list with more and more species being reintroduced on a monthly basis. The Park is home to significant populations of oribi, reedbuck, waterbuck, warthog and sable. Predators are recovering slowly, with a number of lion prides. Elephant herds and bulls are regularly encountered. Large herbivores are being reintroduced through the sanctuary which has good herds of buffalo, wildebeest, kudu, and Lichtenstein's hartebeest. Leopard occur but these numbers still need to increase somewhat. In the rivers and lake, good populations of hippo and crocodile occur, whilst on the floodplains zebra, impala, monkeys and baboons are to be found. Nyala and bushbuck can be seen frequently in the forests, whilst bush pigs are sometimes also encountered. Nocturnal species include serval, civet, genet, both bushbaby species and porcupine. Birding at Gorongosa is incredible with excellent quality and quantities of special and endemic birds such as the Collared Palm Thrush, the Green Coucal, Narina Trogon and Spotted Creeper. Lake Urema provides a home to a huge number of water birds and one can literally sit for hours watching them flock. Mount Gorongosa is significant as a stand-alone wildlife treasure, its rainforest containing an incredible number of endemic and uncommon species such as the Green headed Oriole, Livingstone's Turaco, Swynnerton's Robin and the Emerald Cuckoo. |
| GUIDE | Top regional professional guide with experienced local Mozambican tracker and trainee guide for skills transfer |
| CAMP STAFF | Blend of experienced hosts and small, tight-knit 'family' unit (8 camp staff means guest to staff ratio of 1:1) |
| EXPLORERS SEMI- PERMANENT CAMP TENTS | 15m ² classic cottage style mobile tents. All tents will be completely bug-proof (with stylish mosquito netting window and door inners), with optional draped mosquito nets above each bed for extra precaution. Tents can be fitted with twin singles or a king bed, and will also contain a clothes rack, suitcase stand, vanity table and stool, side tables and cosy rugs. Each tent includes a spacious "en-tent" bathroom of open-air hot bucket shower, toilet, and canvas basin and relevant amenities. Tents oriented lengthways with large double 'window-doors' (can be fully rolled up to create open front) on river or view-facing front, opening onto a shaded veranda with cushioned day bed and reclining camp chairs. Bathroom attached on side of tent, so also view-facing. Wooden support poles with unobtrusive guy ropes complete the design |
| GORONGOSA SKYBEDS FLY CAMP | Fly camps are flexible and ideally positioned, dependent on guest's interests. Each fly camp is unique and specifically themed according to position, feel, view, |

ww.exploregorongosa.co

| | wildlife and guest interests. Our camps are ecologically designed and environmentally innovative in their operation with a very low footprint on the |
|-----------------------|--|
| NUMBER OF TENTS | surrounding ecology |
| 5V | There are 4 tents per safari. Single guests not wishing to share may request a private tent - a single supplement rate will apply depending on availability |
| LINEN | White cotton throughout down-filled pillows and duvets (summer-style duvets); 550g luxury eco-innovative towels (bath sheets not towels); choice of double or twin beds |
| FOOD & BEVERAGE | Minimal red meat and unnecessary fats; largely fusion food with regional Mozambican influences. Light, original meals served plated, three courses for dinner, two each for lunch and breakfast. Lunches taken alfresco picnic-style. Recommended wines (South African & Portuguese) and beverages optimally matched to meals. Innovative serving and taste-harmonizing techniques |
| ACCESS | Charter flights, private road transfers or self drive to Chitengo Camp, Gorongosa National Park headquarters. At Chitengo Camp, guests will be met by their guide and transferred on by private safari vehicle (approx 15mins road transfer time to <i>Gorongosa Explore</i> camps) Charter flights: 1200m grass strip, suitable for aircraft up to King Air-type, at nearby Chitengo Camp for arrivals & departures. See below for airstrip coordinates. 0h30-0h45 flight-time from Beira and Chimoio international airports; approx 1h30 from Vilanculos international airport and surrounding Bazaruto Archipelago island resorts. Beira, Vilanculos & Chimoio are international airports with regular schedule flights to and from Johannesburg and Maputo (both with connecting flights to Europe, the Americas and Australasia) Private road transfers: air-conditioned vehicles available for transfers from Beira, Chimoio or elsewhere nearby on request. Please enquire with Reservations about costs and routes Self drive: The Park is accessible by private vehicles (although a high-clearance vehicle is recommended). Guests wishing to self-drive are to please report to the National Park Reception at Chitengo Camp where they will be collected by our guide. Vehicles can be aparted safely at Chitengo. The Plank enformed and the safely at Chitengo. |
| | our guide. Vehicles can be parked safely at Chitengo Camp. Please inform Reservations if you will be self-driving in to the Park |
| AIRSTRIP CO-ORDINATES | Coordinates: 18 59 S : 34 21 E |
| | Altitude: 104metres |
| | Runway: 05/23 |
| | Measurements: 1100x45metres |
| | Nature of soils: Clay |
| | Class: Airstrip 2A |
| | Resistance: 12.5 Ton |
| | Critical Airplane: Lear JET 24D |
| | Predominant wind: South Easterly |
| | For all charter flights into Explore Gorongosa, luggage is restricted to maximum |
| LUGGAGE RESTRICTION | 15kg per person in a soft bag. This includes camera equipment and carry-on baggage. If given advance warning of additional luggage, Moja can usually book an extra seat, at an additional cost. If guests are overweight, their baggage could be delayed to the next flight into the camp and this will incur a cost |
| LUGGAGE RESTRICTION | baggage. If given advance warning of additional luggage, Moja can usually book an |