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The Permanent Okavango River Basin Water Commission

Transboundary Diagnostic Analysis of the Okavango River Basin

The Status of Tourism Development in the Okavango Delta, Botswana

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*Environmental protection and sustainable management
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Executive Summary

This report provides a description of the current status of tourism development in the Okavango Delta, Botswana. The report is guided by the following objectives:

- Examine how national policies and plans will affect future development of tourism in the Okavango Delta.
- Review literature on the different type of tourism activities dependent on water resources.
- Carry out a trend analysis of the number of different types of tourists visiting the Okavango Delta.
- Examine the impact of tourism development in the Okavango Delta on livelihoods.
- Review the level of development of tourism infrastructure within the Okavango Delta.

National Policies and programmes which were analyzed in this report and are considered key to the development of tourism in the Okavango Delta include the following: The Tourism Policy of 1990 (under revision); CBNRM Policy of 2007; Ecotourism Strategy of 2002; Wildlife Conservation Policy of 1986 (under revision); Okavango Delta Management Plan; and the Ngamiland Tourism Development Plan. Analyses of the above documents indicate that the major goal of the Botswana Government is to expand tourism revenue in the Okavango Delta. This means tourist numbers, tourist activities and tourism infrastructure such as lodges and hotels are bound to increase. The increase of tourism development in the Okavango Delta is thus bound to have socio-cultural, economic and environmental impacts in the wetland. The report further notes that tourism in the Okavango Delta is characterized by both non-consumptive and consumptive activities. Consumptive tourism activities are mainly safari hunting while some of the non-consumptive activities include the following: bird watching; game viewing; mokoro safaris; sex tourism; fishing; horse riding; crafts; walking trails; and, hot air balloon

Tourism activities described above define the kinds of tourists that visit the Okavango Delta. The report list the kind of tourists that visit the Okavango Delta to include the following: ecotourists; business people; study tourists; family and friends tourists; wildlife-based tourists (with the different price preferences); safari hunting and leisure tourists. Between 1994/5 and 2007, tourist numbers have been on the increase in Botswana and in the Okavango Delta. Tourist infrastructure such as roads, airstrips, lodges and campsites have also been on the increase. Maun International Airport has been expanded twice in the same period to accommodate bigger aircrafts and higher tourist numbers.

The expansion of tourism development in the Okavango Delta impacts on neighboring countries such as Namibia. For example, the Okavango region is one of the areas affected by HIV/AIDS, while there is no evidence that the spread of HIV/AIDS in the Okavango is related to cross border travelling, such a possibility cannot be ruled out.

This report has also shown that the expansion of tourism in the Okavango Delta has resulted in positive impacts rural livelihoods. For example, communities such as Sankoyo, Mababe and Khwai Villages are involved in Community-Based Natural Resource Management projects. Such projects are largely tourism based and have led to the creation of employment opportunities, income generation, and the provision of social services such as sponsorship to school children, funeral

insurances, construction of house for the needy and orphans, household dividends, provision of transport and provision of water reticulation in households.

Finally, this report indicates that in order to achieve the sustainable tourism management of the Okavango Delta, the Botswana Government has come up with the Ngamiland Tourism Development Plan. This Plan provides for zonation of the Okavango Delta where different tourism activities will be carried out e.g. Maun is planned for mass tourism while Moremi Game Reserve which in the inner and most sensitive parts of the Okavango Delta is being having tourist numbers in the area controlled through the Limits of Acceptable Change approach.

1. Introduction

Wildlife and – to a lesser extent – wilderness, are Botswana's biggest tourist products for holiday makers. Wildlife-based tourism in Botswana is carried out in national parks and game reserves. Most of these protected areas are located in the northern parts of the country in areas such as the Okavango Delta and Chobe region. The Transboundary Diagnostic Analysis (TDA)-tourism component study is carried out at a time when international tourism in wilderness areas considered “unspoilt and pristine” in developing countries is on the increase particularly in the last 30 years. The Okavango Delta is one such international nature-based destination in Africa. The Okavango Delta is largely known for its rich natural resources such as forests, wildlife, water, birds, reptiles and many others. The availability of permanent water resources in the Delta is critical for the survival of these species. In the past five years, more than a quarter of a million tourists experienced the incomparable beauty of the Okavango Delta, almost double the number of the previous five years. Growth not only in tourist numbers but also in facilities, infrastructure, aircraft operations, and tourism services have led to a booming tourist economy built around what is perceived internationally as a “new” and “exotic” destination.

Tourism growth and development in the Okavango Delta should not be studied in isolation of other land use activities in the Okavango River Basin. The Okavango River Basin covers countries of Angola, Namibia and Botswana. In addition, tourism development in the Okavango Delta should take cognizant of the fact that negative socio-cultural, economic and environmental impacts if not mitigated can destroy the tourism in the wetland. As a result, tourism development in the Okavango Delta should aim at achieving sustainability. It should also be noted that while tourism development continues to grow in the Okavango Delta, there is likelihood that the environment can be negatively affected, resulting in the reduction of flood levels in the Okavango Rivers especially in the upstream. As a result, there is need for baseline data on tourism development in the Okavango Delta. This data is necessary if scenarios on potential future threats to tourism development in the Okavango Delta are to be successfully made with some degree of accuracy. The TDA study is therefore well situated to provide baseline information in order to make future projections on the impacts of flooding in the Okavango Delta.

2. Objectives of the Study

- Examine how national policies and plans will affect future development of tourism in the Okavango Delta.
- Review literature on the different type of tourism activities dependent on water resources.
- Carry out a trend analysis of the number of different types of tourists visiting the Okavango Delta.
- Examine the impact of tourism development in the Okavango Delta on livelihoods.
- Review the level of development of tourism infrastructure within the Okavango Delta.

3. National Policies and Plans

There are several policies and development plans that are likely to affect the development of tourism in the Okavango Delta. These include the following:

- The Tourism Policy of 1990 (under review)
- The Wildlife Conservation Policy of 1986 (under review)
- The Community Based Natural Resource Management Policy of 2007
- National Ecotourism Strategy of 2002
- Ngamiland Tourism Development Plan Of 2007

3.1 The Tourism Policy of 1990

The key policy in the promotion of tourism in Botswana and the Okavango Delta in particular is the Tourism Policy of 1990. The policy describes tourism as the new “engine of growth” of which the main aim is to diversify the country’s economy from reliance on diamond mining through the promotion of tourism (GoB, 1990). Some of the specific objectives of the policy include the following:

- To increase foreign exchange earnings and government revenue.
- To generate employment, mainly in rural areas.
- To raise incomes in rural areas in order to reduce urban drift.
- To promote rural development and stimulate the provision of the services in remote areas of the country.

The Tourism Policy also emphasis the need for increased local participation in the tourism industry. It acknowledges the need for diversification of the tourism product to lessen concentration in the well attractions in the northern part of the country such as the Okavango Delta and the Chobe National Park. The Tourism Policy is currently under review. It is assumed that the review will expand tourism development in the Okavango Delta. The future impacts of the reviewed Tourism Policy in the Okavango Delta are that tourism activities, infrastructure development and tourist numbers will increase. As a result, increase pressure on natural resources will result in environmental impacts, if not managed, this can be degrading the wetland. The other scenario is that if flooding levels in particular parts of the Okavango Delta changes (e.g. decrease) either through the natural process or through human interference in the upstream (e.g. Namibia or Angola), there is likelihood that tourism development in the wetland will be affected. For example, during high flooding patterns, roads become impassable and self-drive tourists are unable to drive. As a result, gate takings at Moremi Game Reserve will do down. In addition, tourism companies that rely on self-drive tourism will have their business go down. When dry, the tourism business in the Okavango Delta is also likely to go down mainly because tourists get attracted to the Okavango Delta because of the permanent water resources which attracts wildlife and beautiful forests (refer to Flooding patterns report of the Eflows study for more details on flooding and tourism business).

3.2 The Wildlife Conservation Policy of 1986

The Wildlife Conservation Policy of 1986 is frequently seen as the blue-print for the re-introduction of community involvement in wildlife conservation through the implementation of Community Based Natural Resource Management Projects

(CBNRMP). The Wildlife Conservation Policy is the precursor of virtually all the changes in wildlife conservation currently being carried out. The Wildlife Conservation Policy was designed to promote economic development of rural areas through the implementation of tourism projects. The policy recognizes the potential value of both consumptive and non-consumptive use of Botswana's wildlife resources by the people living in wildlife areas. The overall aims and objectives of the Wildlife Conservation Policy are:

- To develop a commercial wildlife industry in order to create economic opportunities, jobs and incomes for the rural population and to enable more rural communities to enter the modern wage economy. This is hoped to reduce the number of rural people relying on subsistence hunting.
- To implement rational and effective conservation and management programs that will ensure that wildlife is utilized on sustainable basis.
- To obtain good economic return on the land allocated for wildlife utilization.

Through the Wildlife Conservation Policy of 1986, land in wildlife areas was sub-divided into land zones known as Controlled Hunting Areas (CHAs). CHAs are administrative blocks or land units used by the DWNP to allocate wildlife quotas to local communities for tourism purposes. After allocation of a CHA, a community decides on the type of land use for that particular area, that is, either for hunting or photographic purposes. From communities that use their CHAs for safari hunting, most of them sub-lease them to safari hunting companies who have such knowledge and skills. Most of these companies are international companies mostly coming from developed countries. That government policies and the zoning of the Okavango into CHAs for community-based tourism purposes indicates a partial return of land and its resources to local communities as they were disposed of such resources a century ago when Botswana came under British colonial rule. Access to land for community-based safari hunting purposes is therefore an empowerment to local people and has the potential of improving rural livelihoods and sustainable wildlife resource use in the Okavango Delta.

3.3 The CBNRM Policy of 2007

The CBNRM Policy of 2007 recognizes that "rural livelihoods in Botswana are today less dependent on arable and livestock farming-based agriculture than in the past... 47% of all households cannot meet their basic needs" (Ministry of Environment, Wildlife & Tourism, 2007: 1). As a result, of this limitation by agricultural development, government aims at diversifying the rural economy through natural resource development in order to fight against rural poverty and sustain livelihoods. The Government of Botswana also recognizes that "people who live closet to natural resources generally absorb the greatest costs associated with their conservation. Given proper awareness and incentives, they are most likely to successfully benefit from and conserve such natural resources within their environs. For communities to actively engage in natural resource conservation, the benefits from such resources must exceed the costs of conservation. CBNRM aims to achieve this by offering eligible communities opportunities to earn tangible benefits from sustainable natural resources management" (Ministry of Environment, Wildlife & Tourism, 2007:1). This therefore shows that government is aware of problems of poverty in rural areas and that natural resources found around these communities as is the case in the Okavango Delta can be used as a diversification tool to achieve sustained livelihoods through CBNRM tourism enterprises.

The CBNRM Policy of 2007 was also adopted on the background that “CBNRM across the country is taking place without the guidance of a formal policy. As a result the dynamics of power relationships and personal interests in some communities has jeopardized the welfare of the wider community. Inappropriate financial management practices have prejudiced the well being of some communities. Although numerous private enterprises and Community Based Organizations (CBO) have established mutually beneficial partnerships, in most cases the private sector partner purchases a community’s wildlife quota without actively involving the community in the management of the business” (Ministry of Environment, Wildlife & Tourism, 2007: 1-2). Because of this problem, the adoption of the CBNRM Policy was among other issues “intended to guide and facilitate the strengthening of, and support to, existing and future CBNRM activities. The policy needed to safeguard the interest of communities in natural resources management and to attract investment in natural resources based enterprises. CBO management practices require regulation for more equitable community benefit sharing. The policy pursues community-private sector partnerships in which communities assume responsibility for business cooperation and adequately manage such partnerships for the benefit of all community members” (Ministry of Environment, Wildlife & Tourism, 2007: 2). Based on these goals, specific objectives of the CBNRM Policy can be summarized as follows:

- To provide guidance on CBNRM implementation on communal and state-owned land, except within such specifically excluded areas as officially gazette protected areas, forest reserves, national parks and game reserves.
- To give communities incentives to engage in conservation activities leading to sustainable development and poverty reduction.
- To establish an institutional, regulatory and participatory framework for the implementation of CBNRM; and
- To promote and ensure a responsible, accountable and transparent decision making process in CBNRM.

3.4 The Botswana National Ecotourism Strategy of 2002

The goal of the National Ecotourism Strategy (NES) is to create an environment in which *all* elements of tourism development planning and management facilitate, promote and *reward* adherence to the key ‘principles’ of ecotourism by all of those involved in the tourism industry. There are five main principles which have come to guide ecotourism development in Botswana, these include the following:

- Minimising negative social, cultural and environmental impacts.
- Maximising the involvement in, and the equitable distribution of economic benefits to, host communities and citizen entrepreneurs.
- Maximising revenues for re-investment in conservation.
- Educating both visitors and local people as to the importance of conserving natural and cultural resources.

- Delivering a quality experience for tourists (without which tourists will not continue to visit, and so the benefits to conservation and development will not be sustained).

The NES promotes community-based tourism development in Botswana using any nature based product that can be sold in the tourism market. The Okavango Delta is endowed with a variety of natural resources. As a result, if the various communities in the Okavango Delta are to benefit from tourism development in their local environment as the NES envisages, there is bound to be increased pressure in the use of natural resources in the wetland.

3.5 *Ngamiland Tourism Development Plan of 2007*

The vision of the Ngamiland Tourism Development Plan of 2007 is to strive for the development of a world class nature-based tourism destination that is economically sustainable and optimizes benefits to local communities and the nation within agreed limits of acceptable. In its development of tourism in the Okavango Delta, the Ngamiland Tourism Development Plan is guided by the following ideals:

- Develop and promote Maun as the gateway to the Okavango Delta.
- Develop a tourism gateway business centre at Maun Airport. This centre links the airport to the commercial area to the main road to north into a specifically identified and zoned tourism development node within Maun. A full range of tourism related economic, retail, service, travel, hospitality and restaurant facilities would be provided.
- Broaden the permissible configuration of tourist lodges in the Okavango Delta. This concept challenges the current regulation limiting the number of tourist beds in a concession to 24 beds. It also promotes a range of different configurations of accommodation facilities permissible with a defined tourism development node or nodes in concession areas. The number of permissible tourist facilities is dependent upon the defined, mapped tourism resources within the concession area.
- Close part of Moremi Game Reserve to self-drive tourists. The concept of closing part of Moremi Game Reserve to self-drive tourists is to create opportunities for the provision of less sophisticated tourism products that may be provided by emerging, local tourism operators. These products include safari operating through the provision of safari vehicles and guides, game guides, non-permanent fly camps at certain locations within the reserve, hospitality products at north and south gates to Moremi Game Reserve.
- Establish a development zone on the eastern side of Moremi Game Reserve that provides an appropriate range of experiences and facilities appropriate for the self-drive tourist market that provide optimal benefits to local host communities.

- Establish a new national tourism asset in the form of Tsodilo National Park based on the San art and culture.
- Establish a new tour route on the periphery of the Okavango Delta aimed at the overseas coach market-the Three Countries Triangular Tour Route.

The above tourism development ideals of the Ngamiland Tourism Development Plan indicate government intentions to develop tourism to its maximum in the Okavango Delta. Through this approach, no piece of land will be left unutilised in the Okavango Delta. This shows that if the Plan is to be effectively and successfully implemented, it will increase tourism activities in the Okavango Delta.

3.6 Okavango Delta Management Plan

The Okavango Delta Management Plan (ODMP) is the Government of Botswana's initiative through the support of German, Swedish and Danish governmental agencies such as German Development Service (DED), Swedish International Development Agency (SIDA) and Danish Development Agencies (DANIDA) respectively in developing a management plan for the Okavango Delta. The overall objective of the ODMP is to carefully manage a well functioning ecosystem of the Delta in a manner that ensures equitable and sustainable utilisation, which will provide benefits to the local, national as well as international stakeholders.

The overall Goal of the ODMP is made up of three Strategic Goals, each with several Strategic Objectives as outlined below:

Strategic Goal 1. To establish viable institutional arrangements to support integrated resource management in the Okavango Delta.

- Strategic Objective 1.1: To establish viable management institutions for the sustainable management of the Okavango Delta.*
- Strategic Objective 1.2: To improve the planning and regulatory framework for sustainable management of the Okavango Delta*
- Strategic Objective 1.3: To raise public awareness, enhance knowledge and create a platform for information exchange and learning about the Okavango Delta.*

Strategic Goal 2: To ensure the long-term conservation of the Okavango Delta and the provision of existing ecosystem services;

- Strategic Objective 2.1: To conserve the ecological character (biotic and abiotic functions) of the Okavango Delta, and the interactions between them;*
- Strategic Objective 2.2: To maintain or restore the wetland habitats and ecosystems of Okavango Delta.*

Strategic Goal 3. To sustainably use the natural resources of the OD in an equitable way and support the livelihoods of all stakeholders:

- i) Strategic Objective 3.1 : *To sustainably use the natural resources of the OD for the long term benefit of all stakeholders;*
- ii) Strategic objective 3.2: *To develop socio-economic opportunities to improve livelihoods of the OD stakeholders.*

The development of ODMP therefore will go a long way in ensuring integration of resource management and long-term conservation as well as provision of benefits of the present and future well-being of the people, through sustainable use of its natural resources.

3.7 Maun Development Plan (1997 – 2021)

Maun has in the last two decades become popular with tourism development. The tourism industry represents the most important part of the Maun local economy. While this is the case, Maun and its surrounding areas lack the attraction to benefit from, and acts predominately as a gateway or visits' transit to the Okavango Delta (Ministry of Lands & Housing, 2008). Maun has also grown in terms of human population (CSO, 2002) and infrastructure development to support the tourism industry (Mbaiwa, 2002). Because of these developments in the last two decades, a spatial development plan for Maun has been developed, some of the key spatial development objectives of Maun include the following:

- a) To transform Maun into a compact, vibrant and sustainable town.
- b) To strengthen the Maun tourism product. That is, to develop Maun as a “must see town” for both the international and domestic tourist markets where people will want to come and stay.
- c) To support development of a high level educational and research centre and knowledge based economy.
- d) To expand and sustain a prosperous Maun core area.
- e) To provide high quality transport infrastructure.
- f) To maintain and enhance an attractive landscape setting along with preservation, protection and manage use of natural resources and amenities.

The above objectives suggest that a transformation of Maun's spatial structure from a predominately low density, rural land use environment into one which will offer improved development prospect. In this regard, modern forms of business activities and service concentration particularly those that encourage tourism development are supported in Maun. The implications of these planning goals to tourism are that Maun will in the near future develop into a modern city that will promote mass tourism development.

3.8 Ngamiland Integrated Land Use Plan

The Ngamiland Integrated land Use Plan of 2009 is a single unifying document that guides and shapes utilisation of land and other resources in Ngamiland. This goal is to be achieved in a sustainable and equitable manner, based on existing land tenure, land use potential and land utilisation type. As a result, the overall goal of the Ngamiland Integrated land Use Plan is to have a plan that will show new direction in Ngamiland land use planning and a new map that will depict the land use zones. Some of the key and specific objectives of the plan include the following:

- g) To facilitate balanced land use utilisation and where appropriate remedy imbalances and solve conflicts. Balanced land utilisation in this context relates to ensuring that natural resources are allocated to competing land uses in a manner that acknowledges the socio-economic and environmental significance as well as sustainability of the uses.
- h) To promote conservation of natural resources for the benefit of existing and future generations. This objective underlines the need to protect natural resources from total encroachment and possible extinction by human activities and settlement expansion.
- i) To rationalise and promote optimal utilisation of land.
- j) To interact with all relevant Government Ministries and departments where necessary in order to facilitate a smooth implementation of the national projects and policies without causing much land use problems.
- k) To advise Tawana land Board, the Department of Land Board Service Management and other relevant key players on land use concerning the allocation of land on the basis of the approved land use zones.

What emerges in the Ngamiland Integrated land Use Plan of 2009 is the recognition of natural resources as a key commodity that has to be used sustainably. In this regards, the allocation and use of these resources should be done in a sustainable manner. The collaboration with stakeholders particularly government ministries and departments as well as local people is meant to reduce land use conflicts thereby achieve sustainability. There is no doubt that Ngamiland is known for its rich biodiversity which has become Botswana's key tourism attraction. As a result, if planning for such resources is done with the goal of minimising resource conflicts and over exploitation of the resources, there is no doubt that wildlife-based tourism in the Okavango Delta will rise sharply in the planning period provided all other factors remain constant including flooding patterns within the Okavango River Delta.

3.9 Shakawe and Mohembo Development Plan (2006 – 2030)

The Shakawe and Mohembo Development Plan (2006 – 2030) is supposedly built upon the Ngamiland Integrated land Use Plan of 2009. Shakawe and Mohembo falls within the purview of the physical planning component of the Okavango Delta Management Plan. The Shakawe and Mohembo Development Plan (2006 – 2030) has in total ten goals, some of the key goals include the following:

- a) To create well planned and organised living environments for Shakawe and Mohembo West respectively that are decent, safe, functional and satisfy various community needs.
- b) To provide adequate residential land to meet existing and future housing needs in Shakawe and Mohembo West.
- c) To boost and diversify the economic bases of Shakawe and Mohembo West and enhance the opportunities for the creation of employment and investment flows.
- d) To provide safe, functional and convenient circulation systems in the development plan areas.
- e) To improve infrastructure services in Shakawe and Mohembo West to adequate and affordable standards.
- f) To improve sanitation practices in the development plan areas.
- g) To provide adequate civic, community and social services in the development plan areas.
- h) To protect and preserve the fragile environment and the conservation of natural resources in the development plan areas, in the interest of sustainable development.
- i) To the extent practicable, protect and preserve fertile arable land from settlement encroachments, and the encouragement of good agricultural practices in the development plan areas.
- j) To establish unique identities and images of the village based on aesthetically pleasing environments.

Like many other plans in Ngamiland, the Shakawe and Mohembo West Plan aims at conservation of the natural resources found in the area through sustainable means of allocation and managing these resources. The Shakawe and Mohembo West Plan takes into consideration the Okavango River Panhandle Management Plan of 2001 which cover aspects of land use and land management, tourism development and carrying capacities, conservation of natural resources and the protection of the environment, boat engines sizes that can be allowed in the river, community involvements in resources management and tourism development. When these measures are applied, a good atmosphere for tourism development is created. As a result, it is safe to assume that tourism development in the Shakawe and Mohembo areas will rise in the event that all other factors remain constant.

4. Tourism Resource Uses

In the Okavango Delta, tourism activities are largely based on the commercial utilisation of wildlife resources. This is categorised into two broad groups, namely:

- Consumptive uses
- Non-consumptive uses

4.1 Consumptive Wildlife Resource Uses

Consumptive wildlife resource utilization involves the process of wildlife off-take such as spot hunting or trophy hunting, game farming, live capture and export of live animal or translocation, and taxidermy and trophy processing. In the Okavango, because of the sufficient wildlife resources, consumptive wildlife utilization has taken the form of hunting tourism safaris. Safari hunting is done outside protected areas in Controlled Hunting Areas (CHAs) or in concession areas. Several hunting safari companies, mostly based outside Botswana but with offices in Maun, operate the hunting safaris in the region.

Safari hunters, mainly from the industrialized western societies visit the delta for the purpose of sport hunting and for obtaining trophies. Scout Wilson Consultants (2001) note that safari hunting in the delta starts in the United States where hunters from all over the world attend the Safari Club International (SCI) convention in January every year. At this convention safari hunting companies sell their hunts for up to 2-3 years in advance. The report further notes that the majority of the hunters are Americans, followed by Spanish and Italians. Hunting quotas and hunting licences are provided by the Department of Wildlife and National Parks to individuals, Community Organizations, and to safari hunting companies. These permits are provided for hunting during the hunting season from April to September of each year. Safari hunting tourism has generated much revenue for local communities in Ngamiland and for Botswana as well as creating employment for the local people.

4.2 Non-consumptive Wildlife Resource Use

Unlike consumptive wildlife utilization, non-consumptive wildlife resource utilization does not involve a wildlife off-take. The Okavango Delta is one of the major areas in Botswana where wildlife resources are important for scientific, educational and recreational purposes. Apart from hunting, wildlife use in the Okavango is mostly associated with photographic tourism. Photographic tourism involves activities such as photographic safaris, photographic camps and lodges, air charter operators, and the wildlife film industry. In addition to accommodation, camping, food and beverages, photographic tourism safaris in the delta offer game drives, boat safaris, and walking safaris. Some operators in the delta also offer elephant and horse riding safaris. Photographic tourism allows nature to take its own course. In fact, it is environmentally friendly and suits the interests of the international animal rights groups (Mothoagae, 1995). Among other things, this depends on numbers of people involved. If the number is high, this can disturb the animals and birds in an area.

Photographic tourism is especially important in Moremi Game Reserve, which offers what can be described as protected area safari tourism. The World Conservation Union (International Union of Conservation of Flora and Fauna-IUCN) defines a protected area as an area which contains exceptionally beautiful or unique

landscape, fauna and flora of national and international importance. Wildlife-based tourism is the only type of land use allowed in these areas because it is assumed that tourism is compatible with the primary wildlife conservation goals of protected areas. The establishment of tourist facilities such as lodges and camps is done by private enterprise to promote tourist activities in Moremi Game Reserve. The primary management goals of the tourist use of protected area are to conserve the natural features and maintain biodiversity. Photographic tourism in the Okavango Delta is also carried out in what has come to be known as commercial photographic and community photographic areas.

4.3. *Types of Non-consumptive Tourism Activities*

Non-consumptive tourism activities in the Okavango Delta include the following:

- Bird watching
- Game viewing
- Mokoro safaris
- Sex tourism
- Fishing
- Horse riding
- Crafts
- Walking trails
- Hot air balloon

4.4. *Kinds of tourists*

The kinds of tourists that visit the Okavango Delta can be categorized into the following:

- Ecotourists
- Business people
- Study tourists
- Family and friends tourists
- Wildlife-based tourists (with the different price preferences)
- Safari hunting
- Leisure tourist

5. Segments of wildlife-based Tourists

Wildlife-based tourists that visit the Okavango Delta can further be sub-divided based on price segments. These visitors can be categorized into non-consumptive (e.g. photographic) and consumptive (e.g. trophy hunters) visitors. Photographic tourists include: independent (private), mobile, high cost (fixed lodge) and day visitors while consumptive tourists include safari hunters (trophy hunters). Safari hunters are not new to the Okavango Delta, they have been in the wetland since the 1850s (Tlou, 1985). The policy made the safari hunting tourism sector more organized as it began to be carried out in Controlled Hunting Areas.

Table 1: Type of Tourists and Tourist Activities in the OD

Type of Tourist	Tourist Activities	Remarks
High cost or fixed	Game drives, night drives, walking trails, boating, bird watching, fishing, canoeing	High paying tourists, pay for visit as a package in countries of origin, stay in 2-3 camps for 2-3 nights (total 6-8 nights)
Mobile	Game drives (at times boating), bird watching, fishing, canoeing	Stay in private and public camps, spend 5-21 days, pay for visit as a package in country of origin, second highest paying tourists
Self-drive (independent, low cost)	Game drives, bird watching, fishing	Stay in public campsites, spend 8-10 days, drive own or rent vehicles, least spending tourists
Day Visitors	Game drives, boating, bird watching, canoeing	Visit the OD in the morning and come back in the evening (they are largely conference and business delegates in Maun)
Safari hunters* (spot or trophy hunters)	Hunting (some combine it with photographic activities as in high cost tourists)	Some combine hunting with photographic activities hence classified as high cost tourists.

*The study did not focus on safari hunters hence impacts they cause are not discussed in this paper

5.1 The “High Cost” Tourist

The most important type of tourist visiting the Okavango Delta are “high cost” tourists. A high cost tourist is defined as a person who chooses to stay at a permanent camp operated by private camp operators/owners (Borge *et al*, 1990). In the Okavango Delta, “high cost” tourists mostly come from Europe, North America, and New Zealand/Australia. These clients either fly into Maun from Johannesburg, Victoria Falls, or Windhoek. From Maun they are then flown directly to permanent camps in the Okavango Delta. High cost tourists rarely use accommodation facilities in Maun. “High-cost” tourists pay a high price for the package in advance and are generally confined to high cost camps owned by a safari company from which they bought their package. On average, high cost tourists pay USD 6,000 for a safari package in the delta. They usually visit two or three camps owned and operated by the same company spending 2-3 nights in each.

5.2 The Mobile Safari Tourists

The second most important type of tourist visiting the Okavango Delta are “mobile safari” tourists. Mobile safari tourists stay in private, public or Hotel and Tourism Association of Botswana (HATAB) campsites. Like the “high cost” tourists, they fly

into Maun from Johannesburg, Victoria Falls or Windhoek. From Maun they depart on a circuit that involves camping in the Okavango Delta. Mobile safaris take between 5-21 days with fees ranging from less than USD 200 per night for participatory camping (the least expensive option), USD 200 – 500 per night (for modest priced packages) and over USD 5,000 per night for the up market packages. Mobile tourists in the Okavango Delta also include those who are on tours that encompass the wider east and southern African wildlife areas. Such trips are made on overland trucks and can take up to eight months, commencing in South Africa or Namibia and ending in Kenya or Tanzania or vice versa.

5.3 The Independent or “Low Cost” Tourists

The third group of tourists who visit the Okavango Delta are “independent or low cost” tourists. Roberts et al (1985) define the independent tourist as one who “travels independently, relying upon his own resources and not as part of an organized tour group”. These travelers may drive independently, hire a guide, or charter a flight. Borge et al (1990) state that their distinguishing feature is that they usually do not pay package price before entering Botswana and they generally use public facilities such as campsites run by the Department of Wildlife National Parks in protected areas or privately owned campsites elsewhere. Independent tourists are also termed “low cost” tourist because of the assumed low expenditure they incur while in the delta. Independent tourists in most cases visit Botswana from neighboring countries such as South Africa, Zimbabwe, and Namibia. These tourists travel on private four-wheel drive vehicles such as Land Rovers or Land Cruisers with as many as five passengers in a single vehicle often in family groups. Independent tourists often visit Botswana for the first time to view the country’s unique environment and to experience the unrestricted wildlife areas. At times independent and mobile tourists combine both types of travel in their journeys to northern Botswana.

5.4 Day Visitors

Visitors or tourists who visit a particular place for pleasure for a period of less than 24 hours are referred to as “day visitors”. The Department of Tourism (2001) defines a day visitor as a visitor who does not spend the night in a collective or private accommodation in the place visited. In the case of the Okavango Delta, day visitors mostly drive or fly from Maun in the morning into various parts of the delta (either for mekoro safaris or game drives) during the day and come back in the evening. Day visitors do not stay in a safari camp or lodge in the Okavango but perhaps find lodging or campsites in Maun. As a result, when compared with the above three main categories of tourists the prices they pay are much less.

5.5 Safari Hunters

Safari hunters also form an important part of tourists in the Okavango Delta. As already noted, safari hunters (i.e. spot or commercial hunters) mostly come from North America, Europe and New Zealand/Australia. A typical safari hunter in the Okavango Delta generates more revenue than a photographic tourist, so safari hunting contributes more money to Botswana’s tourism industry than photographic tourism.

The coming of other tourist segments like day and mobile visitors indicates that the Tourism Policy has not necessarily discouraged other tourists segments in favour of those that stay in permanent accommodation as the policy aimed to achieve. As a

result, additional tourist segment in the Okavango Delta can lead to crowding of facilities and threats to environmental sustainability of the wetland.

The different tourist segments in the Okavango Delta will be affected differently by flooding patterns. For example, in 2000 when there were floods in the Okavango Delta, only the self-drive and mobile tourists were affected as Moremi Game Reserve became closed because roads were impassable. Permanent lodges were not affected since they fly into the Okavango Delta and are generally not affected by difficult roads.

6. Tourist Trends Analysis

Tourism development in Botswana and the Okavango Delta in particular is carried in the context of global and regional tourism trends. As a result, it is critical to understand international and regional tourism trend analysis in order to understand tourist trends in the Okavango Delta. Table 2 shows international tourism arrivals.

Table 2: International Tourism Arrivals

Year	Tourist		Day Visitors	Total Visitors
	Arrival	Growth Rate (%)		
1994	463,196		156,386	619,582
1995	521,041	12.5	115,440	636,481
1996	512,118	-1.7	143,845	655,963
1997	606,781	18.5	157,624	764,405
1998	749,544	23.5	190,413	939,957
1999	852,365	13.7	196,109	1,048,473
2000	969,291	13.7	201,974	1,171,264
2001	1,193,399	23.1	257,228	1,450,627
2002	1,273,814	6.7	211,355	1,485,169
2003	1,405,985	10.4	186,512	1,592,497
2004	1,522,847	8.3	203,870	1,726,717
2005	1,675,132	10.0	209,986	1,885,118
<i>Average Annual Growth Rate 1994-2005</i>	13.7%		3.0%	11.8%

Source: WTTC, 2007

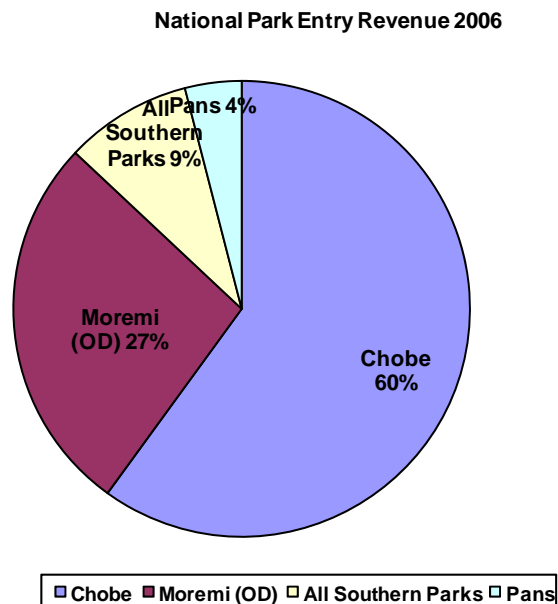
Tourism arrivals in Botswana have grown significantly since 1994 as depicted in Table 2 above. Table 3 shows a summary statistics for tourism demand in Botswana for 2005. According to the Botswana Travel and Tourism Satellite Account data, the rate of growth of tourist arrivals over the period from 1994 to 2005 averaged 13.7% per annum, exceeding the world average growth rate of around 4% in the same period. For 2007, Botswana Travel and Tourism is expected to grow 7.3%, and over the next ten years travel and Tourism Demand is forecast to average 5.0% growth per annum. This would exceed expected worldwide growth of 4.4% per annum, and Sub-Saharan African annual average forecast of 4.5%.

Table 3: Summary Statistics for Tourism Demand in Botswana for 2005

International Tourist Arrivals	1,625,132
Average Annual growth rate: 1994-2005 (tourist arrivals)	13.7%
Average length of stay (nights)	5.5
International Tourist Expenditure(Pula)	2.4 billion
Average Spent per Person per Day (Pula)	274
Room Nights Sold	615,069
Bed Nights Sold	1,024,623
Room Occupancy Rate	41.5%
Visits to National Parks	237,258
Revenue at National Parks (Pula)	23.6 million

Source: WTTC, 2007

Figure 1 below shows the overall revenue generated by national parks and game reserves in northern Botswana of which Moremi Game Reserve located within the Okavango Delta is a part.



Source: Department of

Wildlife and National Parks

Figure 1 shows that at present, tourism activities are largely concentrated in the northern part of the country, especially in the Chobe National Park and the Okavango Delta. According to the 2006 Department Wildlife and National Parks data, of the P25.7 million park entry revenue generated, Chobe National Park's contribution was 60% (P15.5 Million) while Moremi (OD) generated 27% (P6.94 Million), the Pans 4% (P1.03 million) and the Southern Parks 9% (P2.31 Million). The Okavango Delta and the Chobe National and the Pans together accounted for 95 percent of all park entries and 91% of all park revenues in 2006.

The growth of tourism as depicted in the data indicate that there is a possibility of future over utilisation of the areas if no proper steps are not taken to reduce possible pressure on the northern areas. Tourism product diversification is therefore necessary to ensure the distribution of resource utilisation in the country. The increase in numbers in the current situation reflects increases in the dominant destinations of the Okavango Delta and the Chobe National Park.

6.2 Okavango Delta Tourism

In their 1998 survey at border entry points in Botswana, the Department of Tourism (2001) estimated that 52,512 tourists visit the Okavango Delta annually. The number of visitors at Moremi Game Reserve has also been used to estimate annual tourist numbers in the Okavango Delta. Moremi Game Reserve is used because it is located within the Okavango Delta. It is assumed that the majority of tourists who visit the Okavango also visit the reserve. Table 4 shows data from the Department of Wildlife and National Parks (DWNP) annual reports which indicate that between 1995 and 2006, there has been an increase of visitors in all the tourists segments at Moremi Game Reserve. For example, in 1971, only 4,500 private tourists visited Moremi Game Reserve (DWNP, 1991), this figure increased to 16,367 in 1999 and

12,585 in 2005. In 2000, 2001 and 2005, visitor numbers for private and mobile tourists went down because of heavy rains that made roads flooded and impassable for driving resulted in closure of the reserve for several months (e.g. in 2000, the reserve was closed for eight months).

Table 4: Tourist Numbers According to Segment at Moremi Game Reserve

Year	Number of Tourist			
	Independent (private)	Mobile	High Cost (Fixed Lodge)	Totals
1995	8,025	12,570	15,479	36,074
1996	7,495	15,395	15,314	38,204
1997	11,298	17,487	14,202	42,987
1998	14,560	17,890	17,106	49,556
1999	16,367	14,835	15,487	46,707
2000	8141	8,521	14,173	30,835
2001	7035	7,687	16,351	31,073
2002	12,538	10,801	16,395	39,734
2003	10,659	8,650	18,069	37,378
2004	12,585	8,426	17,411	38,422
2005	9,431	7,979	24,103	41,513
2006	10,533	8,116	18,732	37, 381

Source: DWNP Annual Reports (1995-2006)

The increase of tourist numbers at Moremi Game Reserve indicates that the Tourism Policy which aimed at reducing tourist numbers in wilderness areas by charging higher prices is not successful. These ever increasing tourist numbers threaten the ecological sustainability of the Okavango Delta as a natural system. Table 2 also shows that tourists that stay in permanent accommodation increased from 15,479 in 1995 to 24,103 in 2005. This means that sections of the Tourism Policy which aims at increasing this tourist segment is being successful.

6.3 International tourists and domestic tourists

The shift from casual campers to up-market tourists resulted in the majority of the tourists visiting the Okavango Delta originating from developed countries. Table 5 shows data from DWNP indicates that between 1999 and 2005 most visitors in the Okavango were from European countries, North America and South Africa.

Table 5: Tourist numbers according to country of residence, 1999 - 2006

Country	1999	2000	2001	2002	2003	2004	2005	2006
Citizens	3,761	2,787	3,353	3,728	4,630	2,849	2,344	1,359
Residents	3,456	2,595	5,500	3,240	2,679	2,120	1,568	709
South Africa	9,625	5,007	9,213	6,744	6,509	7,307	5,416	4,721
Other Africa	987	613	3,031	627	636	757	614	269
North America	7,461	6,154	8,331	6,820	6,147	6,435	10,197	129
South America	1,057	693	1,933	867	551	945	1,244	22
United Kingdom	3,762	2,426	4,968	3,184	3,267	3,406	4,034	292
Other Europe	14,122	8,993	19,62	11,97	12,982	13,056	14,356	2,862
Australia & New Zealand	1,761	1,148	5	8	1,351	1,204	1,319	164
Zealand	347	109	2,550	872	318	235	241	5
Asia	821	130	875	258	88	108	180	1
Other			277	89				

Total	47,160	30,835	31076	31,023	39,158	38,422	41,513	10,533
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Source: DWNP Annual Reports (2000-2006)

Data in Table 5 also shows that citizen visitors in the Okavango Delta were lower when compared to those from other countries. This may be a result of high prices charged in tourism facilities in the wetland. The exclusion of citizens from visiting the Okavango due to high prices has the potential to create land use conflicts and negative perceptions of local people towards international tourism in the Okavango.

Tourists from the SADC region are likely to be affected differently by flooding patterns in the Okavango Delta. Most of the tourists that visit the Okavango Delta from the SADC region are self-drive tourists from South Africa. As a result, in the event of high floods as already noted, roads will become impassable in the wetland and this may force some roads like those in Moremi game reserve to be closed.

7. Tourism Infrastructure Development

There has been an increase in accommodation facilities in the Okavango Delta from the 1990s. As shown in Table 6, in 1989 for example, there were 32 accommodation facilities in the Okavango Delta (Mpotokwane, 1990). This figure was found to have increased to 63 accommodation facilities in 2001, to 73 in 2004 and to 80 in 2009. However, this is likely to be a conservative figure as hunting camps used by safari hunters are not included in Table 6.

Table 6: Accommodation Facilities in the Okavango Delta in 1989 and 2001

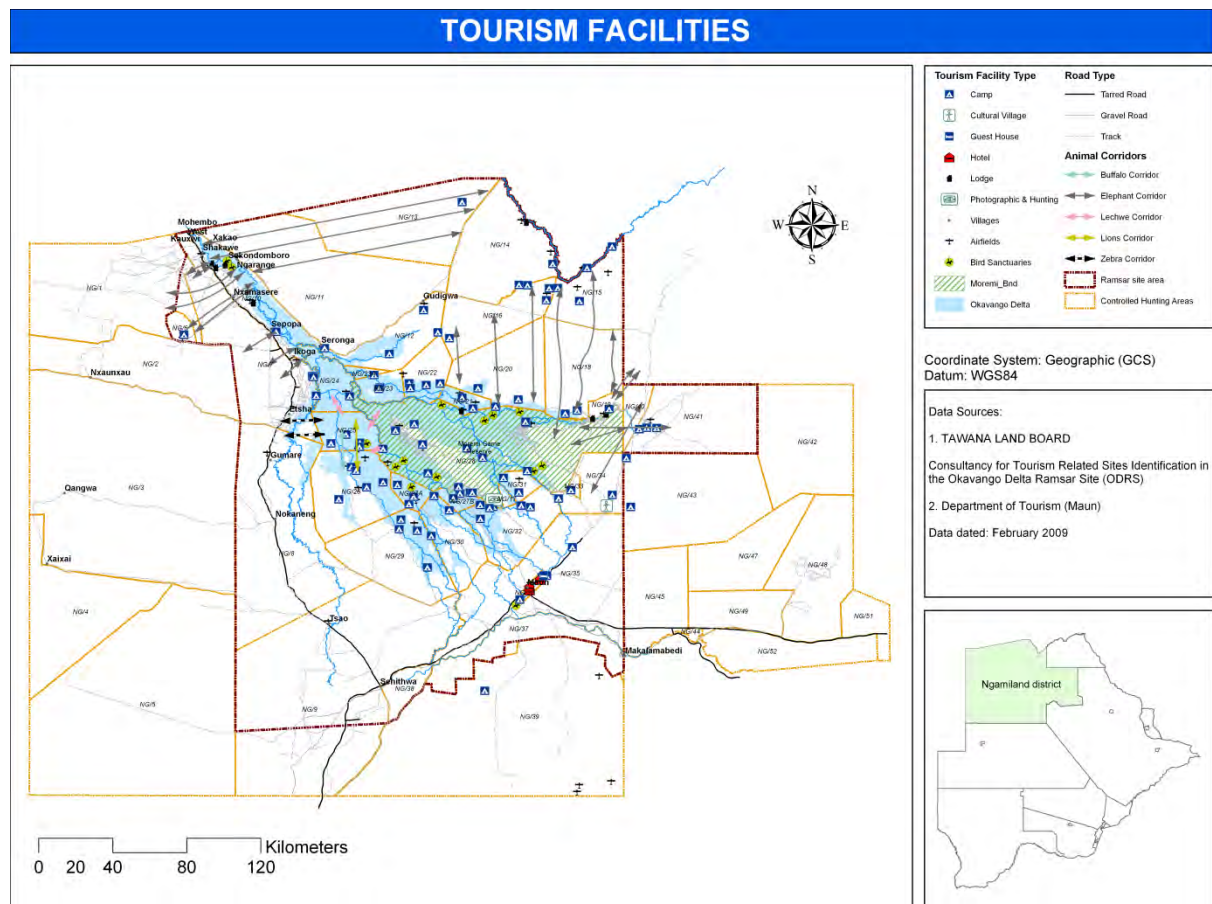
Type of Facility	1989	2001	2004
Lodges	8	10	
Camps	23	51	
Hotels	1	2	
Totals	32	63	75

Source: Mbaiwa (2002)

In 2009, the Tawana Land Board Consultancy for Tourism Related Sites Identification in the Okavango Delta Ramsar Site notes that there are 80 tourism establishments in the Okavango Delta (this figure excludes facilities in Maun). The Consultancy also provides the number of rooms and beds in these facilities (Table 7, also see map 1).

Table 7: Number of Beds and Rooms in the Okavango Delta

Type of Facility	Rooms	Beds
Camp	407	810
Camp (allocated but not operational)	8	16
Guest House	31	51
Hotel	55	110
Hunting Camp	107	182
Lodge	201	374
Mobile	13	26
Photographic & Hunting Camp	6	8
Photographic/Hunting/Cultural Group	6	12
Photographic Camp	23	46
Grand Total	857	1635



The implication of the increase in the number of photographic and hunting camps in the Okavango Delta is that environmental pressure is being increased on the wetland. There is also likely to be competition and conflicts over land use and resources over specific sites in the Okavango Delta. Studies (e.g. Darkoh & Mbaiwa, 2005) have shown that whenever there is competition and conflicts over land use and resources occur, resource degradation happens. While there is an increase in tourism establishments in the Okavango Delta, the desiccation of the western part of the Okavango Delta is reported by Okavango Jakotsha Community Trust (comprising of Jao, Etsha 1-13, Ikoga and Thaoge villages) to be negatively impacting on their lodging business. The Trust argues that their lodge has not been operational for a few years partly because the Thaoge channel (one of the Okavango River Channels) is dry and attracts no tourists any more. This shows that flood levels in the Okavango Delta determine the level of tourism investment in the wetland.

7.1 Transport and Communication Systems

In the late 1980s, northern Botswana was very much inaccessible because there were virtually no tarred roads. The situation gradually changed. During the National Development Plan 6 of 1986 to 1991, Government realized that tourism in northwestern Botswana had the potential of positively contributing to the economy of the country. At present, northern Botswana has over 1622 kilometers of tarred road as shown in Table 8. Tarred roads provide a link

between northern Botswana's main centres of Maun and Kasane with other eastern towns like Francistown and Gaborone. They also provide a link with neighboring countries of Zimbabwe, Zambia, and Namibia's Caprivi Strip. The road network in northern Botswana has improved accessibility of the region with other eastern centers hence increased the efficiency in the delivery of social services. The network is also an important aspect of tourism development in northern Botswana, especially in the Okavango and Chobe regions. As noted, tourism development in Botswana is linked to that of southern Africa since most tourists (i.e. self-drive, mobile and high-costs) who visit Botswana (e.g. the Okavango and Chobe) also visit Zimbabwe, South Africa, Namibia and Zambia.

Table 8: The Road Network in Northern Botswana, 1989-2001

Road Section	Length in Kilometres	Year Completion
Francistown – Kasane	500	1989
Nata – Gweta	115	1992
Maun-Shorobe	38	1992
Gweta – Maun	203	1993
Tsau – Gumare	103	1991
Maun – Sehitwa	99	1993
Gomare – Sepopa	95	1992
Sihitwa – Ghanzi	245	2001
Ghanzi – Mamono	208	1999
Shakawe – Mohembo	16	1995
Total	1622 +	

Source: Government of Botswana (1997) and Department of Roads (2002) personal Communication

The development of the road network in northern Botswana is part of the government objective to improve the road system in the country. As shown in Table 9, there has been an expansion of the road network in Botswana from 1990 – 2002. During Botswana National Development Plan 8 of 1997/98 – 2002/3, the development of roads account for 58% of the investment allocation of the Ministry of Works Transport and Communications in National Development Plan 8 (Botswana Government, 1997).

Table 9: Roads maintained by the Central Government, 1994 - 1999 (in Kilometers)

Year	Bitumen	Gravel	Earth/Sand	Total
1990	2565	960	4589	8114
1991	2831	932	4371	8134
1992	3603	2950	2148	8761
1993	3878	2739	2148	8761
1994	4177	2632	1957	8766
1995	4761	2087	1957	8805
1996	4729	2191	1841	8761
1997	4789	2131	1841	8761
1998	4969	2131	1841	8941
1999	5570	2688	1959	10217
2000	6082	2270	1865	10217
2001	6421	1937	1798	10156
	6501	1857	1834	10192
2002(March)				

Source: Botswana Government (1997), CSO (2002), Department of Roads (2002), Personal communication

7.2 Airports and Airstrips

In addition to the tarred road network, in 1993, Maun Airport was improved with a new terminal and extended runway. Improvement of Maun Airport has attracted international flights connecting Maun Airport and Johannesburg, Windhoek, and Victoria Falls. These links form the main air routes used by tourists who visit the Okavango Delta. In terms of aircraft operations each day, Maun Airport is the second busiest airport in Africa after Johannesburg International Airport (Table 10). Ngami Times (2001:1) illustrates this as follows: "Maun Airport is regarded as the second busiest international in Africa in terms of aircraft movements after the combined Johannesburg area (South Africa) airports of Johannesburg International, Lanseria, Rand and Grand Central". Maun Airport in 2000 had an average of 256 aircraft landing and taking off each day during the tourist peak seasons of April to October. In the non-tourist peak season of November to March, an average of 157 aircraft landings and take offs each day.

Table 10: Aircraft Movement at Maun Airport, 2000

Description	Total Movements	Percentage
Commercial		
International	2,846	7.0
Domestic	34,666	86.1
Non-Commercial	2,786	6.9
Totals	40,246	100.0

Source: DCA (2001)

Most of this aircraft movement is by small engine aircrafts that fly into the delta either to transport tourists or carry supplies. In 2000, there were eight privately owned air companies with a total of 44 small engine aircrafts operating in the Okavango Delta and using Maun Airport as the main base (Table 11).

Table 11: Private Air Companies and Number of Aircrafts, 2000

Name of Air Company	Number of Airplanes	Percentage
Sefofane Air	15	34.1
Moremi Air	7	15.9
Delta Air	6	13.6
Northern Air	3	6.8
Swamp Air	2	4.5
Mack Air	7	15.9
Bushfree	2	4.5
Safari Air	7	15.9
Total	44	100.0

Source: Mbaiwa (2000)

In the Delta, there are about 23 privately owned airfields and seven government airstrips in the area, excluding those operated by the Botswana Defence Force. In addition to the already existing airport facilities in Maun and in the Okavango Delta, there is a proposed agenda by government to expand existing airport facilities at Maun Airport, especially the runway. This idea is hoped to make Maun Airport capable of having receiving bigger aircrafts. The

expansion of Maun Airport suggests an increase in volume of tourists, airport facilities, the number of small bush aircrafts and employment opportunities especially for the local people. While this is a positive economic development, care should be taken to prevent negative environmental impacts in the area especially in the Okavango Delta. This, therefore, suggests that limits of acceptable change or carrying capacity of both Maun and the Okavango Delta should be decided to determine the level of expansion and the volume of tourism that the wetland can hold.

7.3 The Impacts of Tourism to Rural Livelihoods

The introduction of Community-Based Natural Resource Management (CBNRM) programme in the 1990s in Botswana has led to tourism to benefit some of the communities living in the Okavango Delta (the level of benefit is differ from one community to the other). Some of the benefits include the following:

- Participation of local communities in ecotourism;
- Employment creation in remote areas;
- Income generation for local communities;
- Availability of meat at household level
- The provision of social services

For purposes of illustration in discussing the impacts of tourism development and CBNRM on livelihoods, the three villages of Sankoyo, Mababe and Mababe are singled out.

7.3.1 Employment opportunities in Remote areas

Employment is one of the main benefits that has improves livelihoods at Sankoyo, Khwai and Mababe villages. Employment is provided by both the safari companies that sub-lease community areas and by Trusts in respective villages. As shown in Table 12, at Sankoyo, the number of people employed increased from 51 people in 1997 when the Trust started operating to 105 in 2007. At Mababe, the number increased from 52 in 2000 to 66 people in 2007. At Khwai, the number increased from five people in 2000 to 74 people in 2007.

Table 12: Employment at Sankoyo, Khwai and Mababe

Sankoyo				Khwai			Mababe		
Year	Trust	JVP*	Total	Trust	JVP	Total	Trust	JVP	Total
1997	10	41	51	N/A	N/A	N/A	N/A	N/A	N/A
1998	11	51	62	N/A	N/A	N/A	N/A	N/A	N/A
1999	11	51	62	N/A	N/A	N/A	N/A	N/A	N/A
2000	11	51	62	5	N/A	5	15	37	52
2001	13	9	22	5	N/A	5	15	64	79
2002	35	56	91	8	N/A	8	16	64	80
2003	42	56	98	10	N/A	10	18	64	82
2004	48	56	104	15	40	55	41	18	59
2005	45	56	101	15	50	65	41	25	66
2006	46	56	102	19	55	74	41	25	66
2007	52	56	108	19	57	74	41	25	66

Source: Mbaiwa (2008) * Joint Venture Partnership

At Mababe, the percentage of people employed is 22.8%, at Khwai its 21% and 28% at Sankoyo. These percentages are very high considering that the small populations of 300 at Mababe, 290 at Khwai and 372 at Sankoyo. The employment rates also become high when excluding the elderly (i.e. over 60 years), school going children (less than 18 years), the sick and pregnant mothers. In illustrating the importance of employment, the Mababe Trust manager remarked, “go to Mababe right now and you will find zero unemployment. You will only find old people and children in the village. All the young and strong people are out in camps working”. CBNRM is the most important economic activity that provides employment opportunities in the three villages. Most people employed from the three villages are semi-skilled (e.g. cooks, cleaners, storekeepers and escort guides). The creation of jobs in CBNRM projects is important as a poverty alleviation strategy at Khwai, Mababe and Sankoyo villages. It should be understood that Ngamiland in which the Okavango Delta is located does not have any industrial or manufacturing enterprises which would otherwise provide employment opportunities as is the case with other centres such as Francistown or Gaborone. As such tourism is the main economic activity that employs a significant number of people more than any other sector in the district. Every economy aims at full employment for its labor force, and this is also the case for the rural economy of Sankoyo, Khwai and Mababe.

7.3.2 Financial benefits from tourism development

Financial benefits are some of the major economic benefits that villages derive from tourism development in the Okavango Delta. Tourism revenue that accrues to communities is largely from the following activities: sub-leasing of the hunting area;

sale of wildlife quota (i.e. wildlife quota fees for game animals hunted); meat sales; tourism enterprises e.g. lodge and campsite; and, camping fees and vehicle hires. Income from tourism development accrues to individuals, households and the community at large when it is finally distributed. Table 13 shows the financial benefits that accrue to Sankoyo, Khwai and Mababe respectively from the time the projects started operating to 2007.

Table 13: Revenue (BWP) generated by Sankoyo, Khwai and Mababe

Year	Land Rental	Quota	Others*	Total
Sankoyo Tswaragano Management Trust				
1997	285,750	0	12,665	298,415
1998	116,666	60,928	38,826	216,420
1999	151,667	33,470	76,151	261,288
2000	166,833	49,090	148,940	215,923
2001	57,047	55,600	114,801	227,448
2002	492,000	872,550	131,844	1,496,394
2003	466,509	965,772	370,352	1,802,633
2004	562,655	1,096,377	75,634	1,734,666
2005	455,000	1,060,400	612,012	2,127,412
2006	483,250	1,198,700	639,116	2,321,066
2007	613,360	1,272,600	621,537	2,507,497
Khwai Development Trust				
2000	1,057,247	0	72,536	1,129,783
2001	585,220	0	248,305	833,525
2002	1,211,533	0	36,738	1,214,567
2003	348,778	0	97,480	446,258
2004	110,000	857,085	283,482	1,250,567
2005	115,500	1,043,707	405,247	1,564,454
2006	121,275	1,248,500	1,248,500	1,691,723
2007	127,339	1,217,187	1,082,146	2,426,667
Mababe Zokotsama Trust				
2000	60,000	550,000	77,000	687,000
2001	69,000	632,500	127,233	828,733
2002	79,350	702,606	85,961	867,917
2003	91,205	807,996	98,854	1,121,427
2004	104,940	929,196	149,159	1,183,295
2005	120,681	1,068,575	130,739	1,319,995
2006	120,000	1,202,183	13,500	1,335,683
2007	130,000	1,202,183	29,950	1,362,133

Source: Mbaiwa (2008)

* Camp rental fees, community development fund, meat sales and vehicle hire.

Data shown in Table 13 shows that land rentals and quotas increased in each village over time. For example at Sankoyo, land rentals increased from P 285,750 in 1997 to P483, 250 in 2006 and game quota fees increased from P60, 928 in 1998 to P1, 198,700 in 2006. Between 2004 and 2006, game quota fees were the largest source of revenue for each village accounting for almost half of the revenue generated by each Trust. Income generation from tourism is important because it is used by communities to sustain their livelihoods. Some of the income which the three communities derive from tourism subsequently ends up in the households in the form of dividends. For example, between 1996 and 2001, each household at Sankoyo

Village was paid P 200, this sum increased to P250 in 2002, P300 in 2003 and P500 between 2004 and 2007. The distribution of income to the various households is an important aspect in improving rural livelihoods.

7.3.3 Availability of meat at household level

Households at Sankoyo, Mababe and Khwai noted that game meat is one of the benefits they derive from tourism development. Joint Venture Agreements with safari operators are such that international clients of these companies only take with them the animal heads and skins (which are called the trophies) and fillets. The rest of the animal carcass is taken to respective villages where it is either sold or distributed to the community depending on the type of animal killed. For instance, animals such as elephant, warthog and zebra, which are not normally eaten by most residents, are distributed free. However, meat such as that of impala and kudu and other animals such as buffalo, which are eaten by most people, are sold by the Trust at a minimal price (compared to beef sold in other parts of the country) and the money becomes part of the overall Trust revenue. Some respondents pointed out that the distribution of meat benefits is important to them since there is no butchery in the village. This indicates the role that the availability of meat plays in the Okavango Delta. It also allows the villagers directly benefit from wildlife resources in their local environment. This has the potential to reduce illegal hunting which before the adoption of CBNRM was higher in CBNRM villages.

7.3.4 The provision of social services

The people of Khwai, Mababe and Sankoyo agree in kgotla meetings on how to use money generated from tourism to benefit their villages. These communities have been able to agree that some of the revenue generated from CBNRM projects should be used to fund social services and related community development projects. Table 14 shows the social projects and amount used to fund each of these community development projects in the three villages.

Table 14: Social services funded by CBNRM income, 2007

<ul style="list-style-type: none"> Assistance with funerals costs (P200 to P3, 000 per household). Support for local sport activities (P5, 000 to P50, 000 per village). Scholarships (P7, 000 to P35, 000 per village). Household dividends (P200 to P500 per village). Services and houses for elderly people (150 to P300 per month per person). Assistance for orphans (P40, 000 per Trust). Assistance for disabled people (P15, 000 per village). Provision of communication tools such as radios Transport services particularly in the use of vehicles. Installation of water stand pipes in households

Source: Arntzen et al (2003); Schuster (2007); Mbaiwa (2008)

To illustrate on some of the information provided in Table 12, collective decision making in the three communities has led to the payment of funeral expenses for community members to the tune of P3, 000 if an adult dies and P1000 if a minor dies. Community vehicles would also be used to collect fire wood used to prepare meals for mourners and transport them to and from Maun. Apparently, all the three

villages bury their dead in Maun and there seemed to be no specific reason why communities do not want to bury their dead in their respective villages. Community vehicles are also used to transport the dead persons and are a form of transportation by members from one village to the other. Community members can also hire these vehicles in case they want to transport their goods from one point to the other. This is yet another important aspect of community and rural development in remote parts of the Okavango Delta. Sankoyo, Mababe and Khwai are located in remote areas of which accessibility in terms of public transportation is very difficult. The availability of transportation through Trust vehicles has, therefore, increased accessibility of these once remote areas to other big regional centers in other parts of the country like Maun.

Before tourism development, water reticulation was a problem at Mababe, Khwai and Sankoyo villages. In addressing this problem, individual communities use income from tourism development to fund water reticulation to each household. For example, the CBNRM project at Sankoyo funded the provision of water to 56 households out of the 76 in the village. Mababe funded water to 30 households out of the 54 in the village. At the time of the study, Khwai was still digging a trench from the Khwai River to provide water to their village. The other remarkable social service funded by CBNRM in the three villages is that at Sankoyo, the CBNRM paid for the construction of seven houses for the poor in 2007. At Khwai 18 houses were built while at Mababe 10 houses were built for elderly and the poor. In each of the three villages, CBNRM paid a monthly allowance of P200 to orphans and P500 to the elderly twice a year. Sankoyo sponsored 14 students to study for catering, professional guiding, bookkeeping, and computer studies. Mababe sponsored 20 students and Khwai sponsored 30 students by 2007 with a total sponsorship of P 250,000 to study tourism related courses like those by students from Sankoyo. For Khwai, all the villagers got insured with insurance companies for funeral benefits. This shows that CBNRM in the three villages has taken a social responsibility for community members and provide them with the necessary livelihoods needs. CBNRM has therefore transformed communities at Sankoyo, Mababe and Khwai from being beggars who lived on handouts from the Botswana Government and donor agencies from Europe and America into productive communities that are moving towards achieving sustainable livelihoods.

8. Tourism and HIV/AIDS Prevalence

HIV/AIDS scourge has remained Botswana's greatest challenge in the past decade. The country's prevalence rate among pregnant women aged 15-49 years was 37.4% in 2003, an increase from the 35.4% in 2002 and 36.2 % in 2001 according to the 2003 Sentinel Surveillance Report. The report also indicated that the Ngami and Okavango prevalence rate was 38.4% and 32.7 respectively. The most affected districts are Selibe-Phikwe (52.2%), Bobirwa (49.3%), Chobe (47%), Francistown (45.8) and Gaborone (44.8). According to 2008 Botswana HIV/AIDS Impact Survey III (BAIS III), the national HIV prevalence rate stands at 17.6%. The BAIS III survey showed Selebi-Phikwe (26.5%), Sowa (25.4%), Lobatse (23.1%), Chobe (23.0%) and North East (21.8%) as the most affected districts. In all the two surveys, the most affected areas except for Chobe are not necessarily tourist destinations on their own right. For Chobe District the most probably reason for the higher prevalence rate seem to be the truck transportation that cross at the Kazugula Border Gate into neighbouring countries of Zambia. Therefore, it is still to be determined whether there is a positive correlation between tourism activities and the spread of HIV/AIDS as there is currently no study that has linked the spread of HIV/AIDS with tourism activities in Botswana.

However, tourism has the potential to increase the spread of HIV/AIDS in places where there is no control. In Botswana, commercial sex is prohibited and the Botswana's tourism product is mostly wilderness experience and it's more enclaves in nature with less interaction between the host population and the tourists. For the Okavango Delta in particular, as a Ramsar site, the growth of tourism is regulated, however, under the Ngamiland Tourism Development Plan of 2007, Maun is planned to be developed as a mass tourism center. Maun is currently becoming a business commercial where conference and meetings are held. In these circumstances, the increase HIV prevalence is likely cannot be ruled out.

9. Conclusion

Based on the 1998/9 TDA study, tourism development in the Okavango Delta has grown in the last 10 years. According to the available data, tourism is expected to grow by 7.3% in 2007 and the forecast for the next 10 years is 5.0% per annum. This growth will exceed the global growth rate of 4.4% per annum and the sub-Saharan Africa forecast of 4.5% (Botswana Tourism Board, 2008). Considering the growth rate of the tourism industry in Botswana in general, its concentration in one side of the country and future development like the expansion of Maun Airport, it is important to note that development in the Okavango Delta will continue to grow in the foreseeable future. There is no doubt that the various policies and development plans aimed at promoting tourism in the Okavango will yield a tremendous growth in tourism development in the wetland. Therefore fragile ecosystem must be taken into consideration as the development in the Delta expands. For the objectives of the various government policies, which advocate for equitable sustainable use of the resource, baseline data and a clear monitoring and evaluation mechanism must be in place to ensure that development of the Delta, compliment the conservation objectives.

It is important to recognize that all the policies, strategies and development plans aims at promoting the conservation of natural resources in the Okavango Delta. This will greatly benefit tourism development in the area since much of it relies on the availability of natural resources specifically wildlife and forest resources. Increased tourism particularly mass tourism in Maun and Shakawe will result in more services, employment opportunities and income generation for the local communities. A scenario that is likely to improve local livelihoods.

Flooding patterns within the Okavango River Delta needs to be understood since they influence tourism development in particular parts of the wetland. Information is, therefore, needed on flooding scenarios and how much they will affect existing and future tourism development in the Okavango Delta. Even though the effects of flooding patterns on tourism development were not part of this, it is worth noting that floods in the Okavango Delta will have an impact on tourism development. For example, high floods will reduce the number of self-drive and mobile tourists. This will as a result, affect tourism business and livelihoods. Local people employed in the tourism business are likely to be retrenched as tourism business goes down. When dray again, tourism in the Okavango Delta will also go down since the wetness of the area and rich biodiversity is the key tourism attraction in the wetland.

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The Okavango River Basin Transboundary Diagnostic Analysis Technical Reports

In 1994, the three riparian countries of the Okavango River Basin – Angola, Botswana and Namibia – agreed to plan for collaborative management of the natural resources of the Okavango, forming the Permanent Okavango River Basin Water Commission (OKACOM). In 2003, with funding from the Global Environment Facility, OKACOM launched the Environmental Protection and Sustainable Management of the Okavango River Basin (EPSMO) Project to coordinate development and to anticipate and address threats to the river and the associated communities and environment. Implemented by the United Nations Development Program and executed by the United Nations Food and Agriculture Organization, the project produced the Transboundary Diagnostic Analysis to establish a

base of available scientific evidence to guide future decision making. The study, created from inputs from multi-disciplinary teams in each country, with specialists in hydrology, hydraulics, channel form, water quality, vegetation, aquatic invertebrates, fish, birds, river-dependent terrestrial wildlife, resource economics and socio-cultural issues, was coordinated and managed by a group of specialists from the southern African region in 2008 and 2009.

The following specialist technical reports were produced as part of this process and form substantive background content for the Okavango River Basin Transboundary Diagnostic Analysis

Final Study Reports	Reports integrating findings from all country and background reports, and covering the entire basin.		
		Aylward, B.	<i>Economic Valuation of Basin Resources: Final Report to EPSMO Project of the UN Food & Agriculture Organization as an Input to the Okavango River Basin Transboundary Diagnostic Analysis</i>
		Barnes, J. et al.	<i>Okavango River Basin Transboundary Diagnostic Analysis: Socio-Economic Assessment Final Report</i>
		King, J.M. and Brown, C.A.	<i>Okavango River Basin Environmental Flow Assessment Project Initiation Report (Report No: 01/2009)</i>
		King, J.M. and Brown, C.A.	<i>Okavango River Basin Environmental Flow Assessment EFA Process Report (Report No: 02/2009)</i>
		King, J.M. and Brown, C.A.	<i>Okavango River Basin Environmental Flow Assessment Guidelines for Data Collection, Analysis and Scenario Creation (Report No: 03/2009)</i>
		Bethune, S. Mazvimavi, D. and Quintino, M.	<i>Okavango River Basin Environmental Flow Assessment Delineation Report (Report No: 04/2009)</i>
		Beuster, H.	<i>Okavango River Basin Environmental Flow Assessment Hydrology Report: Data And Models (Report No: 05/2009)</i>
		Beuster, H.	<i>Okavango River Basin Environmental Flow Assessment Scenario Report : Hydrology (Report No: 06/2009)</i>
		Jones, M.J.	<i>The Groundwater Hydrology of The Okavango Basin (FAO Internal Report, April 2010)</i>
		King, J.M. and Brown, C.A.	<i>Okavango River Basin Environmental Flow Assessment Scenario Report: Ecological and Social Predictions (Volume 1 of 4) (Report No. 07/2009)</i>
		King, J.M. and Brown, C.A.	<i>Okavango River Basin Environmental Flow Assessment Scenario Report: Ecological and Social Predictions (Volume 2 of 4: Indicator results) (Report No. 07/2009)</i>
		King, J.M. and Brown, C.A.	<i>Okavango River Basin Environmental Flow Assessment Scenario Report: Ecological and Social Predictions: Climate Change Scenarios (Volume 3 of 4) (Report No. 07/2009)</i>
		King, J., Brown, C.A., Joubert, A.R. and Barnes, J.	<i>Okavango River Basin Environmental Flow Assessment Scenario Report: Biophysical Predictions (Volume 4 of 4: Climate Change Indicator Results) (Report No: 07/2009)</i>
		King, J., Brown, C.A. and Barnes, J.	<i>Okavango River Basin Environmental Flow Assessment Project Final Report (Report No: 08/2009)</i>
		Malzbender, D.	<i>Environmental Protection And Sustainable Management Of The Okavango River Basin (EPSMO): Governance Review</i>
		Vanderpost, C. and Dhlwayo, M.	<i>Database and GIS design for an expanded Okavango Basin Information System (OBIS)</i>
		Veríssimo, Luis	<i>GIS Database for the Environment Protection and Sustainable Management of the Okavango River Basin Project</i>
		Wolski, P.	<i>Assessment of hydrological effects of climate change in the Okavango Basin</i>
Country Reports Biophysical Series	Angola	Andrade e Sousa, Helder André de	<i>Análise Diagnóstica Transfronteiriça da Bacia do Rio Okavango: Módulo do Caudal Ambiental: Relatório do Especialista: País: Angola: Disciplina: Sedimentologia & Geomorfologia</i>
		Gomes, Amândio	<i>Análise Diagnóstica Transfronteiriça da Bacia do Rio Okavango: Módulo do Caudal Ambiental: Relatório do Especialista: País: Angola: Disciplina: Vegetação</i>
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		Mosepele, B. and Dallas, Helen	Okavango River Basin Technical Diagnostic Analysis: Environmental Flow Module: Specialist Report: Country: Botswana: Discipline: Aquatic Macro Invertebrates
	Namibia	Collin Christian & Associates CC	Okavango River Basin: Transboundary Diagnostic Analysis Project: Environmental Flow Assessment Module: Geomorphology
		Curtis, B.A.	Okavango River Basin Technical Diagnostic Analysis: Environmental Flow Module: Specialist Report Country: Namibia Discipline: Vegetation
		Bethune, S.	Environmental Protection and Sustainable Management of the Okavango River Basin (EPSMO): Transboundary Diagnostic Analysis: Basin Ecosystems Report
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