



# Tourism Development Plan

## Bwabwata, Mudumu & Mamilili National Parks



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**Ministry of Environment & Tourism**

Directorate of Parks and Wildlife Management

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## ACRONYMS

<b>BMM Parks</b>	Bwabwata, Mudumu and Mamili National Parks
<b>BOT</b>	Build, operate and transfer concession
<b>CPPP</b>	Community, public, private partnership (in the context of the BMM Parks – a partnership involving MET, one or more neighbouring conservancies and a private tourism firm)
<b>EIA</b>	Environmental Impact Assessment
<b>EMP</b>	Environmental Management Plan
<b>FIT</b>	Fully Independent Traveller
<b>KAZA TFCA</b>	Kavango and Zambezi Trans-frontier Conservation Area
<b>MET</b>	Ministry of Environment and Tourism
<b>MOT</b>	Maintain, operate and transfer concession
<b>NGO</b>	Non-governmental Organisation
<b>ROT</b>	Rehabilitate, operate and transfer concession
<b>TA</b>	Traditional Authority
<b>TOR</b>	Terms of Reference





## 1. Introduction

### 1.1 Method

The Bwabwata, Mudumu and Mamili National Parks (BMM Parks) Tourism Development Plan presented in this document provides guidance for future tourism development in the BMM Parks. It was developed as part of the *Bwabwata, Mudumu and Mamili Parks Project* of the Ministry of Environment and Tourism (MET) which is funded by the German Development Bank (KfW), and is the result of an extensive planning process that has included:

- ✓ A review of the Draft Strategic Management Plan for the North East Parks, as well as park level operational plans, work calendars, development plans and environmental / management zoning;
- ✓ Document reviews of earlier plans for the area, including for neighbouring conservancies;
- ✓ Review of regional market dynamics within the KAZA TFCA;
- ✓ Site visits to the BMM Parks and surrounding areas;
- ✓ Ongoing consultation with MET staff at park as well as head office level;
- ✓ Interviews with key regional stakeholders including product owners and operators, NGOs and others;
- ✓ Presentation of results and options at various workshops of key MET officials and local stakeholders such as conservancies, regional authorities and other community bodies;
- ✓ The development, discussion and adoption by MET of a *BMM Parks Tourism Strategy*, which provided a high-level tourism development framework for the BMM Parks. The current plan builds on this framework;
- ✓ Extensive market research including telephone and face-to-face interviews of 28 lodge and campsite operators, 22 tour operators, 3 professional hunting companies and 15 potential developers / investors (refer to Annex A for examples of the questionnaires that were administered);
- ✓ Compilation of a discussion draft development plan, and presentation of this to the management of the Directorate of Parks and Wildlife Management;
- ✓ Updating of the discussion draft based on comments received, and compilation of this final draft.

The planning process took into account certain commitments that were made in the past by the MET and a Cabinet Decision regarding the BMM Parks, namely:

- ✓ A formal commitment made by Cabinet Decision to develop a lodge in the Buffalo Core Area of Bwabwata National Park, to the benefit of local communities;
- ✓ A formal commitment made by Cabinet Decision to devolve conditional tourism rights inside the BMM Parks to the resident and neighbouring communities;
- ✓ Certain pledges regarding trophy hunting quotas, areas and community benefits within the Bwabwata Multiple-use Area;
- ✓ Formal agreements regarding the establishment of community campsites and traversing rights in the Bwabwata National Park (for Mayuni, Kwando and Mashi conservancies and the Kyaramacan Association). It was agreed between MET and the three conservancies agreed that campsite rights in the Kwando Core Area be in lieu of a single lodge shared between the three communities;



- ✓ The need to review the Lianshulu agreement in the Mudumu National Park to ensure it is in line with regional best practice and contributes meaningfully to the local communities; and
- ✓ Commitments to allow community concessions (possibly campsites) in Mudumu and Mamili National Parks, and the Mahango Core Area.

## 1.2 Structure

The report includes:

- ✓ An overview of the BMM Parks and its regional context, including ecological and environmental considerations, and market conditions;
- ✓ A brief section clarifying the recommended concessioning approaches for the BMM Parks;
- ✓ An overview of the various components of the BMM Parks and the proposed tourism products in each;
- ✓ A summary of the probable financial impacts of the proposed new products;
- ✓ A brief overview of the main environmental issues affecting tourism in the BMM Parks;
- ✓ A summary of the priority ratings of the proposed concessions and management interventions; and
- ✓ Recommended next steps for taking the tourism development process forward.

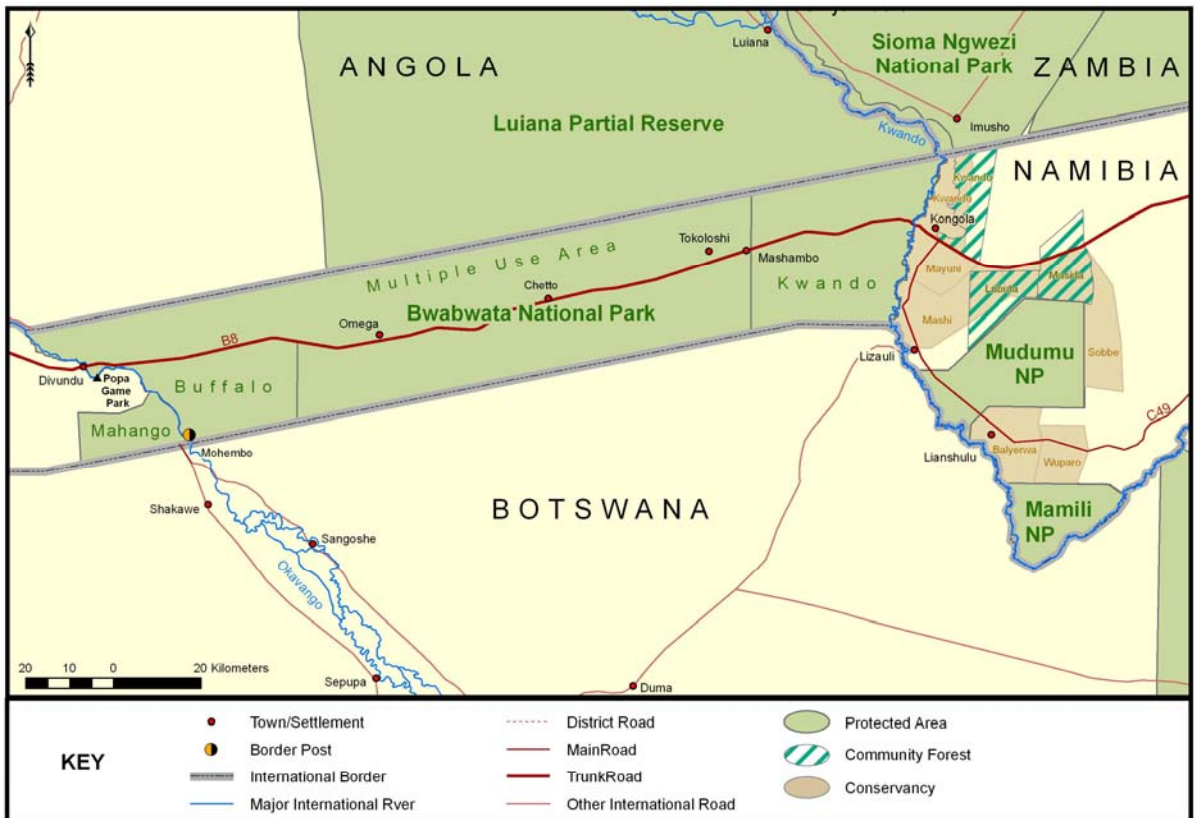


## 2. The Regional Context

### 2.1 Focal area

The planning domain for this study is known as the Bwabwata, Mudumu and Mamili National Parks (or BMM Parks), situated in the Kavango and Caprivi Regions of Namibia (refer to Figure 1). These parks occur within a broader, more complex regional layout, including four neighbouring countries. This is illustrated in Figure 2.

Figure 1: Location of the BMM Parks.



**Figure 2:** Location of the BMM Parks within a SADC regional context.

The Bwabwata National Park (627,412ha) extends from the Kavango River in the west to the Kwando River in the east, and also includes the former Mahango Game Park. Bwabwata is bordered to the north by Angola and to the south by Botswana, with the latter boundary being fenced except for a 30km stretch east from the Kwando River. Three community conservancies (Kwando, Mayuni and Mashi) lie east of Bwabwata.

The Mudumu National Park (de jure 101,403ha, or de facto 73,729ha) is situated approximately 35km south of Kongola and extends from the Kwando River, east along the Mudumu Mulapo and its associated dry Mopane and Terminalia woodlands. The park is bordered to the west by Botswana, to the north by Mashi Conservancy, with Sobbe to the east and Balyerwa, Wuparo and the emerging Dzoti to the south.

The Mamili National Park (de jure 33,797ha, or de facto 31,850ha) is situated approximately 35km south of Mudumu. The park was proclaimed to protect the permanent swamp and flooded areas of the lower Kwando River, and is the largest wetland area with conservation status in Namibia. The Kwando River forms the park's western boundary, with the Linyanti River forming its eastern border. To the south is Botswana and to the north are two registered conservancies (Balyerwa and Wuparo) and one emerging conservancy (Dzoti).

As indicated above, both Mudumu and Mamili have discrepancies between their de jure and de facto boundaries, with the de facto boundaries being situated some distance inside of the de jure.

These parks were proclaimed only days prior to independence with a requirement that their boundaries be confirmed on the ground with local *Indunas*<sup>1</sup> once the parks were proclaimed.

The biodiversity of the BMM Parks is unique within Namibia. This is primarily due to the Kavango, Kwando and Linyanti Rivers and their associated habitats. While most of the Kwando River is well protected in terms of adjacent land having formal conservation status (both State and community), very little of the Kavango River is protected in Namibia. In fact only around 16km is protected on both sides, with 51km protected on one side only.

There are also some features away from the rivers that attract tourists and require special management, particularly the drier woodlands and grasslands. The scale and frequency of fire structure currently threaten the composition of the woodlands and grasslands. Wildlife poaching has also been a problem in the past and still persists in some areas. The Mudumu and Mamili National Parks are relatively small and therefore appropriate land uses in adjoining areas are crucial to conserve biodiversity and optimise economic benefits. The same applies to the Bwabwata National Park's Core Areas, especially Mahango and Kwando that have high density human settlement (including cropping) directly opposite.

The areas of highest tourism potential are clearly the rivers and their associated habitats, and these must be exploited carefully to generate sustainable economic benefits for both local people and Namibia generally. It is therefore important that park management be done in a way that optimises these benefits while also safeguarding the parks from excessive or inappropriate use.

## 2.2 KAZA

The BMM Parks forms part of a greater southern African region that includes iconic destinations such as the Victoria Falls, Okavango Delta and Chobe National Park. These areas are well served by tourist infrastructure and already offer a wide range of products and services.

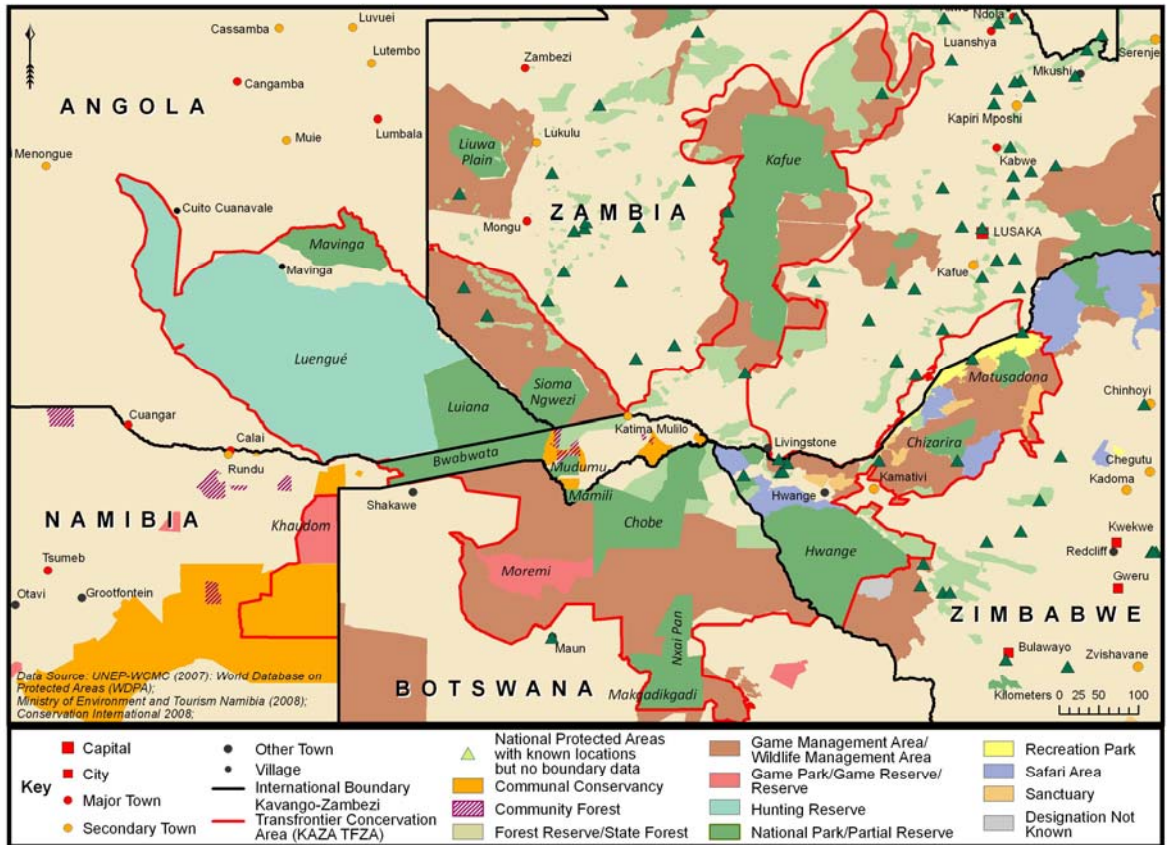
The greater 'five-countries' region is however widely perceived to be vastly underdeveloped and to have significant untouched tourism potential. In order to tap this promise, the region has recently become the focus of the Kavango and Zambezi Trans-frontier Conservation Area (KAZA TFCA), an ambitious initiative that will have far reaching implications for the future of the area's tourism industry.

KAZA encompasses an area of ±300,000 square kilometres, straddles the international boundaries of Angola, Botswana, Namibia, Zambia and Zimbabwe, and includes numerous proclaimed national parks, game reserves, forest reserves and wildlife management areas (see **Figure 3**).

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<sup>1</sup> Village level traditional leaders



**Figure 3:** Location of the KAZA TFCA.

The Caprivi Strip, which is the area between the Kavango River and Zambezi River (with the BMM Parks at its core) forms the hub of KAZA, and will, as such, play an important role in the development of this multi-national regional initiative. As KAZA matures and stimulates trans-boundary benefits and opportunities, tourist numbers passing through the Caprivi and Kavango regions are likely to grow significantly.

### 2.3 Access and transport infrastructure

Currently there is limited air access into the BMM Parks and adjoining areas. Only Mpacha airport, outside of Katima Mulilo, hosts scheduled flights from Windhoek (twice per week). However there is regular scheduled access to Livingstone, Kasane and Victoria Falls. Also, the international airport at Livingstone is undergoing major expansion and is set to become KAZA's principal entry point. Once Livingstone is upgraded, air entry into KAZA is likely to escalate with road and air charter traffic fanning out from the Livingstone/Victoria Falls hub into neighbouring countries.

A number of registered airstrips are located in the BMM Parks, some of which were built to a military standard before independence. These airstrips and their locations are indicated on maps throughout this report and are summarised in **Table 1** below.

**Table 1:** Location of air strips inside or near to the BMM Parks.

Park	Location of strip	Condition of strip
Bwabwata National Park	<ul style="list-style-type: none"> <li>• Bagani, north of Mahango Core Area</li> <li>• Omega, Multiple-use Area</li> <li>• Immelmann, Kwando Core Area</li> </ul>	<ul style="list-style-type: none"> <li>• Dirt, excellent all weather</li> <li>• Tarred, excellent</li> <li>• Dirt, good, not useable in very wet weather</li> </ul>
Mudumu National Park	<ul style="list-style-type: none"> <li>• Northern boundary of Lianshulu concession area</li> </ul>	<ul style="list-style-type: none"> <li>• Dirt, good, not useable in very wet weather</li> </ul>
Mamili National Park	<ul style="list-style-type: none"> <li>• Nkasa Island</li> </ul>	<ul style="list-style-type: none"> <li>• Poor, not useable, old military strip, needs rehabilitation</li> </ul>

In terms of road access, a high quality tar highway (the B8) connects the Botswana border at Ngoma with Katima Mulilo, Kongola, Divundu and Rundu. A new bridge across the Zambezi at Katima Mulilo connects the Caprivi and Kavango regions with western Zambia. A series of C-grade roads in Caprivi and eastern Kavango provide rapid access to the BMM Parks. Within the various components of the complex, circulation is mainly by dirt roads, which in most cases are only navigable by 4x4 vehicles. **Table 2** below outlines the BMM Parks access roads.

**Table 2:** Access roads to the BMM Parks.

Park	Access road	Condition of road
Bwabwata National Park	<ul style="list-style-type: none"> <li>• B8 linking Ngoma, Katima, Kongola, Divundu and Rundu</li> <li>• C48 linking Divundu with the Moembo border post via Mahango Core Area</li> </ul>	<ul style="list-style-type: none"> <li>• Tarred, excellent all weather</li> <li>• 50% tarred, 50% dirt, with dirt section extremely muddy during wet weather</li> </ul>
Mudumu National Park	<ul style="list-style-type: none"> <li>• C49 linking Katima with Kongola, via Linyanti</li> </ul>	<ul style="list-style-type: none"> <li>• Dirt, good condition, recently resurfaced, but slippery in wet weather</li> </ul>
Mamili National Park	<ul style="list-style-type: none"> <li>• C49 linking Katima with Mamili via Linyanti</li> <li>• From Sangwali and Malengalenga villages, 4x4 tracks can be taken into the park</li> </ul>	<ul style="list-style-type: none"> <li>• Dirt, good condition, recently resurfaced, but slippery in wet weather</li> <li>• Poor, frequently flooded, 2 pole bridges are used to cross deep channels from Sangwali, however these are frequently broken</li> </ul>

In terms of new access roads in the region, the Botswanan authorities have recently approved the construction of a paved road from Maun to Kasane. This will create the conditions for a major triangular tour route linking Victoria Falls via the Caprivi with the Okavango Delta and Chobe. Furthermore, it has been suggested that a new bridge over the Zambezi at Kanzangula and surfacing of the track linking Tsumkwe in Namibia with the Okavango Panhandle in Botswana are being considered.

There are several border posts in the region that enable access for foreign visitors to the BMM Parks. Most of these are formal immigration points where passports are required, while others are informal checkpoints that allow short term cross-border movement by local people (for up to 30km on either side). These are summarised in **Table 3** below and illustrated on **Figure 2**.

**Table 3:** Namibian border posts near the BMM Parks and within the KAZA area.

Park	Border post	Status (formal / informal)
Bwabwata National Park	<ul style="list-style-type: none"> <li>• Mohembo (Botswana)</li> <li>• Mutc'iku (Angola)</li> <li>• Bwabwata (Angola)</li> <li>• Singalamwe (Zambia)</li> </ul>	<ul style="list-style-type: none"> <li>• Formal</li> <li>• Informal</li> <li>• Informal</li> <li>• Informal</li> </ul>
Mudumu National Park	<ul style="list-style-type: none"> <li>• Lianshulu Lodge (Botswana)</li> </ul>	<ul style="list-style-type: none"> <li>• Informal</li> </ul>
Mamili National Park	<ul style="list-style-type: none"> <li>• None</li> </ul>	<ul style="list-style-type: none"> <li>• None</li> </ul>
Other (KAZA)	<ul style="list-style-type: none"> <li>• Katima Mulilo (Zambia)</li> <li>• Ngoma (Botswana)</li> <li>• Impalila (Botswana)</li> </ul>	<ul style="list-style-type: none"> <li>• Formal</li> <li>• Formal</li> <li>• Formal</li> </ul>

Visitor entry to the BMM Parks is required through a park entry facility unless other advance arrangements can be made. In some cases lodge operators have negotiated special entry conditions that allow park access via river crossing, and payment of park fees at month end. It is proposed later in this tourism plan to formalise these arrangements as concessions. It has also been suggested to re-locate some of the existing park entrances to better locations for managing visitor access. Park entry facilities are currently situated as outlined in **Table 4**.

**Table 4:** Current park entrance facilities.

Park	Entry facility
Bwabwata National Park	<ul style="list-style-type: none"> <li>• Mahango station</li> <li>• Buffalo station</li> <li>• Susuwe station</li> </ul>
Mudumu National Park	<ul style="list-style-type: none"> <li>• Nakatwa station</li> </ul>
Mamili National Park	<ul style="list-style-type: none"> <li>• Shisinze station</li> <li>• Baobab camp (informal)</li> </ul>

## 2.4 Environmental context

In this section, a summary of the salient ecological and environmental attractions and constraints within the BMM complex is provided. Site-specific considerations are also provided for each park or area in the sections that follow.

This does **NOT** replace the mandatory EIA process required by the Namibian Environmental Management Act (2007), but is intended to provide guidelines to the various stakeholders involved in the management and development of each park, as well as to highlight points requiring further elaboration during the formal EIA process required under current legislation.

### Environmental attractions and opportunities

Some of the key environmental attractions and opportunities are summarised below:

- ✓ The BMM Parks are a critical component of the trans-frontier conservation area between Namibia, Angola, Zimbabwe, Zambia and Botswana and represent a link between the conservation areas in these countries.

- ✓ The parks form part of important corridors for animal movement within the greater region in Namibia and surrounding countries.
- ✓ At a national level, rivers, floodplains and the areas adjacent to these are important habitats as they are not represented elsewhere in Namibia.
- ✓ The biodiversity of the Kavango and Caprivi regions, especially the BMM Parks, is unique within Namibia and is considered to be of national importance. This is primarily due to the Kavango, Kwando and Linyanti rivers and their associated habitats.
- ✓ Many species of plants, game, birds and other animals are supported by the riparian forests and wetlands of these rivers, which include rapids, open water, swamps and pans. There are also a number of special features away from the rivers that deserve special management, particularly the drier woodlands and grasslands.
- ✓ An outstanding feature of the area is the high number of large mammal and bird species that are nationally rare. Several animal species occurring in the BMM Parks have been identified as priorities for management within Namibia.
- ✓ The omurambas and their associated grasslands are habitat for the rare roan (*Hippotragus equinus*), sable (*Hippotragus niger*) and tsessebe (*Damaliscus lunatus*) antelopes. These species are the focus of much conservation effort, both because they are nationally threatened and because they are a valuable basis for economic development.
- ✓ The riparian areas and the rivers themselves are the habitat for highly prized (by birdwatchers) bird species such as Souza's shrike (*Lanius souzae*), Rock Pratincole (*Glareola nuchalis*) and White-backed Night-heron (*Gorsachius leuconotus*). The Mahango Core Area is listed as an internationally important bird area (supporting globally threatened species) and is an avian diversity hotspot.
- ✓ The riverine and associated woodlands are not only high in biodiversity and crucial for many species in the dry season, but also form the core tourism attraction to the region.
- ✓ Another important aspect for tourism includes the intactness of many of the riparian woodlands and thickets, especially in the Buffalo and Kwando Core Area of Bwabwata.
- ✓ The cultural dimension of the people, including long established human-wildlife interactions and the more recent development of very successful CBNRM initiatives, including formal conservancies located along the borders of many of the BMM Parks, which also contribute to the conservation and wildlife populations of the region.

## Environmental constraints and threats

Some of the salient environmental constraints and threats include:

- ✓ Solid waste management in the BMM Parks and surrounding areas is a matter of serious concern. Currently there are no properly organised and managed solid waste management sites, and rubbish is generally dumped into old borrow pits or buried. As such, proper waste management will be an important consideration for environmental assessments of future developments in the BMM Parks.
- ✓ Certain areas within the BMM Parks become seasonally water-logged, making access difficult. Road alignment, construction, use and maintenance needs to be carefully planned to avoid ugly scares caused by excessive use while muddy. Road scraping should be avoided, except for surfaced tracks such as in Mahango.
- ✓ Apart from the strong influence of soil types, the dominance and hence structure of vegetation types is often determined by the relative frequency and intensity of fires experienced over the last decade or more, as well as by impacts associated with elephant occurrence (*Loxodonta africana*).



- ✓ Riparian vegetation associated with the Kavango River, as well as the woodlands of its adjacent slopes, are severely threatened by clearing for cultivation on the one hand, and by elephant impacts on the other.
- ✓ Away from the river systems, habitat is dominated by woodland and grasslands. Fire has a critical influence of these drier areas away from the rivers, especially on structure and species composition. Currently, the integrity of the area is threatened by poor fire management practices. Fire management is critical in the woodland areas because of its potential impact on the system itself and on neighbours. If these areas are not burnt, for example, animals will favour grazing in sweet-veldt and riverine areas and not remain in such areas, leading to problems such as overgrazing.
- ✓ Roan, sable and tsessebe have highly specialised requirements and are sensitive to changes in habitat structure. Impacts on their numbers may therefore interfere both with their continued survival in the region and possible use for economic development.
- ✓ Serious human-wildlife conflict is being experienced in the area, especially by people on the east banks of the Kwando River floodplain, and neighbouring Mahango Core Area. It is expected that tensions between local farmers, conservancy committees and MET will escalate if this situation is not carefully managed, and if benefits from conservation do not adequately mitigate the costs of living with wildlife.
- ✓ Approximately 5,500 people are resident in Bwabwata, and are reliant on the park as a source of natural products, including food and medicine. In addition, such resident populations also grow stable crops, own and graze cattle and small stock within the park.
- ✓ Numerous areas within this region have been severely impacted by humans in the past. Pre-independence military activities, trophy hunting camps, road construction borrow pits, and ad hoc infrastructure development by MET and other agencies, have left a legacy of impacts, especially old buildings and equipment.
- ✓ It appears that many large mammal species have become locally extinct or are uncommon or rare in the BMM Parks. It appears that poaching, especially in the past, has contributed to this.

## 2.5 Attractions, products, markets, flows and trends

### Attractions

Following market research conducted of accommodation providers and tour operators (including hunting outfitters) it was revealed that the **national parks** with their unique wildlife and birdlife as well as “wetland wilderness” appeal are the most important tourism attraction in north eastern Namibia. It was also revealed that other major regional attractions such as **Victoria Falls, Chobe National Park and Okavango Delta** are critical for tourism in north eastern Namibia as they draw visitors along routes that enable stopovers. The tourism industry also identified secondary attractions that are important for extending the stay of visitors, including cultural and historical sites (traditional homesteads, cultural walks, graves, old missions, rock art at Tsodilo Hills<sup>2</sup>).

The national parks have a number of unique selling points. These together with current activities undertaken in and directly adjacent to the BMM Parks are outlined in **Table 5** below.

**Table 5:** Main attractions within the BMM Parks, and current activities.

Park attractions	Activities
<ul style="list-style-type: none"> <li>• “Wetland wilderness” appeal characterised by wide panoramic views of rivers, oxbow lagoons and back waters, swamps, reed beds, grasslands</li> </ul>	<ul style="list-style-type: none"> <li>• Vehicle based game viewing</li> <li>• Guided walks</li> </ul>

<sup>2</sup> A proclaimed World Heritage Site situated in Botswana approximately 100km south of Moembo border post.

- Opportunities for solitude and isolation
  - Freedom of movement
  - Remoteness and challenging accessibility of certain areas
  - A largely unmodified natural environment that is not over commercialised or developed
  - Opportunities for close interaction with large unique wildlife species, including big game and rare species (such as elephant, buffalo, wildebeest, giraffe, roan, sable, red lechwe, bush buck, reed buck, hippo, crocodile)
  - Other iconic environmental attractions such as islands, baobabs, omuramba / pan systems, unique dry woodlands, fish and birdlife
  - Cultural attractions such as traditional homesteads and way of life of different tribes, graves, historical graffiti (on Baobabs), historical routes of voertrekkers and missionaries
- Guided boating (motorised and with canoe)
  - Fishing (only allowed under special permits)
  - Trophy hunting (only allowed under special permits)
  - Guided cultural excursions
  - Bird watching
  - Self drive 4x4 excursions
  - Camping

These attractions are aligned with the national branding strategy of the Namibia Tourism Board, which creates harmony within the industry on how Namibia should be branded to the world as a destination.

#### Existing tourism products

There are currently very few accommodation products situated inside of the BMM Parks – two community campsites inside the Kwando Core Area of Bwabwata, one community campsite inside the Bwabwata Multiple-use Area, two lodges (part of a single concession) inside of Mudumu, four MET operated campsites inside of Mudumu and two inside of Mamilili. The vast majority of visitors to the BMM Parks are therefore guests at lodges and campsites situated on adjacent land. For this reason the parks are critical to the sustainability of tourism in the area as they supply the primary attractions and activities offered by accommodation providers.

To present summarised findings from the market research, this report aggregates information from the different focal points or “nodes” in the BMM Parks – 1) Kavango river node encompassing the establishments inside and adjacent to western Bwabwata, and 2) Kwando river node including establishments inside of and directly adjacent to eastern Bwabwata, as well as Mudumu and Mamilili. **Table 6** below summarises important information regarding the current supply of accommodation inside of and adjacent to the BMM Parks.

**Table 6:** Accommodation market information during 2007/08 – Kavango river node.

<b>Establishments:</b>	9	<b>Occupancy:</b>	32% in rooms <sup>3</sup> 22% in campsites	<b>Length of stay:</b>	2 nights
<b>Rooms:</b>	102	<b>Nights sold:</b>	50,041	<b>Guest numbers:</b>	25,021 (13,323 in rooms; 11698 campers)
<b>Campsites:</b>	78	<b>Camping nights sold:</b>	23,396	<b>Market level (% establishments):</b>	55% budget; 34% middle; 11% upper
<b>Beds:</b>	237	<b>Purpose of visit:</b>	>75% leisure	<b>Market segmentation:</b>	62% overseas; 19% SADC; 18% Namibian
<b>Tourism jobs:</b>	217	<b>Annual turnover:</b>	21m	<b>Capital invested:</b>	58.3m
<b>Annual wage bill:</b>	3.5m				

<sup>3</sup> Occupancy among the long established lodges in the area range from 43% to 50%, this is brought down on aggregate by several underperforming and / or new lodges.

**Table 7:** Accommodation market information during 2007/08 – Kwando river node.

<b>Establishments:</b>	9 <sup>4</sup>	<b>Occupancy:</b>	38% in rooms 24% in campsites	<b>Length of stay:</b>	1.63 nights
<b>Rooms:</b>	94	<b>Nights sold:</b>	32,587	<b>Guest numbers:</b>	19,963 (15,519 in rooms; 4,444 campers)
<b>Campsites:</b>	35	<b>Camping nights sold:</b>	6,023	<b>Market level (% establishments):</b>	22% budget; 34% middle; 44% upper
<b>Beds:</b>	191	<b>Purpose of visit:</b>	>85% leisure	<b>Market segmentation:</b>	86% overseas; 8% SADC; 6% Namibian
<b>Tourism jobs:</b>	240	<b>Annual turnover:</b>	23.5m	<b>Capital invested:</b>	52.3m
<b>Annual wage bill:</b>	5.5m				

A total of 31,895 tourists visited the BMM Parks in 2008 (i.e. excluding transits and official visitors). These are summarised by park in **Table 8** below.

**Table 8:** Park entrance statistics for 2008.

Park	Visitor numbers	Market segmentation
Bwabwata National Park:		
• Mahango Core Area	17,067	62% overseas; 14% SADC; 24% Namibian
• Buffalo Core Area	2,440	29% overseas; 25% SADC; 46% Namibian
• Kwando Core Area <sup>5</sup>	5,971	72% overseas; 17% SADC; 11% Namibian
Mudumu National Park <sup>6</sup>	6,205	83% overseas; 9% SADC; 8% Namibian
Mamili National Park	212	42% overseas; 19% SADC; 40% Namibian
<b>TOTAL</b>	<b>31,895</b>	<b>65% overseas; 15% SADC; 20% Namibian</b>

Most activities taking place within the BMM Parks during 2008 were conducted by neighbouring or resident accommodation providers or tour guides with guests staying at these places. However, there are two specialised tour operators based in Katima Mulilo that guide visitors into the parks regularly (especially Mamili).

#### Trophy hunting

From 2006 to 2007 MET awarded two trophy hunting concessions to the community resident inside of Bwabwata National Park (Bwabwata East and Bwabwata West). The residents association then awarded a sub-contract to two private companies to implement the concessions in return for the payment of trophy fees and provision of employment. These hunting contracts expired in November 2007 and are currently being renewed for three years from 2009 to 2011.

In 2007 a total of NAD2,284,387 was earned through trophy fees from the Bwabwata concessions, while a further NAD218,230 was earned through local employment of trackers and skinners. According to the concession agreement with MET, fifty per cent of the trophy fees were paid into the Game Products Trust Fund (GPTF) as the wildlife was hunted inside of the national

<sup>4</sup> There are a further 5 establishments (community campsites) that were built but are currently not operational.

<sup>5</sup> Park figure amended to add data from Susuwe, Mazambala & Namushasha that was not included in the MET incident book.

<sup>6</sup> Park figure amended to add Lianshulu guest numbers, as these were not provided to park staff for inclusion in the incident book.

park. Furthermore, in 2008 the conservancies living alongside Mamili, Mudumu and the Kwando Core Area of Bwabwata benefited from trophy hunting concessions on their own land. These concessions netted a total of NAD2,268,064 in fees and NAD182,479 through local employment. From these concessions inside and bordering the BMM Parks, both the resident and neighbouring communities also benefit from meat distribution from trophy hunting.

Clearly there is very high demand for trophy hunting opportunities in and around the BMM Parks – particularly because of the potential for hunting big game. Furthermore, at the moment trophy hunting is the major cash contributor to conservancies and community associations in this area.

#### Existing markets

The market research indicated that the following tourism markets make use of the BMM Parks:

- ✓ **Fully independent travellers (FITs) using their own vehicles:** These visitors are predominantly Namibian and South African residents that have their own 4x4 vehicle, and want to explore the area. They travel with more time, and are normally fully independent. The preferred accommodation for this market is camping and budget / mid level lodges that provide for self catering. These types of visitors are very common in the focus area.
- ✓ **FITs using hired vehicles:** These visitors are exclusively international and hire vehicles to explore Namibia. They are more adventurous than those travelling in groups on formal tours, but often lack the confidence to travel too far off established routes. They normally have more time and like to stay in a variety of accommodation during their safari, from camping through to tented camps and luxury lodges. They travel with more time, and are normally fully independent. These types of visitors are very common in the focus area.
- ✓ **Large sized (25 to 44) vehicle-based tour operators:** This market makes use of large buses or overland trucks, and visitors are exclusively international. These operators use budget and mid level accommodation and run relatively short safaris including key attractions. An exception to this is the overland market, which are normally traversing the entire region or continent and make use of camping accommodation. These types of operators are common in the focus area.
- ✓ **Medium sized (9 to 24) vehicle-based tour operators:** This market makes use of medium sized buses, and visitors are exclusively international. Operators use budget and mid level accommodation, including camping, and offer a more personalised experience. These types of operators are common in the focus area.
- ✓ **Small sized (2 to 8) vehicle-based tour operators:** These operators specialise in personalised safaris and make use of mid and up market accommodation. Their visitors are exclusively international. The vehicles are often 4x4 and can therefore access the more remote areas, enabling the operator (normally also the guide) to explore and conduct some of their own activities. These tour operators are common in the focus area.
- ✓ **Luxury fly in safari operators:** These operators specialise in highly personalised safaris and make use of luxury up market accommodation such as tented camps and lodges. Visitors are exclusively international and are often on a regional flying safari, including other attractions in Namibia and neighbouring countries. These tour operators are not common in the Kavango river node, but are very common in the Kwando river node.
- ✓ **Sport and trophy hunting outfitters (big game):** These operators specialise in highly personalised big game hunting safaris. Visitors are exclusively international and visit the BMM Parks and adjacent areas primary for hunting big game (elephant, buffalo, and lion). While on safari they will often take time off for other activities such as fishing. They are guided by Namibian registered professional hunting guides, and around 4 support staff. They travel in very small groups of 2-4 guests. These visitors prefer bush camping, away from formal accommodation facilities.



## Tourism gateways and routes

Four main gateways and four tour routes currently supply visitors to the BMM Parks. The gateways include:

- ✓ **Ngoma Bridge** is the south-eastern gateway linking the Caprivi region to Chobe National Park, Kasane and Victoria Falls.
- ✓ **Katima Mulilo** is the north-eastern gateway providing road access from western Zambia and Victoria Falls, and air access from Windhoek (via Mpacha).
- ✓ **Divundu** is the western gateway linking Bwabwata (Mahango / Buffalo Core Areas) to northern Namibia via Rundu or Khaudum National Park.
- ✓ **Mohembo** is the south-western gateway linking Bwabwata (Mahango / Buffalo Core Areas) to the Okavango Delta and panhandle.

There are currently **four main tour routes** that impact on the BMM Complex, serving different sectors of the market:

- ✓ The **Caprivi Tour Route** links Victoria Falls to Etosha via Caprivi. It has a high quality tarred road (B8) that has recently seen an increase in coach traffic. This route is also popular with overland tours and self-drive tourists from overseas and South Africa.
- ✓ The **Western Ngamiland Tour Route** links the Divundu area to Maun and the Okavango Delta via Mohembo and the Okavango Panhandle. This route is of minor road standard and is not suitable in its current form for large tour coaches. It is popular with self-drive tourists, microbus-based tour groups and overland trucks on trans-African journeys. A number of medium-priced lodges south of Divundu and along the Okavango Panhandle serve this market. The Panhandle is also a popular fishing destination that draws visitors from many areas. It is anticipated that this route will grow in importance – attracting new markets, notably tour coaches – as general tourist volumes escalate, the roads are upgraded and the new paved link between Maun and Kasane is completed.
- ✓ The **Chobe Link Tour Route** links Maun to Kasane via Chobe National Park. This route does not directly impact the BMM Parks but some travellers continue into the Caprivi region via Ngoma. The route is an unpaved track that is only passable with 4x4 vehicles. This route, usually with a detour through Moremi Game Reserve, is popular with mobile safari operators and self-drive tourists predominantly from South Africa but also from overseas.
- ✓ The **Linyanti/Kwando Tour Route** links the upmarket products along the Botswana side of the Linyanti/Kwando with Mudumu (in the form of the Lianshulu lodges). This route relies on air transport and streamlined border arrangements. It is currently limited but could grow if further upmarket facilities are established in and around Mudumu and Mamili.

The influence of the KAZA initiative and the emergence of a triangular tour route between Victoria Falls/Chobe, Divundu and the Okavango Delta are likely to stimulate significant growth in all the market segments – including the coach market – referred to above. The region – with the BMM Parks at its core – is therefore likely to experience burgeoning demand across a broad market spectrum for the foreseeable future. It is also notable that there is a cross-over of major routes at Divundu, which confirms its importance as a regional tourism hub that is likely to grow significantly over time.

## Trends and issues

Some of the key tourism trends and issues identified from the research include:

- ✓ There is a strong shift from scheduled tours to custom-tailored tours and packaged self drive itineraries for the international market.
- ✓ Visitors are becoming more adventurous and demanding better quality, more authentic activities and experiences;
- ✓ Visitors and tour operators demand improvement to the standard of infrastructure and customer care in parks, as well as accommodation facilities in the focal area;
- ✓ Strong seasonality remains a major challenge for the tourism industry in north eastern Namibia, especially with the overseas markets. This is largely due to the extended wet season (in comparison with the rest of Namibia), and the corresponding risk of malaria. Having said that, Namibian and SADC visitors are less affected by these issues, and increases in off-peak season visitors from these markets are being experienced;
- ✓ Traditional culture is seen by visitors as a major attraction for their visit to Namibia, but too few operators provide authentic and responsible cultural activities;
- ✓ All accommodation providers and tour operators have experienced significant growth in demand since 2007;
- ✓ The area is becoming popular as an “affordable alternative to the Okavango Delta”;
- ✓ Visitors are very happy with the “natural, undeveloped, wilderness appeal” of the BMM Parks – “keep it natural, don’t over develop”;
- ✓ Visitors, especially the Namibian and SADC FIT market, demand a degree of freedom of movement through the parks. Areas should to be set aside for these adventure / isolation seekers, but on a regulated basis;
- ✓ From 2007 the focus area has been seen as a safe destination again, as indicated by the increase in international self drive visitors. It therefore took approximately five years for the industry to recover from the period of insecurity between 1999-2002.
- ✓ Tour operators trading in the large group market (coaches), indicate that it is difficult to acquire room space for their groups in this area as the lodges tend to be too small and don’t allow forward block booking;

#### Recommended products

The lodge owners, tour operators, hunters and agents interviewed recommended a number of new accommodation and activity products for the BMM Parks. They also made several suggestions for improving the management of tourism in the parks. These are outlined in the following sections.

#### **Accommodation:**

Suggestions regarding accommodation include:

- ✓ The standard of existing accommodation facilities and services needs upgrading as expectations from visitors (especially from overseas) regarding quality standards is increasing;
- ✓ Up market tented camps that also offer authentic “wilderness” appeal, nature, wildlife and cultural experiences. This proposal was particularly popular for Mamilili and suggested for Kwando and Mahango areas;
- ✓ Roadside accommodation catering for the mid-market, and especially for medium and larger groups;

- ✓ Higher quality, more accessible and better serviced campsites and self catering accommodation suitable for the FIT market (both international and local / regional);
- ✓ Unserved bush camping sites in remote areas suitable for the local / regional FIT market, as well as small niche market tour operators. It was recommended that operators require "private, booked sites" rather than being required to share with the public.

**Activities:**

It was suggested to increase the quality and variety of activities permitted in the BMM Parks. Examples include:

- ✓ Fishing (tag and release basis);
- ✓ Specialised birding excursions;
- ✓ Boating (especially guided, and by canoes and motor boat);
- ✓ Walks (especially guided, and both day walks and overnight hikes);
- ✓ Night or evening drives outside of standard park access times;
- ✓ Carefully planned and sensitive cultural activities are needed, such as visits to homesteads, "way-of-life" educational tours, wildlife tracking and bush walks. There is high demand for San led activities;
- ✓ Trophy hunting – the focal area is one of the most popular trophy hunting destinations in Namibia and provides a rare opportunity to hunt big game;
- ✓ Provide "step-on" guides for remote areas places with challenging access or hazards;
- ✓ Well laid out self-drive 4x4 routes with bush camping;
- ✓ Opportunities for guided self drive (especially for the international FIT market) into more remote areas;

**Suggestions to improve tourism in the parks:**

General comments:

- ✓ Keep the BMM Parks as natural as possible – don't over-develop them;

Hunting:

- ✓ Provide clear segregation between hunting areas (trophy hunting and harvesting) and photographic tourism areas (e.g. serious conflicts and problems with public safety have been experienced in Mahango, Buffalo and Kwando Core Areas, as well as on the boundary of Mudumu);

Roads:

- ✓ The road or track network in the BMM Parks needs improvement. The road network in some parks is too limited for sustaining the current volume of visitors (particularly Mahango and Kwando Core Areas). Also, there is insufficient signage to guide the growing volume of self-drive visitors;
- ✓ The 2x4 road through Mahango is in VERY poor condition, and needs urgent attention in terms of resurfacing;
- ✓ Access for larger vehicles such as medium sized buses needs to be improved to Mahango Core Area (clearing of low branches, widening corners and turning circles);

- ✓ Improve access to Mamili by developing bridges in key locations and improving the track network;

Park entrances:

- ✓ Relocate park entrances so park staff are better able to regulate visitors (especially Kwando Core Area, Mudumu);
- ✓ Improve access regulation / control, especially to sensitive areas and those that experience congestion at peak times, such as at Horseshoe Lagoon in Kwando Core Area and in Mahango;
- ✓ More visible tourist information should be displayed regarding what is permitted and illegal inside of the parks;
- ✓ Visitors should be supplied with more written information, including maps and brochures when they enter;
- ✓ Provide training to park entry staff so they become more friendly and are able to supply visitor information;
- ✓ Advice must be given to visitors on how to handle hazards such as “elephant road-blocks” and flooded channels;
- ✓ Park entrance facilities need upgrading and should offer more services such as tourist information (even an information centre), basic refreshments (kiosk), local craft, information on wildlife (species lists) and the local environment etc.

Tourist infrastructure:

- ✓ Provide formal picnic sites, especially in Mahango Core Area;
- ✓ Kongola need improved visitor services such as a functioning petrol station, shop and banking facilities;
- ✓ Divundu needs to be properly planned and cleaned up, to improve its image as a visitor gateway to the north east of Namibia;
- ✓ Game / bird viewing hides, view points or platforms would be popular in key locations such as in Mahango Core Area and at Horseshoe Lagoon in Kwando Core Area;
- ✓ Investigate the feasibility of providing a small restaurant in Mahango (volume appears sufficient);

Park management:

- ✓ Some of the parks are messy – they don’t have proper waste management. Regular clean ups are also needed;
- ✓ Visitor toilets are required in heavily visited parks such as Mahango Core Area;
- ✓ Improve the vigilance and patrolling of park staff to effectively monitor visitor activities such as off-road driving, fishing, illegal camping etc.
- ✓ Park staff must be more vigilant in deterring wildlife crime; and
- ✓ Re-introduce more wildlife (variety and volume) to the BMM Parks. The game viewing quality in some parks needs to be improved in order to sustain continued growth in tourism (particularly Mudumu).

## 2.6 Zoning

Zoning of the BMM Parks is critical to help achieve MET's park goals of: 1) protecting important habitats, biodiversity and heritage; 2) enabling economic development in rural areas; and 3) providing access to natural areas for the public. Zoning enables scarce or sensitive areas to be protected, while at the same time allowing an acceptable level of use in order to achieve economic development. It is also important to prevent conflicts between different user groups (such as hunters and photographic tourists), and to enhance visitor experience.

According to the Draft Strategic Management Plan for the North East Parks, two layers of zoning need to be applied:

- ✓ **Primary layer** is applied on the basis of: 1) legislation and national policy; 2) conservation importance of specific habitats in terms of their sensitivity and scarcity; and 3) the need to protect special areas or features in the landscape
- ✓ **Secondary layer** is applied on the basis of 1) economic opportunities that could be accommodated in the parks, with special attention given to the potential for tourism and its market viability, and; 2) management, social and other practical considerations needed to manage the parks effectively, such as existing or planned infrastructure.

This plan will summarise the legislated conservation zones and biophysical zones, and present in detail the proposed tourism zoning for the BMM Parks. The biophysical zones are summarised from the draft zoning report prepared by the BMM Parks Project<sup>7</sup>.

### Legislated conservation zones

The legislated conservation zones in the BMM Parks include the three gazetted protected areas (Bwabwata, Mudumu and Mamili) and the four management zones of Bwabwata (Mahango, Buffalo and Kwando Core Areas, and the Multiple-use Area) that were agreed by Cabinet after extensive consultation with stakeholders. These will be elaborated and illustrated further on in this document.

### Biophysical zones

Developments of any type (such as construction of buildings and roads or the installation of services) and any other activities that may impact the environment are subject to the Environmental Management Act of 2007. The most important principle enshrined in the act is that economic development has to be environmentally sustainable, implying that there has to be an assessment of the potential negative impacts that certain activities may have on the natural, social, economic and political environment, and the identification of ways to either avoid or mitigate these impacts.

The Environmental Management Act of 2007 also applies to all types of development in the BMM Parks. The BMM Parks have been zoned both to make it easier to manage the potential impacts of developments, and to ensure the long-term sustainability of their ecosystems. Biophysical zones are based on the relative conservation importance of specific habitats in terms of their

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<sup>7</sup> BMM Parks Project (2009) Park-level Biophysical Zoning: A description of the approach, processes and outcomes of all activities related to the biological and physical zoning layer of the BMM Parks. Windhoek, Namibia.



sensitivity and scarcity, as well as sites or features of special significance in the parks. The following biophysical zones have been identified:

- ✓ **Very important:** all rivers, floodplains and swamp areas, including their respective riparian forests;
- ✓ **Important:** omuramba grasslands, pans and unique woodlands (such as the Mudumu Mopane forest);
- ✓ **Less important:** deciduous woodlands; and
- ✓ **Special management:** sites that contain features of particular significance such as unique plant communities, special landscape features, cultural, historical or archaeological sites, highly erodible soils.

The assessment of potential negative impacts that may result from a proposed development will have to include a review of these zones. The manner in which the impacts should be assessed is prescribed by law, and may range from an environmental scoping (which is essentially a broad-based cost-benefit analysis), to a full environmental impact assessment (EIA) including studies to determine the nature of the biophysical or social environment. The depth of such an assessment is dependent on several factors that can not be specified until a detailed development proposal is received from the proponent. However, in general, developments that fall in a “very important” biophysical zone will be more likely to require a full EIA than developments in a “less important” zone, because there is a much greater chance of impacting on species or habitats that are rare or sensitive. The assessment of such impacts, and hence the decision on how intensive the process should be, must include all aspects of the environment and must consider multiplier effects (strategic or cumulative effects) of developments.

In summary, some broad guidelines for tourism development and activities in areas falling within the “**very important**” biophysical zone are:

- ✓ There is a greater likelihood that a full EIA may be required. At least this will include an environmental management plan (EMP). In each case the benefit of placing a development in this zone must be compared with the option of placing it in an important or less important zone.
- ✓ For any activity or infrastructure, the key elements which have made this area very important must be identified and if possible quantified in the environmental assessment and management process. Any development must then pay special attention to the impacts this will have on these attributes. The environmental process will determine the acceptability of the impact against the possible costs and benefits.
- ✓ Use of non-permanent infrastructure is preferred for these areas, especially if greenfield sites are to be developed.
- ✓ Developments should ideally be located on sites that are already impacted. This will also mean a smaller likelihood that a full EIA will be required. Other sites can be used, but this must be well justified.
- ✓ An important principle to be used during the environmental assessment process is that tourism facilities and activities should maximise economic benefit and minimise environmental cost.

In areas falling within the “**important**” biophysical zone, the following criteria apply:

- ✓ The likelihood that a full EIA will be required is smaller than in the very important zone, but at least an environmental scoping and a full EMP may be necessary for new structures and activities.
- ✓ Use of non-permanent or semi-permanent infrastructure is preferred for these areas, especially if greenfield sites are to be developed.

- ✓ Infrastructure should ideally be located on sites that are already impacted. Other sites can be used, but this must be well justified.

In areas falling within the “**less important**” biophysical zone, the following criteria apply:

- ✓ The likelihood that a full EIA will be required is very small, but at least an environmental scoping and a full EMP may be necessary for new structures and activities.
- ✓ There should be few restrictions on the types of structures in such areas.
- ✓ These must be seen as alternative areas in an EIA that may be considering development sites in the two categories above.

In areas falling within the “**special management**” biophysical zone, the following criteria apply:

- ✓ No tourism development of any nature should be permitted in such areas.
- ✓ Other infrastructure should only be permitted if necessary for site specific management or conservation.
- ✓ Tourism activities may be permitted in such areas, but according to site specific guidelines.

#### Tourism zones

The process of deciding on tourism zoning considers the following factors:

- ✓ The level of planning being undertaken (i.e. strategic planning verses detailed operational planning);
- ✓ Environmental constraints (refer to biophysical zones and guidelines);
- ✓ Tourism potential of specific areas based on their attractiveness, physical accessibility, and market demand; and
- ✓ Experiential considerations for different park visitors.

For the level of planning being done in this process, the following types of tourism zones will be applied in this plan: 1) degree of access; 2) level of use; 3) tourism activity areas, and; 4) tourism development sites. These are explained in the following tables:

**Table 9:** Degree of access.

Category	Explanation
Exclusive	Areas limited to <b>single concession holders</b> that have exclusive use or development rights as defined in a written agreement
Limited	Areas limited to <b>two or more concession holders</b> that have specific use or development rights as defined in written agreements
Multiple	Areas which may be used by <b>several user groups at any one time</b> , including day visitors, campers, trophy hunters, guests of lodges etc.

**Table 10:** Level of use.

Category	Explanation
High	These are areas where the upper limits of use will be set to avoid over-crowding. These may have absolute ceilings which vary from time to time. The ceilings will be set by management after considering the type of tourism experience being offered, the capacity of facilities and resources to support this level of use, and the ability of management to control it.

Medium	Tourist densities will be higher than the Low use areas, but significantly lower than the High use areas. The density parameters would be less than 35% of High use areas.
Low	Use of these areas will be limited to offer the feeling of exclusivity and “wilderness”. The density of users as expressed per square kilometre or kilometre of road or any other appropriate unit will be less than 15% of that in the High use areas.

**Table 11:** Tourism activity areas.

Category	Explanation
Trophy hunting	Areas specifically zoned for trophy hunting purposes
Boating	Sections of rivers zoned for different types of guided or unguided boating including canoeing, <i>mekoros</i> or motor boat access
Walking	Areas designated for guided or unguided walking
Fishing	Sections of rivers or their banks where angling is permitted
Game drive	Areas for guided or unguided game drives

**Table 12:** Tourism development sites.

Category	Explanation
Lodge / camp sites	Exclusive lodge or camp sites as per concession agreements
Picnic sites	Public or private picnic areas
Harbour sites	Access points where concessionaires are permitted to enter via the river, including a boat launch and car port
View points	Designated public view points

The allocation of these tourism zones to specific parks, together with maps of each park, is outlined in sections 4 to 6.



### 3. Concessioning Approach

#### 3.1 Types

It is the intention of MET to award tourism rights in the BMM Parks in the form of **concessions**, which will proceed within the framework of Namibia's *Policy on Tourism and Wildlife Concessions on State Land* of 2007. According to this policy, a concession is defined as "the rights, whether full or restricted or shared or exclusive, to conduct tourism activities and / or to commercially use State-owned plant and / or animal resources (collectively referred to as wildlife resources) on business principles in proclaimed protected areas and any other State Land for a specified period of time."

Where concessions involve the development, rehabilitation or management of permanent infrastructure, they will take the form of:

- ✓ **Build, operate and transfer concessions** (BOT – a concessionaire is granted the right to build and operate infrastructure for a defined period before transferring it to the park management authority);
- ✓ **Rehabilitate, operate and transfer concessions** (ROT – a concessionaire is granted the right to rehabilitate existing infrastructure, operate it for a defined period before transferring it to the park management authority);
- ✓ **Maintain, operate and transfer concessions** (MOT – a concessionaire is granted the right to manage existing infrastructure for a defined period before transferring it to the park management authority).

BOT and ROT concessions are generally for periods that give concessionaires the opportunity to make a fair return on the capital and expertise they invested in the enterprise. In the case of the BMM Parks, it appears MET intends offering BOT and ROT concessions on 20-year terms.

Concessions conferring rights to conduct commercial activities without the development of permanent infrastructure will take the form of **activity concessions**, which will generally be for shorter periods than BOTs and ROTs.

#### 3.2 Procedures

The concessions policy makes provision for the following award procedures<sup>8</sup>:

- ✓ The **direct award** of concessions to **previously disadvantaged communities** resident inside or neighbouring to parks (provided certain conditions are met). In some cases resident communities may receive preferential treatment in the award of concessions because of the limited livelihood options available to them. The recipient communities may then develop and operate the concessions themselves or enter into joint ventures or sub-contracts with third parties to assist them. In the later case MET may need to endorse certain types of third party sub-contracts.
- ✓ The **tendered award** of concessions by MET to appropriately qualified, private companies via an open, competitive and transparent process. This may involve a **request for proposal** procedure or an **auction** procedure, depending on the type of concession.

Given the strong history of community involvement and the various pledges, commitments and agreements made over the years regarding community rights in the BMM Parks, it is recommended that both routes be considered when structuring award procedures. In the case of

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<sup>8</sup> The Policy also provides for the consideration of **unsolicited applications** of high merit. This plan only deals with solicited concessions based on opportunities pre-identified by MET and its partners.

high value concessions that require long-term rights and stable institutional frameworks, the following options are available:

- ✓ Where there is a stable, well-established community structure with a clear historical link to a particular area *and* sufficient development sites/opportunities within the park to allocate fairly between eligible communities, MET could make the **direct award** of a concession to a **resident or neighbouring community**.
- ✓ Where the conditions described above are in place but there are multiple communities around or inside a small park (or area) with a limited number of viable concessions (i.e. where there are more community beneficiaries than available development opportunities), MET could, in order of preference:
  - Award a concession **directly** to a **community partnership** representing all the eligible communities (for own operation or with a third party sub-contract) provided there is clear agreement regarding benefit sharing between the partners; or
  - Award a concession via **competitive bidding** to a private operator with **benefit sharing** between MET and the various neighbouring communities based on agreed percentages. Given the fact that this option excludes communities from direct concession ownership, it should include the formation of a parks and neighbours liaison forum to ensure linkages are created between receiving financial benefits and having certain responsibilities; and
  - Where there is no stable community structure in place, MET may likewise award a concession via **competitive bidding** to an operator with an agreement that a benefit-sharing arrangement will commence once a community structure is established.

Given the BMM Parks are national assets that need to benefit all Namibians, some situations may require the MET to award certain concessions via competitive bidding, with the State (or possibly other regional or national stakeholders) being the primary beneficiary.

### 3.3 Benefit sharing with communities

For concessions ear-marked for direct award to neighbouring or resident communities, or where communities need to be a major beneficiary as outlined in section 3.2, it is recommended:

- ✓ Park entry fees should accrue to MET entirely (as part-compensation for MET's role as park manager);
- ✓ For high value concessions that are developed and / or operated inside parks under third party sub-contracts (e.g. lodges and trophy hunting), 50% of concession revenue generated should be paid to MET and 50% to the relevant community(s) (although there may be instances where MET receives 100% of such revenue – see section 3.2 above);
- ✓ For low value concessions (e.g. campsites or activities) MET could require payment of an annual fixed fee commensurate with its level of input and management needed for that concession. With prior arrangement MET could consider in-kind payments in lieu of annual fees.

### 3.4 Concession packaging

The concessions identified in this report should be implemented using the 'Guidelines for the management of the concessioning process' set out in Annex 2 of the *Policy on Tourism and Wildlife Concessions*. These guidelines require the detailed description of each concession followed by a rapid feasibility assessment and the preparation of tender documents including a Request for Proposal (RFP) and template agreement(s). This process is necessary to clarify the details of each concession including, amongst other things, the degree to which management responsibility for infrastructure (gates, tracks, signage, water points) and other matters (such as collection of park fees) will be delegated to a concessionaire.



## 4. Mamili National Park

### 4.1 Overview

#### Location

Mamili is a small park (31,850ha) that was proclaimed in 1990, just prior to independence. The park is located 35km south of Mudumu and approximately 125km south west of Katima Mulilo. Mamili is bordered to the south, west and east by the Kwando and Linyanti Rivers and to the north by three community conservancies (Balyerwa, Wuparo and Dzoti), as illustrated in **Figure 4** below.

**Figure 4:** Location of Mamili National Park.



#### Access

Mamili is the most difficult of the BMM Parks to access, and as a result only received 212 visitors in 2008. Entry is only possible by heavy-duty 4x4 vehicles due to the deep channel crossings and mud en-route. There are two Mopane pole bridges south of Sangwali that enable vehicles to enter the park at Shisinze but these bridges are frequently broken and a number of vehicles have “drowned” in the very deep Rupara channel during the last twelve months. Furthermore, vehicle access throughout the park is extremely challenging for the same reasons. Due to a number of years of above average rainfall and flooding, the entire western side of Mamili is inaccessible to

vehicles, requiring park staff to patrol on foot. Access possibilities are summarised in **Table 13** below.

**Table 13:** Access to Mamili.

Access by 4x4 vehicles	Access by 2x4 vehicles	Access by boat	Access by aircraft
<ul style="list-style-type: none"> <li>• Only possible with heavy duty 4x4 vehicles</li> <li>• From the north via either Sangwali or Malengalenga villages</li> </ul>	<ul style="list-style-type: none"> <li>• Not possible</li> <li>• Visitors with 2x4 vehicles need to arrange a 4x4 shuttle service</li> </ul>	<ul style="list-style-type: none"> <li>• Not possible from west due to blockage in Kwando channel</li> <li>• Possible from east, however not allowed</li> </ul>	<ul style="list-style-type: none"> <li>• Not possible nor allowed</li> <li>• No operational air fields in the immediate vicinity</li> <li>• Old SADF airstrip on Nkasa Island requires upgrading before use</li> </ul>

Currently Mamili has only one official park entrance at Shisinze (see **Figure 4**). Despite this, a number of visitors enter the park from Malengalenga (eastern side), as this provides easier access to the Linyanti River main stream and the MET operated campsites at Liadura and Mparamure for traffic from Katima. As a result, in 2008 MET formalised this entry arrangement by establishing a temporary camp near the Baobab to regulate access and issue permits. This new base also serves as a patrolling camp for the anti-poaching unit (APU) working in eastern Mamili.

#### Historical and social context

According to Backer<sup>9</sup> (1989), prior to its proclamation Mamili was settled and utilised by the Mayeye tribe, which at the time was under the jurisdiction of the Mafwe Traditional Authority. In 1945, following a Tsetse fly invasion, the Mafwe Traditional Authority moved local residents from the Nkasa and Lupala islands in Mamili to make way for a “private game reserve” for traditional hunting purposes.

The area remained a traditional hunting area up to 1987 when an agreement was signed between the Mafwe Traditional Authority and the Department for Agriculture and Nature Conservation to officially proclaim the Nkasa and Lupala islands as a State protected area. Under the terms of this agreement, the Mafwe Traditional Authority would receive 25% of gross income from the park, as well as retain the right to harvest veldt food (specifically wild berries), reeds and thatching grass. It was furthermore agreed that a quota of wildlife would be given annually to the traditional authority for feasts.

Based on the agreement of 1987, the Administrator General of South West Africa approved the declaration of Mamili as a National Park in 1989. In his declaration, the Administrator General imposed a condition that the park boundaries be better planned and consolidated prior to the development of cut lines. This was to be done in consultation between the Department of Agriculture and Nature Conservation, and the local Indunas. After independence of Namibia, further consultations took place and the final cut lines made. For this reason there is a slight discrepancy between the park boundary described in the Government Gazette notice and the actual cut lines on the ground.

<sup>9</sup> Backer H J (1989) Letter to the Secretary for the Department of Agriculture and Nature Conservation. Administration for Caprivians. Katima Mulilo, Namibia.

Following socio-ecological surveys conducted in the Caprivi Region after independence, legislation was promulgated to allow residents on communal land to obtain the same rights over wildlife as those living on private land, through the formation of conservancies. Two conservancies were subsequently registered north of Mamili – Wuparo in 1999 and Balyerwa in 2006. The Dzoti conservancy is still emerging.

Despite the formation of conservancies, the promised benefits from the park, as outlined in the agreement signed by the traditional authority in 1987, have been limited to the provision of meat from game harvests. There has been no revenue sharing from park entrance fees or from earlier hunting concessions, and the collection of veldt products such as thatching grass, reeds and veldt food remains prohibited. Under a Cabinet Decision of 1999, MET is to provide conditional tourism rights inside Mamili to the neighbouring communities. The 2007 Tourism and Wildlife Concessions Policy and this tourism plan enable the implementation of Cabinet's decision.

#### Environmental context

Mamili's ecosystem types are typical of the Okavango Delta wetlands and associated habitats, with relatively narrow, permanently filled main channels of the Kwando / Linyanti Rivers, several periodically (to an extent this can be seasonal) flooded channels, the largest seasonally inundated grasslands in Namibia, and wooded islands containing tree species that are exceptionally rare in a national context. The Kwando / Linyanti Rivers have a relatively narrow catchment, most of which lies in Angola. As rains in Angola can easily miss the catchment, the river's flooding regime can vary considerably, with the whole area extensively flooded in some years while in others much of it remains dry.

The periodic inundation, linked to the flooding regime of the Kwando River and not to the local wet season, is the most critical ecological driver for the park's ecosystems. It determines the distribution pattern of woody vegetation, which almost exclusively grow on higher "islands" that are seldom flooded. These islands contain prime examples of tree species such as Knob Thorn (*Acacia nigrescens*), Paper-bark Acacia (*A. sieberiana*), Sickle-leaved and Large-leaved Albizias (*Albizia harveyi* and *A. versicolor* respectively), White-stemmed Acacia (*A. polyacantha*), Ordeal tree (*Erythrophleum africanum*), False Mopane (*Guibourtia coleosperma*), and Monkeybread (*Piliostigma thonningii*), all of which have relatively narrow Namibian ranges. Some of these species, such as White-stemmed Acacia, are closely associated with termitaria.

Flooding regimes also determine the extent and duration of ponds and pans throughout the dry season. These semi-permanent small water bodies provide an important grazing and food resource for a number of mammal and bird species throughout the year. The park does not only consist of wet grasslands; grasslands on somewhat higher ground may be interspersed with woodlands and appear to be seldom flooded, resulting in a recognisably different species composition and general dynamic.

Many of the islands contain tree species that are strongly associated with the ubiquitous termitaria and can attain heights of up to 20m or more. The vegetation types in most of the park are considered to be moderately sensitive to sensitive and of medium to high biodiversity significance. Together the above features make for a unique wildlife experience in Namibia, very similar in character to the Okavango Delta.

Seasonal fires, both management and accidental, are a second set of important ecological drivers, regulating the relative dominance of tall grass stands and keeping woody plants at bay.

The MET follows a management policy of controlled burning, with the aim of burning at least a third of the park's surface area each year, emphasising early cool burns, to prevent the build-up of combustible material. As in most of the region, accidental or deliberately set fires, especially those that occur late in the dry season, can have devastating consequences for the vegetation and for the animals that depend on it for food and shelter.

The park contains a number of large mammal species, such as lechwe, waterbuck and buffalo, (*Syncerus caffer*) that are all rare in the Namibian context. Its impala (*Aepyceros melampus*) and lechwe populations are stable or growing. It contains some special bird species, such as Luapula Cisticola (*Cisticola luapula*) and the regionally endemic Slaty Egret (*Egretta vinaceigula*). The park also contains a small population of the globally and nationally endangered Wattled Crane. Mammals of conservation concern that may occur here or have been recorded are the water rat (*Dasymys nudipes*), lion (*Panthera leo*), and puku (*Kobus vardonii*).

Mamili serves as an important corridor and buffer for all large mammal species moving to and from Botswana. The park often contains especially large herds of elephant and has resident buffalo, for which it is particularly well known. These herds are probably linked to Botswana herds through dispersal. As with all the other wetland parks, healthy populations of hippo (*Hippopotamus amphibius*) and crocodiles (*Crocodilus niloticus*) occur here. Crocodile populations might indeed be growing.

The periodic flooding, while a main driver of ecological processes and patterns, also dictate access by vehicle and even by foot to much of the park. With or without bridges crossing the main channels that prevent vehicular access to the park, regular flooding may thus also be the primary determinant of the types and extent of tourism activities that can be conducted.

Mamili has historically experienced high poaching levels. For this and other reasons, populations of lechwe, reedbuck, impala and lion have declined over the years, although all these appear to be making a comeback. Both lechwe and reedbuck populations are affected by the flooding though, with lechwe increasing in wetter periods and reedbuck in drier periods. Impala have recently been introduced from the Susuwe area. Due to the park's wetland and wilderness nature, artificial water is not provided for game.

#### Tourism resources

Mamili is mainly characterised by extensive wetlands associated with the Kwando / Linyanti River. The system is highly dynamic with many shifting channels and floodplains. This makes conventional vehicle access via a network of permanent tracks difficult. There are however some dryland areas with extensive woodlands including the well-known Nkasa and Lupala Islands. Across the Kwando River lie some of the highest value photographic concessions in Botswana (including King's Pool and Duma Tau). As a tourism resource, Mamili compares well with these areas. It is, in fact, the closest thing in Namibia to an Okavango Delta style wetland wilderness.

#### Existing markets and products

There are no accommodation products currently operational inside of Mamili or on adjacent land in Namibia. Two campsites were built north of Shisinze by individuals from the Wuparo conservancy, however these are both closed. Furthermore, two camping areas were designated by MET inside of Mamili, however these have been closed for about two years due to flooding.

Currently visitors to Mamili are permitted to bush camp anywhere in the park – an arrangement that is neither desirable nor sustainable. This information is summarised in Table 14 below.

**Table 14:** Existing accommodation and markets in the Mamili area – Namibia side.

Product	Location	Type, size, performance	Markets
Nsheshe Camp	<ul style="list-style-type: none"> <li>North of Shisnze</li> <li>Wuparo conservancy</li> <li>No right of leasehold or agreement with conservancy</li> </ul>	<ul style="list-style-type: none"> <li>Campsite</li> <li>Not operational</li> </ul>	No current market – product closed
Shisnze Camp	<ul style="list-style-type: none"> <li>North of Mamili cut line</li> <li>Within gazetted boundary of Mamili</li> <li>No concession or right of leasehold</li> <li>No agreement with MET or conservancy</li> </ul>	<ul style="list-style-type: none"> <li>Campsite</li> <li>Not operational</li> </ul>	No current market – product closed
Mparamure Campsite	<ul style="list-style-type: none"> <li>Inside Mamili</li> <li>Tip of Lupala Island, west bank of Linyanti river</li> </ul>	<ul style="list-style-type: none"> <li>Campsite</li> <li>MET operated</li> <li>Closed, not accessible due to flooding</li> </ul>	No current market – product closed
Liadura Campsite	<ul style="list-style-type: none"> <li>Inside Mamili</li> <li>Opposite Kings Pool</li> <li>West bank, Linyanti river</li> </ul>	<ul style="list-style-type: none"> <li>Campsite</li> <li>MET operated</li> <li>Closed, not accessible due to flooding</li> </ul>	No current market – product closed

However there are four accommodation facilities operating on the Botswana side of the Kwando and Linyanti rivers. These all trade in the luxury international market, and their guests fly in with chartered aircraft.

**Table 15:** Existing accommodation and markets in the Mamili area – Botswana side.

Product	Location	Type, size, performance	Markets
Kwando Lepala	<ul style="list-style-type: none"> <li>North west of Mamili</li> <li>West bank of Kwando river</li> <li>Operated under a State issued concession</li> </ul>	<ul style="list-style-type: none"> <li>Luxury lodge</li> <li>Size, operator and performance not known</li> </ul>	100% overseas fly-in guests
Duma Tau	<ul style="list-style-type: none"> <li>Selinda Spillway</li> <li>South west of Mamili</li> <li>Operated by Wilderness Safaris under a State issued concession</li> </ul>	<ul style="list-style-type: none"> <li>Luxury lodge</li> <li>Size and performance not known</li> </ul>	100% overseas fly-in guests
Kings Pool	<ul style="list-style-type: none"> <li>East of Mamili</li> <li>East bank Linyanti river,</li> <li>Opposite Liadura campsite</li> <li>Operated by Wilderness Safaris under a State issued concession</li> </ul>	<ul style="list-style-type: none"> <li>Luxury lodge</li> <li>Size and performance not known</li> </ul>	100% overseas fly-in guests
Linyanti Tented Camp	<ul style="list-style-type: none"> <li>North east of Mamili, Linyanti river, opposite Dzoti Conservancy</li> <li>Operated by Wilderness Safaris under a State issued concession</li> </ul>	<ul style="list-style-type: none"> <li>Luxury tented camp</li> <li>Size and performance not known</li> </ul>	100% overseas fly-in guests

## Trophy hunting

Currently there is no trophy hunting taking place inside Mamili, however all the neighbouring conservancies have trophy hunting quotas issued to them by MET, and have agreements with professional hunters to utilise them.

Due to the large hunting quotas awarded to all neighbouring conservancies (that require Mamili has a breeding and rest area for wildlife), and Mamili's significant value as a high-end photographic tourism destination, it is **not recommended** to allow hunting inside of the park, except for management or traditional purposes (e.g. annual feasts).

Furthermore, predator numbers – especially lions – are very low in Mamili. There are allegations of lion baiting from neighbouring conservancies (where lions are sometimes included on trophy lists). Given the importance of this species for photographic tourism, the future inclusion of lions on the trophy lists for neighbouring areas should be carefully considered.

## 4.2 Management interventions

### Proposed markets and concessions

The proposed new concessions for Mamili are outlined in **Table 16** below, and illustrated in **Figure 5**.

**Table 16:** Proposed concessions in the Mamili National Park.

<b>Mamili West Concession:</b>	<b>Mamili East Activity Concession:</b>
<ul style="list-style-type: none"> <li>• Very high value photographic concession</li> <li>• Approximately 28 beds in an up market lodge and satellite camp</li> <li>• Low volume; limited access</li> <li>• 20-year BOT</li> <li>• Very high priority</li> </ul>	<ul style="list-style-type: none"> <li>• Activity concessions licensing (1) operators to conduct activities OR (2) step-on guides to accompany FITs on self-drive excursions in the area</li> <li>• No overnight accommodation or camping</li> <li>• Low volume; limited access</li> <li>• 5-year activity concessions</li> <li>• Medium priority</li> </ul>



Figure 5: Tourism concessions and zoning for Mamili National Park.



### Zoning

The entire Mamili falls within the **very important** biophysical zone and therefore tourism development in this area must be very carefully planned in order not to impact upon the very sensitive and scarce ecology. It is recommended that any development in this area follows the environmental assessment procedure, and that a cost / benefit analysis be done to ensure the likely benefits outweigh potential environmental costs.

In terms of tourism zoning, due to its sensitive and scarce environment as well as the potential for up-market tourism as illustrated by successful facilities in neighbouring Botswana, it is proposed that Mamili be zoned for **low volume** and that access is either **exclusive or limited**. Illustration of the proposed tourism zoning is shown in Figure 5.

### Infrastructure

Mamili requires the following infrastructure to support tourism:

- ✓ Improved access to Shisinze Station from Sangwali, which requires the construction of two permanent bridges over the Rupara Channel. This is currently being implemented by the BMM Parks Project, which has completed designs and bills of quantities. The project also facilitated the granting of NAD2.7m for these bridges from the GPTF in December 2008.

- ✓ Improved access from the so-called Baobab Station south towards Lupala Island, which requires the construction of two smaller bridges over the Gasiku channel.
- ✓ Construction of the Baobab station, into a permanent park station designated to regulate access from Malengalenga. Infrastructure planning for this station, including site layout, module designs and bills of quantities has been completed by the BMM Parks Project.
- ✓ For both Shisinze and Baobab stations, dedicated visitor reception facilities should be built (separated from park management facilities), and should include basic facilities such as toilets, as well as visitor information. This infrastructure has already been planned by the BMM Parks Project, and site layouts, module designs and bills of quantities have been prepared.
- ✓ Confirm the northern park boundary with the relevant neighbours and re-gazette to remove uncertainty regarding the rights to tourism development beyond the park cut line.

### Visitor management

The following interventions are required to improve visitor management in Mamili:

- ✓ Improved access control and visitor recordkeeping at the entrances to the park, including a system for submitting information regularly to MET headquarters;
- ✓ A system requiring concessionaires to keep visitor records and submit information regularly to MET;
- ✓ A system for local level monitoring of concession contracts and reporting to MET headquarters; and
- ✓ A code of conduct to be developed to regulate the day-to-day activities of concessionaires and their guests.



### 4.3 Mamili West Concession

#### Location

The proposed **Mamili West Concession** is approximately 5,758 hectares in size and is located in western Mamili as illustrated in **Figure 6**. The northern boundary is the park boundary, whereas the western is the Kwando River, southern is the Linyanti River, and eastern boundary is the Nkasa track from Shisinze station to Liadura campsite. The centrepiece of the concession is the undisturbed Nkasa Island, a large area of high ground that has access to the Linyanti mainstream and is home to a large variety of wildlife species.

**Figure 6:** Location of Mamili West Concession and Mamili East Activity Concession.



#### Rationale

The rationale for this concession rests on:

- ✓ The very high quality of the tourism resource base, which combines isolation and inaccessibility with world-class wildlife and scenery;
- ✓ The fact that it is the only area in the BMM Parks that is comparable to Botswana's Okavango Delta and Linyanti concessions;

- ✓ The proven market viability of the high value lodges south (and west) of the Kwando where high occupancies and prices combine to create a world-class destination;
- ✓ The known demand from regional operators for iconic concessions offering a high degree of quality and exclusivity;
- ✓ The potential for linkages to the Botswana circuit, thereby building on the iconic value of the Okavango Delta and Linyanti areas; and
- ✓ The fact that it would be the only super high value concession in the BMM Parks, which would diversify the market profile of the area and offer excellent returns to the MET and neighbouring communities.

### Attractions

The concession offers an excellent set of attractions that compare well with the Okavango Delta and Linyanti areas of Botswana. They include:

- ✓ Wildlife, including iconic species such as lion, buffalo and elephant;
- ✓ Scenic landscapes, including an Okavango Delta-like environment combining wetlands, woodlands and open plains; and
- ✓ Proximity to the high value lodge circuits of northern Botswana.

### Preferred markets

Given the size, exclusivity, quality and relative inaccessibility of the concession area, the preferred market segments are:

- ✓ small fly-in groups on multi-destination circuits; and
- ✓ small tour operator-conducted groups;.

### Zoning

This concession is situated within the **very important** biophysical zone. The concession is zoned for a **low level of use** and for **exclusive access** (i.e. for the concessionaire's exclusive use). Access to the Kwando and Linyanti Rivers will be on a **limited access** basis, however MET is unable to regulate access by licensed Botswanan operators.

### Indicated developments

Given the preferred market segments, the quality of the attractions and the remoteness of the concession area, the following developments are recommended:

- ✓ An upmarket lodge and satellite camp with a combined total of no more than 28 beds located at sites to be identified during the concession preparation phase.
- ✓ Support infrastructure including an airstrip, harbour(s) on the main channel of the Kwando, access roads and game viewing tracks.

### Activities

Activities should be concessionaire-conducted and could include:

- ✓ Day and night drives on Nkasa Island;
- ✓ Boating on the Linyanti River;
- ✓ Mekoro excursions on the back channels and floodplains;
- ✓ Walks in the concession area;
- ✓ Cultural excursions to nearby communities.

#### Environmental considerations

The following important environmental issues should be taken note of during the EIA procedure:

- ✓ Waste management will be extremely challenging in this concession. Solid waste will need to be removed from the concession area and recycled or dumped at an organised waste management site. Management of liquid waste near to wetland areas will need to be carefully assessed during the EIA process.
- ✓ The potential for wildlife disturbance by tourism activities during peak seasonal flooding needs to be assessed and guidelines provided during the EIA process.
- ✓ The occurrence of open water during periodic flooding events will limit the use of vehicles, even in some places on the islands themselves. It is preferable to construct channel crossings (perhaps using poles or steel pipes) rather than allowing vehicles to attempt to navigate through muddy terrain, which will cause more lasting and uglier scars.
- ✓ The flow of water can be easily disrupted by poorly planned road construction, leading to damming and permanent water retention in places that should periodically dry out. Roads should therefore preferably remain as two-wheeled tracks, with the minimum of works allowed to cross inundations. Drivers of tourist vehicles should be instructed to avoid such areas where at all possible in the rainy or flooding season and rather adapt the routes of their drives accordingly.
- ✓ Care must be taken during construction of any tourism facilities to avoid impacts on woody plants. Of great importance here are the large trees on islands, and especially those that are associated with termitaria. No clearing of riparian forests should be permitted.
- ✓ All boating operations run the risk of impacting populations of wetland and aquatic species such as hippo and crocodile, as well as several birds and amphibians that breed in the adjacent wetland vegetation, on sand banks, and in river banks. It is thus important to regulate the number of boats that are allowed access to the river simultaneously, the speed of boat traffic, and the timing and duration of boating activities each day (and seasonally).

#### Concession structure

Given that Mamili has three neighbouring communities, MET could:

- ✓ Offer the concession on a 20-year BOT-basis to a partnership representing the three neighbouring conservancies, which could in turn, award a sub-contract to an appropriately qualified operator via a competitive bidding process (overseen by MET and using standardized contracts approved by MET);  
OR
- ✓ Award the concession directly to an appropriately qualified private operator via competitive bidding (as per MET's concession policy) followed by benefit sharing between MET and each of the neighbouring communities (based on percentages to be agreed during the preparation of the tender).

The second option has the advantage that it buffers the concessionaire against possible politics and conflicts in the neighbouring communities. The challenge under this scenario is to create a sense of ownership and involvement in the park among the neighbouring communities, which is based on shared rights and responsibilities. It is therefore recommended that this method includes the creation of a Park and Neighbours Forum in which MET, the communities and the concessionaire(s) participate to address issues of joint concern.

#### Financial indicators

It is estimated that the proposed concession will involve an initial investment of approximately N\$28 million. Annual turnover of some N\$11.7 million at maturity could result in net cash flow of N\$1.52 million after tax and debt servicing. Government and its community partners could derive some N\$1.17 million annually in concession fees, while around N\$200,000 could be earned annually in park fees. The concession is expected to create 56 permanent on-site jobs with an annual payroll at maturity of approximately N\$2.47 million (a large part of which would be captured by community members). The likely private internal rate of return over twenty years is estimated at 14%, above the expected 10% cut-off. The concession is therefore rated as **financially attractive**.

#### Priority

Given the excellent attractions on offer in this isolated area of Mamili, together with the known demand from well established tourism developers, and the need for neighbouring communities to benefit directly from Mamili, this concession has a **very high priority** rating.

#### Required interventions

The follow actions are required before the concession can be implemented:

- ✓ Agreement with the neighbouring conservancies regarding the concession structure and benefit sharing;
- ✓ Feasibility assessment and preparation of detailed concession documents as required by the *Policy on Tourism and Wildlife Concessions on State Land*;
- ✓ Approval of this concession proposal by relevant authorities, including the MET concession committee;
- ✓ Integration of the concession into the Mamili park management plan;
- ✓ Implementation of a concessioning process including a competitive tender as sketched above;
- ✓ Creation of a Parks and Neighbours Forum;
- ✓ Agreement with relevant authorities for cross-border linkages to Botswana.



#### 4.4 Mamili East Activity Concession

##### Location

The proposed **Mamili East Activity Concession** is approximately 7,504 hectares in size, as illustrated in **Figure 7**. It is located in eastern Mamili, with Lupala Island being its main area of high ground for activities. The northern boundary is the park boundary, whereas the western is the Nkasa track from Shisinze station to Liadura campsite, and the southern is the Linyanti River.

**Figure 7:** Location of Mamili West Concession and Mamili East Activity Concession.



##### Rationale

The rationale for this concession lies in the history of public and tour operator access to (especially) the eastern half of Mamili. There are however significant safety hazards in the area including deep channels and periodic flooding that often inundate tourist vehicles causing damage to property and the environment. There is also a history of misbehaviour by tourists (such as off-road driving and bush camping). For these reasons, it is recommended that future use of the area be via licenced operator(s) and/or step-on guides. This recommendation is not meant to exclude public access; on the contrary, it is intended to better regulate public access thereby ensuring the safety of tourists and their property while at the same time enhancing their experience and limiting environmental damage.

## Attractions

Mamili East offers an excellent set of attractions including:

- ✓ Wildlife, including iconic species such as lion, buffalo and elephant;
- ✓ Scenic landscapes, including an Okavango Delta-like environment combining wetlands, woodlands and open plains;
- ✓ A sense of remote wilderness and adventure.

## Preferred markets

The preferred market segments are:

- ✓ Self-drive FITs with licensed step-on guides accommodated outside the area; and
- ✓ licenced tour operator-conducted groups.

## Zoning

This concession falls within the **very important** biophysical zone. This concession is zoned for a **low level of use** and **limited access** by licensed tour operators and FITs accompanied by licensed step-on guides. Access to the Kwando and Linyanti Rivers will be on a **limited access** basis, however MET is unable to regulate access by licensed Botswanan operators.

## Indicated products

It is recommended that no fixed accommodation or overnight camping be allowed in the concession area.

This concession will require improved entrance facilities and access roads (including channel crossing points outside the park on the Shisinze approach) to allow public access to the fringes of the park. Given that Mamili's attractions include its remoteness and the sense of adventure associated with bush tracks and water crossings, there is no need to upgrade the existing game viewing tracks. There is however a need to develop new bush tracks to accommodate larger visitor numbers.

## Activities

Two user groups will be permitted to conduct activities in the concession area. These are summarised in **Table 17**.

**Table 17:** Proposed user groups in the Mamili East Activity Concession.

<b>Tour operator-conducted groups (licensed operators only):</b>	<b>FITs (with licensed step-on guides):</b>
<ul style="list-style-type: none"> <li>• Day and night drives</li> <li>• Boating on the Linyanti east of Liadura</li> <li>• Walks</li> <li>• Mekoro excursions on back channels and floodplains</li> </ul>	<ul style="list-style-type: none"> <li>• Day drives</li> <li>• Walks</li> </ul>

### Environmental considerations

The following important environmental issues should be taken note of during the EIA procedure:

- ✓ The occurrence of open water during periodic flooding events will limit the use of vehicles, even in some places on the islands themselves. It is preferable to construct channel crossings (perhaps using poles or steel pipes) rather than allowing vehicles to attempt to navigate through muddy terrain, which will cause more lasting and uglier scars.
- ✓ The flow of water can be easily disrupted by poorly planned road construction, leading to damming and permanent water retention in places that should periodically dry out. Roads should therefore preferably remain as two-wheeled tracks, with the minimum of works allowed to cross inundations. Drivers of tourist vehicles should be instructed to avoid such areas where at all possible in the rainy or flooding season and rather adapt the routes of their drives accordingly.
- ✓ All boating operations run the risk of impacting populations of wetland and aquatic species such as hippo and crocodile, as well as several birds and amphibians that breed in the adjacent wetland vegetation, on sand banks, and in river banks. It is thus important to regulate the number of boats that are allowed access to the river simultaneously, the speed of boat traffic, and the timing and duration of boating activities each day (and seasonally).

### Concession structure

It is recommended that MET award a limited number of five-year **activity concessions** to Mamili's three neighbouring conservancies (Balyerwa, Wuparo and Dzoti). The community concessionaire(s) could either operate the licensed activities themselves or employ step-on guides to accompany FITs into the area. It is recommended that MET continue to collect park entry fees but that the community concessionaire(s) pay no concession fees to MET for the activities conducted in the park.

The MET have two options for the award of these concessions:

- ✓ Pooling the concessions and offering them to a partnership formed by the three conservancies; or
- ✓ Splitting up the concessions and offering one or two to each of the neighbouring conservancies.

Given the relatively low value of activity concessions in a remote area such as Mamili, the first option is preferred. Pooling the activity licenses and offering them to the market in a single process will create an economy of scale and be more efficient. It will also allow the distribution of revenue according to a pre-agreed split between the community partners.

Current visitor volumes to Mamili are very low and do not provide a realistic benchmark for future levels of use. In setting the carrying capacity and number of activity licenses for the concession, an adaptive management approach is recommended. This would involve setting initial limits (during the concession packaging phase), which are regularly reviewed to monitor impacts (on visitor experience and the environment) and, if necessary, to adjust limits.

#### Financial indicators

Three activity concessions of the sort described above could generate an annual turnover of some N\$1.3 million at maturity, which could result in a modest net cash flow of N\$40,000 (after tax and debt servicing). Government and its community partners could derive some N\$70,000 annually in concession fees, while around N\$50,000 could also be generated in park fees. The concessions are expected to create around 9 permanent jobs with an annual payroll at maturity of approximately N\$460,000. The financial viability of the concession is rated as **marginal**, and therefore this concession is **financially unattractive**.

#### Priority

Given the tradition of public access and the history of off-road driving, vehicles being damaged crossing deep channels and getting stuck in mud, coupled with the high expectations of neighbouring conservancies, this concession has a **medium priority** rating.

#### Required interventions

The follow actions are required before the concession can be implemented:

- ✓ Agreement with the neighbouring conservancies regarding the concession structure and benefit sharing;
- ✓ Feasibility assessment and preparation of detailed concession documents as required by the *Policy on Tourism and Wildlife Concessions on State Land*;
- ✓ Approval of this concession proposal by relevant authorities, including the MET concession committee;
- ✓ Integration of the concession into the Mamili park management plan;
- ✓ Implementation of a concessioning process as sketched above;
- ✓ Setting the carrying capacity and number of activity licences for the park using an adaptive management approach;
- ✓ Preparation of a code of conduct to regulate activities of multiple license holders.

## 5. Mudumu National Park

### 5.1 Overview

#### Location

Mudumu (73,729ha) was proclaimed along with Mamili in 1990 just prior to independence, and is located 35km south of Kongola, as illustrated in Figure 8 and Figure 9 below. Mudumu is bordered to the west by the Kwando River and to the north by Mashi conservancy, to the east by Sobbe and south by Balyerwa, Wuparo and the emerging Dzoti.

Figure 8: Location and extent of Mudumu National Park.

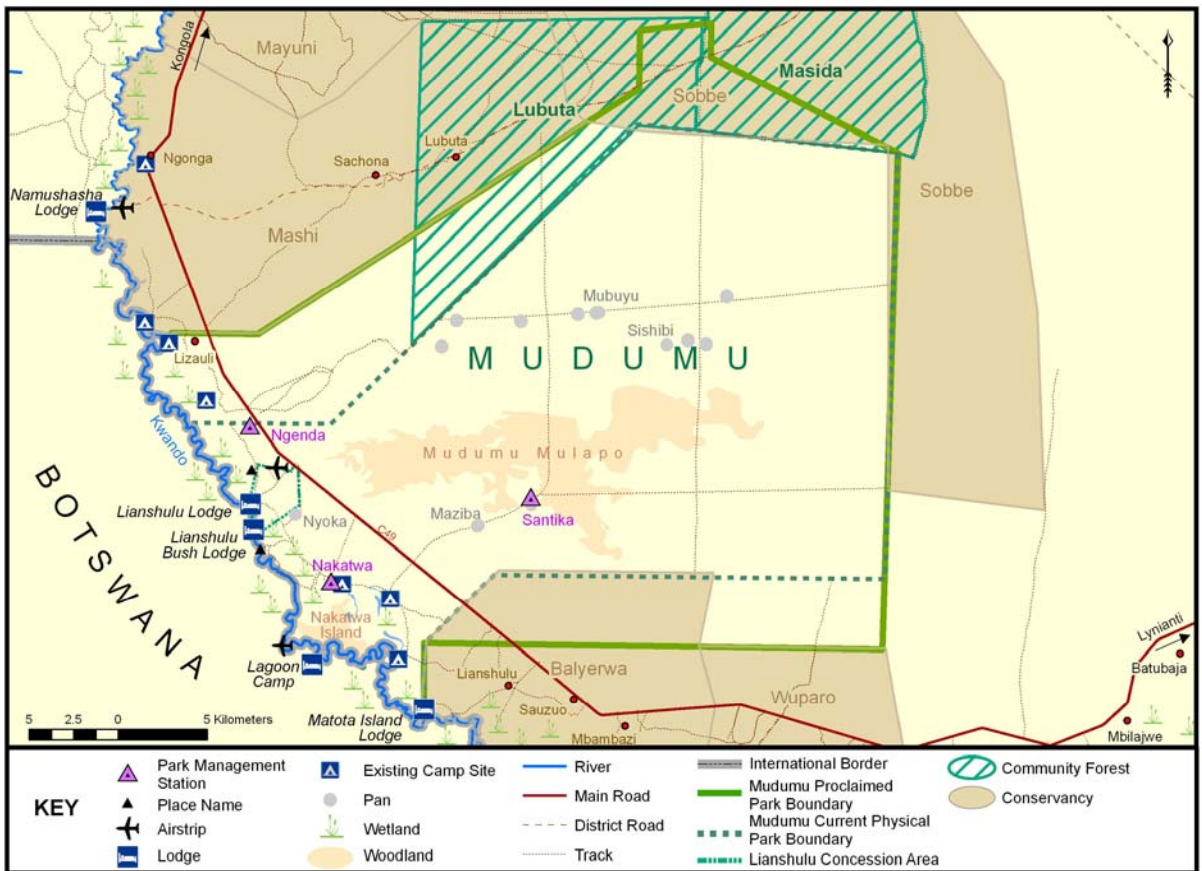
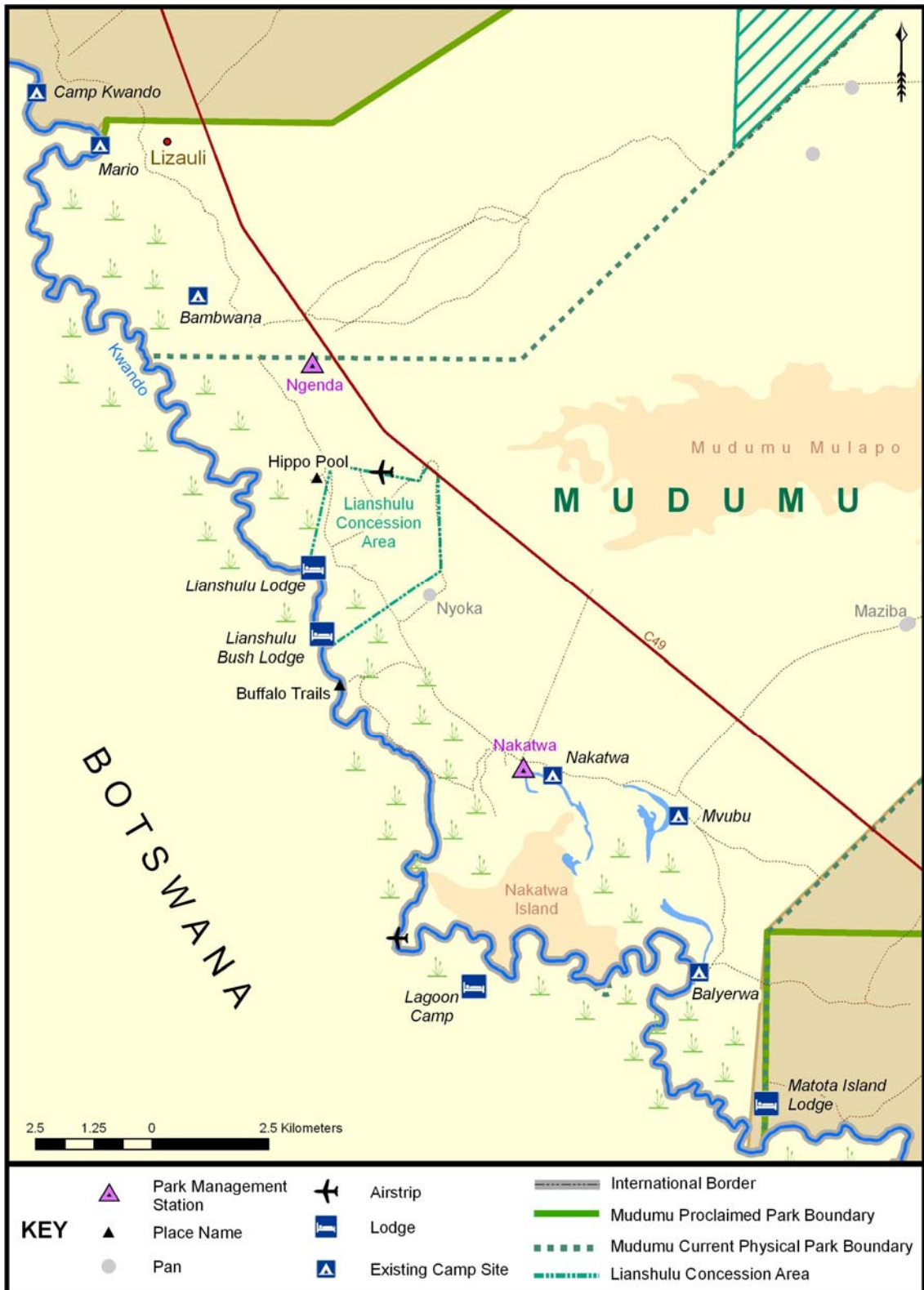


Figure 9: Mudumu National Park's Kwando River front.





## Access

Mudumu is easily accessed from the C49 road between Katima and Kongola, which dissects the park. Mudumu received approximately 6205 visitors in 2008, the majority of which were guests of the existing Lianshulu concessionaire (59%). Entry to the Nakatwa station, as well as the Lianshulu Lodge is possible by 2x4 vehicles, including sedans; however access to all other areas of the park requires heavy duty 4x4 vehicles. In the wet season, the eastern side of the park (east of the C49) and some sections along the river are inaccessible due to extensive “black cotton” mud, thus restricting tourism activities and requiring park staff to mostly patrol on foot in these areas.

Other access possibilities for visitors are by aircraft, landing at the Lianshulu airstrip, and by boat through an innovative cross-border arrangement between Namibia and Botswana. Under this arrangement the Botswanan defence force base near Kwando Lagoon Camp grants departure permits to guests of the current concessionaire, who are then taken by boat to the Lianshulu Lodge. Here they complete Namibian entry permits that are thereafter collected and processed by an immigration official from Katima. Guests are required to depart via the same route however.

Access possibilities are summarised in Table 18 below.

**Table 18:** Access to Mudumu.

Access by 4x4 vehicles	Access by 2x4 vehicles	Access by boat	Access by aircraft
<ul style="list-style-type: none"> <li>Along 2x4 roads via Lianshulu Lodge or Nakatwa entries</li> <li>4x4 entry possible along northern and southern cut lines, as well as Mvubu / Maziba access</li> </ul>	<ul style="list-style-type: none"> <li>Only possible along 2x4 roads via Lianshulu Lodge entry or Nakatwa entry</li> </ul>	<ul style="list-style-type: none"> <li>Possible by special arrangement from Botswana via Defence Force check point near Kwando Lagoon Camp</li> </ul>	<ul style="list-style-type: none"> <li>Via Lianshulu concession airstrip</li> </ul>

Currently Mudumu has only one official park entrance, at Nakatwa, which is situated on the Nakatwa lagoon (see Figure 9). Given Nakatwa is located away from the park boundary staff regularly encounter problems with unauthorised entries and also poaching alongside the road. The Ngenda station, situated on the northern park cut line, is in a more suitable position for access control, and it has been agreed within MET to close the Nakatwa station and relocate staff to Ngenda. Furthermore, it has been proposed to develop a new small satellite entry station at the southern entrance of Mudumu for better regulation of traffic through the park. The Roads Authority has already approved these arrangements.

## Historical and social context

As was the case with Mamili, Mudumu was also settled by the Mafwe and Mayeye prior to independence. Likewise, in 1945 much of the park (mainly the low lying river frontage) was also set aside by the Mafwe Traditional Authority as a traditional hunting area due to the Tsetse fly invasion. In the mid 1970's permission was granted by the Traditional Authority for the establishment of a hunting camp at the site of the current Lianshulu Lodge. The residents in the Lianshulu lodge area were relocated to a site outside of the current park boundary to the south – a place now known as Lianshulu village in Balyerwa conservancy.

According to Backer<sup>10</sup> (1989), much of Mudumu remained settled and utilised as a traditional hunting and grazing area up to 1987 when an agreement was signed between the Mafwe Traditional Authority and the Department for Agriculture and Nature conservation to officially proclaim Mudumu as a State protected area. Under the terms of this agreement the Mafwe Traditional Authority would receive 25% of gross income generated by the park. It was furthermore agreed that a quota of wildlife would be given annually to the traditional authority for feasts. However unlike in the agreement regarding Mamili, no reference was made in this contract regarding the future use of reeds, thatching grass and veldt foods.

Based on the agreement of 1987, the Administrator General of South West Africa approved the declaration of Mudumu as a National Park in 1989. In his declaration, the Administrator General imposed a condition that the park boundaries be better planned and consolidated prior to the development of cut lines. This was to be done in consultation between the Department of Agriculture and Nature Conservation, and the local Indunas. After independence of Namibia, further consultations took place and the final cut lines made. Due to the presence of numerous villages within the proposed park boundary, major changes had to be made and the current de facto park boundary differs dramatically from that in the official gazette.

Following the promulgation of legislation in 1996 allowing residents on communal land to obtain rights over wildlife through the formation of conservancies, four conservancies were registered around Mudumu – Wuparo in 1999, Mashi in 2003, Sobbe in 2006, and Balyerwa in 2006. The Dzoti conservancy to the south of Mudumu is still emerging.

Despite the formation of conservancies, the promised benefits from the park, as outlined in the agreement signed by the traditional authority in 1987, have been limited to the provision of meat from game harvests. There has been no revenue sharing from park entrance fees or from earlier hunting concessions or the lodge concession at Lianshulu. Under a Cabinet Decision made in 1999, MET is to provide conditional tourism rights inside of Mudumu to the neighbouring communities. The 2007 Tourism and Wildlife Concessions Policy and this tourism plan enable the implementation of Cabinet's decision.

#### Environmental context

Mudumu National Park encloses the Mudumu Mulapo, a seasonally dry, open channel that drains the primarily Mopane (*Colophospermum mopane*) woodlands of the hinterland to the east. Mudumu's natural environment is consequently different from that of the Kalahari woodland system across the river in Botswana, even though there are no real physical barriers to dispersal by plants (apart from the river itself). The reason for this difference lies mostly in the predominance of heavy clay soils, which are interspersed with sandy parts. The distribution and extent of these soils are the primary determinants of vegetation structure and species composition, with especially Mopane being associated with clay soils, and *Burkea* (*Burkea africana*) and Silver Cluster-leaf (*Terminalia sericea*) with sandy soils (although some overlap and intermixing occurs in places). The depth of the water table, which appears to change over long periods linked to wetter and drier cycles in the region, is a further important determinant of vegetation structure. For instance, when water tables are low, Silver Cluster-leaf tends to form thickets of even-aged multi-stemmed shrubs and small trees. These die off when water tables rise, though, leaving a more open structure.

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<sup>10</sup> Backer H J (1989) Letter to the Secretary for the Department of Agriculture and Nature Conservation. Administration for Caprivians. Katima Mulilo, Namibia.

The river front is characterised by a tall closed woodland to forest fringe (climax vegetation), which has however mostly been transformed to open shrublands by elephant. Elephant have indeed transformed much of the adjacent woodlands, for at least a few kilometres inland, into open shrublands and even grassland. The remaining riparian forest fringe is patchy but in good condition, with tall trees forming closed canopy stands. The riparian vegetation, including its associated floodplains, open water sections and reed beds, are considered to be sensitive and of high biodiversity significance.

Apart from the distribution of soil types, fires, especially late-season hot fires set outside the park, are the main determinants of vegetation structure and species composition. These fires seldom cause as much damage in the Mudumu Mulapo woodland vegetation type as in the more sandy soil types, as the grass layer is often not thick enough to sustain hot fires. The issue of too infrequent fires, which usually lead to dense woody thickets that eventually exclude grass, is probably less of a problem in Mudumu than elsewhere in the Caprivi region.

The MET follows a management policy of controlled burning, with the aim of burning at least a third of the Park's surface area each year, emphasising early cool burns, to prevent the build-up of combustible material.

The park contains some of the best preserved tall Mopane woodlands in Namibia, and some excellent examples of *Burkea veldt*. Mudumu also has healthy resident sable and roan populations. Sable, giraffe, (*Giraffa camelopardalis*), blue wildebeest (*Connochaetus taurinus*) and eland (*Taurotragus oryx*) were recently released both in the park and in the neighbouring conservancies, supplementing existing populations, and, in the case of the giraffe and eland, re-establishing locally extinct populations. Groups of impala have also been released in the neighbouring conservancies.

The unfenced Mudumu forms part of the Mudumu North Complex, a group of formally protected areas, conservancies and forestry management areas that stretch from Bwabwata East to Mudumu. Joint management of several aspects by the members of the Complex ensure the coordination of wildlife management activities across the whole region and ensure that benefits of wildlife conservation to the neighbouring communities are maximised.

The main river channel is supplemented by several smaller channels and oxbow lakes, leading to a constantly changing arrangement of dry and wet areas and the presence of some permanent islands. These permanently wet areas are home to several aquatic and semi-aquatic species, amongst which are some healthy populations of hippo and crocodile. Floodplain grasslands form important habitat for wetlands mammals such as lechwe, reedbuck and (possibly) puku.

Mudumu is an important corridor for elephant moving from Botswana into the East Caprivi and on into Zambia and Angola. Elephant have the potential, which is probably being realised periodically, of transforming vegetation structure and composition on a comparable scale to fire.

Given current elephant population levels, as long as water is seasonally available in the veldt away from the Kwando River, and as long as elephant are allowed to move freely to foraging areas further a field, impacts on biodiversity in general will probably remain acceptable. This requires, however, that movement corridors outside the park not be blocked by developments.

To a much lesser extent than in Bwabwata National Park, the wet season dispersal of game to the hinterland, followed by a dry season concentration on the river front, is an important natural

ecological process that regulates (but does not determine) vegetation structure and species composition. As a matter of policy therefore, the supply of artificial water away from the river should be kept to a minimum, used mainly for tourism purposes, and managed according to natural cycles and for the benefit of specific wildlife species (such as sable and roan).

#### Tourism resources

Like Mahango, Buffalo and the Kwando Core Areas, Mudumu's primary attraction is concentrated along its river frontage where floodplains, forests and associated wildlife combine to form the park's premier tourist resource. The east of the park comprises a large block of dry savannah woodland dotted with ephemeral pans. It has relatively low wildlife numbers but does offer a sense of remoteness and seasonal concentrations of animals, especially around the pans.

#### Existing markets and products

There are two accommodation products currently operational adjacent to Mudumu and another two inside of the park. There are also four un-serviced campsites inside Mudumu that are operated by MET. Two campsites have been built on the northern park boundary within the gazetted park, but north of the cut line, however these are not operational. It is uncertain what the legal status of these campsites is, given the Ministry of Lands and Resettlement is unlikely to grant rights of leasehold to developments inside of protected areas and MET has not granted concession rights to the individuals concerned. This information is summarised in **Table 19** below.

**Table 19:** Existing accommodation and markets in the Mudumu area – Namibia side.

Product	Location	Type, size, performance	Markets
Camp Kwando	<ul style="list-style-type: none"> <li>North of Mudumu</li> <li>Mashi conservancy</li> <li>Operates on a right of leasehold</li> <li>No agreement with conservancy</li> </ul>	<ul style="list-style-type: none"> <li>Mid market lodge</li> <li>17 rooms / tents, 6 campsites</li> <li>Achieved 32% bed occupancy and 31% campsite occupancy in 2008 (5329 nights sold)</li> </ul>	<ul style="list-style-type: none"> <li>46% tour operator drive in</li> <li>34% FIT (hired vehicle)</li> <li>20% FIT (own vehicle)</li> </ul>
Mario Campsite	<ul style="list-style-type: none"> <li>North of Mudumu cut line</li> <li>Within gazetted boundary of Mudumu</li> <li>No concession or right of leasehold</li> <li>No agreement with MET or conservancy</li> </ul>	<ul style="list-style-type: none"> <li>Campsite</li> <li>Not operational</li> </ul>	<ul style="list-style-type: none"> <li>No current market – product closed</li> </ul>
Bambwana Campsite	<ul style="list-style-type: none"> <li>North of Mudumu cut line</li> <li>No concession or right of leasehold</li> <li>No agreement with MET or conservancy</li> </ul>	<ul style="list-style-type: none"> <li>Campsite</li> <li>Not operational</li> </ul>	<ul style="list-style-type: none"> <li>No current market – product closed</li> </ul>
Lianshulu Lodge	<ul style="list-style-type: none"> <li>Inside Mudumu</li> <li>Operates as State issued concession</li> </ul>	<ul style="list-style-type: none"> <li>Up-market lodge</li> <li>12 rooms</li> <li>Achieved 49% occupancy in 2008 (4292 beds sold)</li> </ul>	<ul style="list-style-type: none"> <li>20% tour operator drive in / fly in</li> <li>70% FIT (hired vehicle)</li> <li>10% FIT (own vehicle)</li> </ul>

Lianshulu Bush Lodge <sup>11</sup>	<ul style="list-style-type: none"> <li>• Inside Mudumu</li> <li>• Operates as State issued concession</li> </ul>	<ul style="list-style-type: none"> <li>• Up-market lodge</li> <li>• 8 rooms</li> <li>• Achieved 62% occupancy in 2008 (3621 beds sold)</li> </ul>	<ul style="list-style-type: none"> <li>• 100% tour operator fly in</li> </ul>
Matota Island Lodge <sup>12</sup>	<ul style="list-style-type: none"> <li>• South of Mudumu</li> <li>• Balyerwa conservancy</li> <li>• No right of leasehold</li> <li>• Has agreement with conservancy</li> </ul>	<ul style="list-style-type: none"> <li>• Up-market lodge</li> <li>• 8 rooms</li> <li>• Achieved 53% occupancy in 2008 (3095 beds sold)</li> </ul>	<ul style="list-style-type: none"> <li>• 100% tour operator fly in</li> </ul>
MET campsites	<ul style="list-style-type: none"> <li>• Inside Mudumu</li> <li>• Nakatwa Lagoon</li> <li>• Mvubu Lagoon</li> <li>• Balyerwa Lagoon</li> </ul>	<ul style="list-style-type: none"> <li>• Un-serviced campsites</li> <li>• 4 sites</li> <li>• Occupancy not known as MET keeps no records, but very low</li> </ul>	<ul style="list-style-type: none"> <li>• 100% FIT (own vehicle)</li> </ul>

There is one accommodation facility operating on the Botswana side of the Kwando River. This trades in the luxury international market, and their guests fly in with chartered aircraft.

**Table 20:** Existing accommodation and markets in the Mudumu area – Botswana side.

Product	Location	Type, size, performance	Markets
Lagoon Camp	<ul style="list-style-type: none"> <li>• West bank of Kwando river</li> <li>• Opposite Nakatwa Island,</li> </ul>	<ul style="list-style-type: none"> <li>• Luxury tented camp</li> <li>• Operated under a State issued concession</li> <li>• Size, operator and performance not known</li> </ul>	<ul style="list-style-type: none"> <li>• 100% overseas fly-in</li> </ul>

### Trophy hunting

One of Mudumu's main purposes is to serve as a core wildlife area, supplying individual animals to neighbouring conservancies that can then sell hunting rights to professional hunters. Even though it is being regulated, trophy hunting puts pressure on game numbers outside the park. Any further pressure on game numbers inside the park will therefore have serious detrimental effects on the chances for survival of certain species in the region. Mudumu is therefore seen as a breeding and rest area for wildlife.

Due to Mudumu's importance as a breeding and recovery area for the region's wildlife, and its significant value as a high-end photographic tourism destination, it is **not recommended** to allow hunting inside of the park, except for management or traditional purposes (e.g. annual feasts).

Furthermore, predator numbers – especially lions – are very low in Mudumu. There are allegations of lion baiting from neighbouring conservancies (where lions are sometimes included on trophy lists). Given the importance of this species for photographic tourism, the future inclusion of lions on the trophy lists for neighbouring areas should be carefully considered.

<sup>11</sup> Lianshulu Bush Lodge is used by the concessionaire for special fixed departure tour groups only (Overseas Adventure Travel – OAT). When OAT groups depart, the lodge is closed until the next group arrives. The lodge does not trade to the general public.

<sup>12</sup> Matota Island Lodge is operated by the Lianshulu Concessionaire. As with Lianshulu Bush Lodge it is used for special fixed departure tour groups only. The lodge does not trade to the general public.

## 5.2 Management interventions

### Proposed markets and concessions

The proposed new concessions for Mudumu are outlined in **Table 21** below, and illustrated in **Figure 10**.

**Table 21:** Proposed concessions in Mudumu.

Mudumu North (Lianshulu)	Mudumu South (Nakatwa)	Mudumu Campsite(s)
<ul style="list-style-type: none"> <li>• Upper/mid-market photographic concession</li> <li>• Maximum of 56 beds in two facilities</li> <li>• Renegotiation of existing agreement with incumbent</li> <li>• Medium density; multiple access</li> <li>• 20-year BOT</li> <li>• Very high priority</li> </ul>	<ul style="list-style-type: none"> <li>• Upper/mid-market photographic concession</li> <li>• Maximum of 60 beds in two facilities</li> <li>• Medium density; exclusive access</li> <li>• 20-year BOT</li> <li>• High priority</li> </ul>	<ul style="list-style-type: none"> <li>• Campsites at Balyerwa; Mvubu; Hippo Pool; and Maziba pan</li> <li>• Medium density; multiple access</li> <li>• 5-year activity concessions to conservancies for own operation or sub-concessioning</li> <li>• Medium priority</li> </ul>



Figure 10: Tourism zoning for Mudumu.





## Zoning

The Mudumu river front (area west of C49 road) falls within the “very important” biophysical zone, and therefore tourism development in this area must be very carefully planned in order not to impact upon the very sensitive and scarce ecology. It is recommended that any development in this area follows the environmental assessment procedure, and that a cost / benefit analysis be done to ensure the likely benefits outweigh potential environmental costs. The area to the east of the C49 road falls within the important and less important biophysical zones, and therefore the potential environmental costs will be lower and restrictions on tourism development less.

In terms of tourism zoning, due to Mudumu’s easy accessibility, importance as an activity area for neighbouring lodges, history of public access and limited river frontage and game view areas, it is suggested that the park be zoned as **medium volume** with **multiple access**.

Exceptions to this will be for the Mudumu South Concession (on Nakatwa Island and Lagoon), which will be **medium volume** and **exclusive access**, and the Kwando River for activities, which will be **low volume** and **limited access** for use by concessionaires only.

Illustration of the proposed tourism zoning is shown in **Figure 10**.

## Infrastructure

Mudumu requires the following infrastructure to support tourism development:

- ✓ Closure and rehabilitation of Nakatwa station for use under the Mudumu South Concession, and the relocation of staff to Ngenda station. This recommendation has been approved by the MET during planning conducted by the BMM Parks Project;
- ✓ The renovation of Ngenda station to accommodate staff from Nakatwa station. Furthermore a dedicated visitor reception should be built next to the road (i.e. separate from park management facilities). Infrastructure planning of this, including approval from Road Authority, site layout, module designs and bills of quantities have been completed by the BMM Parks Project;
- ✓ Development of a new park entry station on southern boundary, positioned next to the C49 road. This recommendation was approved by MET and the Roads Authority and infrastructure planning, including site layout, module designs and bills of quantities have been completed by the BMM Parks Project;
- ✓ Provision of basic facilities at new visitor receptions, such as toilets, craft outlet and information. It is possible that the Mudumu Campsite Concession could be managed from this reception facility;
- ✓ The design, lay out, and construction of a revised track network. Of most importance is the development of revised track network (4x4 route) and bush camps in the eastern woodlands to support the proposed Mudumu Campsite Concession and to diversify the activities available to other park visitors. This may need to include the provision of some artificial water points in certain locations, which will require careful environmental impact assessment;
- ✓ Confirm the northern and southern park boundaries with the relevant neighbours and re-gazette to remove uncertainty regarding the rights to tourism development beyond the park cut lines.

## Visitor management

The following interventions are required to improve visitor management at Mudumu:

- ✓ Improved access control and visitor recordkeeping at the entrances to the park, including a system for submitting information regularly to MET headquarters;
- ✓ A system for local level monitoring of concession contracts and reporting to MET headquarters;
- ✓ A system requiring concessionaires to keep visitor records and submit information regularly to MET; and
- ✓ A code of conduct to be developed to regulate the day-to-day activities of concessionaires and their guests.

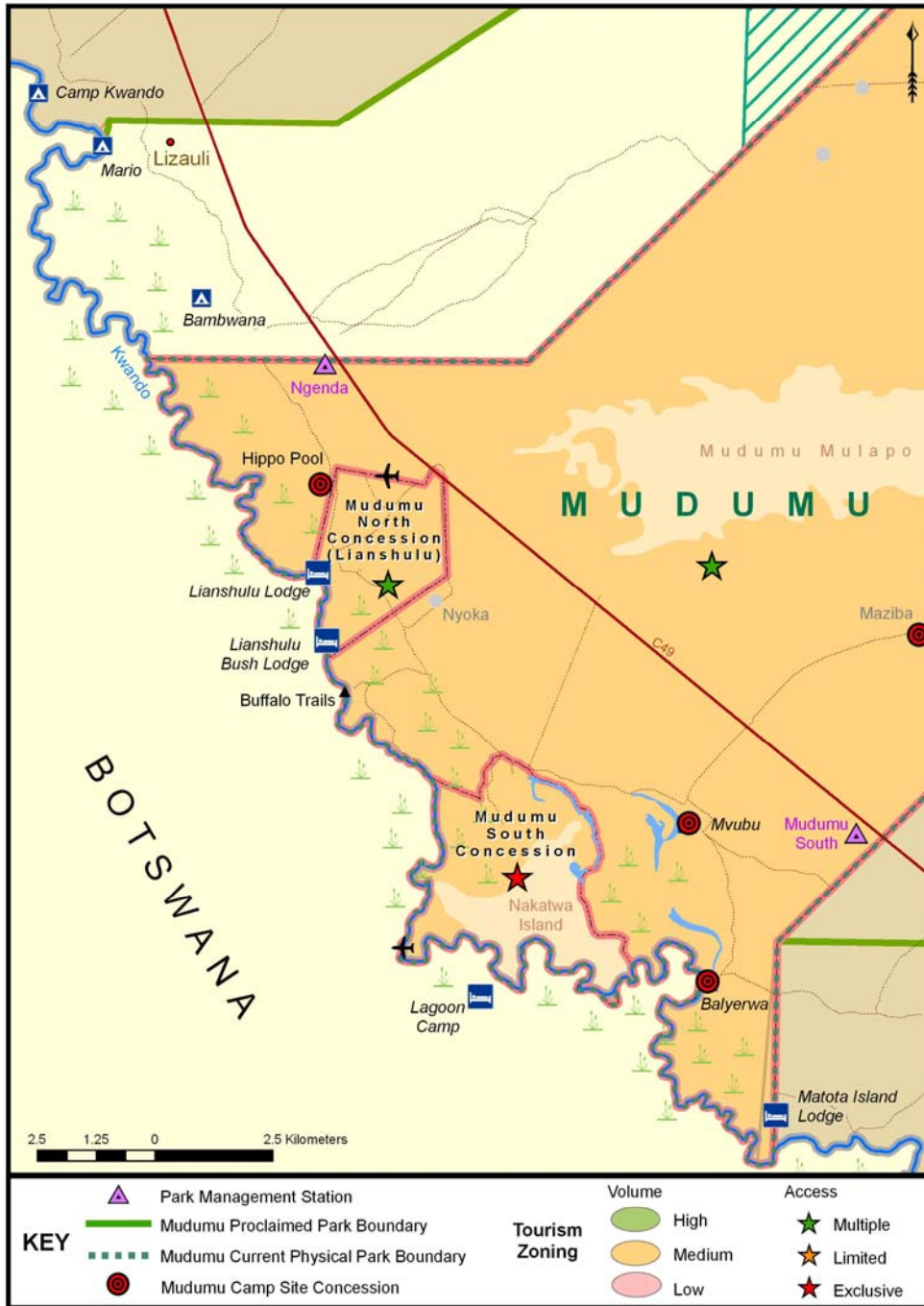


### 5.3 Mudumu North Concession (Lianshulu)

#### Location

The Mudumu North Concession area (800 hectares) is the existing Lianshulu concession area, situated on a backwater of the Kwando main stream, between Nakatwa and Ngenda stations. The concession area is illustrated in **Figure 11**.

**Figure 11:** Mudumu North Concession, Mudumu South Concession and Mudumu Campsite Concession.



## Rationale

This concession involves an established operation underpinned by an agreement that was concluded shortly before independence in 1989. The agreement is of uncertain status and falls well short of contemporary best practice standards. It requires restructuring to improve its terms and to optimize economic yields to MET and the neighbouring communities.

## Attractions

The area's principal attractions include:

- ✓ The Kwando River with its associated floodplains and forests;
- ✓ High concentrations of wildlife, including buffalo, roan and elephant, especially in the dry months;
- ✓ Proximity to the high value lodge circuits of neighbouring Botswana.

## Preferred markets

The operation will build on the operation's existing markets including:

- ✓ Small fly-in groups on multi-destination circuits (integrated with Botswana);
- ✓ Small tour operator-conducted groups;
- ✓ A limited number of self drive FITs.

## Zoning

The concession is situated within the **very important** biophysical zone. This concession is zoned for a **medium level of use** and **multiple access**, while use of the Kwando River shall be on a **limited access** basis. The concessionaire should have exclusive development rights over the "lease area" of approximately 800ha recognized in the existing Lianshulu agreement. Other users should however have the right to enter the area for game viewing purposes and to access the airstrip.

## Indicated developments

As per the development proposal already submitted by the operator, the existing Main Lodge (24 beds) and Bush Lodge (16 beds) may be increased to a combined total of 56 beds (subject to an EIA procedure).

The concessionaire should maintain the existing support infrastructure in the concession area including the airstrip, access roads and game viewing tracks. The concessionaire should provide airstrip access to other users but should have right to charge fair landing fees.

## Activities

Activities in the concession area should be concessionaire-conducted and include:

- ✓ Day and night drives;

- ✓ Boating on the Kwando River;
- ✓ Walks in the park;
- ✓ Cultural excursions to nearby communities.

#### Environmental considerations

The following important environmental issues should be taken note of during the EIA procedure:

- ✓ Solid waste will need to be removed from the concession area and recycled or dumped at an organised waste management site. Management of liquid waste near to wetland areas will need to be carefully assessed during the EIA process.
- ✓ As with all the areas in the BMM Parks that are seasonally wet, and especially because of the predominance of clay soils associated with the Mudumu Mulapo drainage system, vehicles used for game drives will probably cause a lot of damage in the wet season, even on existing tracks. Many of the existing tracks should therefore be upgraded in places, including raising the surface in places and providing drainage pipes underneath a compacted gravel surface.
- ✓ Tracks and roads should not be scraped unless they have been surfaced. New tracks should be designed to avoid wet areas as much as possible and never be scraped.
- ✓ Care must be taken during construction of any tourism facilities to avoid impacts on woody plants. No clearing of riparian forests should be permitted.
- ✓ All boating operations run the risk of impacting populations of wetland and aquatic species such as hippo and crocodile, as well as several birds and amphibians that breed in the adjacent wetland vegetation, on sand banks, and in river banks. It is thus important to regulate the number of boats that are allowed access to the river simultaneously, the speed of boat traffic, and the timing and duration of boating activities each day (and seasonally).

#### Concession structure

Given this is an existing concession between the State and a private operator, and based on an agreement reached between MET and the five neighbouring conservancies on 9<sup>th</sup> May 2008, it is recommended that MET:

- ✓ renegotiate and award the concession to the incumbent operator;
- ✓ share 50% of the concession revenue with the five neighbouring conservancies (who will share it equally amongst themselves).

The terms of the agreement should be mutually agreed between the parties but should include a 20-year ROT/MOT arrangement and reflect the conditions sketched in this document.

As in the case of Mamili, the challenge under a revenue sharing arrangement of this sort is to create a sense of ownership and involvement in the park among the neighbouring communities, which is based on shared rights and responsibilities. It is therefore recommended that this arrangement include the creation of a park and neighbours forum in which MET, the communities and the concessionaire(s) participate to address issues of joint concern.

### Financial indicators

The expansion of the existing facilities at Lianshulu from 40 to 56 beds will involve an investment of approximately N\$5.8 million. Annual turnover of some N\$13.6 million at maturity could result in net cash flow of N\$400,000 after tax and debt servicing. Government and its community partners could derive some N\$1.36 million annually in concession fees, while N\$380,000 could be earned annually through park fees. The operation is expected to sustain 84 permanent on-site jobs with an annual payroll at maturity of approximately N\$3.59 million (a large part of which would be captured by community members). The likely private internal rate of return over twenty years on the capital invested to expand the operation is estimated at 23.3%, well above the expected 10% cut-off. The concession is therefore viable and rated as **financially very attractive**.

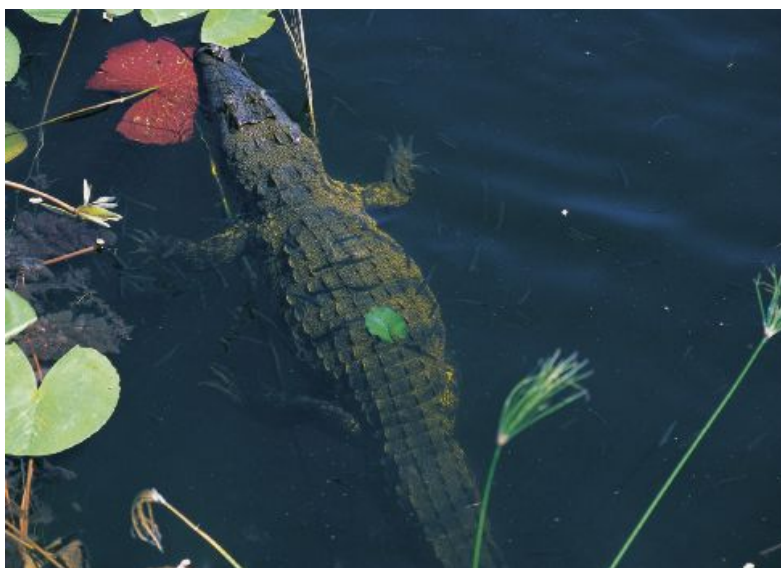
### Priority

Given the existing operation and the advanced state of negotiations between MET and the incumbent, this concession has a **very high priority** rating.

### Required interventions

Implementation of this concession requires the following interventions:

- ✓ The renegotiation of the existing agreement with the incumbent (currently underway), and conclusion of a new concession contract;
- ✓ Approval of the re-negotiated terms and conditions by the relevant authorities;
- ✓ Integration of the agreement into the Mudumu park management plan;
- ✓ Creation of Parks and Neighbours Forum;
- ✓ MET support for the concessionaire's efforts to sustain cross-border linkages to Botswana;
- ✓ Preparation of a code of conduct for activities conducted by concessionaires in the park.





### 5.4 Mudumu South Concession (Nakatwa)

#### Location

The proposed Mudumu South Concession (1,400 hectares), is located in the south western corner of the park and consists of the Nakatwa station (to be closed with staff and services relocated to Ngenda), and the Nakatwa Island, which is currently inaccessible to visitors. The proposed concession area is illustrated in **Figure 12**.

**Figure 12:** Mudumu North Concession, Mudumu South Concession and Mudumu Campsite Concession.





## Rationale

The Nakatwa site is currently occupied by MET management and used as a free public camping area. Given the high quality of the Nakatwa lagoon and the fact that MET is vacating the site, there is an opportunity to redevelop and optimize the economic potential of the area as a high value photographic concession. Like the Lianshulu and Mamili West concessions, the area is located opposite successful photographic operations in Botswana. It therefore has the potential to be integrated into the Botswana lodge circuit thereby benefiting from the high value and established reputation of that country's lodge industry.

## Attractions

The area's attractions include:

- ✓ The Kwando River with its associated floodplains and forests;
- ✓ The attractive backwaters and islands of the Nakatwa lagoon;
- ✓ High concentrations of wildlife, including buffalo and elephant, especially in the dry months;
- ✓ Proximity to the high value lodge circuits of neighbouring Botswana.

## Preferred markets

Given the size, exclusivity and quality of the concession area, the preferred market segments are:

- ✓ Small fly-in groups on multi-destination circuits (integrated with Botswana);
- ✓ Small tour operator-conducted groups;
- ✓ A limited number of self drive FITs.

## Zoning

This concession is situated within the **very important** biophysical zone. The proposed concession area is zoned for a **medium level of use** and **exclusive access** to Nakatwa Island and development sites on Nakatwa lagoon. Use of the Kwando River shall be on a **limited access** basis.

## Indicated products

Given the preferred market segments, the following developments are recommended:

- ✓ A maximum of two lodges located on the Nakatwa lagoon and Nakatwa Island, with a combined upper bed limit of 60 beds (subject to EIA);
- ✓ Support infrastructure including access roads and an expanded track network.

The Nakatwa concession should not develop its own airstrip but should use the existing facility under an agreement with the Lianshulu operator (see above).

## Activities

Activities in the concession area will be concessionaire-conducted and include:

- ✓ Day and night drives in the concession area;
- ✓ Boating on the Nakatwa Lagoon and Kwando River;
- ✓ Walks in the park (including the exclusive use area of Nakatwa island);
- ✓ Cultural excursions to nearby communities.

## Environmental considerations

The following important environmental issues should be taken note of during the EIA procedure:

- ✓ Solid waste will need to be removed from the concession area and recycled or dumped at an organised waste management site. Management of liquid waste near to wetland areas will need to be carefully assessed during the EIA process.
- ✓ As with all the areas in the BMM Parks that are seasonally wet, and especially because of the predominance of clay soils associated with the Mudumu Mulapo drainage system, vehicles used for game drives will probably cause a lot of damage in the wet season, even on existing tracks. Many of the existing tracks should therefore be upgraded in places, including raising the surface in places and providing drainage pipes underneath a compacted gravel surface.
- ✓ Tracks and roads should not be scraped unless they have been surfaced. New tracks should be designed to avoid wet areas as much as possible and never be scraped.
- ✓ Care must be taken during construction of any tourism facilities to avoid impacts on woody plants. No clearing of riparian forests should be permitted.
- ✓ All boating operations run the risk of impacting populations of wetland and aquatic species such as hippo and crocodile, as well as several birds and amphibians that breed in the adjacent wetland vegetation, on sand banks, and in river banks. It is thus important to regulate the number of boats that are allowed access to the river simultaneously, the speed of boat traffic, and the timing and duration of boating activities each day (and seasonally).
- ✓ The old borrow pit located adjacent to the Nakatwa MET station is an eyesore and should be rehabilitated as part of the development.

## Concession structure

Given that Mudumu has five neighbouring conservancies (including one emerging), MET could:

- ✓ Offer the concession on a 20-year BOT-basis to a partnership representing the five neighbouring conservancies, which could in turn, award a sub-contract to an appropriately qualified operator via a competitive bidding process (overseen by MET and using standardized contracts approved by MET);  
OR
- ✓ Award the concession directly to an appropriately qualified private operator via competitive bidding (as per MET's concession policy) followed by benefit sharing between MET and each of the neighbouring communities (based on percentages to be agreed during the preparation of the tender).

The second option has the advantage that it buffers the concessionaire against possible politics and conflicts in the neighbouring communities. The challenge under this scenario is to create a

sense of ownership and involvement in the park among the neighbouring communities, which is based on shared rights and responsibilities. It is therefore recommended that this method includes the creation of a Park and Neighbours Forum in which MET, the communities and the concessionaire(s) participate to address issues of joint concern.

#### Financial indicators

If 60 beds are developed the concession will involve an initial investment of approximately N\$37 million. Annual turnover of some N\$18.4 million at maturity could result in net cash flow of N\$1.53 million after tax and debt servicing. Government and its community partners could derive some N\$1.47 million annually in concession fees, while about N\$380,000 could be earned annually from park fees. The operation is expected to sustain 90 permanent on-site jobs with an annual payroll at maturity of approximately N\$3.71 million (a large part of which would be captured by community members). The likely private internal rate of return over twenty years on the capital invested to expand the operation is estimated at 12.3%, above the expected 10% cut-off. The concession thus promises to be financially viable and is rated as **moderately attractive**.

#### Priority

Given the quality of the area and the imminent evacuation of the Nakatwa site by MET, this concession has a **high priority** rating.

#### Required interventions

The follow actions are required before the concession can be implemented:

- ✓ Agreement with the neighbouring conservancies regarding the concession structure and benefit sharing;
- ✓ Feasibility assessment and preparation of detailed concession documents as required by the *Policy on Tourism and Wildlife Concessions on State Land*;
- ✓ Approval of this concession proposal by relevant authorities, including the MET concession committee;
- ✓ Integration of the concession into the park management plan;
- ✓ Implementation of a concessioning process including a competitive tender as sketched above;
- ✓ Creation of a Parks and Neighbours Forum;
- ✓ Agreement with relevant authorities for cross-border linkages to Botswana;
- ✓ Preparation of a code of conduct for activities conducted by concessionaires in the park.

### 5.5 Mudumu Campsite Concession

#### Location

The proposed Mudumu Campsite Concession comprises at least four exclusive development sites at Mvubu, Balyerwa, Hippo Pool, Maziba and possibly other designated sites in the eastern woodlands. These sites are illustrated in **Figure 13**.

**Figure 13:** Mudumu North Concession, Mudumu South Concession and Mudumu Campsite Concession.



## Rationale

The primary rationale for this concession is to provide continued affordable public access and accommodation in Mudumu. This is part of a larger commitment to ensure the general public reasonably priced access to the BMM Parks.

## Attractions

The areas attractions include:

- ✓ The Kwando river with its associated floodplains and forests;
- ✓ The remote woodlands and pan systems of eastern Mudumu;
- ✓ A wide diversity of wildlife, especially in the dry months.

## Preferred markets

The preferred market for this concession is self-drive FITs, particularly 4x4 enthusiasts on multi-destination tours through the region, however small tour operators may also make use of such facilities.

## Zoning

This concession falls within all three biophysical zones – very important, important, and less important. The proposed sites all fall within the **medium volume** and **multiple access** zones of the park; however the concessionaire(s) will have **exclusive access** to the individual development sites.

## Indicated products

Two types of campsites are recommended:

- ✓ serviced sites at Mvubu and Hippo Pool; and
- ✓ unserviced sites at Balyerwa, Maziba and possibly other sites to be identified in the eastern woodlands.

## Activities

Activities will include:

- ✓ self-drive excursions as per park rules; and
- ✓ guided walks offered by the concessionaire(s).

## Environmental considerations

The following important environmental issues should be taken note of during the EIA procedure:

- ✓ Solid waste will need to be removed from the concession area and recycled or dumped at an organised waste management site. Management of liquid waste near to wetland areas will need to be carefully assessed during the EIA process.

- ✓ As with all the areas in the BMM Parks that are seasonally wet, and especially because of the predominance of clay soils associated with the Mudumu Mulapo drainage system, vehicles used for game drives will probably cause a lot of damage in the wet season, even on existing tracks. Many of the existing tracks should therefore be upgraded in places, including raising the surface in places and providing drainage pipes underneath a compacted gravel surface.
- ✓ Tracks and roads should not be scraped unless they have been surfaced. New tracks should be designed to avoid wet areas as much as possible and never be scraped.
- ✓ Care must be taken during construction of any tourism facilities to avoid impacts on woody plants. No clearing of riparian forests should be permitted.
- ✓ Campsite developments must not prevent visitor access to important common areas such as view points at Mvubu and Hippo Pools.

### Concession structure

There are various options for the award of this concession:

- ✓ MET could operate the campsites as part of its broader mandate to provide affordable public access to the national parks of Namibia.
- ✓ MET could award the concession directly to a third party with benefit-sharing to the five neighbouring conservancies. It is however questionable whether such an operation will be viable given its small scale and low margins.
- ✓ MET could award the concession collectively to a partnership of the five neighbouring conservancies who could operate it themselves or enter a sub-contract with a third party under a competitive bidding procedure overseen by MET. Again, the viability of the operation at a commercial scale could undermine this option.
- ✓ The identified campsites could be divided between the park neighbours in recognition of MET's past commitments to specific communities (e.g. Balyerwa and Mashi conservancies). The conservancies may then operate these sites on their own or enter sub-contracts with private partners. Again, it is questionable whether such operations will be viable given their small scale and low margins.
- ✓ MET may award the concession to the lodge concessionaires (Liashulu and Nakatwa) who would develop and manage the campsites. This option has the advantage that it enhances the economy of scale of the existing operations; ensures proper control; creates additional jobs; draws on the operational efficiencies of established business; is commercially sustainable; and guarantees good maintenance and management of the facilities and service. It will also reduce the number of concessionaires in the park thereby easing management requirements.

From a tourism planning and operational efficiency point of view, the final option is preferable.

### Financial indicators

If run as a single operation, the Mudumu Campsite Concession would require an initial investment of approximately N\$440,000 and could generate an annual turnover of some N\$600,000 at maturity, which could result in a modest net cash flow of N\$10,000 after tax and debt servicing. Government and its community partners could derive some N\$30,000 annually in concession fees, while around N\$100,000 could be earned in park fees. The concession is expected to create 6 permanent jobs with an annual payroll at maturity of approximately N\$200,000. The financial viability of the concession is rated as **marginal** and is therefore **financially unattractive**.

### Priority

Given the relatively low value of the concession, it has a **medium priority** rating.

### Required interventions

The follow actions are required before the concession can be implemented:

- ✓ Agreement on the preferred concessioning and benefit sharing option;
- ✓ A study to recommend a new track and bush camp network in the eastern woodlands including identification of appropriate pans for possible water provision and individual campsites (the new track network based on the study should be developed once the concession has been awarded);
- ✓ Feasibility assessment and preparation of detailed concession documents as required by the *Policy on Tourism and Wildlife Concessions on State Land*; and
- ✓ Approval of this concession proposal by relevant authorities, including the MET concession committee;
- ✓ Integration of the concession into the park management plan;
- ✓ Preparation of a code of conduct for activities conducted by concessionaires in the park.





## 6. Bwabwata National Park

### 6.1 Overview

#### Location

The Bwabwata National Park (627,412ha) consists of the former Caprivi Game Park, Mahango Game Park, and the “Kwando Triangle” that was previously State land without conservation status. Except for Mahango, which is positioned on the west bank of the Kavango River, the park completely covers the “Caprivi strip” between the Kavango and Kwando rivers. The northern park boundary is the Angolan border that is demarcated by only a cut line; however the southern boundary is the well fortified Botswanan border, which has three veterinary standard fences. Only a small section of the southern boundary is unfenced – approximately 30km from the Kwando River. The regional boundary between the Caprivi and Kavango regions is located roughly in the middle of the strip, about 30km east of Omega.

At either end of the park are small settlements – Kongola in the east and Divundu in the west. Divundu is soon to be proclaimed as a town (surveyed in 2007), and services are currently being installed. The Trans-Caprivi Highway (B8) dissects the park in the middle from east to west, and a minor road (C48), dissects Mahango in a north / south direction. A number of small settlements have emerged inside the Multiple-use Area, the largest of which are Mutc'iku, Omega, Chetto, Omega 3 (Tokoloshi) and Mashambo. On the eastern bank are three community conservancies – Kwando, Mayuni and Mashi, which are also registered (or soon to be) as community forests.

Bwabwata is comprised of three Core Areas designated for special protection and controlled tourism – Kwando (134,481ha), Buffalo (62,921ha), and Mahango (24,479ha), and a large Multiple-use Area (405,531ha) zoned for community-based tourism, trophy hunting, human settlement and development by the resident community.

The population of Bwabwata Multiple-use Area is approximately 5,500 residents, of which 80% are of the minority San ethnic group – the Khwe. The Khwe are reported to be one of the poorest communities in Namibia, and depend on harvesting veldt foods for around 75% of their diet. Harvesting inside the Multiple-use Area has been allowed over the years by the conservation authorities. According to Beytell (2009)<sup>13</sup>, this decision was based on the Odendaal Commission report of 1964 that recognised the needs of the San and other minorities living inside parks to harvest wildlife and veldt foods, which at the time included the Khwe of the Caprivi Strip and the Topnaar of the Namib Naukluft Park. Bwabwata with its designated use areas, neighbouring and park-based settlements, and community conservation areas are illustrated in **Figure 14** to **Figure 16**.

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<sup>13</sup> Beytell B (2009) Personal Communication. Director of Parks and Wildlife Management, Ministry of Environment and Tourism, Windhoek, Namibia.

Figure 14: Location and extent of Bwabwata National Park.

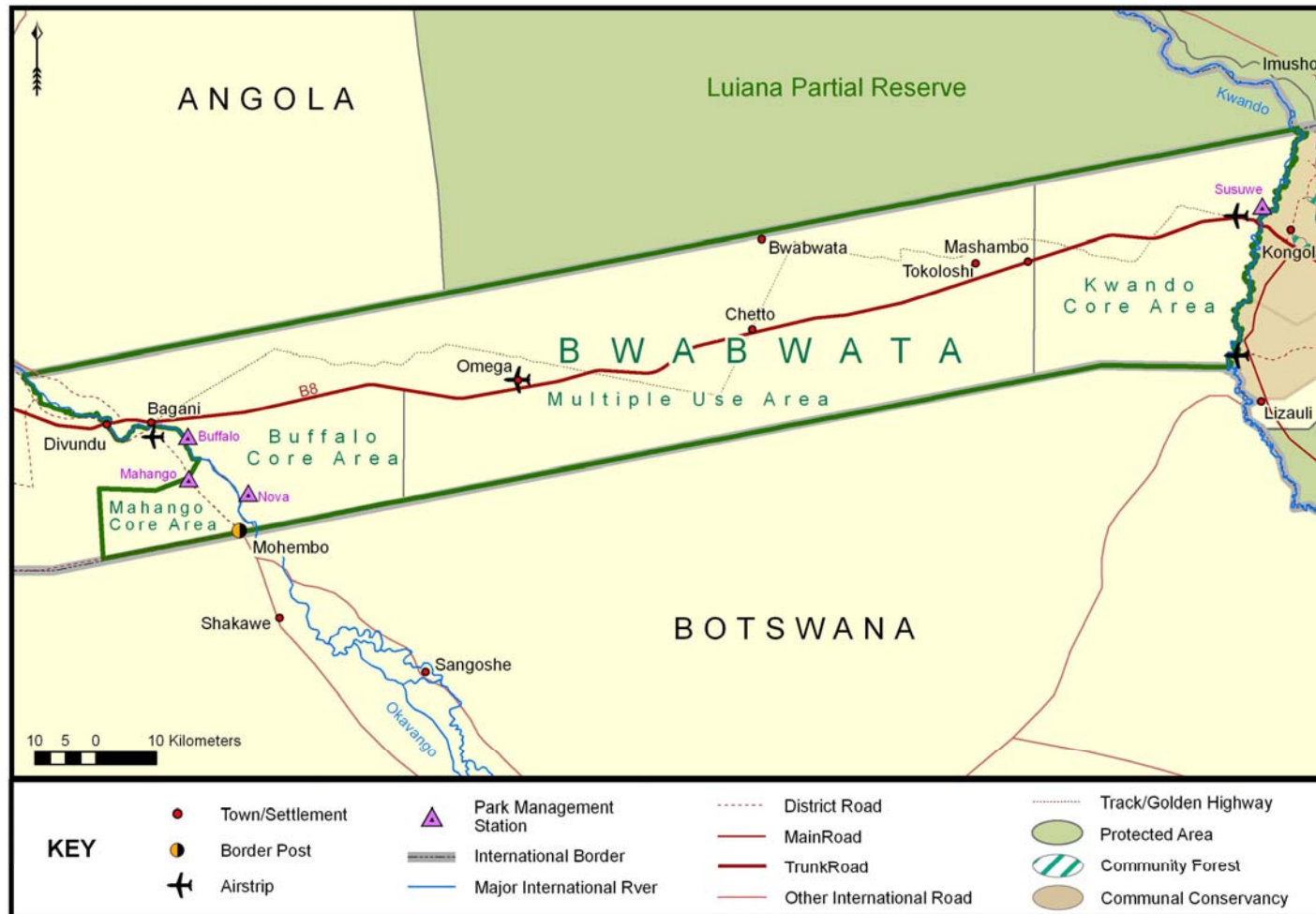
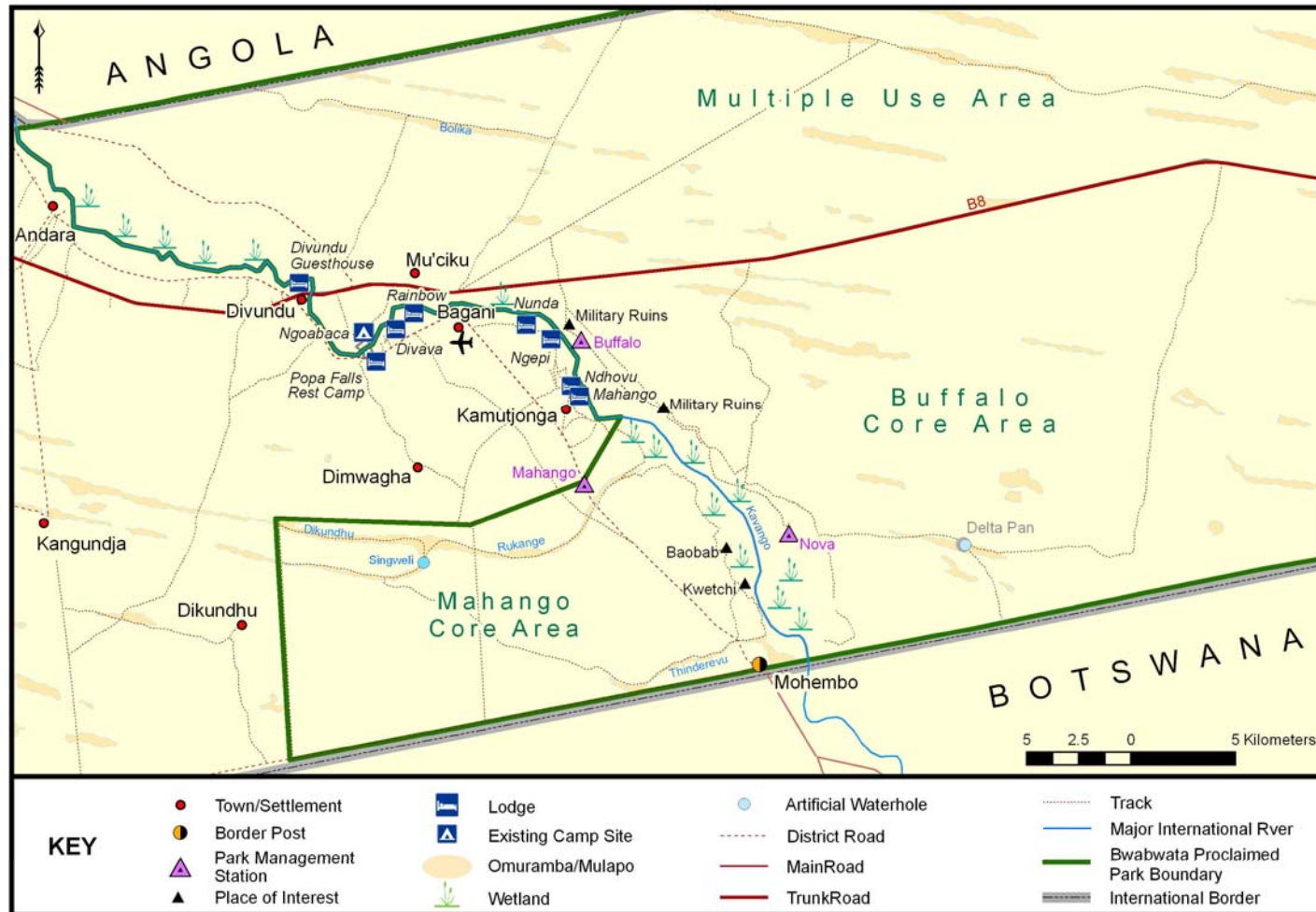


Figure 15: Location of Kwando Core Area, Bwabwata National Park.



Figure 16: Location of Buffalo and Mahango Core Areas, Bwabwata National Park.



## Access

Bwabwata is the most visited park in north eastern Namibia having received 25,478 tourists in 2008. The most popular Core Area in 2008 was Mahango with 17,067 visitors, followed by Kwando with 5,971 and finally Buffalo with 2,440. Mahango is very easily accessed via the C48 road between Divundu and Mohembo border post with Botswana. There are two game drive routes in Mahango; one is a surfaced track capable of carrying 2x4 traffic, while the other is only suitable for normal width 4x4 vehicles. Buffalo Core Area on the other hand is only accessible by 2x4 vehicles as far as the old Military base at Pica Pau, and Kwando is only accessible to 4x4 vehicles. The Multiple-use Area has a myriad of access roads, most of which are only passable by 4x4 vehicles; however the main settlements and government facilities have 2x4 accessibility.

Other access possibilities are via aircraft, with landing strips at Bagani (north of Mahango), Omega (central Multiple-use Area), Immelmann (west of Susuwe in Kwando), and Namushasha Lodge (south east of Kwando). Furthermore, tourists staying at some lodges situated opposite Buffalo and Kwando are able to cross into these Core Areas (not Mahango) via boat, where lodge operators have negotiated permission from MET.

Access possibilities are summarised in **Table 22** below.

**Table 22:** Access to Bwabwata.

Access by 4x4 vehicles	Access by 2x4 vehicles	Access by boat	Access by aircraft
<ul style="list-style-type: none"> <li>Mahango is fully accessible from the north and then along both available tour routes</li> <li>Buffalo has one 2x4 and two 4x4 access points from the north</li> <li>4x4 access is possible at many points throughout Multiple-use Area</li> <li>Kwando is accessible from at least tracks points to the north of the B8, and another four tracks to the south of the B8</li> </ul>	<ul style="list-style-type: none"> <li>Along the C48 into Mahango and thereafter along the 2x4 tour route</li> <li>Down to Buffalo station and thereafter as far as Pica Pau military base only</li> <li>Into main settlements and some government infrastructure in the Multiple-use Area</li> </ul>	<ul style="list-style-type: none"> <li>Possible only by special arrangement into Buffalo and Kwando only</li> </ul>	<ul style="list-style-type: none"> <li>Via Bagani, Omega, Immelmann and Namushasha Lodge airstrips only</li> </ul>

Entry to Core Areas (i.e. other than transiting via main roads) is only possible after registering at park entry stations. These are located at Mahango station, Buffalo station, and Susuwe station. While Mahango station is well located next to the road, the Buffalo and Susuwe stations occupy old military bases and are poorly located to regulate entry to the park. Under the infrastructure planning conducted by the BMM Parks Project, new sites for Buffalo and Susuwe stations were identified and approved by MET and the Roads Authority. The new sites are located close to the main turn-offs to the Buffalo and Kwando Core Areas. These new stations will have dedicated visitor facilities that are separated from the park management buildings.

## Historical and social context

According to Tinley (1966)<sup>14</sup>, there is evidence of prehistoric humans of the Early to Late Stone Age along both the Kavango and Kwando rivers, and stone implements can still be found at several sites near Popa Falls. Tinley (1966) reveals that the first people to live in the area now referred to as Bwabwata were the San (Khwe and Kung). Bantu tribes first entered Bwabwata between 1795 and 1800. They migrated south into Botswana and settled in the various drainage lines (Omurambas) where cropping was most feasible. At this time the Hambukushu tribe migrated from eastern Angola and upper Kwando (i.e. Mashi area) to the Kavango River, where they settled from Andara down the Okavango Delta panhandle to the swamps. Tinley (1966) explains that the Hambukushu also lived in the Caprivi Strip cultivating crops and grazing cattle as far as the Kwando River until about 1945, when Tsetse fly invasions forced them to move west. Tinley (1966) also explains that Mafwe and Mayeye tribes were settled in large numbers along both sides of the Kwando River.

The Caprivi Strip between the Kavango and Kwando rivers was first proclaimed as a Nature Park in 1963. According to Rousset (2003)<sup>15</sup> it can be interpreted that the decision to declare the Caprivi Strip as a conservation area was largely because of its strategic military importance in view of the starting battles for independence in Zambia, Angola and Namibia.

In 1964 the Odendaal Commission that was tasked with land planning for the apartheid government, recommended that a homeland be created in the Caprivi Strip for the Khwe, and that they be permitted to continue their traditional livelihood of hunting and gathering. Rousset (2003) states that this proposal did not come into effect because the year before, in 1963, the area had already been declared a Nature Park for "strategic reasons".

The Caprivi Nature Park had its conservation status elevated to a Game Park in 1968 following the ecological survey conducted by Tinley (1966). This survey was the first of its kind conducted in this area and it clearly confirmed the park's unique ecological value. The new Caprivi Game Park comprised all the land between the Kavango and Kwando rivers except for the area known as the Kwando Triangle.

However, from its proclamation in 1968 until independence of Namibia in 1990 the entire area was declared a South African Defence Force military zone and therefore Department of Agriculture and Nature Conservation officials were denied access. Local people, such as the resident Khwe were forced to leave the park or resettle at Military bases, and many were employed into the defence force as trackers and survival trainers. During this militarised period it is reported that widespread commercial hunting and trafficking in wildlife products took place and much of the wildlife was poached to the point of extinction.

It was only in 1990 when the South African defence forces left Namibia that staff of the Ministry of Environment and Tourism were able to work in the Caprivi Game Park again. Upon the disbanding of the South African military in Namibia, the Khwe communities staying at military bases inside the park were allowed to continue living there.

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<sup>14</sup> Tinley K L (1966) Western Caprivi Conservation Area, South West Africa: A proposal of natural resource land use. Nature Conservation Department, South West Africa.

<sup>15</sup> Rousset K (2003) Bwabwata National Park plans: Perspectives of the residents of Caprivi Game Park. IRDNC, Katima Mulilo, Namibia.



The history of Mahango is similar to that of Mudumu and Mamili. The Mahango was settled by the Hambukushu around 1800 and occupied thereafter until 1982. The park has always been an important traditional hunting and fishing area to this community. In December 1982 an agreement was signed between the Administration for Kavangos and the Department of Agriculture and Nature Conservation to proclaim Mahango as a State protected area (along with Khaudum and Popa Falls). Under this agreement it was decided between the parties that 15% of all park entrance revenue and 50% of proceeds from trophy hunting and game sales be paid to the respective traditional authority. Furthermore it was agreed that the neighbouring communities retain their right to harvest timber, reeds and thatching grass, as well as their right to cancel the agreement and restore the land back to its original status. Based on this agreement of 1982, the Administrator General of South West Africa approved the declaration of Mahango as a game park in 1988. Mahango was thereafter officially gazetted in February 1989.

At independence, a socio-ecological survey of the Caprivi Game Park was commissioned by the newly-established Namibian government. Similar surveys were conducted around all the other north eastern parks, including Khaudum, Mahango, Mudumu and Mamili. One recommendation emanating from these surveys was for the delegation of rights and responsibilities over wildlife (management and use) to communal land residents, similar to that already enjoyed by residents of privately owned land in Namibia.

Based on the findings of these surveys a vision document was also prepared. This document presented a **conservation vision, tourism vision, equity vision and partnership vision** for the North East parks, which was thereafter recommended to Cabinet and approved in 1999. In summary, Cabinet decided the following:

- ✓ Caprivi Game Park to be renamed Bwabwata National Park;
- ✓ Mahango Game Park and Caprivi Game Park to be merged to form Bwabwata;
- ✓ The eastern boundary of Caprivi Game Park be extended to the middle of the Kwando River, thus including the "Kwando Triangle" into Bwabwata;
- ✓ The three Core Areas (Kwando, Buffalo and Mahango) be zoned for special protection and controlled tourism;
- ✓ The central area of Bwabwata be zoned to provide for a Multiple-use Area of community-based tourism, trophy hunting, human settlement and development;
- ✓ No cattle be allowed in Bwabwata, nor any other game park in the north east of Namibia;
- ✓ Communities neighbouring or living in the Bwabwata, Mamili, Mudumu and Khaudum be given conditional tourism rights in these parks such that they can establish, either on their own or in joint-venture, tourism facilities in these parks;
- ✓ Tender proposals to be invited for developing a tourism lodge at Buffalo camp in the Buffalo Core Area and;
- ✓ Khaudum Game Park be renamed as Khaudum National Park.

In line with this Cabinet Decision and following a lengthy consultation process, Bwabwata was finally proclaimed in November 2007. Furthermore, campsite concessions were granted to the resident community in 1996, and to communities bordering Kwando in 2003. Communities bordering Khaudum received campsite concessions in 2008. The resident community inside



Bwabwata received a trophy hunting concession in 2006, which was extended to 2007, and has recently been awarded for three additional years from 2009 to 2011.

Today Bwabwata is fortunate to have very conservation minded residents and neighbours (particularly on the eastern boundary). The park residents have established a community-based natural resource management programme in the Multiple-use Area, with the support of NGOs (primarily IRDNC and WWF) and MET. The residents have formed a representative legal body – Kyaramacan Association, which is managed on democratic principles, and is accountable to its members. On the eastern boundary three conservancies have been formed and these are also being registered as community forests. With the support of these residents and neighbours MET was able to proclaim the Kwando Triangle, which is one of the most important ecological resources in the park, and a critical element of the trans-boundary conservation programme – KAZA.

#### Environmental context

Bwabwata straddles the largest section of Kalahari Woodland in Namibia, stretching from the Kwando River in the east to the Kavango in the west. The biodiversity of the omurambas and associated fringe woodlands are considered to be moderately sensitive and scarce, while the riparian woodlands and floodplains are highly sensitive and scarce. Broadleaved woodlands are considered to be less sensitive and scarce.

One of the main purposes of Bwabwata is to promote the multiple use of its natural resources, including consumptive use through controlled outsourced trophy hunting and collection of veldt products. Trophy hunting should be encouraged in all areas of the Park except for Mahango, which receives a large number of photographic tourists every year and is furthermore utilised as a breeding area for high value game species such as sable and roan.

An outstanding feature of Bwabwata is the high number of large mammal and bird species that are nationally rare. The omurambas and their associated grasslands are habitat for the roan, sable and tsessebe. Typical trees are Zambezi Teak (*Baikiaea plurijuga*), Teak (*Pterocarpus angolensis*), Burkea, Mangetti (*Schinziophyton rautanenii*) and several others, including several Monkey Orange species (*Strychnos spp.*) Plant species composition varies greatly between grassland, woodland on deep sands and woodland on the more loamy soils of the alluvial floodplains of the Kavango River.

The Mahango is listed as an internationally important bird area (supporting globally threatened species) and is an avian diversity hotspot. Some bird species of conservation concern that occur in Bwabwata include the critically endangered Bittern and Pel's Fishing Owl, and the endangered African Marsh-Harrier, Rock Pratincole, Rufous-bellied Heron, Slaty Egret, Southern Ground Hornbill, and Wattled Crane.

The primary driver of ecological patterns is soil types. Infertile deep sands are contained in paleo dunes interspersed with more fertile clays in broad interdunal valleys (omurambas). In general, the dunes carry broadleaved large trees (such as Zambezi Teak), while Acacia species and Leadwood (*Combretum imberbe*) dominate the interdunal clayey omurambas. The Mahango Core Area contains a large discrete area of highly erodible soils (possibly sodic) that support a distinct plant community.

Apart from the strong influence of soil types, dominance, and hence structure of vegetation, is often determined by the relative frequency and intensity of fires experienced over the last decade or more, as well as by impacts associated with elephant. Humans, both resident in Bwabwata and transient, are probably the cause of most of the fires. The MET follows a management policy of controlled burning, with the aim of burning at least a third of the park's surface area each year, emphasising early cool burns, to prevent the build-up of combustible material.

Elephant populations have apparently increased over the last few years to a decade, with high densities often occurring in the Buffalo Core area and along the Kwando woodlands, where they regularly move between Namibia, Zambia, Botswana and Angola. Disturbances by fire and elephant are both part of the natural ecological dynamics of these woodlands. As long as water is seasonally available in the veldt away from the rivers, and providing elephant are allowed to freely move into Zambia, Angola and Botswana and not encouraged to stay in the area by provision of artificial water, they are unlikely to have irreversible impacts on the vegetation (at least at their current population levels).

Traditional fire management included early dry season burns to provide out-of-season grazing to cattle and wildlife, and to protect valuable natural resources (veldt food, medicinal plants) from destructive fires late in the dry season. Under European influence this approach changed to a suppression of all fires, which led to thicket formation over a number of years and increases in combustible material after several good rainy seasons. Nevertheless, the vegetation of Bwabwata is relatively intact, notwithstanding the effects of several decades of fire suppression and the resultant occurrence of exceptionally destructive hot wildfires.

Seasonal movements by several game species to and from both rivers are more prominent in the omuramba systems of Bwabwata than elsewhere in the BMM Parks. These game species, which include elephant, buffalo, zebra (*Equus burchelli*), wildebeest and (to a lesser extent) roan, tend to cluster at the rivers during the dry season and move inland during the wet season. This natural seasonal cycle is an important mechanism that maintains vegetation structure, as most vegetation experiences a resting period during some part of the year. This is a key process, both because it represents one of the last large-scale intact biotic ecological processes in southern Africa, and because it will be sensitive to poorly planned and implemented developments, including the provision of artificial water for tourism.

Many of the riparian woodlands and thickets in Bwabwata are still intact. These areas and the rivers themselves are the habitat for highly prized (by birdwatchers) bird species such as Souza's shrike (*Lanius souzae*), Rock Pratincole (*Glareola nuchalis*) and White-backed Night-heron (*Gorsachius leuconotus*). The main river channel of the Kwando River is supplemented by several smaller channels and oxbow lakes, leading to a constantly changing arrangement of dry and wet areas and the presence of some permanent islands. Permanently wet areas are home to several aquatic and semi-aquatic species, amongst which are some healthy populations of hippo and crocodile. Floodplain grasslands form important habitat for wetlands mammals such as lechwe and reedbuck.

Bwabwata is bisected by the high order B8, which carries large volumes of transit traffic (including heavy freight trucks). A high number of car accidents involving wild animals take place on this road, and these result in numerous human casualties and road kills – including rare and endangered species such African Wild Dogs.

## Tourism resources

Central Bwabwata consists of a stretch of dry woodland savannah interspersed with several east/west-oriented pans that offer seasonal game viewing, especially when they hold surface water. At either end are Bwabwata's primary tourist attractions – Kwando, Buffalo and Kwando Core Areas that have excellent wildlife viewing (though seasonal), bird watching, perennial river systems with intact riparian forests, floodplains and wetlands. These three Core Areas hold Bwabwata's most important tourism resources, with Mahango being the most popular with visitors mainly because of its easy accessibility and reputation for excellent wildlife and bird viewing.

The Multiple-use Area is primarily a transit zone for tourists with an unknown number traversing along the B8. The extreme north-west of this area – known as Mutc'iku – includes about 20kms of Kavango River frontage. The southern half of this area has become heavily used with various settlements along the river, especially near the B8 highway. Approximately 30% (about 7kms) of the river frontage north of the road (as well as some associated islands) appears to be little affected by human activities and to have some potential for tourism development.

The B8 road forms the spine of an important tour route linking northern Namibia and the Kavango / Caprivi regions with Chobe National Park in Botswana, Victoria Falls in Zimbabwe and various emerging destinations in western Zambia. A new northern border post is proposed for Bwabwata, situated mid-way along the strip, and border facilities north of Kongola are also being upgraded. This route is thus likely to grow in importance as tourism in the KAZA region burgeons.

## Existing markets and products

There are a total of 14 accommodation products operational inside of Bwabwata and on directly adjacent land. Of the three inside of Bwabwata one is in the Multiple-use Area (opposite Popa Falls) and two are in the Kwando Core Area. All three are community campsite concessions granted in line with the Cabinet Decision referred to earlier. There are an additional eight lodges situated on the Kavango river adjacent to the border of Mahango / Buffalo / Multiple-use Area, and four on the Kwando river opposite Kwando Core Area. One of the four on the Kwando River is no longer operational due to flooding.

**Table 23:** Existing accommodation and markets in the Mahango / Buffalo area – Namibia side.

Product	Location	Type, size, performance	Markets
Ngoabaca Campsite	<ul style="list-style-type: none"> <li>Inside Bwabwata Multiple-use Area</li> <li>Operates as community concession awarded by MET to park residents association (no contract)</li> </ul>	<ul style="list-style-type: none"> <li>Campsite</li> <li>4 campsites</li> <li>Achieved 18% occupancy in 2008 (1,051 nights sold)</li> </ul>	<ul style="list-style-type: none"> <li>33% tour operator drive in</li> <li>41% FIT (hired vehicle)</li> <li>26% FIT (own vehicle)</li> </ul>
Divundu Guesthouse	<ul style="list-style-type: none"> <li>In Divundu town boundary</li> <li>Currently operates on a right of leasehold</li> <li>Annual royalty paid to Hambukushu Traditional authority</li> </ul>	<ul style="list-style-type: none"> <li>Budget guesthouse</li> <li>6 rooms</li> <li>Achieved 50% bed occupancy in 2008 (1,825 nights sold)</li> </ul>	<ul style="list-style-type: none"> <li>15% FIT (hired vehicle)</li> <li>85% FIT (own vehicle)</li> </ul>

Popa Falls Rest Camp <sup>16</sup>	<ul style="list-style-type: none"> <li>• South of Divundu</li> <li>• Inside Popa Falls Game Park</li> <li>• State owned resort operated by NWR</li> </ul>	<ul style="list-style-type: none"> <li>• Budget lodge and campsite</li> <li>• 10 rooms, 25 campsites</li> <li>• Achieved 25% bed occupancy and 10% campsite occupancy in 2008 (7,300 nights sold)</li> </ul>	<ul style="list-style-type: none"> <li>• 25% tour operator drive in</li> <li>• 25% FIT (hired vehicle)</li> <li>• 50% FIT (own vehicle)</li> </ul>
Divava Lodge and Spa	<ul style="list-style-type: none"> <li>• Just down stream of Popa Falls</li> <li>• Operates on a right of leasehold</li> <li>• Annual royalty paid to Hambukushu Traditional authority</li> </ul>	<ul style="list-style-type: none"> <li>• Up-market lodge</li> <li>• 20 rooms</li> <li>• Achieved 21% bed occupancy in 2008 (3,066 nights sold)</li> </ul>	<ul style="list-style-type: none"> <li>• 60% tour operator drive in</li> <li>• 40% FIT (hired vehicle)</li> </ul>
Rainbow Lodge <sup>17</sup>	<ul style="list-style-type: none"> <li>• Just down stream of Popa Falls</li> <li>• Operates on a right of leasehold</li> <li>• Annual royalty paid to Hambukushu Traditional authority</li> </ul>	<ul style="list-style-type: none"> <li>• Budget lodge and campsite</li> <li>• 20 rooms, 20 campsites</li> <li>• Achieved 15% bed occupancy and 5% campsite occupancy in 2008 (3,979 nights sold)</li> </ul>	<ul style="list-style-type: none"> <li>• 25% tour operator drive in</li> <li>• 25% FIT (hired vehicle)</li> <li>• 50% FIT (own vehicle)</li> </ul>
Nunda Lodge <sup>18</sup>	<ul style="list-style-type: none"> <li>• Just down stream of Popa Falls</li> <li>• Operates on a right of leasehold</li> <li>• Annual royalty paid to Hambukushu Traditional authority</li> </ul>	<ul style="list-style-type: none"> <li>• Mid-market lodge and campsite</li> <li>• 7 rooms, 8 campsites</li> <li>• Achieved 48% bed occupancy and 20% campsite occupancy in 4 months since opening (2,139 nights sold)</li> </ul>	<ul style="list-style-type: none"> <li>• 60% tour operator drive in</li> <li>• 15% FIT (hired vehicle)</li> <li>• 25% FIT (own vehicle)</li> </ul>
Ngepi Camp	<ul style="list-style-type: none"> <li>• Opposite Buffalo</li> <li>• Operates on a right of leasehold</li> <li>• Annual royalty paid to Hambukushu Traditional authority</li> </ul>	<ul style="list-style-type: none"> <li>• Budget lodge and campsite</li> <li>• 17 rooms, 14 campsites</li> <li>• Achieved 48% bed occupancy and 62% campsite occupancy in 2008 (20,090 nights sold)</li> </ul>	<ul style="list-style-type: none"> <li>• 60% tour operator drive in</li> <li>• 20% FIT (hired vehicle)</li> <li>• 20% FIT (own vehicle)</li> </ul>
Ndhovu Lodge	<ul style="list-style-type: none"> <li>• Opposite Buffalo, north of Mahango</li> <li>• Operates on a right of leasehold</li> <li>• Annual royalty paid to Hambukushu Traditional authority</li> </ul>	<ul style="list-style-type: none"> <li>• Mid-market lodge and campsite</li> <li>• 9 rooms, 1 campsite</li> <li>• Achieved 43% bed occupancy and 33% campsite occupancy in 2008 (3,307 nights sold)</li> </ul>	<ul style="list-style-type: none"> <li>• 20% tour operator drive in</li> <li>• 64% FIT (hired vehicle)</li> <li>• 16% FIT (own vehicle)</li> </ul>
Mahango Safari Lodge	<ul style="list-style-type: none"> <li>• Opposite Buffalo, north of Mahango</li> <li>• Operates on a right of leasehold</li> <li>• Annual royalty paid to Hambukushu Traditional authority</li> </ul>	<ul style="list-style-type: none"> <li>• Mid-market lodge and campsite</li> <li>• 13 rooms, 6 campsites</li> <li>• Achieved 44% bed occupancy and 30% campsite occupancy in 2008 (7,285 nights sold)</li> </ul>	<ul style="list-style-type: none"> <li>• 12% tour operator drive in</li> <li>• 40% FIT (hired vehicle)</li> <li>• 48% FIT (own vehicle)</li> </ul>

South of Mahango, inside of Botswana, there are another four lodges, some of which also conduct activities in Bwabwata. Interviews conducted with these lodge owners revealed that many of their guests are FITs and visit Mahango en-route. A major attraction to this area is

<sup>16</sup> The occupancy figures presented here are estimates based on observations by lodge staff, as NWR head office refused to disclose data.

<sup>17</sup> The occupancy figures presented here are estimates only, as those provided by the lodge manager were nonsensical.

<sup>18</sup> Only opened in June 2008

fishing. Many of the lodges specialise in this activity, and there is an annual fishing festival coinciding with the “barbell run”. These lodges are summarised in **Table 24** below.

**Table 24:** Existing accommodation and markets in the Mahango / Buffalo area – Botswana side.

Product	Location	Type, size, performance	Markets
Drosky Cabins	<ul style="list-style-type: none"> <li>Shakawe area</li> <li>Operates on a right of leasehold</li> </ul>	<ul style="list-style-type: none"> <li>Mid market lodge and campsite</li> <li>6 budget rooms, 8 mid market rooms, 1 large campsite accommodating 200 people</li> <li>Received 3,000 guests (6,000 nights) in 2008</li> </ul>	<ul style="list-style-type: none"> <li>FIT (hired vehicle)</li> <li>FIT (own vehicle)</li> <li>Tour operator drive in / fly in</li> </ul>
Shakawe Fishing Lodge	<ul style="list-style-type: none"> <li>Shakawe area</li> <li>Operates on a right of leasehold</li> </ul>	<ul style="list-style-type: none"> <li>Mid market lodge and campsite</li> <li>10 rooms, 1 large campsite</li> </ul>	<ul style="list-style-type: none"> <li>FIT (hired vehicle)</li> <li>FIT (own vehicle)</li> <li>Tour operator drive in</li> </ul>
Nxamasere Lodge	<ul style="list-style-type: none"> <li>South of Shakawe</li> <li>Operates on a right of leasehold</li> </ul>	<ul style="list-style-type: none"> <li>Up market lodge</li> <li>6 rooms</li> </ul>	<ul style="list-style-type: none"> <li>FIT (hired vehicle)</li> <li>FIT (own vehicle)</li> <li>Tour operator drive in / fly in</li> </ul>
Swamp Stop	<ul style="list-style-type: none"> <li>South of Shakawe</li> <li>Operates on a right of leasehold</li> </ul>	<ul style="list-style-type: none"> <li>Budget lodge and campsite</li> <li>6 rooms, 1 large campsite</li> </ul>	<ul style="list-style-type: none"> <li>FIT (hired vehicle)</li> <li>FIT (own vehicle)</li> <li>Tour operator drive in</li> </ul>

**Table 25** below provides detailed regarding accommodation establishments on the Kwando river side of Bwabwata.

**Table 25:** Existing accommodation and markets in the Kwando area.

Product	Location	Type, size, performance	Markets
Bum Hill Campsite	<ul style="list-style-type: none"> <li>Inside Kwando Core Area</li> <li>Operates as community concession awarded by MET to park residents association (contract expired)</li> </ul>	<ul style="list-style-type: none"> <li>Campsite</li> <li>6 campsites</li> <li>Achieved 23% occupancy in 2008 (1,007 nights sold)</li> </ul>	<ul style="list-style-type: none"> <li>5% tour operator drive in</li> <li>36% FIT (hired vehicle)</li> <li>59% FIT (own vehicle)</li> </ul>
Nambwa Campsite	<ul style="list-style-type: none"> <li>Inside Kwando Core Area</li> <li>Operates as community concession awarded by MET to park residents association (contract expired)</li> </ul>	<ul style="list-style-type: none"> <li>Campsite</li> <li>6 campsites</li> <li>Achieved 41% occupancy in 2008 (1,796 nights sold)</li> </ul>	<ul style="list-style-type: none"> <li>29% tour operator drive in</li> <li>25% FIT (hired vehicle)</li> <li>46% FIT (own vehicle)</li> </ul>
Mazambala Island Lodge <sup>19</sup>	<ul style="list-style-type: none"> <li>East of Kongola, opposite Kwando Core Area</li> <li>Has agreement with Mayuni conservancy</li> <li>No right of leasehold in place</li> </ul>	<ul style="list-style-type: none"> <li>Mid market lodge and campsite</li> <li>16 rooms, 7 campsites</li> <li>Achieved 30% bed occupancy and 15% campsite occupancy in 2008 (4,271 nights sold)</li> </ul>	<ul style="list-style-type: none"> <li>70% tour operator drive in</li> <li>10% FIT (hired vehicle)</li> <li>20% FIT (own vehicle)</li> </ul>
Susuwe Island Lodge	<ul style="list-style-type: none"> <li>South of Susuwe</li> <li>Opposite Kwando Core Area</li> <li>Has agreement with Mayuni conservancy</li> </ul>	<ul style="list-style-type: none"> <li>Up market lodge</li> <li>6 rooms</li> <li>Achieved 42% occupancy in 2008 (1,840 nights sold)</li> </ul>	<ul style="list-style-type: none"> <li>82% tour operator fly in</li> <li>18% FIT (hired vehicle)</li> </ul>

<sup>19</sup> Mazambala's figures are based on an estimate as the lodge owner refused to disclose this information.

	<ul style="list-style-type: none"> <li>No right of leasehold in place</li> </ul>		
Kubunyana Campsite	<ul style="list-style-type: none"> <li>South of Kongola, opposite Kwando Core Area</li> <li>Infrastructure owned by Mayuni conservancy</li> <li>No right of leasehold in place</li> </ul>	<ul style="list-style-type: none"> <li>Campsite</li> <li>Closed – not operational</li> </ul>	<ul style="list-style-type: none"> <li>Not operational</li> </ul>
Namushasha Lodge	<ul style="list-style-type: none"> <li>South of Kongola, opposite Kwando Core Area, near Botswanan border</li> <li>Operates on a right of leasehold</li> <li>Has agreement with Mashi conservancy</li> </ul>	<ul style="list-style-type: none"> <li>Mid market lodge and campsite</li> <li>27 rooms, 10 campsites</li> <li>Achieved 30% bed occupancy and 15% campsite occupancy in 2008 (7,337 nights sold)</li> </ul>	<ul style="list-style-type: none"> <li>70% tour operator drive in</li> <li>26% FIT (hired vehicle)</li> <li>4% FIT (own vehicle)</li> </ul>

## 6.2 Management interventions

### Proposed markets and concessions

The proposed new concessions for Bwabwata are summarised in **Table 26** to **Table 28** below, and clearly illustrated in various maps throughout the following sections.

**Table 26:** Proposed concessions in the Kwando Core Area.

Kwando North	Kwando South (Kazile)	Kwando South (Nambwa)
<ul style="list-style-type: none"> <li>Mid-market roadside lodge</li> <li>Maximum 60 beds + campsite</li> <li>Medium density; multiple access</li> <li>20-year BOT</li> <li>High priority</li> </ul>	<ul style="list-style-type: none"> <li>Upper/mid-market photographic concession</li> <li>Small, low-impact 16-bed camp</li> <li>Low density; exclusive access</li> <li>20-year BOT</li> <li>Medium priority</li> </ul>	<ul style="list-style-type: none"> <li>Redevelopment of existing campsite</li> <li>Small, low-impact 16-bed camp</li> <li>Low density; exclusive access</li> <li>20-year BOT</li> <li>Medium priority</li> </ul>

**Table 27:** Proposed Bwabwata activity concessions.

Hunting (East & West)	Bwabwata Tour Route	Bwabwata Activity Concessions
<ul style="list-style-type: none"> <li>Trophy hunting concession</li> <li>Set back from rivers once photographic tourism mature</li> <li>Low density; multiple access</li> <li>5-year activity concession</li> <li>Very high priority</li> </ul>	<ul style="list-style-type: none"> <li>Guided, multi-day self-drive tour route</li> <li>Low density; multiple access</li> <li>5-year activity concession</li> <li>Low priority</li> </ul>	<ul style="list-style-type: none"> <li>Special concessions for neighbouring operators regulating access to Kwando &amp; Kavango riverfronts</li> <li>5-year activity concessions</li> <li>High priority</li> </ul>

**Table 28:** Proposed concessions in the Buffalo and Mahango Core Areas.

Kavango Central (Popa)	Kavango North	Kavango South (Buffalo)
<ul style="list-style-type: none"> <li>Mid-market roadside lodge</li> </ul>	<ul style="list-style-type: none"> <li>Mid-market roadside lodge</li> </ul>	<ul style="list-style-type: none"> <li>Upper/mid-market lodge</li> </ul>



<ul style="list-style-type: none"> <li>• Maximum 60 beds + campsite</li> <li>• Medium density; exclusive access</li> <li>• 20-year BOT</li> <li>• Very high priority</li> </ul>	<ul style="list-style-type: none"> <li>• Maximum 60 beds + campsite</li> <li>• Medium density; exclusive access</li> <li>• 20-year BOT</li> <li>• High priority</li> </ul>	<ul style="list-style-type: none"> <li>• Maximum 60 beds + campsite</li> <li>• Medium density; exclusive access</li> <li>• 20-year BOT</li> <li>• Medium priority</li> </ul>
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## Zoning

All three biophysical zones are found in Bwabwata. The riparian fringes of the Kwando and Kavango rivers and their associated wetlands and islands are zoned as **very important**. The omurambas and pans found in each Core Area and the Multiple-use Area are zoned as **important**, whereas other dry broadleaf woodland is zoned as **less important**. The corresponding guidelines and restrictions are explained in section 2.6 and Annex B. The tourism zoning for Bwabwata is proposed in **Table 29**, and these are illustrated in **Figure 17** to **Figure 19**.

**Table 29:** Tourism zoning for Bwabwata.

Area	Degree of access	Level of use
Kwando Core Area	<ul style="list-style-type: none"> <li>• <b>Multiple access</b> throughout the area, including all tracks and the river</li> <li>• Specified development sites and islands are zoned as <b>exclusive access</b></li> </ul>	<ul style="list-style-type: none"> <li>• Riparian fringe zoned as <b>medium volume</b></li> <li>• Kwando River zoned as <b>low volume</b></li> <li>• Remaining areas zoned as <b>low volume</b> because of difficulty in managing them</li> </ul>
Multiple use area	<ul style="list-style-type: none"> <li>• <b>Multiple access</b> throughout the area, including all tracks and the river</li> <li>• Specified development sites and the Kavango North Concession are zoned as <b>exclusive access</b></li> </ul>	<ul style="list-style-type: none"> <li>• Riparian fringe zoned as <b>medium volume</b></li> <li>• Kavango river zoned as <b>medium volume</b></li> <li>• Remaining areas zoned as <b>low volume</b>, because of difficulty in managing them</li> </ul>
Buffalo Core Area	<ul style="list-style-type: none"> <li>• <b>Multiple access</b> throughout the area, including all tracks</li> <li>• <b>Multiple access</b> on the Kavango River as far as the Mahango border line</li> <li>• <b>Exclusive access</b> on the Kavango river south of the Mahango border line</li> <li>• Specified development sites are zoned as <b>exclusive access</b></li> </ul>	<ul style="list-style-type: none"> <li>• Riparian fringe zoned as <b>medium volume</b></li> <li>• Kavango river as far as the Mahango border line zoned as <b>medium volume</b></li> <li>• <b>Low volume</b> on the Kavango river south of the Mahango border line</li> <li>• Remaining areas zoned as <b>low volume</b>, because of difficulty in managing them</li> </ul>
Mahango Core Area	<ul style="list-style-type: none"> <li>• <b>Multiple access</b> throughout the area</li> <li>• <b>Limited access</b> on the Kavango river</li> </ul>	<ul style="list-style-type: none"> <li>• Riparian fringe zoned as <b>high volume</b></li> <li>• Kavango river zoned as <b>low volume</b></li> <li>• Remaining areas zoned as <b>medium volume</b></li> </ul>

Figure 17: Overview of the proposed Bwabwata tourism zoning (volume only).

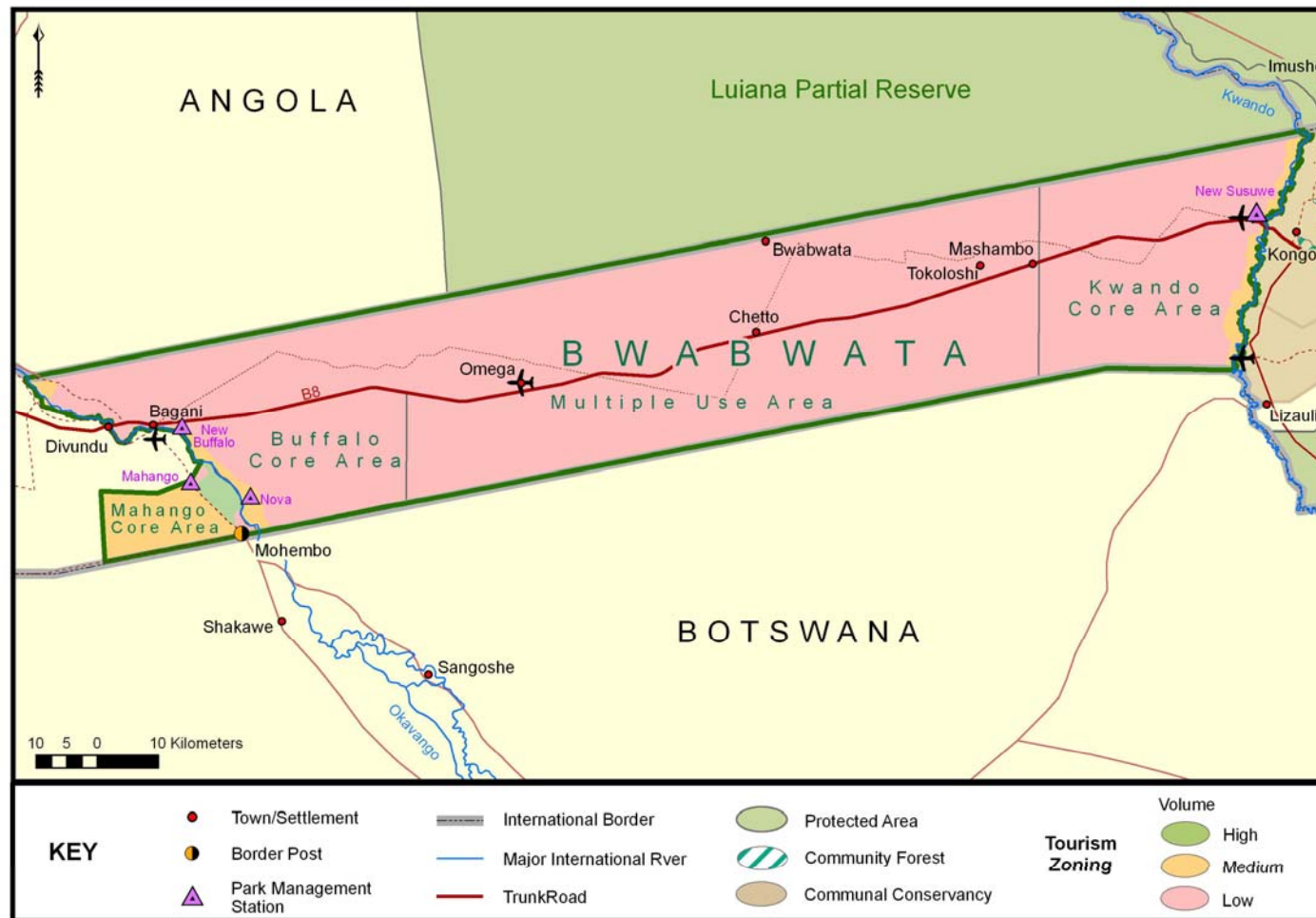


Figure 18: Overview of proposed Kwando Core Area zoning.

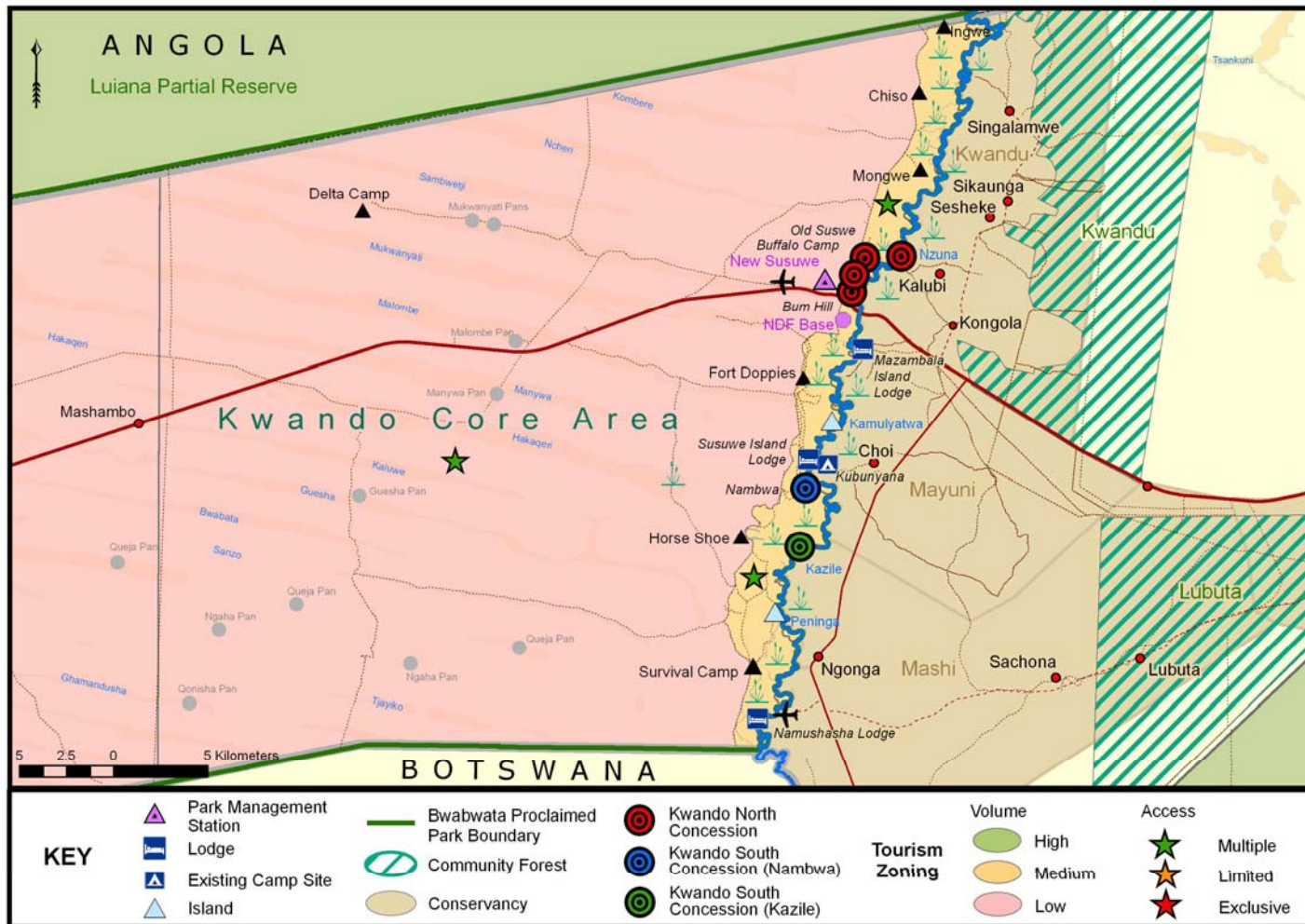
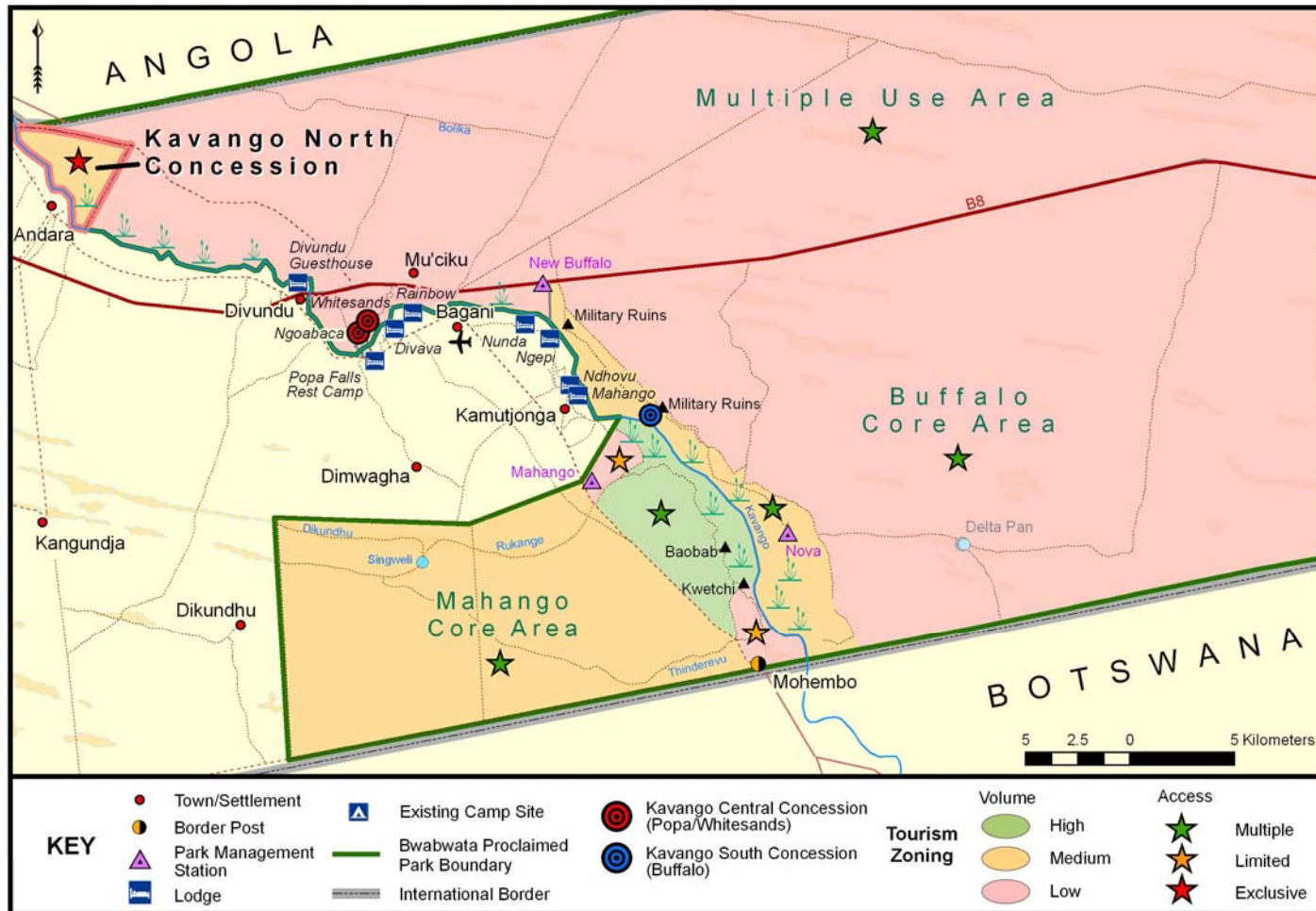


Figure 19: Overview of proposed Buffalo / Mahango Core Area zoning.



## Support infrastructure

Bwabwata requires the following infrastructure improvements to support the development of tourism.

### **Kwando Core Area**

- ✓ Construction of a new park station closer to the B8 road, and closure / rehabilitation of the current Susuwe station for use by the Kwando North Concession. Included with this is the construction of a dedicated visitor reception on the southern side of the B8 road (i.e. separate from park management facilities). This recommendation was approved by MET and the Roads Authority and infrastructure planning, including site layout, module designs and bills of quantities have been completed by the BMM Parks Project;
- ✓ Provision of basic facilities at the new visitor reception, such as toilets, craft outlet and information;
- ✓ The design, lay out, and construction of a revised track network to help dilute increasing traffic on the current lineal track system, with special focus on the track system down to Horseshoe Lagoon and north of the B8 road towards the Angolan border. Ensure the new track system is well signposted and maps are made available for tourists;
- ✓ Designation of suitable areas for boat access points (i.e. boat launches) and vehicle storage inside the park;
- ✓ Kongola need improved visitor services such as a functioning fuel station, shop and banking facilities;
- ✓ Develop designated game viewing points at Horseshoe lagoon to prevent the sprawling of visitors throughout this sensitive place during peak times;
- ✓ Upgrade and maintain the Immelmann airstrip, which is currently not useable during wet weather.

### **Buffalo Core Area**

- ✓ Construction of a new park station closer to the B8 road, and closure / rehabilitation of the current Buffalo station. Included with this is the construction of a dedicated visitor reception (i.e. separate from park management facilities). This recommendation was approved by MET and the Roads Authority and infrastructure planning, including site layout, module designs and bills of quantities have been completed by the BMM Parks Project;
- ✓ Provision of basic facilities at the new visitor reception, such as toilets, craft outlet and information;
- ✓ Renovate the Nova station to reduce its footprint and thus visual impact on the floodplain area. This recommendation was approved by MET and infrastructure planning, including site layout, module designs and bills of quantities have been completed by the BMM Parks Project;
- ✓ The design, lay out, and construction of a revised track network to help dilute increasing traffic on the current lineal track system, with special focus on the track system down to Nova station and beyond, and the creation of new routes into the woodlands and omurambas east of the river. Ensure the new track system is adequately signposted and maps are available for tourists;
- ✓ Designation of suitable areas for boat access points (i.e. boat launches) and vehicle storage inside the park;
- ✓ Rehabilitate old military infrastructure that is potentially dangerous to people and wildlife, or where it is cost effective to do so.

### **Mahango Core Area**

- ✓ Renovation of the current park office as a visitor reception, and construction of new park management facilities inside of the existing staff village. This recommendation was approved by MET and the Roads Authority and infrastructure planning, including site layout, module designs and bills of quantities have been completed by the BMM Parks Project;
- ✓ Resurfacing of the current 4x2 route through the high volume tourism zone, including the construction of some new tracks, such as one detouring west past the central pan system to the C48 road. The revised track system should provide parking away from the flood plain, thus encouraging visitors to walk to key view points. Planning of this is currently being done by MET maintenance division;
- ✓ Review and diversify the 4x4 route through the western woodland;
- ✓ Develop game / bird viewing hides, view points or platforms in key locations on the edge of the floodplain;
- ✓ Develop formal picnic sites with toilet facilities at key locations (at least two);
- ✓ Designation of a suitable area for boat access (i.e. boat launch) and vehicle storage inside the park;
- ✓ Divundu needs to be properly planned and cleaned up, to improve its image as a visitor gateway to the north east of Namibia.

### Visitor management

#### **Kwando Core Area**

- ✓ The setting of daily vehicle limits on the redeveloped track network. In calculating limits, an adaptive management approach is recommended. This would involve setting initial limits, which are regularly reviewed to monitor impacts (on visitor experience and the environment) and, if necessary, to adjust numbers.
- ✓ Improved access control and recordkeeping at the new entrance on the B8, including a system for submitting information regularly to MET headquarters;
- ✓ Setting the carrying capacity and number of activity licences for the area using an adaptive management approach;
- ✓ A system requiring concessionaires to keep visitor records and submit information regularly to MET;
- ✓ A system for local level monitoring of concession contracts and reporting to MET headquarters;
- ✓ A code of conduct to be developed to regulate the day-to-day activities of park visitors and concessionaires, including for activities on the Kwando River.

#### **Buffalo Core Area**

- ✓ The setting of daily vehicle limits on the redeveloped track network. In calculating limits, an adaptive management approach is recommended. This would involve setting initial limits, which are regularly reviewed to monitor impacts (on visitor experience and the environment) and, if necessary, to adjust numbers.
- ✓ Improved access control and recordkeeping at the new entrance on the B8, including a system for submitting information regularly to MET headquarters;
- ✓ Setting the carrying capacity and number of activity licences for the area using an adaptive management approach;



- ✓ A system requiring concessionaires to keep visitor records and submit information regularly to MET;
- ✓ A system for local level monitoring of concession contracts and reporting to MET headquarters; and
- ✓ A code of conduct to be developed to regulate the day-to-day activities of park visitors and concessionaires, including for activities on the Kavango River.

### **Mahango Core Area**

- ✓ The setting of daily vehicle limits on the redeveloped track network. In calculating limits, an adaptive management approach is recommended. This would involve setting initial limits, which are regularly reviewed to monitor impacts (on visitor experience and the environment) and, if necessary, to adjust numbers.
- ✓ Improved access control and recordkeeping at the new entrance on the B8, including a system for submitting information regularly to MET headquarters;
- ✓ Setting the carrying capacity and number of activity licences for the area using an adaptive management approach;
- ✓ A system requiring concessionaires to keep visitor records and submit information regularly to MET;
- ✓ A system for local level monitoring of concession contracts and reporting to MET headquarters; and
- ✓ A code of conduct to be developed to regulate the day-to-day activities of park visitors and concessionaires.



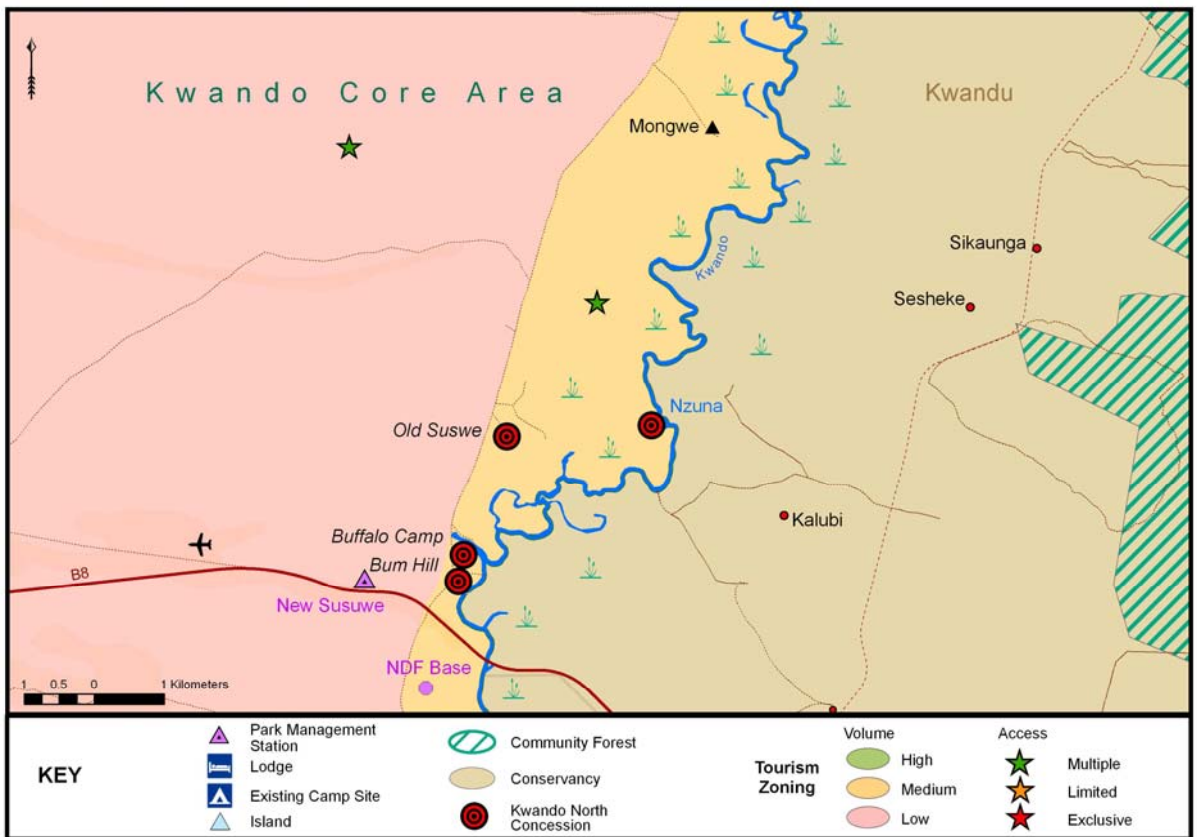


### 6.3 Kwando North Concession

#### Location

The Kwando North Concession consists of four development sites within the Kwando Core Area – the old Susuwe station, the old Buffalo camp, Bum Hill campsite, and Nzuna Island (illustrated in Figure 20). There is no broader area associated with this concession. All four sites are situated just north of the B8 road and on the eastern side of the main track, opposite the Kwando Conservancy. The sites have good river access, and Bum Hill and Buffalo Camp are both accessible by 2x4 vehicles. Nzuna Island has very unique and dense vegetation, including large stands of African Mangosteens (*Garcinia livingstonei*) that are being heavily impacted by elephants.

Figure 20: Location of Kwando North Concession.



#### Rationale

The rationale for this concession includes its prime location on the Kwando River just off the B8 main road (near the junction with the C49) and the known need for roadside accommodation in the area, catering to the budget and mid-market. This concession also provides for an upgrade and expansion of the existing, under-performing campsite at Bum Hill, which is a community concession awarded to Kwando Conservancy in 2003.

The inclusion of Nzuna Island in the concession offers the opportunity to increase the proposed operation's economy of scale and market diversity. It could also protect the island's vegetation against destruction by elephants.

#### Attractions

The Kwando River with its associated floodplains, backwaters, forests and wildlife is the primary attraction of the area.

#### Preferred markets

Given the proximity of the B8, the preferred market segments include:

- ✓ Small, medium and large **tour groups**; and
- ✓ **FITs** using their own or hired vehicles.

#### Zoning

This concession is located in the **very important** biophysical zone. The development sites at Bum Hill, Buffalo Camp, Susuwe and the entire Nzuna Island are zoned for **exclusive access** and use by the concessionaire only. Activities can be undertaken in the **multiple access** area in the Kwando Core Area, which is zoned for **medium and low volume**.

The Kwando River is a **multiple access, medium volume** corridor that will be used by various groups, including the Kwando North concessionaire, the neighbouring communities and operators based south of the bridge.

#### Indicated developments

Given the preferred market segments and the proximity to the B8 tour route, the following developments are recommended:

- ✓ A mid-market lodge of sufficient scale to accommodate large groups (approximately 60 beds), spread over the proposed development sites (Bum Hill, Buffalo, Susuwe and Nzuna);
- ✓ An associated camping area with approximately 10 campsites;
- ✓ The upgrading and maintenance of the Immelmann airstrip.

#### Activities

Activities in the concession area will be concessionaire-conducted and include:

- ✓ Day and night drives;
- ✓ Boating on the Kwando River;
- ✓ Fishing (outside of the park);
- ✓ Bird watching;

- ✓ Walks;
- ✓ Cultural excursions to nearby communities.

### Environmental considerations

The following important environmental issues should be taken note of during the EIA procedure:

- ✓ Given the potential for conflict and over-use of the river, it is important that the so-called "Mudumu North Complex" develop a management regime for the river that should include a code of conduct for tourism activities and setting of overall user limits.
- ✓ Solid waste will need to be removed from the concession area and recycled or dumped at an organised waste management site. Management of liquid waste near to wetland areas will need to be carefully assessed during the EIA process.
- ✓ As with all the areas in the BMM Parks that are seasonally wet, vehicles used for game drives will probably cause a lot of damage in the wet season, even on existing tracks. Many of the existing tracks should therefore be upgraded in places, including raising the surface and providing drainage pipes underneath a compacted gravel surface.
- ✓ Tracks and roads should not be scraped unless they have been surfaced. New tracks should be designed to avoid wet areas as much as possible and must never be scraped.
- ✓ Care must be taken during construction of any tourism facilities to avoid impacts on woody plants. No clearing of riparian forests should be permitted. Development of tourism infrastructure should be focused on already impacted areas such as the old military bases, only breaking new ground if absolutely necessary.
- ✓ All boating operations run the risk of impacting populations of wetland and aquatic species such as hippo and crocodile, as well as several birds and amphibians that breed in the adjacent wetland vegetation, on sand banks, and in river banks. It is thus important to regulate the number of boats that are allowed access to the river simultaneously, the speed of boat traffic, and the timing and duration of boating activities each day (and seasonally).
- ✓ One of the most obvious and important natural phenomena in this area is the daily movement of elephant breeding herds to and from the Kwando River, primarily in the dry season and especially at the Horseshoe Lagoon. Breeding herds are thus forced to cross the path of tourists travelling on a road running parallel to the river. New tourist roads should be planned to skirt the dunes, only crossing over onto the lower plains at specific points.

### Concession structure

Given the incumbency of Kwando conservancy as the operator of the Bum Hill campsite and their historical linkages with this part of the Kwando Core Area, it is recommended that MET:

- ✓ award the concession on a 20-year BOT-basis to the Kwando conservancy, which could in turn, award a sub-contract to an appropriately qualified operator via competitive bidding (overseen by MET and using standardized contracts approved by MET)

### Financial indicators

If 60 beds and a campsite are developed, the concession will require an initial investment of approximately N\$28m million. Annual turnover of some N\$13.6 million at maturity could result in net cash flow of N\$1.1 million after taxes and debt servicing. Government and its community partners could derive some N\$1.09 million annually in concession fees, while N\$360,000 could

be earned annually in park fees. The operation is expected to sustain 60 permanent on-site jobs with an annual payroll at maturity of approximately N\$2.47 million (a large part of which would be captured by community members). The likely private internal rate of return over twenty years on the capital invested is estimated at 12.3%, above the expected 10% cut-off. The concession therefore promises to be financially viable. The financial viability of the concession is rated as **moderately attractive**.

#### Priority

Given the demands from Kwando conservancy to restructure the under-performing Bum Hill campsite concession, as well as the growing demand for mid and budget level accommodation in the Kwando Core Area, this concession is rated with a **high priority**.

#### Required interventions

The follow actions are required before the concession can be implemented:

- ✓ Agreement with Kwando conservancy regarding the concession structure and benefit sharing;
- ✓ Feasibility assessment and preparation of detailed concession documents as required by the *Policy on Tourism and Wildlife Concessions on State Land*;
- ✓ Approval of this concession proposal by relevant authorities, including the MET concession committee;
- ✓ Integration of the concession into the park management plan;
- ✓ Implementation of a concessioning process including a competitive tender as sketched above;
- ✓ Preparation of a code of conduct for activities conducted by concessionaires in the park and on the Kwando River.

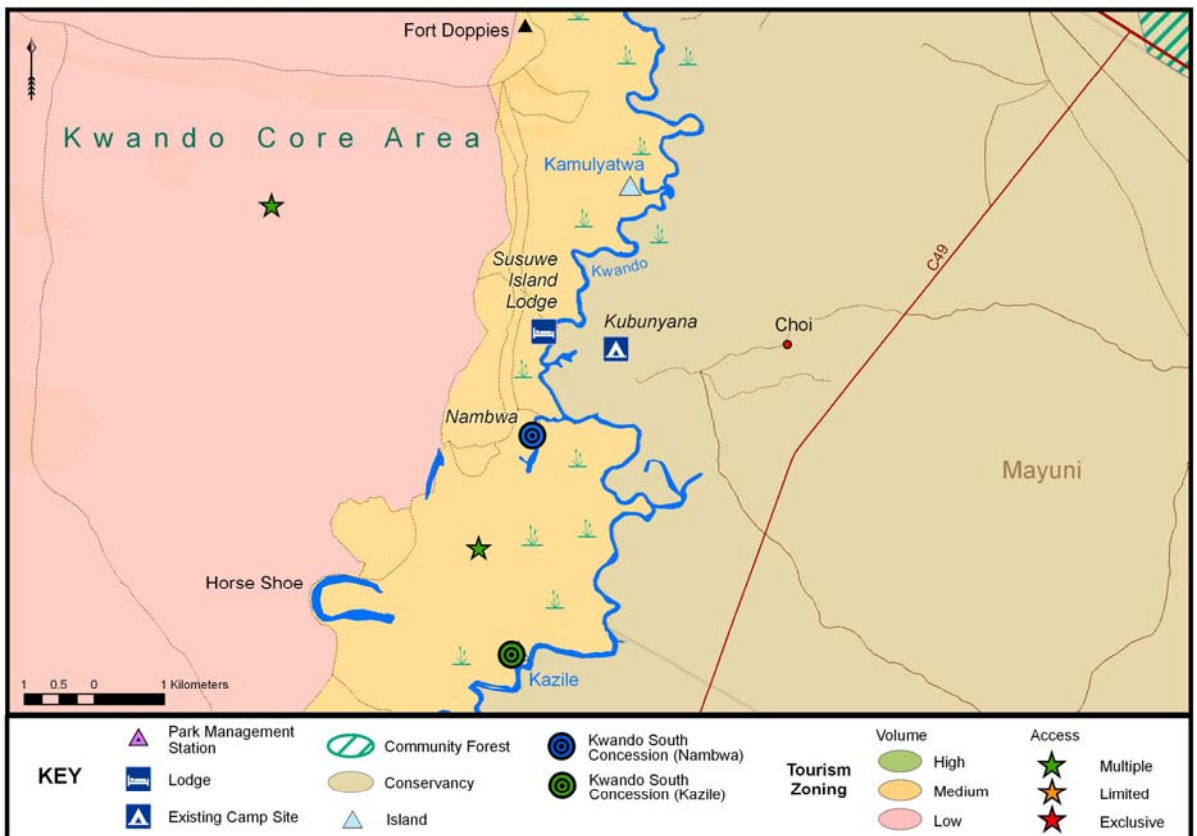


## 6.4 Kwando South Concession (Kazile)

### Location

The Kwando South Concession (Kazile) is situated on Kazile Island in the Kwando Core Area, south of Susuwe (near the Horseshoe Lagoon) but opposite and very close to Mashi Conservancy, as illustrated in Figure 21. There is no broader area associated with this concession. Access to the island is only possible by boat. The island has very unique and dense vegetation, including large stands of African Mangosteens (*Garcinia livingstonei*) that are being heavily impacted by elephants.

Figure 21: Location of Kwando South Concession – Kazile and Nambwa



Kazile is a small island in the Kwando River with large stands of trees that could house a light footprint accommodation facility. The island is however too small to sustain staff housing and other support infrastructure. Given the fact that the Kwando Core Area is essentially a budget to mid-market area, commercial operations need scale to be viable. Kazile is too small to offer such scale.

Given the present level of visitor congestion south of the main road, it is recommended that no new accommodation be developed in this area. Therefore, Kazile is best developed as a satellite of a budget or mid-level lodge based in the neighbouring conservancy. The development of the island would also help to protect its trees, which are being rapidly destroyed by the elephants.

### Attractions

The Kwando River with its associated floodplains, backwaters, forests and wildlife is the primary attraction of the area. The island is also located near the iconic Horseshoe Lagoon.

### Preferred markets

The island would operate as a satellite of a mid-market lodge and would draw on its market segments including:

- ✓ Small tour operator-conducted groups;
- ✓ Larger coach-based or overland tour groups;
- ✓ Small fly-in groups on multi-destination circuits;
- ✓ Self drive FITs on regional circuits.

### Zoning

This concession is located in the **very important** biophysical zone. The Kazile Island is zoned for **exclusive access** thus for use by the concessionaire only, and **low volume**. Activity areas in Kwando Core Area and on the river fall within a **multiple access medium volume** area.

### Indicated developments

This concession will require the following developments:

- ✓ A small, low-impact camp (maximum 16 beds), probably operating as a satellite to a neighbouring lodge based in the conservancy;
- ✓ The island is very small; service infrastructure should therefore be very limited (preferably largely based at the main lodge in the conservancy).

### Activities

Activities will be concessionaire-conducted and include:

- ✓ Day and night drives in the Kwando Core Area;
- ✓ Boating on the Kwando River;
- ✓ Fishing (outside of the park);
- ✓ Bird watching;
- ✓ Walks;
- ✓ Cultural excursions to nearby communities.

### Environmental considerations

The following important environmental issues should be taken note of during the EIA procedure:

- ✓ Given the potential for conflict and over-use of the river, it is important that the so-called “Mudumu North Complex” develop a management regime for the river that should include a code of conduct for tourism activities and setting of overall user limits.
- ✓ Solid waste will need to be removed from the concession area and recycled or dumped at an organised waste management site. Management of liquid waste near to wetland areas will need to be carefully assessed during the EIA process.
- ✓ As with all the areas in the BMM Parks that are seasonally wet, vehicles used for game drives will probably cause a lot of damage in the wet season, even on existing tracks. Many of the existing tracks should therefore be upgraded in places, including raising the surface and providing drainage pipes underneath a compacted gravel surface.
- ✓ Tracks and roads should not be scraped unless they have been surfaced. New tracks should be designed to avoid wet areas as much as possible and must never be scraped.
- ✓ Care must be taken during construction of any tourism facilities to avoid impacts on woody plants. No clearing of riparian forests should be permitted. Development of tourism infrastructure should be focused on already impacted areas such as the old military bases, only breaking new ground if absolutely necessary.
- ✓ All boating operations run the risk of impacting populations of wetland and aquatic species such as hippo and crocodile, as well as several birds and amphibians that breed in the adjacent wetland vegetation, on sand banks, and in river banks. It is thus important to regulate the number of boats that are allowed access to the river simultaneously, the speed of boat traffic, and the timing and duration of boating activities each day (and seasonally).
- ✓ One of the most obvious and important natural phenomena in this area is the daily movement of elephant breeding herds to and from the Kwando River, primarily in the dry season and especially at the Horseshoe Lagoon. Breeding herds are thus forced to cross the path of tourists travelling on a road running parallel to the river. New tourist roads should be planned to skirt the dunes, only crossing over onto the lower plains at specific points.

#### Concession structure

Given Kazile Island is directly opposite Mashi conservancy and their historical linkages with this part of the Kwando Core Area, it is recommended that MET:

- ✓ award the concession on a 20-year BOT-basis to the Mashi conservancy, which could in turn, award a sub-contract to an appropriately qualified operator via competitive bidding (overseen by MET and using standardized contracts approved by MET)

#### Financial indicators

The concession will involve an initial investment of approximately N\$11.8 million. Annual turnover of some N\$5.3 million at maturity could result in net cash flow of N\$690,000 after taxes and debt servicing. Government and its community partners could derive some N\$420,000 annually in concession fees, while N\$50,000 could be earned from park entrance fees. The operation is expected to sustain 24 permanent on-site jobs with an annual payroll at maturity of approximately N\$960,000 (a large part of which would be captured by community members). The likely private internal rate of return over twenty years on the capital invested is estimated at 14.6%, above the expected 10% cut-off. The concession thus promises to be financially viable. The financial viability of the concession is rated as **financially attractive**.



### Priority

This concession has a **medium** priority rating (although there is an urgent need to protect the island's trees from further elephant damage).

### Required interventions

The follow actions are required before the concession can be implemented:

- ✓ Agreement with Mashi conservancy regarding the concession structure and benefit sharing;
- ✓ Feasibility assessment and preparation of detailed concession documents as required by the *Policy on Tourism and Wildlife Concessions on State Land*;
- ✓ Approval of this concession proposal by relevant authorities, including the MET concession committee;
- ✓ Integration of the concession into the park management plan;
- ✓ Implementation of a concessioning process including a competitive tender as sketched above;
- ✓ Preparation of a code of conduct for activities conducted by concessionaires in the park, including use of the Kwando River for activities.

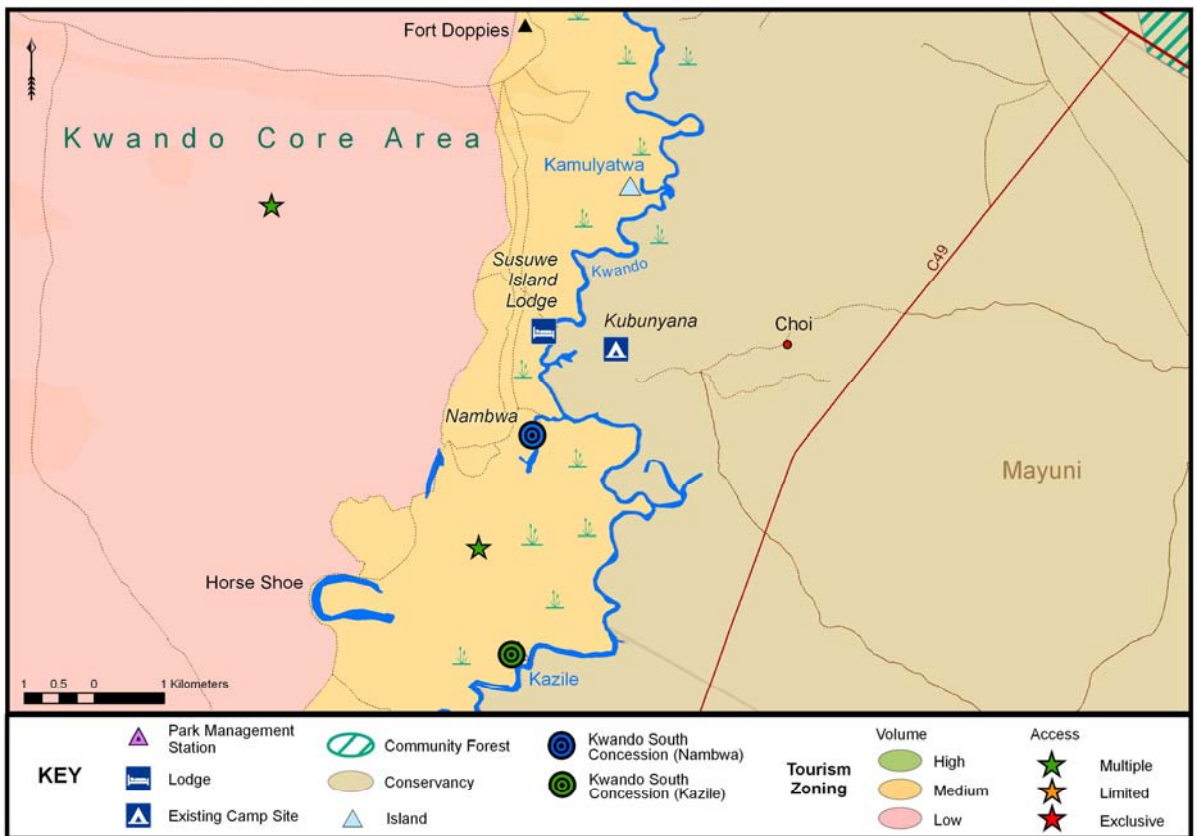


## 6.5 Kwando South Concession (Nambwa)

### Location

The Kwando South Concession (Nambwa) is situated at the existing campsite within the Kwando Core Area, situated south of Susuwe and north of Horseshoe Lagoon, as illustrated in **Figure 22**. The campsite is opposite Mayuni Conservancy, who are the current concessionaires. The site, which is relatively small, is accessible by boat and by road. There is no broader area associated with this concession.

**Figure 22:** Location of Kwando South Concession – Kazile and Nambwa



### Rationale

Nambwa is a prime but small site in a core wildlife area with all-weather access and good river frontage. It is currently operated as a successful campsite by Mayuni Conservancy. Given its prime location near Horseshoe and the known level of demand for accommodation in the Kwando Core Area, it is probably underutilized as a campsite. It does however have a high impact on the track network along the river, especially at peak times when it may contribute as many as 16 vehicles in the Horseshoe area.

Given the fact that the Kwando Core Area is essentially a budget to mid-market area, commercial operations need scale to be viable and Nambwa is too small to offer such scale. Under these circumstances, it is recommended that Nambwa be redeveloped as a small, light footprint

(probably tented) camp, possibly as a satellite of an existing operation. This will likely displace the existing camping clientele but this market segment is currently oversupplied, especially in off-peak season, and may be adequately accommodated in the proposed Kwando North roadside concession, and the Bwabwata Tour Route concession. Redeveloping the site as a small tented lodge will have the advantage of reducing the impact on the highly congested road network along the southern Kwando (a maximum of three vehicles would traverse from the camp compared to the scenario sketched above).

### Attractions

The Kwando River with its associated floodplains, backwaters, forests and wildlife is the primary attraction. The area is well known for general scenic beauty and excellent elephant viewing, especially during the dry season. The site's location near the iconic Horseshoe Lagoon is a major advantage.

### Preferred markets

The preferred markets include:

- ✓ Small tour operator-conducted groups;
- ✓ Small fly-in groups on multi-destination circuits;
- ✓ Self drive FITs on regional circuits.

### Zoning

This concession is located within the **very important** biophysical zone. The Nambwa development site is zoned for the **exclusive access** and use by the concessionaire only. Activity areas in Kwando Core Area and on the river fall within a **multiple access** area, zoned for **medium volume**.

### Indicated developments

The required developments at Nambwa include:

- ✓ A small, low-impact camp (maximum 24 beds) – possibly as a satellite of an existing operation – with limited service infrastructure on site.

### Activities

Activities will be concessionaire-conducted and include:

- ✓ Day and night drives in the Kwando Core Area;
- ✓ Boating on the Kwando River;
- ✓ Fishing (outside of the park);
- ✓ Bird watching;
- ✓ Walks;

- ✓ Cultural excursions to nearby communities.

### Environmental considerations

The following important environmental issues should be taken note of during the EIA procedure:

- ✓ Given the potential for conflict and over-use of the river, it is important that the so-called "Mudumu North Complex" develop a management regime for the river that should include a code of conduct for tourism activities and setting of overall user limits.
- ✓ Solid waste will need to be removed from the concession area and recycled or dumped at an organised waste management site. Management of liquid waste near to wetland areas will need to be carefully assessed during the EIA process.
- ✓ As with all the areas in the BMM Parks that are seasonally wet, vehicles used for game drives will probably cause a lot of damage in the wet season, even on existing tracks. Many of the existing tracks should therefore be upgraded in places, including raising the surface and providing drainage pipes underneath a compacted gravel surface.
- ✓ Tracks and roads should not be scraped unless they have been surfaced. New tracks should be designed to avoid wet areas as much as possible and must never be scraped.
- ✓ Care must be taken during construction of any tourism facilities to avoid impacts on woody plants. No clearing of riparian forests should be permitted. Development of tourism infrastructure should be focused on already impacted areas such as the old military bases, only breaking new ground if absolutely necessary.
- ✓ All boating operations run the risk of impacting populations of wetland and aquatic species such as hippo and crocodile, as well as several birds and amphibians that breed in the adjacent wetland vegetation, on sand banks, and in river banks. It is thus important to regulate the number of boats that are allowed access to the river simultaneously, the speed of boat traffic, and the timing and duration of boating activities each day (and seasonally).
- ✓ One of the most obvious and important natural phenomena in this area is the daily movement of elephant breeding herds to and from the Kwando River, primarily in the dry season and especially at the Horseshoe Lagoon. Breeding herds are thus forced to cross the path of tourists travelling on a road running parallel to the river. New tourist roads should be planned to skirt the dunes, only crossing over onto the lower plains at specific points.

### Concession structure

Given the incumbency of Mayuni conservancy as the operator of the successful Nambwa campsite their historical linkages with this part of the Kwando Core Area, it is recommended that MET:

- ✓ award the concession on a 20-year BOT-basis to the Mayuni conservancy, which could in turn, award a sub-contract to an appropriately qualified operator via competitive bidding (overseen by MET and using standardized contracts approved by MET)

### Financial indicators

The redevelopment of Nambwa will involve an initial investment of approximately N\$7.4 million. Annual turnover of some N\$3.7 million at maturity could result in net cash flow of N\$290,000, after taxes and debt servicing. Government and its community partners could derive some N\$300,000 annually in concession fees, while park fees of around N\$110,000 would be

generated. The operation is expected to sustain 16 permanent on-site jobs with an annual payroll at maturity of approximately N\$640,000 (a large part of which would be captured by community members). The likely private internal rate of return over twenty years on the capital invested to expand the operation is estimated at 12.6%, above the expected 10% cut-off. The concession thus promises to be financially viable. The financial viability of the concession is rated as **moderately attractive**.

#### Priority

This concession has a **medium priority** rating.

#### Required interventions

The follow actions are required before the concession can be implemented:

- ✓ Agreement with Mayuni conservancy regarding the concession structure and benefit sharing;
- ✓ Feasibility assessment and preparation of detailed concession documents as required by the *Policy on Tourism and Wildlife Concessions on State Land*;
- ✓ Approval of this concession proposal by relevant authorities, including the MET concession committee;
- ✓ Integration of the concession into the park management plan;
- ✓ Implementation of a concessioning process including a competitive tender as sketched above;
- ✓ Preparation of a code of conduct for activities conducted by concessionaires in the park, including activities on the Kwando River.

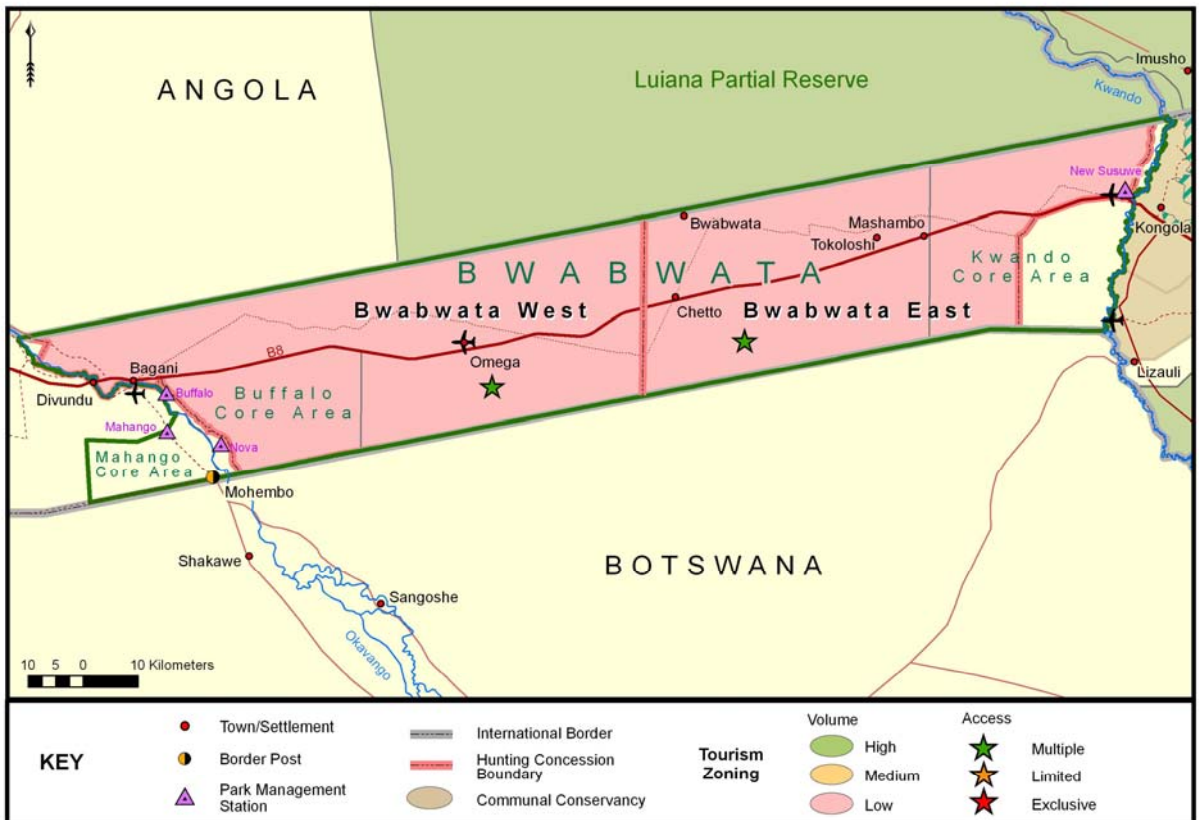


## 6.6 Bwabwata East Hunting Concession

### Location

The Bwabwata East Hunting concession (255,600 hectares) is situated across both the Kwando Core Area and the Multiple-use Area. North of the B8 road the concession extends from the Kavango / Caprivi regional boundary to the current north going track from Old Susuwe station. To the south, the concession extends from the Kavango / Caprivi regional boundary to the to Guesha pan / border road. In the interests of public safety and the prevention of conflict with photographic tourism, trophy hunting should only be permitted a safe distance west of the Guesha pan track and the Susuwe northern track – at least 2km. The concession area is illustrated in **Figure 23**.

**Figure 23:** Location of Bwabwata East Hunting Concession and Bwabwata West Hunting Concession.



### Rationale

The rationale for this concession lies in the fact that in the past there have been lucrative hunting concessions in this area with exceptionally high demand from the hunting industry.



## Attractions

The main attraction here is the presence of high value game species including elephant, roan, sable and buffalo. The approved annual quota for the Bwabwata East Hunting concession is outlined in **Table 30** below.

**Table 30:** Approved annual quota for Bwabwata East Hunting concession.

Species	Quantity
Elephant	8
Buffalo (male)	6
Kudu	2
Roan	1
Sable	1
Hippopotamus	3
Leopard	3
Crocodile	2
Lion	2
Spotted hyena	3
Steenbok	2
Duiker	2
Eland	1

## Preferred markets

International sport and trophy hunters.

## Zoning

This concession is situated across all three biophysical zones. The proposed hunting area falls within a **low level of use** and **multiple access** area. An important longer-term requirement is to pull the hunting back from the Kwando River frontage once the Kwando North photographic concession is operational. Hunting rights along the riverfront should only be granted for an interim period while the Kwando North concession is prepared and awarded. Once that concession is operational, hunting in the riverine zone should cease.

## Indicated developments

The required developments for this concession include:

- ✓ One or more temporary, fully reversible hunting camps at sites to be agreed with MET (no fixed structures including bricks, mortar or concrete slabs). The concessionaire and his guests will have **exclusive access** to these sites.
- ✓ It is recommended that the existing hunter's camp north of Susuwe continue to be made available as one of these sites, provided the infrastructure remains light and reversible (refer to **Figure 15**).

## Activities

All activities will be concessionaire-conducted and shall include:

- ✓ Sport hunting;
- ✓ Boat excursions on the Kwando River;



- ✓ Drives and walks.

#### Environmental considerations

The following important environmental issues should be taken note of during the concession award procedure:

- ✓ A precautionary approach should be adopted during quota setting, and the needs of photographic tourism should also be taken into account. The inclusion of lions on the trophy quota must therefore be carefully reviewed.
- ✓ The construction of hunter's camps should be done without use of cement, mortar, concrete or any other type of material that will require expensive rehabilitation of the area afterward. These camps should therefore be fully reversible – when the concession expires, the concessionaire will be required to remove all traces of the camp.
- ✓ Care must be taken during construction of the hunting camps to avoid impacts on woody plants. No clearing of riparian forests should be permitted. Development of tourism infrastructure should be focused on already impacted areas such as the old hunting camps and military bases, only breaking new ground if absolutely necessary.
- ✓ Solid waste will need to be removed from the concession area and recycled or dumped at an organised waste management site. Management of liquid waste near to wetland areas must be in accordance with the EMP guidelines appended to this document.

#### Concession structure

It is recommended that previous hunting concession guidelines for this area be renewed. This will include:

- ✓ MET awarding a 3-year head concession to the resident community's association (Kyaramacan Association - KA) for three years;
- ✓ the KA awarding a sub-contract to a professional hunter via competitive bidding and sharing 50% of the resulting revenue with the Game Products Trust Fund (GPTF).

#### Financial indicators

Based on the approved quota outlined earlier, it is expected that around N\$2m per annum will be generated from trophy fees and around N\$150,000 per annum in local wages. Approximately N\$10,000 could be generated in park fees.

#### Priority

Given the need for hunting revenue to help finance conservation activities in the Bwabwata Multiple-use Area, and for the resident community to benefit from the park, this concession is a **very high** priority.

#### Required interventions

The follow actions are required before the concession can be implemented:

- ✓ Hunting protocols to be developed and annexed to this plan;

- ✓ Feasibility assessment and preparation of detailed concession documents as required by the *Policy on Tourism and Wildlife Concessions on State Land*;
- ✓ Inclusion of a performance guarantee in the hunting contracts, specifically to protect MET regarding clean-up of hunting camps (given the history of neglect in this regard);
- ✓ Approval of this concession proposal by relevant authorities, including the MET concession committee;
- ✓ Integration of the concession into the park management plan;
- ✓ Implementation of a concessioning process including a competitive tender as sketched above;
- ✓ Pull back of hunting from the riverine zone and removal of aquatic species (hippos and crocodiles) from the quota once photographic tourism is established in the north (via the Kwando North concession).

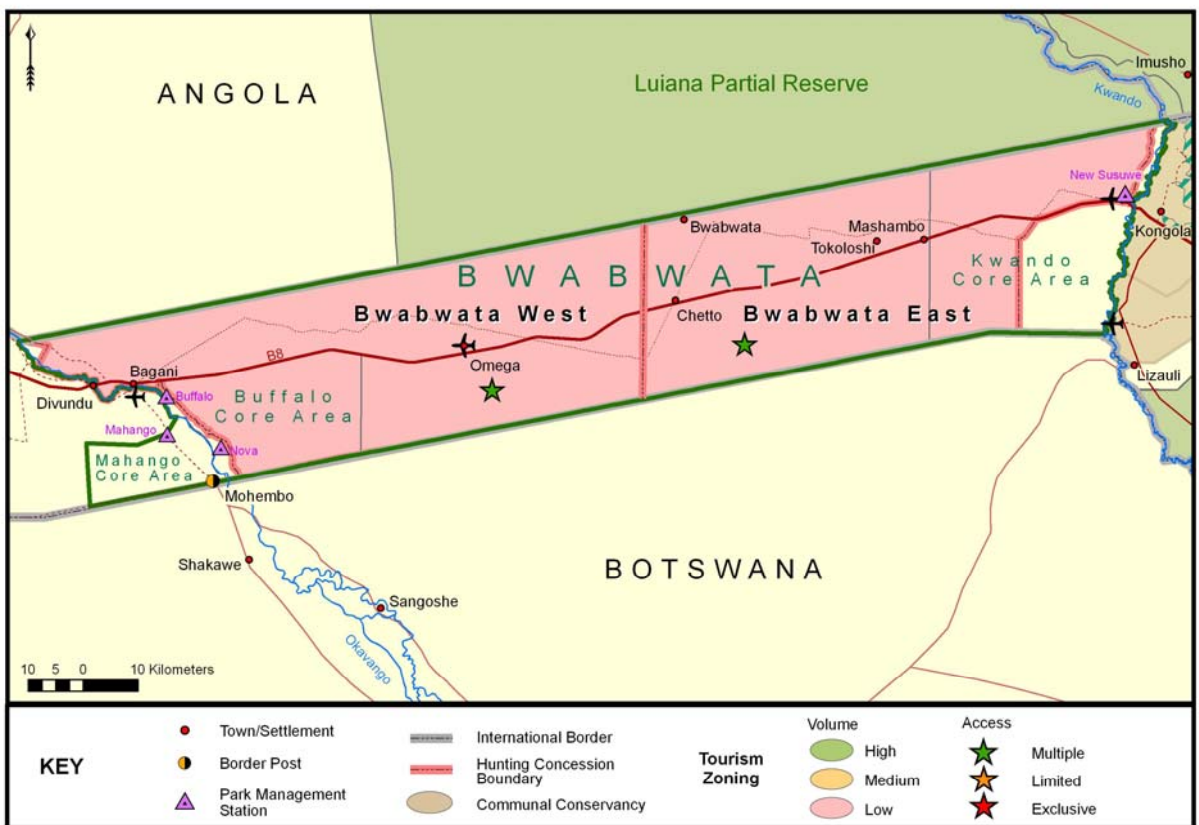


### 6.7 Bwabwata West Hunting Concession

#### Location

The Bwabwata West Hunting concession (296,500 hectares) is situated across both the Buffalo Core Area and the Multiple-use Area. North of the B8 road the concession extends from the Kavango / Caprivi regional boundary to the Kavango River (obviously detouring settlements and the Kavango North Concession). To the south, the concession extends from the Kavango / Caprivi regional boundary to the Buffalo / Nova station “upper-road” situated along the dune. Hunting should only be permitted a safe distance east of this road – at least 2km. The concession area is illustrated in **Figure 24**.

**Figure 24:** Location of Bwabwata East Hunting Concession and Bwabwata West Hunting Concession.



#### Rationale

Like Bwabwata East, the rationale for this concession lies in the fact that in the past there have been lucrative hunting concessions in this area with exceptionally high demand from the hunting industry.

## Attractions

This concessions main attraction is the presence of high value game species including elephant, roan, sable and buffalo. The approved annual quota for the Bwabwata West Hunting concession is outlined in **Table 31** below.

**Table 31:** Approved annual quota for Bwabwata West Hunting concession.

Species	Quantity
Elephant	6
Buffalo (male)	6
Buffalo (female)	2
Reedbuck	2
Kudu	2
Roan	1
Sable	2
Hippopotamus	2
Leopard	2
Crocodile	1

## Preferred markets

International sport and trophy hunters.

## Zoning

This concession is situated across all three biophysical zones. The proposed hunting area falls within a **low level of use** and **multiple access** area. An important longer-term requirement is to pull the hunting back from the Kavango River frontage once the Buffalo photographic concession is operational. Hunting rights along the river front should only be granted for an interim period while the Buffalo concession is prepared and awarded. Once that concession is operational, hunting in the riverine zone should cease.

## Indicated developments

The required developments for this concession include:

- ✓ One or more temporary, fully reversible hunting camps at sites to be agreed with MET (no fixed structures including bricks, mortar or concrete slabs). The concessionaire and his guests will have **exclusive access** to these sites.
- ✓ It is recommended that the existing hunter's camp situated just north of the current Buffalo station on the Kavango River, continue to be made available as one of these sites, provided the infrastructure remains light and reversible (see **Figure 16**).

## Activities

All activities will be concessionaire-conducted and shall include:

- ✓ Sport hunting;
- ✓ Boat excursions on the Kavango River north of the Mahango boundary;
- ✓ Drives and walks.

### Environmental considerations

The following important environmental issues should be taken note of during the concession award procedure:

- ✓ A precautionary approach should be adopted during quota setting, and the needs of photographic tourism should also be taken into account. The inclusion of lions on the trophy quota must therefore be carefully reviewed.
- ✓ The construction of hunter's camps should be done without use of cement, mortar, concrete or any other type of material that will require expensive rehabilitation of the area afterward. These camps should therefore be fully reversible – when the concession expires, the concessionaire will be required to remove all traces of the camp.
- ✓ Care must be taken during construction of the hunting camps to avoid impacts on woody plants. No clearing of riparian forests should be permitted. Development of tourism infrastructure should be focused on already impacted areas such as the old hunting camps and military bases, only breaking new ground if absolutely necessary.
- ✓ Solid waste will need to be removed from the concession area and recycled or dumped at an organised waste management site. Management of liquid waste near to wetland areas must be in accordance with the EMP guidelines appended to this document.

### Concession structure

It is recommended that previous hunting concession guidelines for this area be renewed. This will include:

- ✓ MET awarding a 3-year head concession to the resident community's association (Kyaramacan Association - KA) for three years;
- ✓ the KA awarding a sub-contract to a professional hunter via competitive bidding and sharing 50% of the resulting revenue with the Game Products Trust Fund (GPTF).

### Financial indicators

Based on the approved quota outlined earlier, it is expected that around N\$1.6m per annum will be generated from trophy fees and around N\$150,000 per annum in local wages. Approximately N\$10,000 could be generated in park fees.

### Priority

Given the need for hunting revenue to help finance conservation activities in the Bwabwata Multiple-use Area, and for the resident community to benefit from the park, this concession is a **very high** priority.

### Required interventions

The follow actions are required before the concession can be implemented:

- ✓ Hunting protocols to be developed and annexed to this plan;
- ✓ Feasibility assessment and preparation of detailed concession documents as required by the *Policy on Tourism and Wildlife Concessions on State Land*;



- ✓ Inclusion of a performance guarantee in the hunting contracts, specifically to protect MET regarding clean-up of hunting camps (given the history of neglect in this regard);
- ✓ Approval of this concession proposal by relevant authorities, including the MET concession committee;
- ✓ Integration of the concession into the park management plan;
- ✓ Implementation of a concessioning process including a competitive tender as sketched above;
- ✓ Pull back of hunting from the riverine zone and removal of aquatic species (hippos and crocodiles) from the quota once photographic tourism is established in the north (via the Kwando North concession).



## 6.8 Mahango Hunting Concession

During the process of developing this tourism plan, it was revealed to the project team that MET intends auctioning a trophy hunting quota for the Mahango Core Area. The proposed quota, which is one of the most extensive and valuable currently on offer in Namibia, is outlined in **Table 32** below.

**Table 32:** Proposed annual quota for Mahango Hunting concession.

Species	Quantity
Elephant	6
Buffalo (male)	4
Lechwe	2
Burchell's zebra	2
Kudu	4
Roan	2
Sable	2
Hippopotamus	2
Leopard	2
Crocodile	1
Blue wildebeest	1
Warthog	4
Giraffe	1
Duiker	1
Impala	3

The guidelines provided in the auction booklet allow hunting of all species throughout the park, with minor restrictions on elephant hunting and movement in sensitive areas such as on the floodplain.

It is understood that one of the main purposes of Bwabwata is to promote the multiple use of its natural resources, including consumptive use through controlled outsourced trophy hunting and collection of veldt products. It is for this reason that trophy hunting has been recommended in approximately 88% of the park via the Bwabwata East and West Hunting Concessions.

However Mahango receives the highest concentration of photographic tourists of any park in north eastern Namibia (approximately 17,067 visitors in 24,462 hectares during 2008). Furthermore the project team was informed that one of Mahango's main purposes is for breeding high value game species such as tsessebe, sable and roan, for translocation and commercial sale.

Given very high likelihood of public safety risks and negative impacts on the photographic tourists visiting the Mahango Core Area, it is **not recommended** to implement this concession.

If the concession is implemented by MET, it is recommended that a **clear boundary** be established to separate the high density photographic area and trophy hunting area. As a minimum, it is recommended that this boundary be 2km west of the C48 road dissecting the park. Photographic tourism should be designated to the eastern side of the road and trophy hunting to the west, with the 2km buffer in between.

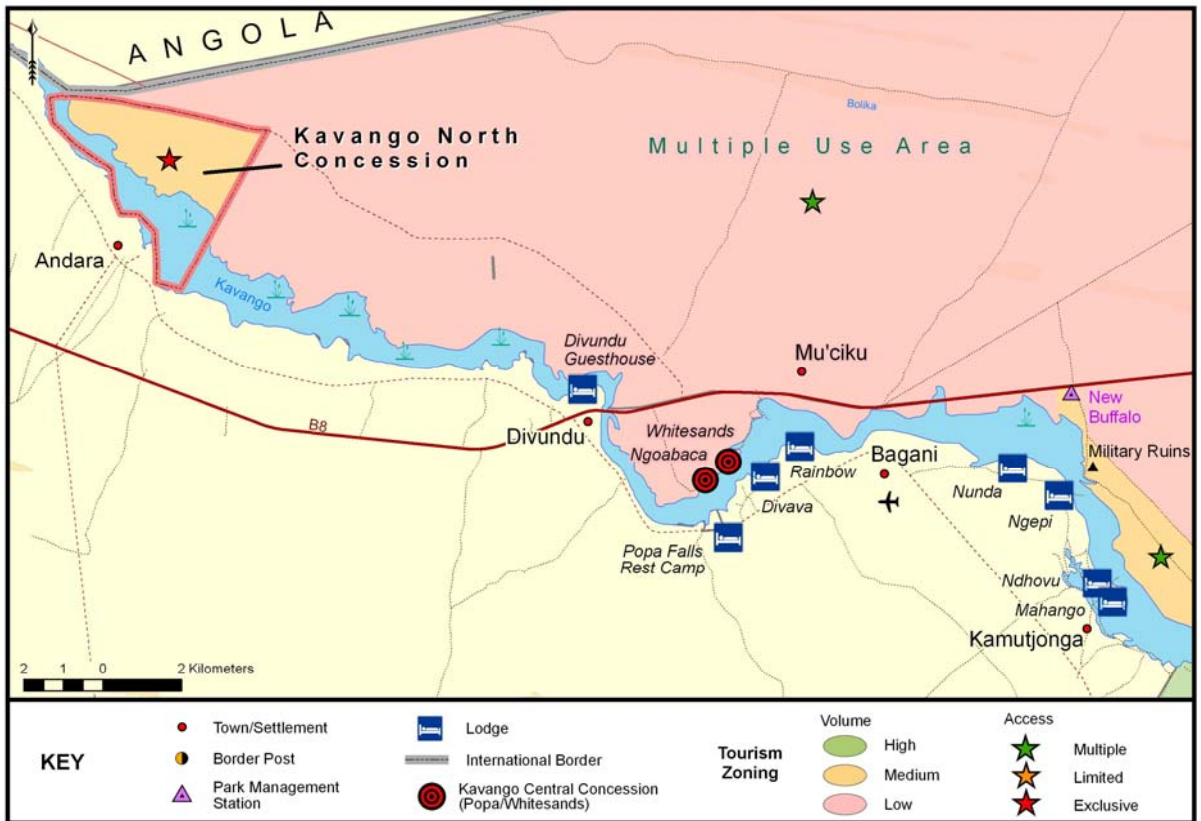


### 6.9 Kavango Central Concession (Popa / Whitesands)

#### Location

The Kavango Central concession (Popa / Whitesands) is a development site only, not a broader concession area (see Figure 25). It occupies the existing Ngoabaca campsite and the White Sands area within the Bwabwata Multiple-use Area and is approximately 30ha. This concession is situated within a dense riparian forest directly opposite the Popa Falls, with excellent view across the falls. The current concession holder is the Bwabwata residents represented by the Kyaramacan Association. The site is accessible by boat (below the falls) and by 2x4 vehicles via two tracks. One of the approaches by road is unattractive as it passes by a prison farm. An alternative access was developed, but is not signposted.

Figure 25: Location of Kavango Central Concession and Kavango North Concession.



#### Rationale

This is an existing community campsite concession situated close to the B8, the Divundu hub and the tour route leading south to the Okavango Panhandle and Botswana. The site has a prime location on the Kavango River with direct views onto Popa Falls. In addition, there is known demand for lodge sites in area as illustrated by the proliferation of developments on the west bank of the river further south.

### Attractions

The principal attraction of the site is its prime location on the Popa Falls and intact riparian forest. The site has easy access to the Kavango River and is in proximity to Divundu, which is serviced with mains electricity.

### Preferred markets

Given the proximity of the B8 and Botswana tour routes, the preferred market segments include:

- ✓ Small, medium and large **tour groups**; and
- ✓ **FITs** using their own or hired vehicles.

### Zoning

This concession is situated within the **very important** biophysical zone. The development sites at Ngoabaca and White Sands are zoned for **exclusive access** with **medium volume**, and are for use by the concessionaire only. The concessionaire will be able to use the Kavango River (only up to Buffalo / Mahango boundary) and other **multiple access** areas in Buffalo and Mahango areas for their activities.

### Indicated developments

This is a relatively small, narrow site where the following developments are recommended:

- ✓ A mid-market lodge (possibly a two-storey structure) of sufficient scale to accommodate large groups (approximately 60 beds, subject to EIA);
- ✓ An associated camping area with approximately 10 campsites;
- ✓ Support infrastructure such as an access road and boat launch.

### Activities

Activities will be concessionaire-conducted and include:

- ✓ Day visits to the Buffalo and Mahango Core Area under permit;
- ✓ Boating on the Kavango River;
- ✓ Fishing (outside of the park);
- ✓ Bird watching
- ✓ Walks;
- ✓ Cultural excursions to nearby communities.

### Environmental considerations

Important environmental issues for consideration during the environmental assessment include:

- ✓ No development should be permitted on islands in the Kavango river, many of which are heritage sites and have graves. Sites on pristine ground opposite islands may also have heritage value (reported to be Stone Age tools) and careful scoping is warranted before construction.
- ✓ Solid waste will need to be removed from the concession area and recycled or dumped at an organised waste management site. Management of liquid waste near to wetland areas will need to be carefully assessed during the EIA process.
- ✓ As with all the areas in the BMM Parks that are seasonally wet, vehicles will probably cause a lot of damage in the wet season, even on existing tracks. Existing tracks should therefore be upgraded in places, including raising the surface and providing drainage pipes underneath a compacted gravel surface.
- ✓ Tracks and roads should not be scraped unless they have been surfaced. New tracks should be designed to avoid wet areas as much as possible and must never be scraped.
- ✓ Care must be taken during construction of any tourism facilities to avoid impacts on woody plants. No clearing of riparian forests should be permitted. Development of tourism infrastructure should be focused on already impacted areas, only breaking new ground if absolutely necessary.
- ✓ All boating operations run the risk of impacting populations of wetland and aquatic species such as hippo and crocodile, as well as several birds and amphibians that breed in the adjacent wetland vegetation, on sand banks, and in river banks. The immediate area has an important resident population of the endangered African Skimmer (*Rhyncops flavirostris*).
- ✓ Given the potential for conflict and over-use of the Kavango River, it is important that MET and the tourism industry develop a management regime for the river that should include a code of conduct for tourism activities and setting of overall user limits.
- ✓ It is important to regulate the number of boats that are allowed access to the river simultaneously, the speed of boat traffic, and the timing and duration of boating activities each day (and seasonally).

#### Concession structure

Given the incumbency of the KA as the operator of the existing campsite, it is recommended that MET:

- ✓ offer the concession on a 20- to 30-year BOT-basis to the KA (depending on the size of the proposed investment), which could, in turn, award a sub-concession to an appropriately qualified operator via competitive bidding (overseen by MET and using standardized contracts approved by MET).

#### Financial indicators

If 60 beds and a campsite are developed, the concession will require an initial investment of approximately N\$26.5 million. Annual turnover of some N\$12.4 million at maturity could result in net cash flow of N\$700,000 after taxes and debt servicing. Government and its community partners could derive some N\$740,000 annually in concession fees, and around N\$160,000 in park fees could be generated. The operation is expected to sustain 60 permanent on-site jobs with an annual payroll at maturity of approximately N\$2.47 million (a large part of which would be captured by community members). The likely private internal rate of return over twenty years on the capital invested is estimated at 10.9%, just above the expected 10% cut-off. The concession is therefore financially viable. The financial viability of the concession is rated as **moderately attractive**.

## Priority

Given the proven interest by the private sector to invest in this area, as well as the need for additional revenue to help finance conservation activities in the Bwabwata Multiple-use Area and for the resident community to benefit from the park, this concession is a **very high** priority.

## Required interventions

Implementation of this concession will require the following interventions to be undertaken:

- ✓ Agreement on concession structure between MET and the KA.
- ✓ Feasibility assessment and preparation of detailed concession documents as required by the *Policy on Tourism and Wildlife Concessions on State Land*;
- ✓ Approval of this concession proposal by relevant authorities, including the MET concession committee;
- ✓ Integration of the concession into the park management plan;
- ✓ Implementation of a concessioning process including a competitive tender as sketched above;
- ✓ Development of a code of conduct for river use.

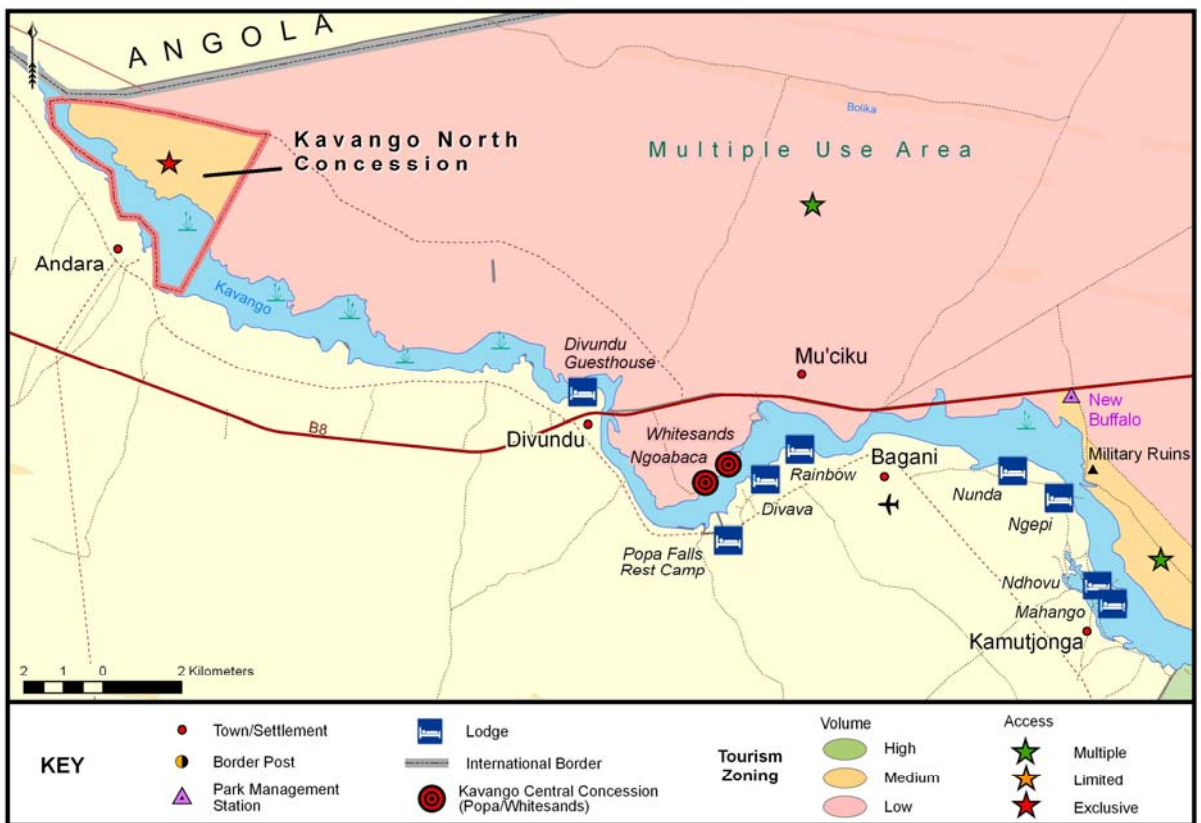


### 6.10 Kavango North Concession

#### Location

The Kavango North Concession (1,300 hectares) is one of the few remaining unsettled and pristine areas of riparian forest on the Kavango River in Namibia. The proposed concession area is situated in the “corner” where the Kavango River becomes part of the Namibia / Angola border. The north eastern concession boundary is the D3431 road; south western boundary is the Kavango River, while the southern boundary is where the first settlements start (heading south). The proposed concession area is illustrated in **Figure 26**.

**Figure 26:** Location of Kavango Central Concession and Kavango North Concession.



#### Rationale

The principal rationale for this concession is to protect the surviving riparian forest, unique sense of place and the heritage sites on the islands. A relatively large exclusive area would help to conserve what is left of the northern Kavango conservation zone. The area is scenic but has limited scope for activities mainly because the wildlife areas of Mahango and Buffalo are relatively far from the site.

A further rationale for this concession is the need to provide benefits from the park to the neighbours living west of the Kavango River.

### Attractions

The Kavango River in this area is characterized by islands, rapids and large riparian forests set in broken terrain that is very attractive. The area is also situated close to the B8 main road and Divundu, making it very accessible.

### Preferred markets

Given the proximity of the B8 and Botswana tour routes, the preferred market segments include:

- ✓ Small, medium and large **tour groups**; and
- ✓ **FITs** using their own or hired vehicles.

### Zoning

This area is situated within the **very important** biophysical zone. This concession area is zoned for a **medium level of use** and **exclusive access** by the concessionaire, although the concessionaire would have access to **multiple access** areas inside the Mahango and Buffalo areas for the purpose of conducting activities.

### Indicated developments

Given the preferred market segments and the proximity to the B8 tour route, the following developments are recommended:

- ✓ A mid-market lodge or lodges of sufficient scale to accommodate large groups (unrestricted but subject to limited established in an EIA);
- ✓ An associated camping area;
- ✓ A rafting/canoeing operation with launch sites.

### Activities

Activities in the concession area will be concessionaire-conducted and include:

- ✓ Day visits to the Buffalo and Mahango Core Area under permit;
- ✓ Rafting, canoeing and other boating on the Kavango River;
- ✓ Fishing (outside of the park);
- ✓ Bird watching;
- ✓ Walks;
- ✓ Cultural excursions to nearby communities.

### Environmental considerations

Important environmental issues for consideration during the environmental assessment include:

- ✓ Care should be taken in this area for unexploded munitions.
- ✓ No development should be permitted on islands in the Kavango river, many of which are heritage sites and have graves. Sites on pristine ground opposite islands may also have heritage value (reported to be Stone Age tools) and careful scoping is warranted before construction.
- ✓ Solid waste will need to be removed from the concession area and recycled or dumped at an organised waste management site. Management of liquid waste near to wetland areas will need to be carefully assessed during the EIA process.
- ✓ As with all the areas in the BMM Parks that are seasonally wet, vehicles will probably cause a lot of damage in the wet season, even on existing tracks. Existing tracks should therefore be upgraded in places, including raising the surface and providing drainage pipes underneath a compacted gravel surface.
- ✓ Tracks and roads should not be scraped unless they have been surfaced. New tracks should be designed to avoid wet areas as much as possible and must never be scraped.
- ✓ Care must be taken during construction of any tourism facilities to avoid impacts on woody plants. No clearing of riparian forests should be permitted. Development of tourism infrastructure should be focused on already impacted areas, only breaking new ground if absolutely necessary.
- ✓ All boating operations run the risk of impacting populations of wetland and aquatic species such as hippo and crocodile, as well as several birds and amphibians that breed in the adjacent wetland vegetation, on sand banks, and in river banks. The immediate area has an important resident population of the endangered African Skimmer (*Rhyncops flavirostris*).
- ✓ Given the potential for conflict and over-use of the Kavango River, it is important that MET and the tourism industry develop a management regime for the river that should include a code of conduct for tourism activities and setting of overall user limits.
- ✓ It is important to regulate the number of boats that are allowed access to the river simultaneously, the speed of boat traffic, and the timing and duration of boating activities each day (and seasonally).
- ✓ Although elephant use of this area is significantly less than further south on the Kavango River, breeding herds that move to and from the river on a daily basis might still be encountered. Access roads and vehicle traffic into and out of the concession area and lodge and camp sites should be planned to accommodate these movements and thus avoid unnecessary confrontation and impacts on the elephants themselves.

#### Concession structure

This concession requires a private operator under a concession agreement either directly with MET or via a third party sub-contract from the neighbouring community.

From the research conducted it was apparent that there is currently no legal structure in place to represent the neighbouring community (west bank of Kavango River). This requires further investigation and recommendations by MET.

#### Financial indicators

If 60 beds and a campsite are developed, the concession will require an initial investment of approximately N\$27.5 million. Annual turnover of some N\$12.4 million at maturity could result in net cash flow of N\$620,000 after taxes and debt servicing. Government and its community partners could derive some N\$740,000 annually in concession fees, while N\$110,000 in park fees could be generated. The operation is expected to sustain 60 permanent on-site jobs with an



annual payroll at maturity of approximately N\$2.47 million (a large part of which would be captured by community members). The likely private internal rate of return over twenty years on the capital invested is estimated at 10.4%, just above the expected 10% cut-off. The concession thus promises to be financially viable. The financial viability of the concession is rated as **moderately attractive**.

#### Priority

Given the need to protect one of the last stretches of riparian forest on the Kavango River, as well as to benefit the neighbouring community, this concession has a **very high priority** rating.

#### Required interventions

Implementation of this concession will require the following interventions to be undertaken:

- ✓ Further investigation regarding the establishment of a representative legal body for the community living west of the Kavango River;
- ✓ Feasibility assessment and preparation of detailed concession documents as required by the *Policy on Tourism and Wildlife Concessions on State Land*;
- ✓ Approval of this concession proposal by relevant authorities, including the MET concession committee;
- ✓ Integration of the concession into the park management plan;
- ✓ Implementation of a concessioning process including a competitive tender as sketched above;
- ✓ Development of a code of conduct for activities on the Kavango River.

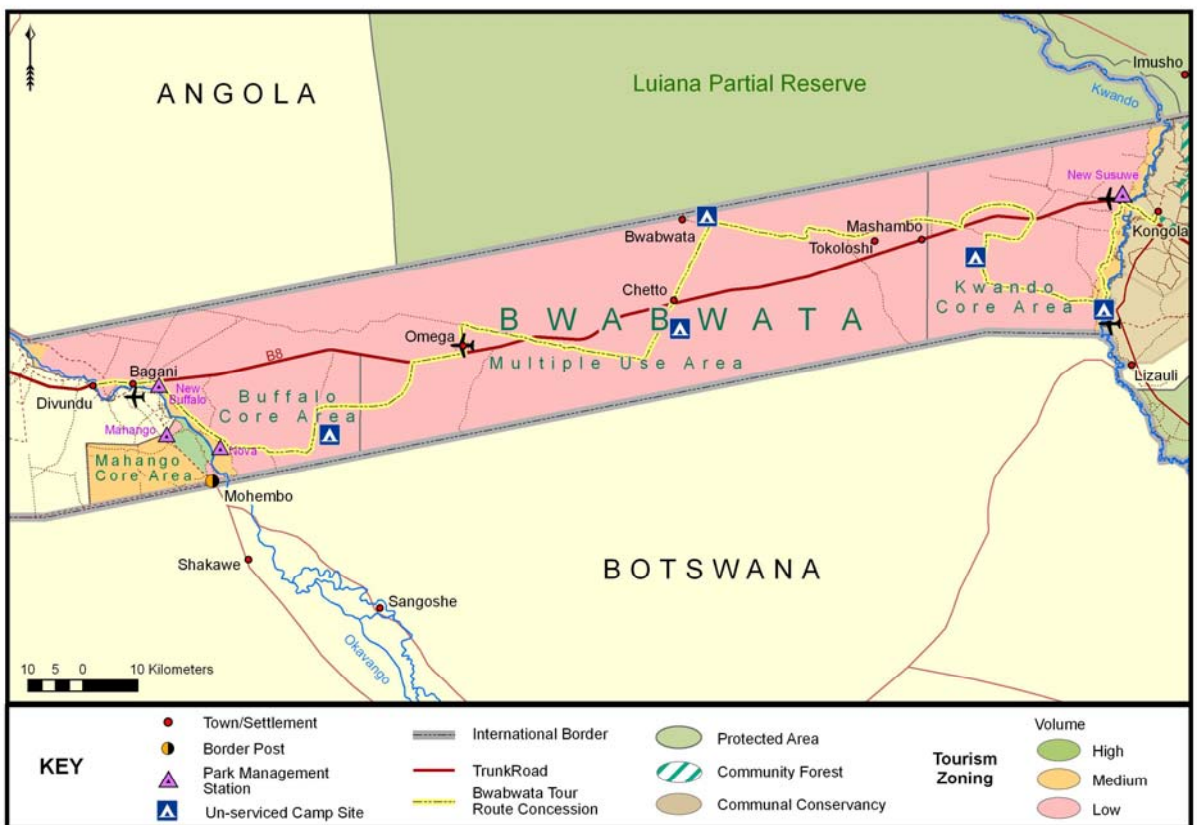


### 6.11 Bwabwata Tour Route Concession

#### Location

This proposed concession traverses the Kwando Core Area, Multiple-use Area, and Buffalo Core Area via a series of omurambas, pans and waterholes, palm groves, San settlements, heritage sites and other points of interest. It is proposed to start and finish the tour route at a campsite on either the Kwando or Kavango Rivers; however the route would also have a number of “bail-out points” on the main B8 road. The exact route still needs to be defined, however much of it could make use of the old “Golden Highway”, and other existing tracks. The route, together with accompanying campsite is illustrated in Figure 27.

**Figure 27:** Indicative location of the proposed Bwabwata Tour Route Concession.



#### Rationale

The rationale for this concession includes:

- ✓ The known demand for guided self drive opportunities (especially for the regional and international FIT market) into more remote areas;
- ✓ The iconic appeal of the Kwando and Kavango Rivers and the opportunity to link the two areas via a guided tour route modelled on successful examples elsewhere in the region.

### Attractions

This concession offers a tour route with the following attractions:

- ✓ Scenic landscapes;
- ✓ Kwando and Kavango Rivers;
- ✓ Wildlife (including big game and rare species);
- ✓ Omurambas, pans, dunes and woodlands;
- ✓ Heritage sites, cultural attractions and San communities.

### Preferred markets

This product is aimed at the self-drive 4x4 enthusiast market.

### Zoning

This concession makes use of all three biophysical zones. The concession will make use of **multiple access** and **low volume** areas and tracks. **Exclusive access** will only be provided at specific bush campsites that need to be designated during the concession packaging and planning phase.

### Type

This concession is for a 4-day, guided or self-guided, 4x4 self-drive tour, with no limit on number of vehicles per group.

### Activities

Activities will be mainly self-guided and could include:

- ✓ Multi-day 4x4 touring;
- ✓ Game viewing and bird watching;
- ✓ Cultural activities such as homestead visits and bush walks;
- ✓ Camping at designated areas en route.

### Environmental considerations

The following important environmental issues should be taken note of during the concession award procedure:

- ✓ The construction of bush campsites should be done without use of cement, mortar, concrete or any other type of material that will require expensive rehabilitation of the area afterward. These campsites should therefore be fully reversible – when the concession expires, the concessionaire will be required to remove all traces of the camp.

- ✓ Care must be taken during construction of the bush camps to avoid impacts on woody plants. No clearing of riparian forests should be permitted. Development of tourism infrastructure should be focused on already impacted areas such as the old hunting camps and military bases, only breaking new ground if absolutely necessary.
- ✓ Solid waste will need to be removed from the concession area and recycled or dumped at an organised waste management site. Management of liquid waste near to wetland areas must be in accordance with the EMP guidelines appended to this document.
- ✓ As with all the areas in the BMM Parks that are seasonally wet, vehicles used for game drives will probably cause a lot of damage in the wet season, even on existing tracks. Many of the existing tracks should therefore be upgraded in places, including raising the surface and providing drainage pipes underneath a compacted gravel surface.
- ✓ Tracks and roads should not be scraped unless they have been surfaced. New tracks should be designed to avoid wet areas as much as possible and must never be scraped.

#### Recommended concession structure

It is recommended that MET offer a 5-year activity concession to the KA. Given the complex and logistically challenging nature of this concession, it would be advisable for the KA to enter into a sub-contract with a suitably qualified operator to support implementation.

#### Financial indicators

This concession would require an initial investment of approximately N\$600,000 and could generate an annual turnover of some N\$2 million at maturity, which could result in a pre-tax net cash flow of N\$640,000 after tax and debt servicing. Government and its community partners could derive some N\$140,000 annually in concession fees, while around N\$50,000 in park fees could be generated. The concession is expected to create 5 permanent jobs with an annual payroll at maturity of approximately N\$180,000. The financial viability of the concession is rated as **marginal**, and therefore it is **financially unattractive**.

#### Priority

Due to its marginal viability and complexity to implement, this concession is a **low priority**.

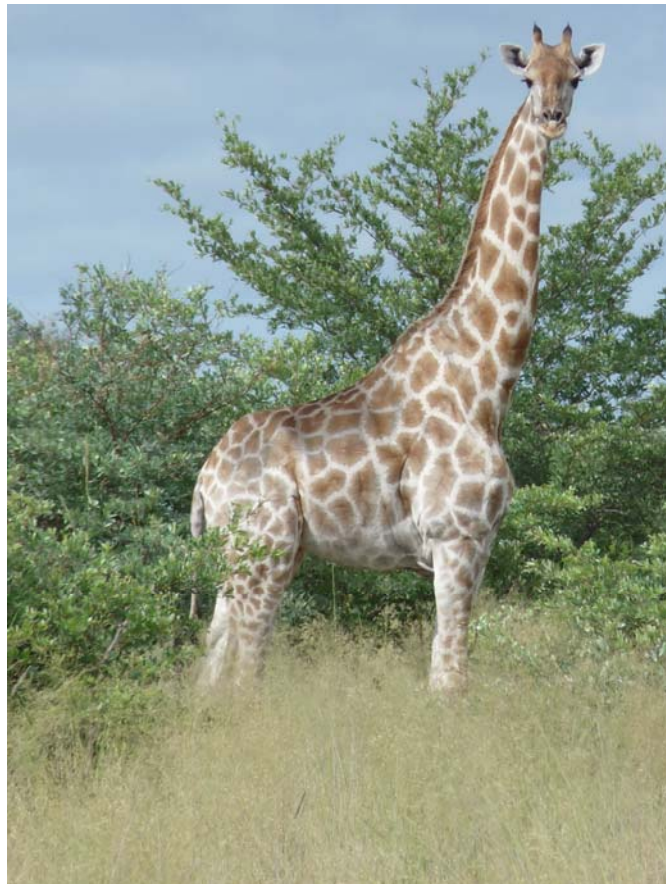
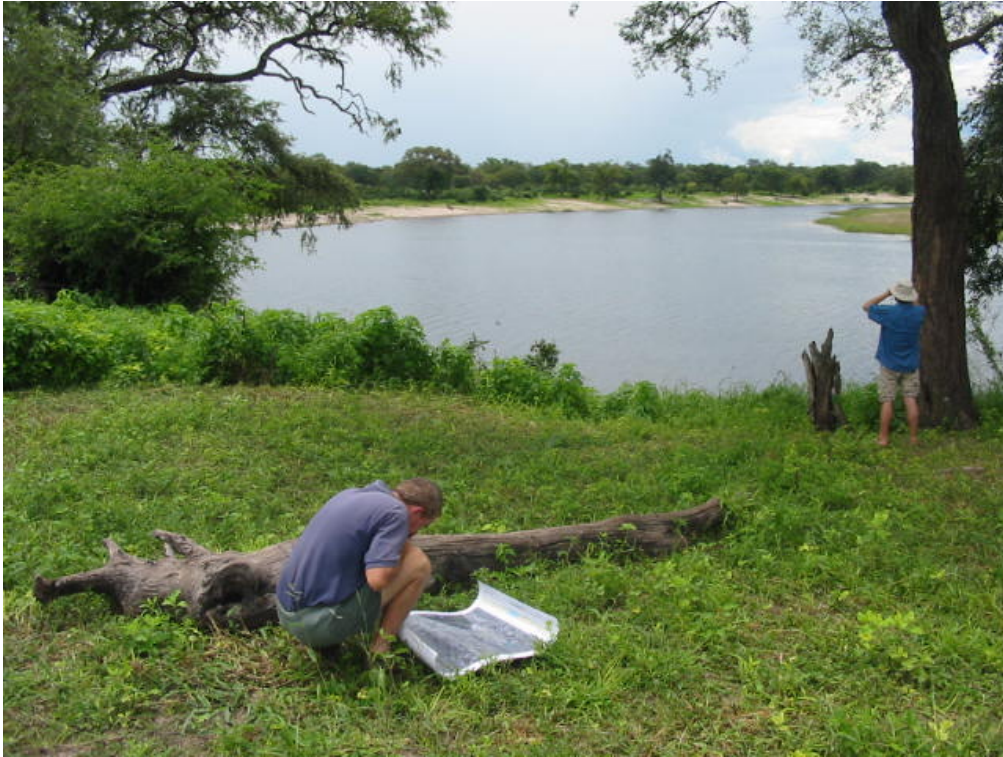
#### Required interventions

Implementation of this concession will require the following interventions to be undertaken:

- ✓ Lay-out of a track and bush camp network incorporating attractive omurambas, pans and other areas of interest;
- ✓ Identification of cultural tourism opportunities, etc.;
- ✓ Agreement on concession structure between MET and the KA;
- ✓ Feasibility assessment and preparation of detailed concession documents as required by the *Policy on Tourism and Wildlife Concessions on State Land*;
- ✓ Approval of this concession proposal by relevant authorities, including the MET concession committee;
- ✓ Integration of the concession into the park management plan;



- ✓ Implementation of a concessioning process including a competitive tender as sketched above.

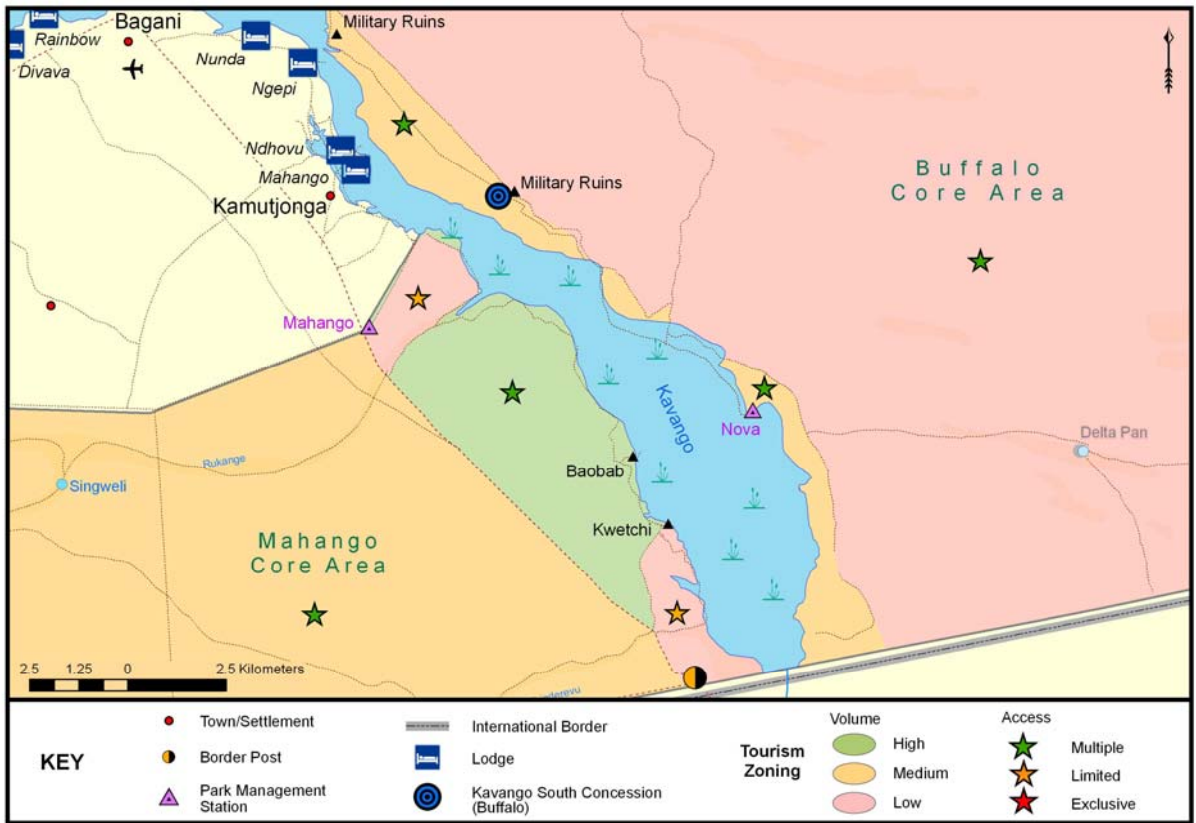


6.12 Kavango South Concession (Buffalo)

Location

The Kavango South Concession (Buffalo) is a development site situated at the old Pica Pau military base in the Buffalo Core Area. The proposed development site is opposite the Mahango Core Area, and has impressive views to the west, south and north. Given the history of public access in this area and use by neighbouring lodges, it is proposed that no concession area be given with this development, but that a sufficiently large exclusive development site is allocated. The surrounding area is badly impacted by old military infrastructure. It is expected that the concessionaire will rehabilitate some sections of the base to use for development (i.e. back of house support infrastructure etc.). The proposed concession is illustrated in Figure 28.

Figure 28: Location of the Kavango South Buffalo Concession.



Rationale

The Kavango South concession (Buffalo) includes a large elevated site that overlooks the Kavango River in the Buffalo Core Area. The site offers many advantages including its location, scale and view lines. The area in which it is located has however been severely degraded by old military infrastructure. Given these elements, the site could either be developed as a typical mid-market lodge, which would have a limited impact on the environment and generate limited income (for MET and the community). Given the remoteness of the area and the current downturn in the global economy, the second option is not considered viable.

## Attractions

The Kavango River with its associated floodplains, backwaters, forests and wildlife is the primary attraction. While the area is not pristine, it is well known for its scenic beauty. The game viewing is not as good as across the river in Mahango but it does offer good elephant and buffalo viewing, especially during the dry season. Other attractions include its intact riparian forest and excellent bird watching.

## Preferred markets

The mid-market lodge and resort options would both target the following market segments (the latter at much larger scale):

- ✓ Small, medium and large **tour groups**; and
- ✓ **FITs** using their own or hired vehicles.

## Zoning

This concession is situated within a **very important** biophysical zone. The development site at Pica Pau is zoned for **exclusive access** and use by the concessionaire only. The concessionaire will have **limited access** to the Kavango River inside of the Mahango / Buffalo boundary, and **multiple access** to other activity areas in Buffalo and Mahango, as well as the Kavango River outside of the Mahango / Buffalo boundary.

## Indicated developments

This concession requires the following developments:

- ✓ A mid-market lodge of sufficient scale to accommodate coach tours (approximately 60 beds);
- ✓ An associated camping area with approximately 10 campsites;
- ✓ Support infrastructure including staff housing, access roads, game viewing tracks and boat launches on both banks of the river.

## Activities

Activities will be concessionaire-conducted and include:

- ✓ Day and night drives in the Buffalo Core and in Mahango (the latter to be accessed by boat and vehicles based at an exclusive boat launch site in Mahango);
- ✓ Boating on the Kavango River (subject to a strict code of conduct designed, amongst other things, to protect the sensitive nesting sites on the sand banks);
- ✓ Walks;
- ✓ Fishing (outside of the park);
- ✓ Bird watching;
- ✓ Visits to neighbouring communities, including cultural activities.



## Environmental considerations

Important environmental issues for consideration during the environmental assessment include:

- ✓ Care should be taken around old military infrastructure for unexploded munitions.
- ✓ No development should be permitted on islands in the Kavango River, many of which are heritage sites and have graves. Sites on pristine ground opposite islands may also have heritage value (reported to be Stone Age tools) and careful scoping is warranted before construction. Careful scoping for potential grave sites near Pica Pau is also warranted.
- ✓ Solid waste will need to be removed from the concession area and recycled or dumped at an organised waste management site. Management of liquid waste near to wetland areas will need to be carefully assessed during the EIA process.
- ✓ As with all the areas in the BMM Parks that are seasonally wet, vehicles will probably cause a lot of damage in the wet season, even on existing tracks. Existing tracks should therefore be upgraded in places, including raising the surface and providing drainage pipes underneath a compacted gravel surface.
- ✓ Tracks and roads should not be scraped unless they have been surfaced. New tracks should be designed to avoid wet areas as much as possible and must never be scraped.
- ✓ Care must be taken during construction of any tourism facilities to avoid impacts on woody plants. No clearing of riparian forests should be permitted. Development of tourism infrastructure should be focused on already impacted areas, only breaking new ground if absolutely necessary.
- ✓ All boating operations run the risk of impacting populations of wetland and aquatic species such as hippo and crocodile, as well as several birds and amphibians that breed in the adjacent wetland vegetation, on sand banks, and in river banks.
- ✓ It is reported that Mahango and Buffalo contain one of the few remaining populations of African Skimmers, breeding on sandbanks in the wider stretches of the Kavango River. An important issue is the wake caused by boats – this can easily flood and destroy the nests of African Skimmers.
- ✓ Given the potential for conflict and over-use of the Kavango River, it is important that MET and the tourism industry develop a management regime for the river that should include a code of conduct for tourism activities and setting of overall user limits.
- ✓ It is important to regulate the number of boats that are allowed access to the river simultaneously, the speed of boat traffic, and the timing and duration of boating activities each day (and seasonally).
- ✓ An important natural phenomenon in this area is the daily movement of elephant breeding herds to and from the Kavango River, primarily in the dry season. Breeding herds are thus forced to cross the path of tourists travelling on any road running parallel to the river.
- ✓ Given the amount of fishing conducted outside of the park, and the importance of the Buffalo / Mahango river front for fish breeding, fishing should not be allowed in these Core Areas.

## Concession structure

This concession requires a private developer/operator under a 20-year BOT agreement either directly with MET or via a third party sub-contract from a resident or neighbouring community. During the research conducted, it was not made clear whether this concession should be allocated for the benefit of the KA park residents association or the park neighbours, or both.

However, given the fact that there is currently no legal structure to represent the community west of the river, this concession may require a direct award by MET to a private company with benefit sharing between MET, the park residents' association (KA) and the neighbouring community (once it is legally incorporated).

#### Financial indicators

If 60 beds and a campsite are developed, the concession will require an initial investment of approximately N\$37 million. Annual turnover of some N\$17.6 million at maturity could result in net cash flow of N\$1.78 million after taxes and debt servicing. Government and its community partners could derive some N\$1.41 million annually in concession fees, while around N\$360,000 could be earned in park fees. The operation is expected to sustain 90 permanent on-site jobs with an annual payroll at maturity of approximately N\$3.71 million (a large part of which would be captured by community members). The likely private internal rate of return over twenty years on the capital invested is estimated at 13.1%, above the expected 10% cut-off. The concession thus promises to be financially viable. The financial viability of the concession is therefore rated as **moderately attractive**.

#### Priority

Given the attractiveness of this site, and numerous expressions of interested being forwarded to MET by potential developers, this concession has a **high priority** rating.

#### Required interventions

Implementation of this concession will require the following interventions to be undertaken:

- ✓ Further research and clarification provided by MET regarding which community will be involved with or benefit from this concession, and confirmation of the concession structure between MET and the community(s);
- ✓ Agreement on the concession type (lodge or resort) and structure;
- ✓ Feasibility assessment and preparation of detailed concession documents as required by the *Policy on Tourism and Wildlife Concessions on State Land*;
- ✓ Approval of this concession proposal by relevant authorities, including the MET concession committee;
- ✓ Integration of the concession into the park management plan;
- ✓ Implementation of a concessioning process including a competitive tender as sketched above;
- ✓ Development of a code of conduct for activities on the Kavango River.

## 6.13 Bwabwata Activity Concessions

### Rationale

The rationale for these concessions lies in the history of public and tour operator access to the Kwando, Buffalo, Mahango Core Areas, including the Kavango and Kwando Rivers. There is also known demand from the neighbouring lodges for continued and enhanced access to these areas.

### Attractions

The Kwando and Kavango Rivers with their associated floodplains, riparian forests and high concentrations of wildlife are the principal attractions.

### Preferred markets

The preferred market segments for these concessions are licensed operator-conducted groups comprised of guests resident at neighbouring lodges.

### Zoning

These concessions will be conducted in areas zoned for a **medium level of use** and **multiple access** by FITs and licensed tour operators.

### Indicated products

The Kwando activity concessions could give concessionaires the right:

- ✓ To use a designated harbour(s) and parking area(s) on the west bank of the Kwando River; and
- ✓ To conduct guided walks and night drives in the Kwando Core Area (under rules set by MET and subject to EIA).

The Buffalo activity concessions could give concessionaires the right:

- ✓ To use a designated harbour(s) and parking area(s) on the east bank of the Kavango River north of the Buffalo development site;
- ✓ To conduct day and night drives as well as guided walks in the Buffalo Core Area (under rules set by MET and subject to EIA).

The Mahango activity concessions could give concessionaires:

- ✓ The right to use and maintain an exclusive picnic site on the Kavango River inside Mahango (possible sites are located at old hunting camps);
- ✓ Access to additional tracks along the Kavango River and in the western woodland (the feasibility of establishing new tracks needs to be checked during the packaging of the concession);
- ✓ The right to conduct guided walks (under rules set by the MET);
- ✓ After hours access to Mahango to conduct night drives under rules set by MET and subject to EIA.

These concessions should **not have boating access to the Kavango River**. Such access should be reserved for the Kavango South concessionaire (Buffalo).

#### Environmental considerations

Important environmental issues for consideration during the concession packaging include:

- ✓ Given the short term and low value of these concessions, all associated infrastructure (harbours or boat launches, parking areas and picnic sites) must be located on sites already impacted and should be of a temporary, reversible nature.
- ✓ Care should be taken around old military infrastructure for unexploded munitions.
- ✓ Any solid waste generated will need to be removed from the park and recycled or dumped at an organised waste management site.
- ✓ As with all the areas in the BMM Parks that are seasonally wet, vehicles will probably cause a lot of damage in the wet season, even on existing tracks. Existing tracks should therefore be upgraded in places, including raising the surface and providing drainage pipes underneath a compacted gravel surface.
- ✓ Tracks and roads should not be scraped unless they have been surfaced. New tracks should be designed to avoid wet areas as much as possible and must never be scraped.
- ✓ The occurrence of highly erodible, possibly sodic soils in a discrete area close to the Kavango River in Mahango. These soils cannot withstand any off-road driving.
- ✓ All boating operations run the risk of impacting populations of wetland and aquatic species such as hippo and crocodile, as well as several birds and amphibians that breed in the adjacent wetland vegetation, on sand banks, and in river banks.
- ✓ It is reported that Mahango and Buffalo contain one of the few remaining populations of African Skimmers, breeding on sandbanks in the wider stretches of the Kavango River. An important issue is the wake caused by boats – this can easily flood and destroy the nests of African Skimmers.
- ✓ Given the potential for conflict and over-use of the Kwando and Kavango Rivers, it is important that MET and the tourism industry develop management regimes for these rivers that should include codes of conduct for tourism activities and setting of overall user limits.
- ✓ It is important to regulate the number of boats that are allowed access to the river simultaneously, the speed of boat traffic, and the timing and duration of boating activities each day (and seasonally).
- ✓ An important natural phenomenon along the Kwando and Kavango Rivers is the daily movement of elephant breeding herds to and from the river, primarily in the dry season. Breeding herds are thus forced to cross the path of tourists travelling on any road running parallel to the river.
- ✓ Given the amount of fishing conducted outside of the park, and the importance of the Buffalo / Mahango river front for fish breeding, fishing should not be allowed in these Core Areas.

#### Concession structure

It is recommended that MET:

- ✓ award five-year **activity concessions** to neighbouring lodge operators;
- ✓ share 50% of the concession revenue with the neighbouring conservancies (or other community structures) according to a percentage agreed between MET and the communities.

In setting the carrying capacity and number of activity licenses to be offered, an adaptive management approach is recommended. This would involve setting initial limits (during the concession packaging phase), which are regularly reviewed to monitor impacts and, if necessary, to adjust limits.

#### Financial indicators

Fifteen activity concessions of the sort described above could generate an annual turnover of some N\$4 million at maturity, which could result in a combined net cash flow of N\$130,000 after taxes and debt servicing. Government and its community partners could derive some N\$200,000 annually in concession fees, while around N\$140,000 could be earned in park fees. The concessions are expected to create 27 permanent jobs with an annual payroll at maturity of approximately N\$1.39 million. The financial viability of these concessions is rated as **moderately attractive**.

#### Priority

Given the tradition of public access, de facto situation of un-regulated operator access via verbal agreements with park staff, and the expectations of the neighbouring communities, this concession has a **high priority** rating.

#### Required interventions

Implementation of this concession will require the following interventions to be undertaken:

- ✓ Feasibility assessment and preparation of detailed concession documents as required by the *Policy on Tourism and Wildlife Concessions on State Land*;
- ✓ Approval of this concession proposal by relevant authorities, including the MET concession committee;
- ✓ Integration of the concession into the park management plan;
- ✓ Implementation of a concessioning process including a competitive tender as sketched above;
- ✓ Preparation of a code of conduct to regulate activities of multiple license holders, including the use of the Kwando and Kavango Rivers.



## 7. Aggregated financial implications

The proposed new concessions will generate significant new financial values and will have a very significant economic impact at the local, regional and national scales. The tables below summarise the results described above for the different areas and the BMM Parks as a whole. **Table 33** summarises some of the financial characteristics of the planned concessions.

**Table 33:** Financial values estimated for the proposed tourism concessions (N\$ million, 2009)

Concession	Mamili node		Mudumu node			Kwando node			Kavango node			Bwabwata				Totals
	Mamili W	Mamili E	Mudumu N (Liansh)	Mudumu S (Nakatwa)	Mudumu Campsite	Kwando N	Kwando S (Kazile)	Kwando S (Nambwa)	Kavango C (Popa)	Kavango N	Kavango S (Buffalo)	Bwabwata Tour Route	Bwabwata Activities	Bwabwata E Hunting	Bwabwata W Hunting	
Initial capital	28.0	1.12	5.8	37.0	0.44	28.0	11.6	7.4	26.5	27.5	37.0	0.6	3.4	0.0	0.0	214
At stability:																
<i>Gross revenue</i>	11.7	1.3	13.6	18.4	0.6	13.6	5.3	3.7	12.4	12.4	17.6	2.0	4.0	0.0	0.0	117
<i>Net cash flow (after tax &amp; debt)</i>	1.52	0.04	0.40	1.53	0.01	1.10	0.69	0.29	0.70	0.62	1.78	0.64	0.13	0.0	0.0	9
<i>Wage bill</i>	2.47	0.46	3.59	3.71	0.20	2.47	0.96	0.64	2.47	2.47	3.71	0.18	1.39	0.15	0.15	25
<i>Number of jobs</i>	56	9	84	90	6	60	24	16	60	60	90	5	27	6	6	600
<i>Concession fees</i>	1.17	0.07	1.36	1.47	0.03	1.09	0.42	0.30	0.74	0.74	1.41	0.14	0.20	2.01	1.60	13
<i>Park fees</i>	0.20	0.05	0.38	0.38	0.10	0.36	0.05	0.11	0.16	0.11	0.36	0.05	0.14	0.01	0.01	2
<i>Pre-tax IRR</i>	14.0%	-	23.3%	12.3%	-	12.3%	14.6%	12.6%	10.9%	10.4%	13.1%	-	-	-	-	-



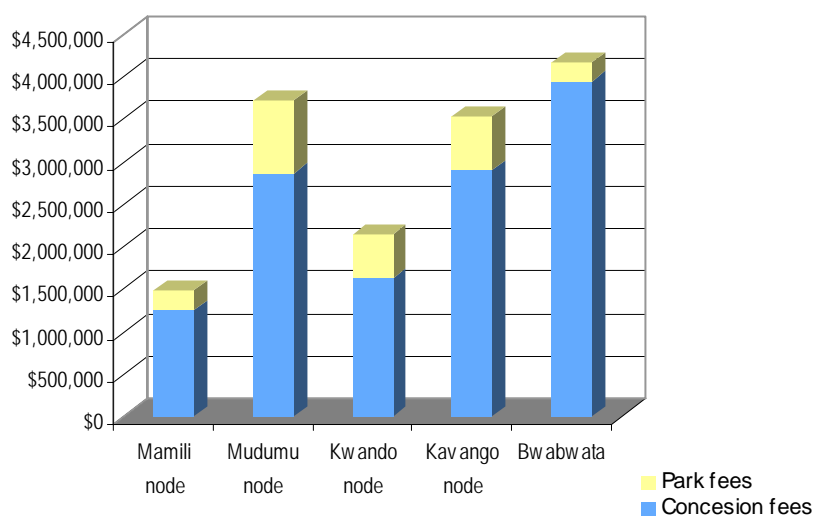
**Table 34** summarises the financial characteristics aggregated for each of the components or development nodes of the BMM Parks. The estimated capital to be invested in the concessions, as planned, amounts to almost N\$214 million. It is estimated that concession fees will come to an estimated N\$13 million per annum and park fees to N\$2 million per annum. At maturity, the BMM Parks should support more than 600 new permanent tourism-related jobs with an associated annual payroll of some \$25 million.

The data also indicate that the financial viability of the proposed investments is moderate, with financial rates of return between 10.4% and 14.6%, exceeding the real opportunity cost of capital of some 8%.

**Table 34:** Financial values associated with the component areas of the BMM Parks (N\$ million, 2009).

Financial values (\$1,000,000)	Tourism Development Nodes					Totals
	Mamili node	Mudumu node	Kwando node	Kavango node	Bwabwata	
Initial capital	29.1	43.2	47.0	91.0	3.9	214
At stability:						
<i>Gross revenue</i>	13.1	32.6	19.1	42.3	6.0	113
<i>Net cash flow (after tax &amp; debt)</i>	1.6	1.9	2.4	3.1	0.8	10
<i>Wage bill</i>	2.9	7.5	4.1	8.6	1.9	25
<i>Number of jobs</i>	65	180	100	210	45	600
<i>Concession fees</i>	1.24	2.86	1.62	2.89	3.95	13
<i>Park fees</i>	0.24	0.86	0.54	0.63	0.22	2
<i>Pre-tax IRR</i>	14.0%	12.3% - 13.3%	12.3% - 14.6%	10.4% - 11.4%	-	

**MET / community income per node**



In comparison with the existing situation in and around the BMM Parks, the new concessions stand to increase the number of permanent jobs by 147%, private capital investment by 194%, and gross revenue by 254% (see Table 35).

**Table 35:** Comparative values of the planned concessions in each development node (N\$ million, 2009).

Comparative financials (N\$ 000,000)	Tourism Development Nodes												% increase
	Mamili Node		Mudumu Node		Kwando Node		Kavango Node		Bwabwata node		TOTAL		
	Current	Future	Current	Future	Current	Future	Current	Future	Current	Future	Current	Future	
Capital investment	0.0	29.1	23.5	66.7	28.9	75.9	58.4	149.4	0.0	3.9	110.7	325.0	194%
Gross revenue	0.0	13.1	13.4	46.0	10.1	29.2	21.0	63.3	0.0	6.0	44.5	157.6	254%
Jobs (full time)	0	65	109	289	107	207	192	402	0	45	408	1008	147%
Payroll	0.0	2.9	3.3	10.8	2.3	6.4	3.5	12.2	0.0	1.9	9.1	34.1	275%



## 8. Environmental summary

This report contains a series of guidelines for responsible tourism development, and highlights what have been initially identified as key environmental and ecological considerations, requiring further elaboration during the formal EIA processes. These considerations have informed and guided the formulation of proposed tourism concessions and activities within each of the biophysical zones. Given the socio-economic imperatives driving low impact tourism as a preferred activity, it is considered that tourism developments as proposed should not present any unmanageable environmental impacts. Ongoing monitoring and evaluation of tourism impacts will provide further safeguards.

Given the wilderness appeal and sensitivity of areas within the BMM Parks, environmental guidelines and a template Environmental Management Plan (EMP) are provided in Annex B and C respectively. These documents are intended to guide the appropriate design, construction and management of MET park infrastructure, as well as the operation of existing tourist facilities. Where new tourism facilities are required, specifically where such developments result in the enlargement of existing infrastructure or impacted area footprints, that will break new ground, and particularly within very sensitive and scarce habitats, an EIA, as directed by the Environmental Management Act of 2007 is likely to be required. Moreover, as the park-level management zones may change from year to year, and notwithstanding the broad-level management zone in which the concession falls, all planned tourism developments, including but not limited to activities, roads or infrastructure, must above all obey detailed biophysical zoning maps and guidelines for each of the parks.



## 9. Investor comment

A total of 16 potential tourism developers, investors and activity providers were consulted regarding their interest in the area for tourism investment. These companies were identified by the study team based on good reputation, quality of current operations, known interest in expanding existing businesses, and status as “blue chip” companies.

The concession concepts presented herein were outlined in brief and their responses gauged. Advice was sought on minimum concession requirements to attract investment of the scale envisaged herein. The following comments were made by the people consulted:

### **Tourism investment in Namibia:**

- ✓ Now is actually a good time to invest in tourism, given the current economic slow down. It is not wise to invest during a recovery period or when the industry is peaking.
- ✓ Some markets are more affected by the global economic slow down than others. For example the American markets seem to be most affected. Local, regional and European markets seem less affected. Budget and mid markets also seem to be less affected.
- ✓ Products catering to the FIT markets, and pitched at a mid / budget level seem to be very popular at the moment and are likely to draw interest from investors.
- ✓ Some developers now prefer building tented products due to hyperinflation in the construction industry, as well as demand for authenticity from clients.

### **The BMM Parks and surrounding areas:**

- ✓ The area is very attractive because of its natural and undeveloped character.
- ✓ Wildlife and bird viewing is exceptional in places like Mahango, Buffalo, Kwando and Mamili. Wildlife viewing in Mudumu is seasonal, and at times is very bad.
- ✓ The BMM Parks are an affordable destination for the wetland wilderness experience, in comparison with the Okavango Delta.

### **Hunting in and around the BMM Parks:**

- ✓ Hunting needs to co-exist with photographic tourism. Both parties need to make compromises and must work together.
- ✓ The river areas are only important for hunting wetland species (which in any case are not high value). Most hunting is therefore done between 20-95kms from the rivers in areas rarely used by photographic tourists.
- ✓ The open systems of Buffalo, Kwando and the Multiple-use Area make for an authentic hunting experience where wildlife migrates naturally. This is also the most environmentally sensitive place to hunt, as wildlife is less constrained. These areas provide one of the best hunting experiences in Africa.
- ✓ Trophy hunting in small parks like Mahango, Mudumu and Mamili should not be allowed. These parks should be kept as Core Areas for wildlife breeding and recovery. Hunting should be peripheral to such parks – i.e. in the neighbouring conservancies.
- ✓ Some artificial water could be provided in the Buffalo Core Area to improve hunting and game viewing away from the river; however this needs to be carefully planned so that vegetation is not affected by interrupting the natural migration patterns.

- ✓ Hunting quotas need to be prepared in consultation with the industry to ensure they are sustainable and profitable to all parties. With improved quota setting better value can be achieved from fewer hunts and clients.
- ✓ Trophy hunters should be allowed to establish small hunting camps inside of the parks. Given the large amounts paid by clients, it is important that they are allowed to overnight at private camps, preferably located next to water.

**Concessions likely to receive highest interest:**

The concessions proposed in this plan were strongly supported by the people interviewed. They were thought to be viable and in line with industry demand. The following concessions received highest interest from the companies interviewed:

- ✓ Mamili West Concession
- ✓ Mudumu South Concession (Nakatwa)
- ✓ Kwando North Concession (Susuwe)
- ✓ Kavango South Concession (Buffalo)
- ✓ Bwabwata Hunting Concessions (East & West)

**Concession requirements:**

- ✓ Due to extraordinary inflation in the construction industry, the cost of building lodges has doubled in the last four years. For capital intensive concessions, such as budget and mid level lodges with fixed infrastructure, longer periods of between 30-40 years will be required to allow a fair return on investment.
- ✓ 20 year concessions were deemed appropriate for tented lodges and camps, due to the lower capital expenditure required.
- ✓ A clear, well structured concession contract is an essential requirement.
- ✓ Concession areas or sites must have clear boundaries, and must be easily accessible by guests with minimal transaction costs (i.e. park entry or border procedures).
- ✓ Support with establishing border crossings between Namibia and Botswana are essential for the Mamili West Concession, Mudumu North Concession (Liashulu) and Mudumu South Concession (Nakatwa).
- ✓ Turnover based concession fees of between 6% and 12% were deemed appropriate.
- ✓ Bed or room limits should be flexible to allow operators to create economies of scale, and thus improve business viability. One method of achieving this is allowing satellite camps that can be opened or closed based on seasonal fluctuations in guest numbers.
- ✓ Exclusive use areas or large privacy buffers are important for high value concessions.

**Constraints to investment:**

- ✓ With the increased cost of building, it is becoming very difficult to achieve a reasonable return on investment, especially with short term concessions requiring large fixed infrastructure.
- ✓ The area is difficult to market as part of a Namibian tourism circuit. It is better branded as a southern Africa destination encompassing several countries, and focusing on regional attractions and routes.



- ✓ The area still has problems with its image in terms of safety and malaria risks. The area also has a bad reputation for flooding.
- ✓ Due to the area's remoteness and geography, it is very difficult for small companies to expand towards the BMM Parks from important Namibian attractions like Etosha, Swakopmund, Sossusvlei and Damaraland.



## 10. Recommended priorities

**Table 36** summarizes the recommended development priorities of the proposed concessions as outlined in this report. Priorities were identified based on several of criteria including: business viability; likely uptake by investors; need to develop a presence in certain areas; and, need for social economic improvement in particular communities.

**Table 36:** Recommended development priorities.

Very High	High	Medium	Low
Mamili West	Mudumu S (Nakatwa)	Mudumu Campsite	Bwabwata Tour Route
Mudumu N (Lianshulu)	Kwando North	Kwando S (Kazile)	
Bwabwata E (Hunting)	Kavango S (Buffalo)	Kwando S (Nambwa)	
Bwabwata W (Hunting)	Bwabwata (Activity)	Mamili East (Activity)	
Kavango (Popa / Whitesands)			
Kavango North			





## 11. Recommended implementation strategy

The report represents a first phase in the detailed tourism planning process. The next steps to move this plan towards implementation include:

- ✓ Present plan to regional staff for Directorate of Parks and Wildlife Management
- ✓ Present the plan to regional stakeholders (especially neighbouring and resident communities)
- ✓ Present plan to the concession committee and MET management
- ✓ MET to approve the plan and confirm development priorities
- ✓ Start implementation of priority concessions as per required interventions presented in the report



## 12. Conclusion

This draft tourism development plan provided an overview of the BMM Parks and its regional context. It also proposed a number of management interventions for improving tourism in the BMM Parks. Among the management interventions include new commercial concessions ranging from high-value lodge operations to relatively low-value activity concessions. This report made certain recommendations regarding the concessioning approach to be used in offering these products to neighbouring communities and the private sector, provides environmental guidelines for each concession, and summarised the possible financial and economic impacts.

It has been concluded that the current level of tourism use and development is well below the potential of the BMM Parks. This report has demonstrated that by improving and expanding the existing six operations (i.e. Bwabwata West-Hunting, Bwabwata East-Hunting, Mudumu North-Lianshulu, Kwando North, Kwando South-Nambwa, Kavango Central-Popa/Whitesands) and creating nine new products (i.e. Mamili West, Mamili East-Activity, Mudumu South-Nakatwa, Mudumu Campsite, Kwando South-Kazile, Kavango North, Kavango South-Buffalo, Bwabwata Tour Route, and Bwabwata Activity) significant financial and economic benefits can be achieved by local communities, private sector and the State.



Annex A: Questionnaires used during market survey

**DATA FORM - ACCOMMODATION**

Date: \_\_\_\_\_ Name of facility: \_\_\_\_\_

Names of owner & manager: \_\_\_\_\_

CHARACTERISTICS	DETAILS
Type of accommodation:	Fixed lodge / tented camp / campsite / mixed
Type of catering:	Catered / self-catered / mixed
Market level:	Camping / Budget / Mid / Up-market
Primary attractions in area:	
Number of:	<ul style="list-style-type: none"> <li>• Rooms / tents:</li> <li>• Beds:</li> <li>• Campsites (plus capacity):</li> </ul>
Average occupancy in last 12 months:	<ul style="list-style-type: none"> <li>• Bed occupancy:</li> <li>• Room occupancy:</li> <li>• Double occupancy:</li> <li>• Campsite occupancy:</li> </ul>
Rack rates for all facilities (incl. VAT):	
Average % discounts / commissions paid to agents / operators:	
Activities on offer (plus price, incl. VAT):	
Average spend pp / pd (non-accommodation, incl. VAT):	
Market mix:	<ul style="list-style-type: none"> <li>• % Local:</li> <li>• % Regional:</li> <li>• % Overseas (specify main overseas market):</li> </ul>

<p><b>Mode of travel:</b></p>	<ul style="list-style-type: none"> <li>• % Fly in:</li> <li>• % Tour groups:</li> <li>• % Self drive – own car:</li> <li>• % Self drive – hired car:</li> <li>• % Overlander:</li> </ul>
<p><b>Niche markets:</b></p>	<ul style="list-style-type: none"> <li>• % business:</li> <li>• % leisure:</li> <li>• % other (special groups, families):</li> </ul>
<p><b>Average length of stay for:</b></p>	<ul style="list-style-type: none"> <li>• Business:</li> <li>• Leisure:</li> <li>• Other:</li> </ul>
<p><b>Average group size for:</b></p>	<ul style="list-style-type: none"> <li>• Business:</li> <li>• Leisure:</li> <li>• Other:</li> </ul>
<p><b>Peak seasons:</b></p>	
<p><b>Names of main tour operators using the facility:</b></p>	
<p><b>Average Net Turnover per month in the last 12 months (excl. VAT and discounts / commissions):</b></p>	<p>Jan _____ Feb _____ Mar _____ Apr _____</p> <p>May _____ Jun _____ Jul _____ Aug _____</p> <p>Sep _____ Oct _____ Nov _____ Dec _____</p> <p>ANNUAL TOTAL: _____</p>
<p><b>Number of employees in:</b></p>	<ul style="list-style-type: none"> <li>• Senior management:</li> <li>• Middle management:</li> <li>• Junior ranks:</li> </ul>

**DATA FORM - TOUR OPERATORS**

Date: \_\_\_\_\_ Time of interview: \_\_\_\_\_ Base: \_\_\_\_\_

Name of company: \_\_\_\_\_ Name of owner / manager: \_\_\_\_\_

QUESTIONS	DETAILS
<p>Do you conduct tours through Hobatere, Etendeka, Palmwag areas?</p>	<p>Yes / No</p> <p>How many per year?</p> <p>Group size?</p> <p>Accommodation type used?</p> <p>Accommodation level used?</p> <p>Stay where?</p> <p>Nights in area?</p>
<p>Do you organise self drive itineraries through the area?</p>	<p>Yes / No</p> <p>How many per year?</p> <p>Group size?</p> <p>Accommodation type used?</p> <p>Accommodation level used?</p> <p>Stay where?</p> <p>Nights in area?</p>
<p>What new tourism developments do you think are needed in the area?</p>	<p>Accommodation:</p> <p>Activities:</p> <p>Attractions:</p>
<p>What would you be willing to pay for:</p>	<p>Activities?</p> <p>Accommodation?</p> <p>Attractions?</p> <p>Entrance fees?</p>

**DATA FORM – INVESTOR**

Date: \_\_\_\_\_ Time of interview: \_\_\_\_\_ Base: \_\_\_\_\_

Name of company: \_\_\_\_\_ Name of owner / manager: \_\_\_\_\_

QUESTIONS	DETAILS
What are your perceptions of the Hobatere / Etendeka / Palmwag areas for tourism development?	
Is your company interested in investing in Hobatere / Etendeka / Palmwag areas?	
If so, which specific areas?	Hobatere / Etendeka / Palmwag
If so, what type of product is needed there?	Accommodation:  Activities:
Scale of product:	Rooms:  Beds:  Activities:
If not, why not?	
Level of investment needed?	Amount:
Minimum concession period needed?	
What other investment conditions would you need?	

## Annex B: Environmental guidelines

Aspect	General Guidelines	Park Specific Guidelines
<b>Pre-Construction Activities</b>		
<b>Partnerships</b>	<ul style="list-style-type: none"> <li>All partnerships between the MET and Developers must be with parties who understand and contribute to the achievement of the Vision, Goals and Policies of the MET.</li> <li>Partnerships must be regulated by a formal contractual agreement which defines the roles, responsibilities, terms and other conditions of operation of any development.</li> <li>The agreement and its outcome must be cost-effective to the MET, who must have the capacity and ability to draft the agreement and manage it for its duration.</li> </ul>	
<b>Development Planning</b>	<ul style="list-style-type: none"> <li>An area having a 'higher conservation or other' status as defined in the Strategic Management Plan and Tourism Plan for the BMM complex does not automatically preclude any activity/development or use; it rather implies higher levels of scrutiny and perhaps specific criteria when undertaking the development/activity or use. These criteria must be set at the planning stage of any development to ensure that the scarce, sensitive and/or unique attributes of an areas are indeed catered for in the planning and design and, if approved, its implementation.</li> <li>EIA's will be required for all developments to account for local conditions.</li> <li>As the park-level management zones may change from year to year, and notwithstanding the broad-level management zone in which the concession falls, all planned tourism developments, including but not limited to activities, roads or infrastructure, must obey detailed biophysical zoning maps and guidelines for the Park.</li> </ul>	<p>In the "very important" biophysical zone:</p> <ul style="list-style-type: none"> <li>There is a greater likelihood that a full EIA will be required. At the least this will include an environmental scoping and EMP. The benefit of placing a development in this zone must be well justified.</li> <li>For any activity or infrastructure, the key elements which have made this area very important must be identified and quantified in the EIA process. Special attention must be placed on the impacts this will have on these attributes. The EIA process will determine the acceptability of the impact against the possible costs and benefits.</li> <li>Use of non-permanent infrastructure is preferred, especially for greenfield sites.</li> <li>Developments should be located on sites that are already impacted. This will also mean a smaller likelihood that a full EIA will be required. Other sites can be used, but this must be well justified.</li> <li>An important principle to be used during the EIA is that tourism should maximise benefits and minimise environmental cost.</li> </ul> <p>In the "important" biophysical zone:</p> <ul style="list-style-type: none"> <li>The likelihood that a full EIA will be required is smaller than in the very important zone, but at least an environmental scoping and a full EMP will be necessary.</li> <li>Use of non-permanent or semi-permanent infrastructure is preferred for these areas, especially for greenfield sites.</li> <li>Infrastructure should ideally be located on sites that are already impacted. Other sites can be used, but this must be well justified.</li> </ul> <p>In the "less important" biophysical zone:</p> <ul style="list-style-type: none"> <li>The likelihood that a full EIA will be required is very small, but at least an environmental scoping and a full EMP will be necessary.</li> <li>There should be few restrictions on the types of structures in such areas.</li> <li>These can be alternative areas in an EIA that may be considering development sites in the two categories above.</li> </ul> <p>In the "special management" biophysical zone:</p> <ul style="list-style-type: none"> <li>No tourism development of any nature should be permitted in such areas.</li> <li>Other infrastructure should only be permitted for site specific management or conservation.</li> <li>Tourism activities may be permitted, but according to site specific guidelines.</li> </ul>



Aspect	General Guidelines	Park Specific Guidelines
<b>Tender and contract documents for construction</b>	<ul style="list-style-type: none"> <li>• EMP requirements are to be included in tender documents sent out to contractors, who will be involved in construction of tourist related infrastructure.</li> <li>• A clause stipulating the requirements of the EMP shall be included in the contract document with the contractor.</li> <li>• Compliance with the requirements of the EMP shall be maintained by MET through regular communication, inspections and audits.</li> </ul>	
<b>Construction Activities</b>		
<b>Site Definition</b>	<ul style="list-style-type: none"> <li>• The site for development must be clearly defined so the assessment can be made within this area.</li> <li>• During construction the site must be well marked, possibly by pegging, so that the limits are clearly understood by all.</li> </ul>	<ul style="list-style-type: none"> <li>• Prior to construction, exact positions of all intended structures to be pegged and passed by ECO/MET</li> <li>• Archaeological phase 1 Screening to precede any construction</li> </ul>
<b>Environmental Management Plan</b>	<ul style="list-style-type: none"> <li>• The EMP should clearly detail what level of disturbance to surrounding areas is permitted and what may be removed or altered (e.g. large trees etc).</li> <li>• Penalties should be determined for violations of the EMP, including off-site impacts and trees or features that may be defaced or destroyed. Irreplaceable and/or critical features must be clearly marked.</li> <li>• The EMP should specify how construction workers are to be accommodated, and what ablation facilities and other waste management are to be allowed.</li> <li>• Give guidelines on use of resources, especially local building supplies. If this is permitted it should be spelt out how such use should be carried out and regulated and whether there should be any fee for it.</li> </ul>	<ul style="list-style-type: none"> <li>• Adequate accommodation and ablation facilities to be provided for workers</li> <li>• Any spring or seepage areas to be fenced off, no activity/encroachment onto this area.</li> <li>• It is possible that there may be chance cultural, historical and/or archaeological finds. A procedure for dealing with these should be detailed in advance. In the event of chance finding of any archaeological artefacts during construction, construction activities must be suspended, the area to be fenced and a competent archaeologist contacted immediately.</li> <li>• Penalties for non-compliance to be included in contracts.</li> </ul>
<b>Visual impact</b>	<ul style="list-style-type: none"> <li>• Requirements for particular architectural style, building materials etc. to reduce visual impact should be included in the initial documentation. This should take into account potential future users of the area.</li> <li>• Visual impact of support services should also be considered.</li> </ul>	<ul style="list-style-type: none"> <li>• Buildings should be kept low in height so as to reduce their visual impacts.</li> <li>• All structures must be constructed to blend in with the environment, the local architectural style and not create high visual impacts.</li> <li>• Subdued lighting to be used.</li> <li>• No constructions to break skyline.</li> <li>• Water, electricity and communication lines should be visually unobtrusive, for example by being buried and/or aligned along roads.</li> </ul>

Aspect	General Guidelines	Park Specific Guidelines
<b>Buildings and Structures</b>	<ul style="list-style-type: none"> <li>• If new structures are to be erected, there may be some restrictions on the types of buildings allowed, including their location within the concession areas.</li> <li>• Environmental guidelines for tourism infrastructure to be developed during park level planning and enforced through concessions. It should be made clear whether fixed structures will be permitted or only temporary structures, and if so how this is defined.</li> <li>• Depending on the zone in which the structure will be built, it may be necessary to be specific on guidelines such as style, height, building material, colour, number of guests and staff, services etc.</li> <li>• These are often highly subjective issues, but they must be limited firstly by environmental and cultural factors (water, sewerage, habitat etc) but also on the visitor carrying capacity for the park and the market niche to be catered for. These issues must be broadly defined in the EMP.</li> </ul>	<ul style="list-style-type: none"> <li>• Where it is practical and feasible the use of old structures or material should be considered for building and/or recycling provided it is cost effective and appropriate to do so;</li> <li>• Where possible old building material should be incorporated into new structures. This will help improve the aesthetic appeal of the area but also hopefully be more efficient from a cost and energy perspective.</li> <li>• Explore possibilities for tourism concessionaires to be made responsible for rehabilitating areas within their activity / development zones.</li> <li>• The extraction of resources for building use will be considered if it is cost effective, environmentally acceptable (as determined by an EIA) and only for use within the BMM Parks; the materials may not be exported beyond the boundaries of the BMM Parks.</li> <li>• Extraction and use of construction materials (sand, gravel etc) to be considered on a case by case basis and be subject to MET policy, prior approval and subsequent rehabilitation.</li> </ul>
<b>Operations Phase</b>		
<b>Roads and Tracks</b>	<ul style="list-style-type: none"> <li>• A new development is likely to require roads and tracks. The road network must reflect the type of product offered and the expected visitor usage. Some of these will be pre-existing, while others may need to be developed. It must be clear who is responsible for maintaining these roads, and if new roads may be constructed, how these will be approved and what type is permitted (single track or built up road). These should all require an EIA that must address the location and the sourcing of any building material from quarries.</li> <li>• The cost implications to the MET must be considered if the MET is to maintain the road network since this cost may escalate with increasing usage.</li> <li>• It should be specified whether 'off-road driving' may be permitted and if so under what circumstances.</li> </ul>	<ul style="list-style-type: none"> <li>• New tracks should be designed to avoid wet areas as much as possible and never be scraped.</li> <li>• Responsibilities for road maintenance to be clearly specified in all MET/Developer agreements.</li> <li>• Any road building material, which is collected in the Park, must have the MET approval and this approval must include an EMP with funds allocated to reclaim the area after each extraction.</li> <li>• Minimum disturbance of soil and use of local material will be preferred in road construction, ensuring minimal environmental and visual impact.</li> <li>• Where possible buildings should be located as close to existing services and major access routes as the product will allow.</li> <li>• No new roads to be constructed before formal management plan in place.</li> <li>• Rivers to be entered and exited using only existing approaches and entrance/exit points.</li> <li>• Where entrance exit points show signs of erosion, measures must be taken to stabilise these.</li> <li>• No driving in any seasonally inundated areas when flooded or moist.</li> <li>• Whenever there is a potential for impeding the free flow of water, sufficient drainage should be allowed through the use of drainage pipes underneath a compacted gravel surface.</li> <li>• Any new traversing routes to avoid sodic areas.</li> <li>• The use of graders, which tend to "gouge" roads below the level of the surrounding surface, to be minimised or avoided.</li> </ul>

Aspect	General Guidelines	Park Specific Guidelines
<b>Electricity / Energy</b>	<ul style="list-style-type: none"> <li>• Depending on the site, it may be necessary to impose limitations on the type of energy source which may be used and on the reticulation to and on the site (for instance whether this can be overhead or should be underground).</li> <li>• This will be dependent on noise, air and fuel pollution from diesel or other power generation systems, the visual impact of the power supply and the costs of these systems. It must be clear who will pay for the power supply.</li> </ul>	<ul style="list-style-type: none"> <li>• Developers are encouraged to use solar and other innovative sources of energy wherever feasible.</li> <li>• Any electricity cable to sites to be underground.</li> <li>• Structures containing fuel, gas and oil must meet national requirements and containment structures must be erected to minimise the effects of leakage and spillages.</li> </ul>
<b>Water</b>	<ul style="list-style-type: none"> <li>• MET must define what may be used by the Developer, both in terms of the quantity and source.</li> <li>• If information is available on water quality and quantity, this should be supplied, but the Developer should conduct tests to verify this before investing.</li> <li>• It should be defined who carries the risk if water dries up or quality deteriorates.</li> <li>• If water resources are to be shared with other users, this will need to be specified, and agreement sought with the other users.</li> </ul>	<ul style="list-style-type: none"> <li>• Tests are needed to ensure sufficient water of acceptable quality is available.</li> <li>• Meters to be installed to measure water use (targets for water use to be set and used as a benchmark).</li> <li>• Meters may need to be fitted, and if so it should be specified at whose cost this will be done, who will read them and what penalties will be applied for overuse.</li> <li>• Use of water efficient water fittings in all facilities to save water and energy costs, as well as water requiring treatment.</li> </ul>
<b>Artificial Water Points</b>	<ul style="list-style-type: none"> <li>• This applies to potential tourism development sites located away from the rivers and riparian zones.</li> <li>• Where artificial water points are used for tourism, biodiversity objectives will be primary and such water points may be decommissioned or left dry in order to promote biodiversity objectives.</li> </ul>	
<b>Communications</b>	<ul style="list-style-type: none"> <li>• Type of communications systems allowed must be specified.</li> <li>• Use of overhead lines, masts and towers must be agreed pre-construction.</li> </ul>	<ul style="list-style-type: none"> <li>• Any masts and towers to be as unobtrusive as possible</li> <li>• Any overhead lines to be located unobtrusively and to consider possible elephant damage.</li> </ul>
<b>Liquid waste and by products</b>	<ul style="list-style-type: none"> <li>• Standards may need to be applied for disposal of sewage and wastewater. These will be dependent on the sensitivity of the area, availability of water, and possibility of ground water contamination.</li> <li>• Sewerage facility design and construction to cater for peak periods with maximum occupancy plus on site staff.</li> <li>• Specific conditions may be applied to storage of liquid fuels/solvents/cleaning materials, and there may be limits on type or quantity or storage and containment structures.</li> <li>• Conditions should be established for the use of toxic products, including a list of any banned and how will they be handled and managed on the site and transported.</li> <li>• Indicate whether there is a policy regarding the use of environment friendly products.</li> <li>• National standards on water extraction and waste water discharge will be adopted to ensure that water courses or water sources are not polluted.</li> <li>• Any toxic substances and the disposal of the empty containers must comply with national regulations and all cleaning and other potentially toxic substances must be approved by MET.</li> </ul>	<ul style="list-style-type: none"> <li>• The close proximity of many developments to wetlands implies that proper treatment and discharge of waste water is critical.</li> <li>• Liquid waste must be processed by the most appropriate system with cognisance taken of practicalities, quantities, availability of water, cost and environmental impact.</li> <li>• The MET and other relevant ministries must approve all liquid waste handling systems, which must comply with national standards and legislation.</li> <li>• Attention must be paid to avoid polluting groundwater, and a programme to monitor this must be implemented, if necessary with the relevant departments.</li> <li>• Grease traps to be installed in kitchens, "grey" water to be used for any landscaped areas (using only regionally indigenous species).</li> <li>• Oil pans to be placed in vehicle parking areas; under and around fuel storage areas; if gas is used, canisters to be housed in Bureau of Standards approved structures; fire extinguishers to be strategically located throughout developed area.</li> <li>• Used oil to be despatched to appropriate waste facility where this oil will be recycled.</li> </ul>

Aspect	General Guidelines	Park Specific Guidelines
<b>Solid Waste</b>	<ul style="list-style-type: none"> <li>• A system for disposal of solid waste is required.</li> <li>• Policy over reduction at source, recycling and sorting.</li> <li>• Storage prior to removal, including specifications and how long it may be stored before it is disposed of in an appropriate site.</li> <li>• Transport of waste. Permitted types of containers and preferred route.</li> <li>• Agreed landfill site to be used.</li> <li>• All new and existing developments must develop an EMP for their waste management.</li> <li>• A waste management plan encompassing all facilities in the BMM Park complex is preferable to waste management plans for individual tourism and park related infrastructure.</li> </ul>	<ul style="list-style-type: none"> <li>• In the long term, park management will strive to remove all waste from parks to formal waste management sites, although bio-degradable waste may be composted where appropriate and environmentally feasible.</li> <li>• Park management must develop an appropriate waste management procedure and all tourism providers and staff in the reserve must comply with it. This procedure must develop the guidelines set out in this Plan and specifically in this section.</li> <li>• Tourism providers and employers of staff living in the Park are responsible for the removal of their own household waste, or that generated by tourists and staff, to approved dump sites designated by management.</li> <li>• Any waste 'storage' facilities must be properly enclosed to prevent wildlife from gaining access or from secondary pollution from wind-blown litter. These facilities must be approved by the MET and may only hold waste for a maximum of 28 days, although this period may be shorter where high volumes accumulate and health issues may arise.</li> <li>• Where practical waste must be sorted for re-cycling.</li> <li>• Waste management must be closely monitored and any infringements must be controlled by the MET.</li> <li>• Transport of waste to storage or dump sites must be in properly constructed vehicles or containers to ensure further littering does not result.</li> <li>• Any toxic substances and the disposal of the empty containers must comply with national regulations and all cleaning and other potentially toxic substances must be approved by the MET.</li> <li>• All non-organic solid waste to be sorted for possible recycling, and removed to registered landfill site.</li> <li>• Organic waste may be buried in suitably designed "animal proof" deep pits-the EIA will need to provide designs for such.</li> </ul>
<b>Carrying capacity</b>	<ul style="list-style-type: none"> <li>• Number of guests and staff permitted to use the area.</li> <li>• Determination of carrying capacity is often highly subjective, if it is not clearly defined by environmental constraints.</li> </ul>	<ul style="list-style-type: none"> <li>• Broad adherence to zonation guidelines and current tourism planning report.</li> </ul>
<b>Fauna and flora</b>	<ul style="list-style-type: none"> <li>• If there are any rare, endangered or endemic species or habitats that require special attention, conditions to safeguard these organisms or habitats must be listed specifically in the EIA.</li> <li>• Responsibility for dealing with problem animals, especially those presenting a risk to visitors, should be specified.</li> <li>• If capture, culling or hunting of wildlife may be carried out in the area it is important to bring this to the attention of the Developer and include it in the contract.</li> </ul>	<ul style="list-style-type: none"> <li>• Special attention to habitats with sodic soils (erosion risk minimisation); river entrance and exit points; seepage areas; through proper initial location of tourism infrastructure and ongoing monitoring.</li> <li>• MET to deal with any problem animal cases.</li> </ul>

Aspect	General Guidelines	Park Specific Guidelines
<b>Landscaping and gardening</b>	<ul style="list-style-type: none"> <li>Species not permitted and any restrictions in this regard.</li> <li>Specific issues relating to landscaping (water features etc).</li> <li>Use of pesticides, herbicides and fertilizers.</li> </ul>	<ul style="list-style-type: none"> <li>Only local indigenous flora to be used (other than any small areas of lawn that may be required e.g. around pool).</li> <li>Use of fertilisers to be kept to a minimum; only pyrethroid or similar organic-based pesticides to be used if absolutely essential.</li> </ul>
<b>Permitted Activities</b>	<ul style="list-style-type: none"> <li>Provide a list of permitted activities with definite restrictions if necessary, for example, no off-road driving, no power boats etc.</li> <li>Detail what may be done, such as hunting, fishing, walking, aircraft safaris etc.</li> </ul>	<ul style="list-style-type: none"> <li>No off road driving</li> <li>River crossings to be used using current track network and current entry and exit points.</li> <li>Other activities to be defined in lease per agreement between Developer and MET.</li> <li>Boat wake damage to African skimmer and Carmine Bee-eater nests to be monitored and controlled where necessary.</li> <li>The MET must ensure that a system of controlling tourism related infringements is implemented which can be effectively managed.</li> </ul>
<b>Archaeological/ cultural and historical</b>	<ul style="list-style-type: none"> <li>Policy if chance find is encountered, to be included in the EMP for each potential site.</li> <li>Any relevant legislation to be brought to the attention of the Developer.</li> </ul>	
<b>Signage</b>	<ul style="list-style-type: none"> <li>How will the concessionaire provide directions to the site?</li> <li>Restrictions on type, colour, logos of signage.</li> </ul>	<ul style="list-style-type: none"> <li>Signage according to current Road and Transport regulations as regards size, colour, location.</li> </ul>
<b>Fires</b>	<ul style="list-style-type: none"> <li>Is fire management likely to impact on the Developer?</li> <li>Precautions to be taken by the Developer.</li> <li>Measure for protecting property and life, including firebreaks, and responsibility for maintenance.</li> <li>The need for insurance of buildings.</li> </ul>	<ul style="list-style-type: none"> <li>Adequate firebreaks to be made and maintained around all constructions.</li> <li>Wildfires to be left alone by Developer staff unless life or property is under direct threat.</li> <li>Cognisance must be taken of tourism needs and the impact fires may have in certain areas on the tourism use and enjoyment of the area.</li> </ul>
<b>Aircraft and airstrips</b>	<ul style="list-style-type: none"> <li>Are these permitted? If so under what conditions?</li> <li>Construction of strip, approach and take-off, other tourist interference, aerial safaris.</li> <li>Special species in flight paths.</li> </ul>	<ul style="list-style-type: none"> <li>New airstrips to be kept to a minimum and be required to do a full EIA before these would be permitted.</li> <li>This may require a specific operating procedure which may limit hours of access and impose other conditions.</li> <li>The 'no flying' restriction below 1000m will still generally apply over the Park although there may be designated corridors for approved landings.</li> <li>No low level aerial safaris will be permitted without written approval.</li> </ul>
<b>Resource use</b>	<ul style="list-style-type: none"> <li>May local materials be used for any purpose? If so under what conditions and restrictions, and is any payment required?</li> <li>Is hunting or fishing allowed? Does it take place in the park currently? Are other users permitted to undertake these activities? Will they impact on the Developer?</li> </ul>	<ul style="list-style-type: none"> <li>Local materials (rock, grass, and wood) may be used for construction under supervision and within limits defined during site-specific EIA's.</li> <li>No firewood collection; firewood to be bought in from reputable source.</li> <li>Agreement to define any hunting or fishing details</li> </ul>
<b>Guest activities, staff safety and accommodation</b>	<ul style="list-style-type: none"> <li>Emergency procedures, including any special conditions people must be made aware of (heat, dehydration, dangerous game etc).</li> <li>Staff accommodation, location and standards. Special protection measures such as fencing.</li> <li>Requirement for Developer to enforce park rules on guests and staff.</li> <li>Any guiding standards or qualifications required, minimum requirements for vehicles or buildings to meet special requirements etc.</li> </ul>	<ul style="list-style-type: none"> <li>Rules to be specified in agreements.</li> <li>Fire extinguishers to be located within all structures and serviced regularly.</li> </ul>

<b>Aspect</b>	<b>General Guidelines</b>	<b>Park Specific Guidelines</b>
<b>Supervision and monitoring</b>	<ul style="list-style-type: none"> <li>• Who will do this, and who is responsible for what?</li> <li>• Are regular meetings required?</li> <li>• How will the Developer be managed?</li> <li>• If there are other Developers it may be useful to create a forum to agree jointly on operations?</li> <li>• Code of conduct and site development manual.</li> </ul>	<ul style="list-style-type: none"> <li>• MET to monitor and enforce all rules and guidelines</li> <li>• MET to carry out monitoring as per the EMP emanating from the site-specific EIA process</li> <li>• Independent expert to conduct annual compliance audit (to be paid for by the Developers).</li> <li>• Responsibility for the maintenance of the accommodation facilities and their support infrastructure (water, sewerage, electricity etc) will be the responsibility of the facilities operator. The standards for these must be agreed to, monitored and controlled by the MET.</li> <li>• Visitor densities within any area can impact on the visitor's enjoyment of an area or experience. If visitor densities increase MET may impose restrictions, even if only seasonally, on the number of users.</li> </ul>

## Annex C: Environmental Management Plan Template

Aspect	Task or Requirement	Responsibility	Due Date
<b>PRE-CONSTRUCTION PHASE</b>			
<ul style="list-style-type: none"> <li>• Flooding</li> <li>• Disruption of local hydrology</li> </ul>	<ul style="list-style-type: none"> <li>• A pre site inspection must assess any risks; no construction within any defined wetlands or within 1:100 year floodline.</li> </ul>		
<ul style="list-style-type: none"> <li>• Soil erosion</li> <li>• Soil compaction</li> </ul>	<ul style="list-style-type: none"> <li>• No construction or activities (including roads/tracks) within areas containing highly erodible dispersed, fine-particle, sodic etc soils.</li> </ul>		
<ul style="list-style-type: none"> <li>• Damage to vegetation</li> <li>• Protected species</li> </ul>	<ul style="list-style-type: none"> <li>• Presence of protected, rare or endangered plant species requires approved conservation/recovery plan, or such sites preferably to be avoided.</li> <li>• Avoid any sites with nests, burrows, dens etc of protected species.</li> </ul>		
<ul style="list-style-type: none"> <li>• Visual Impact</li> </ul>	<ul style="list-style-type: none"> <li>• Large catchments with low visual absorption capacities require sensitive location and construction of facilities, or avoidance.</li> </ul>		
<ul style="list-style-type: none"> <li>• Archaeology</li> </ul>	<ul style="list-style-type: none"> <li>• A first-phase archaeological scoping by a qualified archaeologist must precede any construction activities.</li> </ul>		
<b>CONSTRUCTION PHASE</b>			
<ul style="list-style-type: none"> <li>• Soil erosion</li> </ul>	<ul style="list-style-type: none"> <li>• All necessary measures should be taken to limit soil erosion and construction guidelines should be adhered to at all times.</li> <li>• It is important that adequate measures are taken to prevent water runoff from concentrating in any one area and to prevent the compaction of soil through excessive heavy vehicle movements or destruction of protective vegetation.</li> </ul>		
<b>Vegetation</b>			
<ul style="list-style-type: none"> <li>• Protection of vegetation</li> </ul>	<ul style="list-style-type: none"> <li>• Adhere to construction guidelines and ensure that only permitted access roads and paths are used by construction workers and vehicles at all times.</li> <li>• Special attention to any protected, endemic, rare or endangered species.</li> </ul>		
<ul style="list-style-type: none"> <li>• Alien invasives</li> </ul>	<ul style="list-style-type: none"> <li>• Landscaping will be negligible and no exotics or plants that do not occur locally will be planted.</li> </ul>		
<b>Sewage and Waste Water</b>			
<ul style="list-style-type: none"> <li>• Ecological impact</li> <li>• Odours</li> </ul>	<ul style="list-style-type: none"> <li>• Sewerage facility design and construction to cater for peak periods with maximum occupancy plus on site staff.</li> <li>• All facilities must be located a minimum of 50m from any water body or source.</li> <li>• Fat/grease traps to be installed at kitchen outlets.</li> <li>• Adequate temporary ablutions to be provided for workers.</li> </ul>		
<b>Energy</b>			
<ul style="list-style-type: none"> <li>• Energy efficiency</li> <li>• Generator</li> </ul>	<ul style="list-style-type: none"> <li>• Maximum use of solar energy, gas</li> <li>• Energy saving measures (lights, etc).</li> <li>• Efficient, modern, silenced generator only.</li> </ul>		
<b>Building Materials</b>			
<ul style="list-style-type: none"> <li>• Soil and other contamination</li> </ul>	<ul style="list-style-type: none"> <li>• The mixing and use of concrete and cement must be carefully managed so as not to contaminate the sites in any way.</li> </ul>		



Aspect	Task or Requirement	Responsibility	Due Date
<ul style="list-style-type: none"> <li>• Soil erosion</li> <li>• Surface runoff</li> </ul>	<ul style="list-style-type: none"> <li>• Any gravel or stone that may be required for building purposes (including roads) will be obtained from environmentally acceptable and permitted sources and quarries may not be dug without formal registration/ permission.</li> </ul>		
<b>Fire</b>			
<ul style="list-style-type: none"> <li>• Human and animal safety</li> <li>• Ecological</li> </ul>	<ul style="list-style-type: none"> <li>• All normal safety precautions will be taken during the construction phase.</li> </ul>		
<b>Archaeology</b>	<ul style="list-style-type: none"> <li>• Should any archaeological artefacts be found during construction, archaeologist to be consulted for further advice?</li> </ul>		
<b>Construction Plan</b>			
<ul style="list-style-type: none"> <li>• Mitigation of construction impacts</li> </ul>	<p>The sequencing of construction events is an important part of managing any potentially negative impacts arising from the construction phase:</p> <ul style="list-style-type: none"> <li>• The site boundaries should be demarcated and movement of construction crew must be within these at all times.</li> <li>• A suitably positioned stock piling and mixing area should be chosen and demarcated. This should ideally be located in an area that is already transformed or disturbed.</li> <li>• Access routes from the stockpiling areas to the building sites should be demarcated and used. Existing roads should be used for these purposes.</li> <li>• Once all construction work has been completed then the site should be suitably rehabilitated.</li> </ul>		
<b>Construction Guidelines</b>			
<ul style="list-style-type: none"> <li>• Mitigation of construction impacts.</li> </ul>	<ul style="list-style-type: none"> <li>• The contractor and his employees shall adhere to any rules and regulations that the MET may prescribe at all times.</li> <li>• The contractor must ensure the proper supervision of employees at all times and their abidance to any rules and regulations.</li> <li>• Access to the site must be restricted to contractors employees only.</li> <li>• All employees must be educated to the need to refrain from the destruction of plants and animals, as well as from indiscriminate defecation, waste disposal and or pollution of soil and water resources.</li> <li>• All mixing of cement and other materials should be done in such a way that it is properly contained and that contaminated water may not run off into the area.</li> <li>• The building envelope shall be demarcated to ensure that building activities are contained within its perimeter and that no undue environmental damage or disturbance occurs outside of this perimeter.</li> <li>• The contractor is to take all precautions to prevent the outbreak and spreading of fires and is to ensure all his employees are aware of the necessary precautions.</li> <li>• All earthworks, berms, channels, spoil and borrow areas are to be worked in such a way as to minimise the possibility of erosion.</li> <li>• Any water pipes shall be routed so as to minimise the disturbance to vegetation and minimise the chance of erosion.</li> </ul>		

Aspect	Task or Requirement	Responsibility	Due Date
<ul style="list-style-type: none"> <li>• Mitigation of construction impacts</li> </ul>	<ul style="list-style-type: none"> <li>• The contractor will provide a suitable, animal proof receptacle to contain all, daily refuse. Refuse will be disposed of regularly at a suitable designated location and in an environmentally appropriate manner.</li> <li>• The contractor will ensure that all equipment is in good working order and will not contaminate soil or water resources with diesel, petrol, oil or any other foreign substances.</li> <li>• All building materials will be stockpiled in designated areas within the building envelope.</li> <li>• All building rubble is to be removed from the area and disposed of in a suitable and legal location in an environmentally acceptable manner.</li> <li>• The contractor shall ensure that all vehicles stick to designated roads at all times.</li> <li>• The greater area around building sites should be searched for snares during and after the construction phase is complete.</li> </ul>		

### OPERATIONAL PHASE

#### Vegetation

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| <ul style="list-style-type: none"> <li>• Alien invasives</li> <li>• Use of plants, firewood</li> </ul> | <ul style="list-style-type: none"> <li>• The area will be kept free of any alien vegetation that may inadvertently be introduced.</li> <li>• No picking of plants, collection of firewood or any other damage permitted.</li> </ul> |
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#### Fauna

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|---|--|
| <ul style="list-style-type: none"> <li>• Interaction with wildlife</li> </ul> | <ul style="list-style-type: none"> <li>• Guests should still be sensitised to the need to be aware of wildlife and of the appropriate way to interact with wildlife.</li> <li>• Trained guides to escort guests at all times, no self-drive or walking other than in accepted designated areas</li> <li>• Adherence to any special requirements including adherence to accepted rhino-viewing protocols</li> </ul> |
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#### Water

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| <ul style="list-style-type: none"> <li>• Water conservation</li> <li>• Water pollution and toxic effects</li> </ul> | <ul style="list-style-type: none"> <li>• Water conservation must be actively promoted, including installation of meters, low-flow showerheads etc.</li> <li>• The use of biodegradable and eco-friendly soaps and detergents should be encouraged.</li> </ul> |
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#### Waste

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| <ul style="list-style-type: none"> <li>• Soil and water pollution</li> <li>• Health</li> <li>• Animal safety</li> </ul> | <ul style="list-style-type: none"> <li>• All waste bins will be covered and secured. If a central waste collection depot is needed, this area should be fenced and secured and it should have a concrete floor to ensure that it can be suitably maintained and no ground seepage will occur.</li> <li>• If possible and appropriate, glass will be stored on site in suitable containers until there is sufficient to be transported for recycling.</li> <li>• If possible and appropriate, tins, cans and foil will be stored on site in suitable containers until there is sufficient to be transported for recycling.</li> <li>• If possible and appropriate, plastics will be stored on site in suitable containers until there is sufficient to be transported for recycling.</li> <li>• If possible and appropriate, paper and cardboard may be stored on site in suitable containers until there is sufficient to be transported for recycling.</li> <li>• All waste that cannot be recycled or sold must be disposed of at a permitted waste site; organic waste may be deep-buried; limited amounts of packaging may be incinerated in an approved (Bureau of Standards) incinerator.</li> </ul> |
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Aspect	Task or Requirement	Responsibility	Due Date
<b>Sewage</b>			
<ul style="list-style-type: none"> <li>• Soil and water pollution</li> <li>• Health and Safety</li> </ul>	<ul style="list-style-type: none"> <li>• Septic tanks and soak-aways MUST be adequate for peak periods, properly installed and maintained.</li> <li>• Regular monitoring of water for E coli contamination is required.</li> </ul>		
<b>Energy</b>			
<ul style="list-style-type: none"> <li>• Energy efficiency and metering</li> </ul>	<ul style="list-style-type: none"> <li>• Energy use to be metered, benchmarked and efficiency striven for.</li> </ul>		
<b>Fire</b>			
<ul style="list-style-type: none"> <li>• Danger to human and animal life</li> </ul>	<ul style="list-style-type: none"> <li>• Fire extinguishers to be installed and maintained, all normal safety precautions will be taken during the operational phase.</li> </ul>		
<b>DECOMMISSIONING PHASE</b>			
<b>Buildings and Equipment</b>			
<ul style="list-style-type: none"> <li>• Human and animal safety</li> <li>• Soil and water pollution</li> <li>• Visual and aesthetic impacts</li> </ul>	<ul style="list-style-type: none"> <li>• All structures will be completely removed to the satisfaction of MET.</li> <li>• Construction guidelines will apply during this phase to ensure that this phase of operations is properly managed and limited environmental impact results.</li> <li>• In the case of sewage systems, septic tanks will need to be drained and removed and the area (including the soak-away) will need to be filled, preferably with rubble or with fill from an environmentally acceptable source.</li> </ul>		
<b>Vegetation</b>			
<ul style="list-style-type: none"> <li>• Soil erosion</li> <li>• Alien plant invasion</li> </ul>	<ul style="list-style-type: none"> <li>• The site will be suitably re-vegetated or if this is not appropriate then it will be covered with scrub to ensure that soil erosion does not result and to provide protection for reseeded vegetation.</li> <li>• Follow ups will be done to ensure that alien or invasive plants and weeds have not flourished.</li> </ul>		