

Wildlife resource utilisation at Moremi Game Reserve and Khwai community area in the Okavango Delta, Botswana

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Abstract

This paper uses the concept of sustainable development to examine the utilisation of wildlife resources at Moremi Game Reserve (MGR) and Khwai community area (NG 18/19) in the Okavango Delta, Botswana. Using both secondary and primary data sources, results show that the establishment of MGR in 1963 led to the displacement of Khwai residents from their land; affected Basarwa's hunting and gathering economy; marked the beginning of resource conflicts between Khwai residents and wildlife managers; and, led to the development of negative attitudes of Khwai residents towards wildlife conservation. Since the late 1980s, a predominately foreign owned tourism industry developed in and around MGR, however, Khwai residents derive insignificant benefits from it and hence resource conflicts increased. In an attempt to address problems of resource conflicts and promote sustainable wildlife utilisation, the Botswana Government adopted the Community-Based Natural Resource Management (CBNRM) programme, which started operating at Khwai village in 2000. The CBNRM programme promotes local participation in natural resource management and rural development through tourism. It is beginning to have benefits to Khwai residents such as income generation, employment opportunities and local participation in wildlife management. These benefits from CBNRM are thus having an impact in the development of positive attitudes of Khwai residents towards wildlife conservation and tourism development. This paper argues that if extended to MGR, CBNRM has the potential of minimising wildlife conflicts between Khwai residents and the wildlife-tourism sectors. This approach may in the process promote the sustainable wildlife use in and around MGR.

Keywords: Wildlife resources; Resource conflicts; Sustainable development; Community-based natural resource management

1. Introduction

The establishment of protected areas in most parts of the world is the most widely accepted means of achieving biodiversity conservation by national and international conservation agencies (Sekhar, 2003). In Botswana, over 17% of the country's surface land area is designated as national parks and game reserves and is reserved for wildlife protection. An additional 22% of Botswana's land is designated as Wildlife Management

Areas (WMAs) and is also used for wildlife protection (Government of Botswana, 2003). However, in WMAs, other forms of land use that are not allowed in national parks and game reserves such as human settlements and agricultural development are permitted. As a result, a total of about 39% of Botswana's land surface area is set aside as protected areas where wildlife conservation and tourism development are the main forms of land use. Most of the wildlife resources in Botswana are concentrated in northern parts of the country especially in the Moremi Game Reserve (located within the

Okavango Delta) and in the Chobe National Park.

The process of establishing protected areas in Botswana began during the British colonial rule of the country, that is, between 1885 and 1966. Rural communities were thus removed from their land to give way to the creation of wildlife sanctuaries. Today most of these communities live in the outskirts of national parks and game reserves where they are denied access

and benefits from their former land which they previously used for either hunting, gathering, agricultural or settlement purposes. The land in which these communities live is designated as WMAs. Sekhar (2003) notes that local communities are often vulnerable in the establishment of protected areas especially in developing countries where livelihoods of rural communities depend on resources found in these areas. As a result, the establishment of national parks, game reserves and WMAs in Botswana marked the beginning of land use conflicts between wildlife managers, especially the Department of Wildlife and National Parks (DWNP), and rural communities that live in wildlife areas. Resource conflicts in wildlife areas of Botswana continue to pose threats to the sustainability of natural resources such as wildlife, particularly in the Moremi Game Reserve and Chobe National Park. The objective of this paper, therefore, is to examine the utilisation and management of wildlife resources at Moremi Game Reserve (MGR) and the Khwai community area (NG 18/19) in the Okavango Delta. It also investigates how the creation of MGR affected the livelihoods of the people of Khwai as well as how it has come to influence the present land use patterns and land use conflicts in the area. The paper finally explores the role that sustainable development as implemented through the Community-Based Natural Resource Management (CBNRM) programme can play in reducing land use conflicts and promoting sustainable wildlife utilisation in MGR and its adjacent areas.

2. Sustainable development and sustainable wildlife utilisation

Theoretically, the paper draws from the concept of sustainable development to address wildlife utilisation issues at MGR and the Khwai community area. The concepts of sustainable development and sustainable use of environmental resources like wildlife are closely related. The global concern over the degradation of the world's natural resource base prompted the United Nations to set up the World Commission on Environment and Development (WCED) that proposed the concept of sustainable development in 1987 (WCED, 1987). Sustainable development is defined by the WCED as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987, p. 43). In relation to wildlife resources, sustainable development implies a situation where the wildlife resources are harvested or utilised to meet the needs of the present generations without jeopardising the wildlife resource needs of future generations. The implication of the concept of sustainable development to wildlife utilisation in MGR and its adjacent areas (e.g. Khwai Community Area) is that wildlife resources should be made to benefit all

stakeholders, which include both the present and future generations. Stakeholders may include the local people living adjacent to MGR, tour operators, tourists and the Government of Botswana.

Resource conflicts between local people and the wildlife and tourism sectors reduce the potential of wildlife resources in and around MGR to be used sustainably. Studies by Wood (1993) and Darkoh and Mbaiwa (2001) have shown that conflicts over resource use by different stakeholders and resource users often result in the degradation of natural resources. This is particularly so when rural communities who happen to be the key resource users live in poverty. Chambers (1986) notes that poverty is untenable in human terms and it is also an enemy of the environment. Chambers further notes that in many parts of the world, growing numbers of poor people have inevitably led to the degradation of the environment each day just to make ends meet. Poverty in the Okavango Delta and in rural villages such as Khwai is described as widespread (NWDC, 2003). In such a situation, it is unlikely that people living in poverty and constant conflict with the central government over natural resources in their local environment can use wildlife sustainably. In order to promote the participation of rural communities in the Okavango Delta in natural resource conservation and reduce poverty, the government adopted the Community-Based Natural Resource Management (CBNRM) programme in the late 1980s.

According to Twyman (2000), participatory and community-based approaches such as the CBNRM programme are heralded as the panacea to natural resource management initiatives worldwide. Steiner and Rihoy (1995) note that the driving force behind the adoption of community-based approaches to natural resource conservation and rural development in Eastern and Southern Africa was a result of the following factors: the threat of species extinction due to over utilisation of resources especially wildlife through poaching, the inability of the state to protect its declining wildlife resources, land use conflicts between rural communities living in resource areas and wildlife managers, and the need to link conservation and development. Community-based approaches are thus assumed to promote environmental conservation and rural economic development through local community participation in natural resource management and tourism development (DWNP, 1999; Leach et al., 1999; Twyman, 2000; Mbaiwa, 2004a).

In Eastern and Southern African countries, community-based natural resource management programmes are called by different names, for example, the programme is called the Communal Area Management Programme for Indigenous Resources (CAMPFIRE) in Zimbabwe, the Luangwa Integrated Rural Development Project (LIRDIP) and the Administrative Design for Game Management Areas (ADMAGE) in Zambia, the Living in a Finite Environment (LIFE) programme in Namibia; the Tchuma

Tchato 'Our Wealth' in Mozambique; the Conservation of Biodiversity Resource Areas Programme (COBRA) in Kenya; the Ujirani Mweni 'Good Neighbourliness' in Tanzania; and in Botswana, it is called the CBNRM programme (Mbaiwa, 2004a). The implementation of CBNRM projects in Eastern and Southern African countries does not necessarily mean all the projects are successful in achieving natural resource conservation and economic benefits to local people. The success rate differs from one project to another and from one country to another. In Botswana, Arntzen et al. (2003) and Mbaiwa (2004b) note that the Sankoyo CBNRM project in the Okavango Delta is more successful when compared with other projects in the country.

The principle behind the CBNRM programme is that of reforming the conventional 'protectionist conservation philosophy' and 'top down' approaches to development, and it is based on common property theory which discourages open access resource management, and promotes resource use rights of the local communities (Rihoy, 1995; Kgathi et al., 2002). As an attempt to find new solutions for the failure of top-down approaches to development and conservation, CBNRM is based on the recognition that local people must have power to make decisions regarding their natural resources in order to encourage sustainable development (Rozemeijer and Van der Jagt, 2000). The CBNRM approach is based on the premise that local populations have a greater interest in the sustainable use of natural resources around them than centralised or distant government or private management institutions (Tsing et al., 1999; Twyman, 2000), i.e. CBNRM credits the local people with having a greater understanding of, as well as vested interest in their local environment hence they are seen as more able to effectively manage natural resources through local or traditional practices (Leach et al., 1999; Twyman, 2000). CBNRM also assumes that once rural communities participate in natural resource utilisation and derive economic benefits, this will cultivate the spirit of ownership and will ultimately lead them to use natural resources found in their local areas sustainably (Mbaiwa, 1999). Proponents of the CBNRM hope that the programme will reduce rural poverty and advance conservation by strengthening rural economies and empowering communities to manage resources for long-term social, economic and ecological benefits (Rozemeijer and Van der Jagt, 2000). Based on this theoretical understanding of natural resource management and rural development, it is necessary to assess the utilisation of wildlife resources in MGR and the Khwai community area. The goal is to examine how resource use conflicts between the Khwai community and the wildlife and tourism sectors can be minimised in an attempt to promote sustainable wildlife utilisation in MGR and its immediate environs.

3. Study area

The focus of this paper is MGR and the Khwai community area (NG 18/19) located within the Okavango Delta in northwestern Botswana (see Fig. 1). MGR was established in 1963 and it covers an area of about 4610 km². The reserve is rich in wildlife resources and has in the last two decades become one of the key tourist destinations in Botswana.

The Khwai community area extends northwards from Khwai village. It is formed by two demarcated land units known as Controlled Hunting Areas (CHAs), which are coded NG 18/19. The Khwai community area is about 1995 km². The Khwai River marks the boundary between MGR, Khwai community area and Khwai village. Because of the permanent surface water from the river, Khwai village is situated in a rich wildlife area where a variety of game species are seen throughout the year. Khwai presently has a human population of 395 (CSO, 2002). While the Basarwa (Bushmen) are in majority at Khwai, other ethnic groups such as Batawana, Bayei and Basubiya have since become residents of the village.

4. Study methods

This paper largely relied on the use of secondary data sources, particularly archival information on the establishment of MGR in 1963. This information is in the form of published and unpublished documents, government policy documents, and reports. The paper also used unpublished reports and studies carried out by the author on tourism development and wildlife management in the Okavango Delta between 1998 and 2004. Key reports/studies used include those carried out in 1998 and 2001. These surveys involved household interviews at Khwai village. The 1998 study randomly sampled 32 households out of a total of 61 while the 2001 study sampled 31 out of a total of 59 households. It is important to note that both the population and number of households at Khwai declined between 1998 and 2001. This is confirmed by data from CSO (2002) which indicate that the population of Khwai decreased from 429 in 1998 to 395 in 2001. Although the Central Statistics Office (CSO) does not provide an explanation for this decline, rural urban migration might be the cause since rural people in the different parts of the Okavango are attracted to urban life in Maun (Maun is the main tourist centre in the Okavango region).

For purposes of updating previous studies and secondary sources, in 2003, informal interviews or free discussions were conducted with government wildlife and tourism officials in Maun. Informal interviews were also conducted with safari tourism operators of Camp Moremi, Okuti lodge and Moremi Safaris in MGR. Such interviews were also conducted with managers of Khwai River Lodge, Tsaro Game Lodge and Machaba Lodge located along the Khwai River but outside MGR in the Khwai community area.

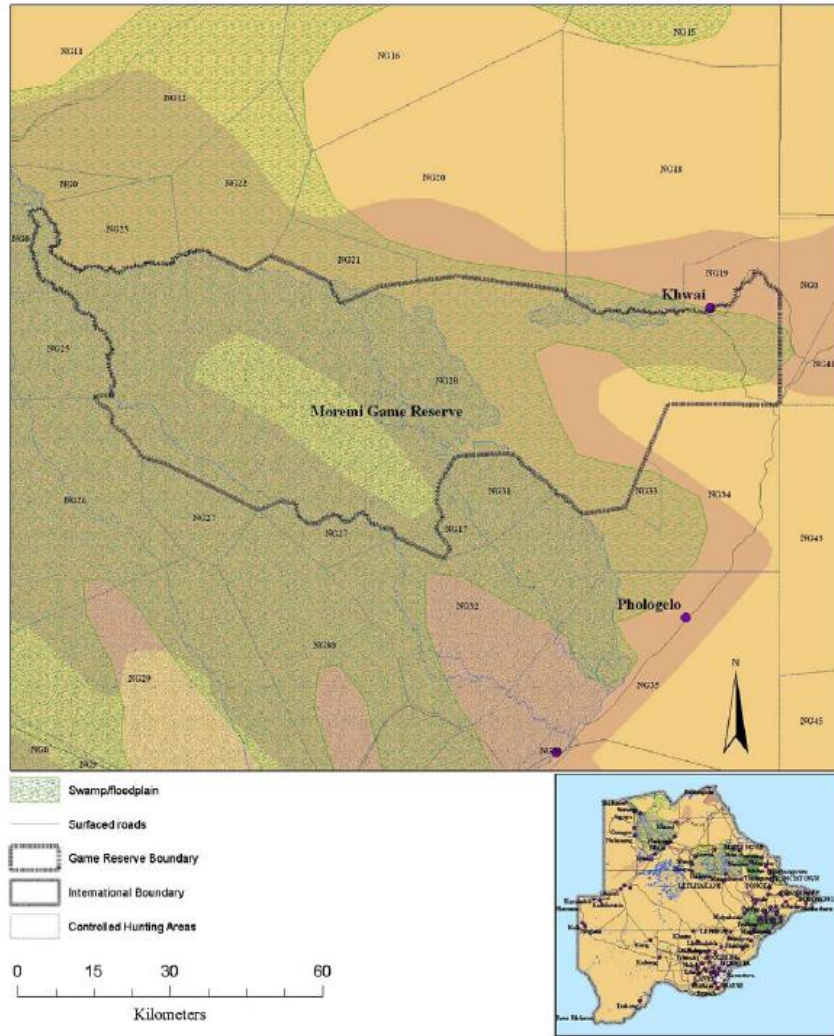


Fig. 1. Map of the Okavango Delta showing the location of MGR and Khwai village. Source: Taylor (2002).

These officials were interviewed to find out their views about the use of wildlife resources and how they believe wildlife conflicts in and around MGR can be minimised. Similarly, CBNRM leaders and tribal leaders at Khwai village were also interviewed (informally) to establish their views on resource conflicts and the role that CBNRM can play in reducing resource conflicts in the area. Interviews with community leaders at Khwai were also meant to update and confirm data from secondary data sources on the establishment of MGR and how it affected livelihoods. No sampling was carried out for the informal interviews with government officials, lodge managers and CBNRM project leaders since the organisations concerned had one spokesperson to represent the views of their companies, departments or communities.

5. Results and discussion

5.1. The establishment of MGR and the resulting negative impacts on Khwai residents

The Basarwa of Khwai are one of the small ethnic communities that lived within present day MGR until 1963 when they were removed to give way to the establishment of the reserve. Tlou (1985) notes that the Basarwa occupied the Okavango including present day MGR for over 10,000 years. After their relocation from MGR, the Basarwa of Khwai settled at Segagama which is 3 km east of present day Khwai village (Taylor, 2000). After some time at Segagama, they moved to present day Khwai village in 1965. Interviews with some elderly people at Khwai

indicate that their relocation from MGR was against their will and their huts were burnt down as they got loaded into trucks for relocation outside the reserve (Mbaiwa, 1999). There is no evidence that the people of Khwai were compensated for the loss of their property and land when they were relocated from MGR. Informal interviews with elderly people in Khwai also indicate that the area around Xakanaxa and Chief's Island within MGR used to be their hunting and gathering grounds. The immediate effects of the loss of control over land and its natural resources, particularly wildlife, were resentment, poaching, antagonism with new wildlife laws and managers, and the development of negative attitudes towards wildlife conservation by the Basarwa of Khwai (Mbaiwa, 1999). This problem continues to affect the relationship between park managers and the people of Khwai today and it also threatens the sustainability of wildlife resources in and around MGR.

The livelihoods of the people of Khwai depended on natural resources found in and around MGR, particularly hunting and the collection of veld products. The relocation from the reserve hence affected their traditional hunting and gathering livelihood patterns. Thakadu (1997) and Mbaiwa (1999) note that the Basarwa would migrate into the inner parts of the Okavango Delta during the dry season because hunting concentrated in areas where water was available. They would likewise move away from the inner parts of the Okavango Delta in the rainy seasons when there was an abundance of wild fruits everywhere. During this season, hunting would become reduced. With the establishment of MGR, the Basarwa could no longer hunt or collect veld products in areas that became part of the reserve. Of particular interest is the fact that the establishment of MGR caused Khwai residents to become trapped between the two protected areas, i.e. MGR in the south and Chobe National Park (established in 1948) in the north. Access in each of these protected areas was not allowed particularly for hunting and gathering of veld products (DWNP, 1991). This therefore shows how the creation of protected areas in the Okavango Delta affected the hunting and gathering economy of the people of Khwai. Wildlife resources among the people of Khwai were also important for religious purposes and animal skins were used for clothing (Campbell, 1997). Hunting restrictions thus affected both the spiritual aspect of Khwai residents and other related socio-economic and cultural traditions such as the acquisition of skin clothing.

Studies have shown that wildlife resource use by the Basarwa of Khwai was sustainable before their relocation from MGR (Mbaiwa, 1999). This might have been a result of factors such as the low population of the Basarwa which led to a low pressure on the use of resources; natural resources were not commercialised and over exploitation was not common; and, respect for traditional customs, norms and institutions that governed

wildlife use (Mbaiwa, 1999). Studies by Campbell (1997) and Thakadu (1997) have also shown that the Basarwa did not hunt breeding animals, only big and old male animals were hunting targets. In addition, hunting was mostly carried out in winter and it was done when all meat in stock was finished. This hunting behaviour of Khwai residents, whether it was carried out consciously or not, often resulted in the sustainable use of wildlife resources. Therefore, the relocation of the Basarwa of Khwai from MGR, restrictions on hunting, the end to nomadic lifestyles, as well as the introduction of permanent settlements affected this traditional lifestyle that existed in harmony with nature, especially the Okavango ecosystem, for centuries. The disturbance of the Basarwa of Khwai's traditional socio-cultural, economic and political lifestyles resulted in attempts to adopt new livelihood strategies such as crop and livestock farming by the people of Khwai. However, these livelihood strategies were (still are) not feasible in the area mainly because of crop damage and livestock predation by wild animals (Mbaiwa, 1999). The people of Khwai were thus left with limited livelihood options and were vulnerable to poverty. Some individuals thus resorted to poaching in order to sustain their livelihoods. This therefore explains the human-wildlife conflict between Khwai residents and wildlife managers at MGR.

5.2. Conflicts over wildlife resources between the people of Khwai and MGR

Conflicts over resources arise when several interest groups see or use resources differently in the same natural system or geographic location (Mbaiwa, 1999). In the case of resource conflicts between the Basarwa of Khwai and wildlife managers (e.g. DWNP), MGR is perceived by Khwai residents as their land where they should hunt and gather veld products. To DWNP, MGR is seen as a wildlife habitat where wildlife is to be protected from over hunting by rural communities. These opposing views on the use of MGR and resources found in it result in conflicts between the two parties.

In addition, conflicts at MGR have increased since the late 1980s mainly because the reserve has become one of the tourism hubs in Botswana. Access into the reserve is restricted to individuals who visit it for tourism purposes, which means that visitors should pay gate entry fees. Khwai residents are generally unable to pay gate entry fees, besides they do not see the need to pay the required fees since they regard the area as historically theirs. They believe that the DWNP and the government have usurped resources which previously belonged to them (Mbaiwa, 1999). This thinking by Khwai residents makes them view DWNP as a government policing body meant to deny them the use of resources they previously controlled for thousands of years.

This as a result has led to the lack of co-operation between Khwai residents and DWNP in the management of wildlife resources in the area. The exclusion of the people of Khwai from the management of MGR and the failure to let them have access to resources in the reserve are against the principles of sustainable development. Sustainable development advocates for the participation of stakeholders particularly local people in the decision-making process and resource utilisation in their local environment (WCED, 1987). As neighbours to MGR, it is logical that Khwai residents should be made partners in its management and decision-making process.

The conflict between the people of Khwai and DWNP demonstrates the unwillingness of the Botswana Government to involve local communities in wildlife management in protected areas. This conflict should be understood on the basis that government approaches the utilisation and management of natural resources in protected areas based on old western concepts and ideas of protected area management. According to McNeely (1993), in western history and experience, a protected area is perceived as "an untouched and untouchable wilderness". This view of nature is based on ignorance of the historical relationships between local people and their habitats and the role that rural people play in maintaining and conserving the biodiversity. The central government in Botswana assumes that wildlife and rural people cannot co-exist and utilise the same area (Dikobe, 1995). The Khwai conflict also indicates that to the Botswana Government, the traditional knowledge in resource management is not a factor to consider as far as resource use in protected areas is concerned. The draconian measures such as the prevention of access into the reserve and the use of the DWNP Anti-Poaching Unit (a paramilitary force) indicate the government's insensitivity to cultural obligations and rural participation in wildlife management in protected areas.

The conflict involving Khwai residents can also be demonstrated by the differences in opinion on land use between the people of Khwai and the management of the three wildlife-based facilities of Tsaro Game Lodge, Khwai River Game Lodge and Machaba Lodge. These lodges are located outside MGR along the Khwai River and each of them is less than 5 km from Khwai village. Tour operators in these lodges consider Khwai village to be situated within a wildlife and tourism area. These sentiments were also expressed by officials from the Department of Tourism in Maun and DWNP at North Gate in MGR. Managers in these lodges claimed that the Khwai settlement is destroying the wilderness picture that their tourist clients pay to see. These managers perceive the presence of domestic animals such as donkeys and dogs and littering at Khwai to be distorting the pristine and wilderness picture of the Okavango Delta, which they sell to their tourist clients in industrialised countries. For their part, village elders at Khwai village noted that all three lodges in the area were established when they were already living in the area and hence could not

comprehend the concerns of lodge managers and government officials.

The hostility between Khwai residents and tour operators is increased by the fact that the people of Khwai derive insignificant economic benefits from the three lodges. For example, only three people from Khwai were in 1998 employed at Tsaro Game Lodge where they worked as grounds men (Mbaiwa, 1999). This conflict has caused both government and the tourism industry to propose that the Khwai settlement should be relocated elsewhere far away from the MGR in order to allow tourism development and wildlife management as main land uses in the area. On the contrary, 97% of the households in Khwai were in 1998 opposed to relocation (Mbaiwa, 1999). This high percentage against relocation remained unchanged in the second survey in 2001. As indicated earlier, Khwai residents regard the wildlife and the tourism sectors as having intruded in their territory hence they are opposed to ideas of relocation. Villager elders noted that in the past they were relocated against their will when MGR was established hence they are unlikely to cooperate with any efforts to resettle them once more from their present site. In response, the government has implemented draconian measures designed to indirectly force or intimidate the people of Khwai to consider relocation. These include the suspension of the provision of all social services such as water supply, health facilities, shops, schools and communication services. The village of Khwai thus remains virtually undeveloped in terms of the provision of social services when compared with most rural settlements in the Okavango area. The suggestion of relocating Khwai residents contradicts the government's CBNRM strategy which was designed to involve local communities in the management of natural resources in their local environment.

5.3. Wildlife-based tourism at MGR

MGR is the second largest protected area (after Chobe National Park) in terms of tourist visits and revenue generation in Botswana. The Chobe National Park had 89,100 visitors while MGR had 39,159 visitors in 2003 (DWNP, 2004). Tourist activities at MGR are largely photographic in nature, they include: game viewing, camping, boating, and walking trails. Visitor statistics from DWNP indicate that there has been an increase in tourists numbers at MGR in the last three decades, for instance, only 4500 people visited the reserve in 1971 (DWNP, 1991). This figure increased to 49,556 visitors in 1998 but slightly declined to 39,159 in 2003 as shown in Table 1. The decline in tourist numbers between 1999 and 2003 is a result of the following factors: the political instability in Zimbabwe (most of the tourists that visit Zimbabwe's Victoria Falls also visit Botswana's Okavango Delta and MGR), the closure of MGR for 8 months due to flooding and impassable roads in 2000, the bombing of the World Trade Centre in the United States on September 11th

Table 1
Number of tourists and revenue collected at MGR, 1998–2003

Year	Number of tourists	Revenue generated (Pula ^a)
1998	49,556	4,301,275
1999	46,707	4,402,121
2000	30,835	5,698,198
2001	31,076	6,198,232
2002	39,734	8,088,936
2003	39,158	7,335,198

^a 5.00 BWP= 1.0 USD (by mid 2003). Source: DWNP (2002, 2004).

2001, the outbreak of SAR virus and that of the Iraq War in 2003. It should be noted that most of the tourists who visit MGR are from industrialised countries of North America, Europe, Australia and New Zealand (Mbaiwa, 2005). As a result, international disturbances like political instability or economic recession and threats of sabotage in air travel affect tourism development in the Okavango Delta and MGR.

The amount of revenue that the government generates from tourism at MGR has also increased over the years. Only R 785¹ (US\$ 120.00) was collected at the reserve in 1966 (DWNP, 1991). As shown in Table 1, this amount increased to P 8,088,936 (US\$ 1,617,787) in 2002. However, it dropped to P 7,335,198 (US\$ 1,467,039) in 2003 because of the reasons already noted above in terms of the decline of visitors to MGR. The significance of MGR in terms of generating government revenue through tourism development explains why the government does not prefer rural communities to participate in its management as an option. Instead, the government prefers private sector investment and to a minimal extent, DWNP-operated public campsites. Because of this approach, the number of tourism facilities at MGR has increased in the last two decades. In 1971, there were only two public campsites in MGR, that is Third Bridge and Xakanaxa campsites (DWNP, 1991). Two more public camping sites at North and South Gates have since been established. In the 1970s, there were no tourism lodges in MGR. However, there are presently three safari lodges in MGR, these are Okuti, Moremi and Moremi Safaris. There are also 10 private campsites operated by the Hospitality and Tourism Association of Botswana that have also been established in the last 10 years. Other tourism facilities in MGR include an airstrip and a boat camp operated by the boating safari company. The establishment of these facilities indicates that tourism in MGR and its surrounding areas has increased in the last 10 years. Ironically, there has been an insignificant economic benefit from tourism particularly from MGR to Khwai residents.

The increase in tourist numbers, revenue, tourism facilities and activities at MGR indicates that wildlife resources are an important resource in tourism development in the area. Because of their economic value, wildlife

resources are protected by law from hunting and poaching. The wildlife-based tourism industry is Botswana's second largest income earner after diamond mining. It contributes 5.0% to the country's Gross Domestic Product (Department of Tourism, 2004). This therefore shows how the wildlife resources and tourism development at MGR are so important to the Botswana Government. The irony is that, even though the wildlife-based tourism has greatly expanded at MGR, the local people such as those of Khwai do not have a role to play in the management of the reserve. They also do not have a direct share of the revenue generated from MGR, particularly gate takings and employment opportunities in camps and lodges in the reserve. The exclusion of local communities from direct socio-economic benefits and decision-making at MGR is one of the main factors that causes conflicts between the people of Khwai and the wildlife and tourism sectors. The lack of benefits and decision-making by Khwai residents from MGR is contrary to the ideals of sustainable development, particularly the notion of social equity which promotes equal access to resource use and the distribution of benefits to all stakeholders especially local groups (WCED, 1987; UNECD, 1992). This suggests that if sustainable development is to be achieved at MGR and Khwai community area, Khwai residents should be involved in the management of the reserve and get direct socio-economic benefits from the reserve.

5.4. Wildlife-Based Tourism in the Khwai Community Area (NG 18/19)

In Botswana, particularly in the Okavango Delta, the need to reduce poverty among rural communities and encourage wildlife conservation led to a policy shift towards local community participation in the management of natural resources. This approach became more appealing to rural villages such as Khwai that are located adjacent to protected areas like MGR. The Wildlife Conservation Policy of 1986 and the Tourism Policy of 1990 are the two key government policies that call for the participation of local people in wildlife management and wildlife-based tourism (Mbaiwa, 2004a). As indicated earlier, local community participation in wildlife management and tourism development in the Okavango Delta or at Khwai are carried out through the CBNRM programme. The programme is, among other values, perceived to be a strategy that addresses problems of land use conflicts, the lack of direct wildlife economic benefits, and the participation of local people in wildlife resource management. In order to facilitate the implementation of the CBNRM programme in the Okavango Delta, the entire region was divided into land units known as Wildlife Management Areas (WMAs). WMAs are further sub-divided into smaller units known as Controlled Hunting Areas (CHAs). CHAs are used by DWNP as administrative blocks to allocate wildlife quotas to the different communities such as those of Khwai (Kgathi et al., 2002; Mbaiwa,

¹ In terms of currency, Botswana used the South African Rand (R) before changing to Botswana Pula (P) in 1976s.

2004a). In total, the Okavango area is divided into 28 WMAs and 49 CHAs. Most of the CHAs are zoned around existing settlements and MGR (Kgathi et al., 2002). The people of Khwai were allocated NG 18/19 (refer to Fig. 1) for both safari hunting and photographic tourism purposes. Since MGR is not fenced, there is a free movement of wild animals between the reserve and NG 18/19. This therefore indirectly allows Khwai residents to benefit from wildlife resources from MGR.

While the involvement of Khwai residents in natural resource management and tourism through the CBNRM programme are positive developments in promoting the ideals of sustainable development, it can also be viewed as a form of appeasement by the government to this rural community, i.e. the government is somehow indirectly compensating the people of Khwai for the land and wildlife resources they lost over four decades ago when MGR was established in 1963. In addition, the government may be attempting to divert the attention of Khwai residents from their persistent demands for access to and benefits from MGR to focus their attention on tourism and wildlife management in NG 18/19. As a result, even though the CBNRM programme offers hope in promoting wildlife conservation and rural development at Khwai, much is not known about the sustainability of government attempts in appeasing and diverting the attention of Khwai residents from MGR to NG 18/19. As pointed out earlier, a sustainable option would be that of involving the people of Khwai and other communities living adjacent to MGR in wildlife utilisation and management of the reserve.

5.4.1. The Khwai Development Trust

The Khwai Development Trust (KDT) is a local institution that the people of Khwai formed to enable them to benefit from wildlife resources through consumptive and non-consumptive tourism purposes in NG 18/19. It started operating in 2000. Despite being one of the first villages to be encouraged to participate in the CBNRM programme and having the highest potential in economic benefits from wildlife in the country, Khwai was among the last villages in the Okavango to implement CBNRM projects (Mbaiwa, 1999; Taylor 2000). This is because Khwai residents proposed a CBNRM model where they could have full control and ownership of wildlife resources in their areas (Mbaiwa, 1999). However, the government could not accept the proposal by Khwai as it was not in line with its model of leasing the land for a 15-year period to participating communities and an annual allocation of a wildlife quota. Khwai also proposed an exclusive Basarwa CBNRM model where other ethnic groups within the village were to be excluded from participation or deriving benefits from the programme (Mbaiwa, 1999). In addition to creating internal ethnic conflicts among the residents of Khwai, this controversial proposal delayed the registration of the KDT because the government could not accept a constitution, which discriminated against other ethnic

groups within the same village. As a result, the government demanded that the people of Khwai should change their constitution to include other ethnic groups. The government also demanded that the people of Khwai should accept its proposal of a 15-year lease of NG 18/19 and an annual wildlife quota allocated by DWNP instead of full ownership of all the wildlife resources or land in the area. It was only after Khwai residents accepted these proposals that their Trust (KDT) was registered in 2000. Because of these conditions on registering the KDT, Taylor (2000) notes that at Khwai, "CBNRM did not seem after all to be easily moulded to the hopes, aspirations and plans of what they envisioned development in their area should constitute". This is because Khwai residents were forced to accept government conditions before they could be allowed to benefit from tourism development and participate in natural resource management in their local environment.

Internal conflicts at Khwai due to ethnic differences had the potential to negatively affect the success of CBNRM in that village. Government refusal to register the KDT because of its exclusion of non-Basarwa ethnic groups led to a revision of the KDT constitution. The new and revised constitution addressed problems of discrimination either through ethnic background or gender and placed every adult in the village at an equal level in the affairs of the Trust. For example, the constitution states that any citizen of Botswana who is 18 years and above and has lived in Khwai village for a period of more than 5 years can become a member of the Trust. Such an individual can be elected to become an office bearer of the KDT and is free to participate in any activity of the trust and derive socio-economic benefits from it like any other member (Mbaiwa, 2002). Because of this clause in the KDT constitution, the present chairperson of the KDT Board elected in August 2003 is not a Mosarwa (San) but a Motawana from Maun who has been residing at Khwai village for several years (more than 5 years) running his tuckshop business. This development indicates that the constitution has managed to address internal conflicts caused by ethnic differences. The election of the KDT Board chairperson should therefore serve as an example that promotes an understanding between ethnic groups residing at Khwai not only in tourism development and natural resource management but also in other aspects of community development. The KDT constitution should also provide other villages in the Okavango Delta or in Botswana as a whole a model of dealing with issues of ethnic differences in community development projects.

The KDT is the only CBNRM project in the Okavango which does not sub-lease its community area to any safari operator, instead the people of Khwai operate the tourism business on their own. They sell their annual wildlife quota from DWNP through an auction sale to individual safari hunters and safari companies. Since 2000, the KDT has generated socio-economic benefits in terms of income, employment, meat and other intangible benefits from tourism in their community area. As shown in Table 2,

Table 2
Revenue generated by the KDT from sales of wildlife quota, 2000–2002

Year	Revenue generated (in Botswana Pula)
2000	1,100,000
2001	550,000
2002	1,211,533

the KDT generated substantial income from the sale of their wildlife quotas through auction sales to various hunting companies and individuals between 2000 and 2002. In 2001, the project employed 78 people (Mbaiwa, 2002). Most of the people employed at the time of the study were constructing two tourist camps in NG 18/19. These results demonstrate that in its short time of implementation at Khwai village, the CBNRM programme has had some success as far as socio-economic benefits are concerned in the village.

The distribution of benefits at Khwai is, however, limited to income generation, employment and infrastructure development such as campsites. Emphasis is placed on communal benefits rather than on individual gains. The CBNRM programme at Khwai can thus be noted for making a contribution to the improvement of livelihoods in the village. However, the KDT and people of Khwai in general have problems in running an efficient and successful CBNRM project. Some of the problems identified include: the lack of entrepreneurial skills in the tourism business; the lack of a full understanding of how the concept of CBNRM operates; the failure to re-invest revenue generated from the sale of wildlife quotas; and, the mismanagement and misappropriation of funds generated from CBNRM projects (Mbaiwa, 2004b).

The provision of entrepreneurship and management skills in the tourism business for the people of Khwai should thus be given priority in order for CBNRM to succeed. This can be possible if the joint venture partnership (between government, tour operators and the local communities) is observed and respected by all partners, i.e. government should maintain its role of allocating land and an annual wildlife quota to Khwai residents for tourism purposes. Khwai residents should work with private investors in sub-leasing NG 18/19 as opposed to the present situation where they underutilize it due to their limited knowledge and skill in the tourism business. NG 18/19 is presently only used for hunting purposes from April 1 to September 30 every year (hunting season). However, the large size of the area (1995 Km²) and its rich wildlife diversity indicates that it can accommodate other income and employment generating activities like photographic tourism and lodging which would significantly benefit the village. This could be possible if Khwai residents were to involve private investors with much knowledge and skill in the tourism business. In addition, if Khwai residents were to sub-lease NG 18/19 and sell their wildlife quota to the private

sectors, this would reduce the unreliability, insecure income and small profits they generate from the sale of the wildlife quota through auction sales. As shown in Table 2, sales were almost half in 2001 of what they got the previous year. In villages such as Sankoyo where community areas are sub-leased and wildlife quotas sold to private companies, there is often an annual increase in revenue generation (Mbaiwa, 2004b). For their part, private investors should be committed to providing the necessary entrepreneurship and managerial skills in the tourism business to Khwai residents. This means that there should be contracts that specify the time framework on which private investors are expected to have fulfilled their commitment of capacity building.

The people of Khwai can also work with Non-Governmental Organisations (NGOs) involved in community development to assist them in training and acquisition of skills in the tourism business. So far, NGOs like Conservation International-Botswana (CI) are instrumental in the training of local communities in skills needed for tourism development in the Okavango Delta. For example, CI assisted the community of Gudigwa (another Basarwa community displaced from MGR) in the northern sandveld of the Okavango in establishing a Trust and an upmarket lodge known as Gudigwa Camp. CI also assisted the Gudigwa community in negotiating with Okavango Wilderness Safaris (one of the major photographic companies in the Okavango) to provide a 6-months training for Gudigwa residents in jobs such as guiding (interpretation), book keeping, chefs, waiters, and lodge management (Mbaiwa and Ranstundu, 2003). This example can be copied and adopted by Khwai residents in order to make their CBNRM project successful particularly at this early stage of development. Its only after Khwai residents have gained enough experience, confidence and the necessary skills in the tourism business that they could run their CBNRM projects independently without sub-leasing NG 18/19 or selling their annual wildlife quota to safari operators and investors.

5.5. The role of CBNRM in reducing human-wildlife conflicts

The successful implementation of the CBNRM programme at Khwai can result in the minimisation of resource conflicts and indirectly promote sustainable wildlife use in the area. The assumption is that once local people derive sustainable economic benefits from wildlife-based tourism, they will have a sense of ownership over natural resources like wildlife. As wildlife becomes a valuable resource to Khwai residents, they might begin to feel obliged to conserve it. Apparently, findings indicate that ever since the CBNRM programme was implemented at Khwai, there has been a development of positive attitudes among Khwai residents towards tourism development and wildlife conservation. This can

be attributed to the socio-economic benefits that they derive from wildlife resources through CBNRM projects in their community area, i.e. in NG 18/19.

To illustrate the issue of attitudes of the people at Khwai, in 1998, before the implementation of the CBNRM programme in the village, Khwai residents had negative attitudes towards wildlife conservation and tourism development (Mbaiwa, 1999). Mbaiwa notes that about 94% of the households by then noted that they did not have any role to play in policy making regarding wildlife utilisation and management. As a result, these households did not feel obliged to conserve wildlife resources in their local environment. In addition, 72% of the households said they derived no benefits from tourism (e.g. income, employment, improved infrastructure, e.g. water supply and roads) hence they again felt it was not necessary for them to promote tourism development. Interviews with wildlife officers at North Gate indicated that wildlife poaching by then was a problem in and around MGR. The households interviewed noted that only safari operators and the central government benefited from tourism at the time. They also noted that government and tour operators inside MGR and those operating along the Khwai River next to their village had taken over the land and its resources (Mbaiwa, 1999). All these factors indicate that because Khwai residents did not benefit from wildlife resources in their area they felt no obligation to conserve the resource or promote tourism development.

In the second survey in 2001, the negative attitudes of Khwai residents were found to be changing and becoming positive towards wildlife conservation and tourism development (i.e. less than 2 years after the CBNRM programme was implemented in the village). To illustrate this point, interviews indicated that about 61% of the households supported the existence of wildlife resources in their local environment. They also noted that due to the implementation of the CBNRM programme in their area, they now have a role to play in the decision-making process regarding wildlife use and tourism development in NG 18/19. Similarly, 84% of the households supported tourism development in NG 18/19 because of the economic benefits such as meat, income, and employment from community-based tourism initiatives. This shows that the implementation of the CBNRM programme at Khwai has an impact in influencing local attitudes towards wildlife conservation and tourism development. Similar studies conducted in Zimbabwe's community-based natural resource management programme known as CAMPFIRE by Murphree (1993) and Mwenya et al. (1991) indicate that people living in wildlife areas tend to put more value and perceive wildlife as a valuable resource when they derive benefits from it and have a sense of ownership over it. This results in local people using wildlife resources sustainably. This shows that for a community to manage its resource base sustainably, it must receive direct socio-economic benefits arising from its use. The changing attitudes of the people of Khwai thus

indicate that in the event, the implementation of CBNRM in NG 18/19 is successful and sustainable, there is a likelihood that sustainable wildlife utilization in the area can be achieved.

Although the CBNRM has several problems that hinder its success at Khwai or in Botswana, the programme is generally described as achieving some level of success particularly in the Okavango Delta where the majority of the projects are based (Mbaiwa, 2004a). For example, in 2001, CBNRM generated an estimated P4.8 million (about US\$ 800,000) from all the 13 Okavango CBNRM projects through contracts and joint venture partnerships with safari operators, sale of hunting quotas, crafts and veld products, and small-scale tourism ventures (North West District CBNRM Forum, 2001). It also provided employment opportunities for 832 people in all the CBNRM projects in the Okavango Delta (North West District CBNRM Forum, 2001). In relation to wildlife poaching by rural communities, statistics was not readily available at the time of this study, however, DWNP officials noted that ever since the introduction of CBNRM in the Okavango and at Khwai in particular, there has been a reduction in poaching cases or people arrested or reported for poaching. This demonstrates the value that local communities now put on wildlife resources and their willingness to promote the sustainable use of wildlife in their local environment. This also indicates that even though CBNRM is in its early stages of development, it has the potential of improving rural livelihoods and achieving wildlife resource conservation.

Therefore, the extension of the CBNRM programme into protected areas such as MGR can influence people living in adjacent areas of the reserve to begin viewing wildlife managers or DWNP more as partners in conservation than a policing body that has usurped the control of wildlife resources from them. Partnerships between DWNP and rural communities in the management of the reserve can promote dialogue and understanding on how resource conflicts in and around MGR can be minimised or controlled. This means that consideration of how rural communities can directly benefit from resources in MGR and how they can be made part of the decision-making process in park management should become a priority for government. McNeely (1993) notes that when local people derive economic benefits from protected areas and are involved in decision-making particularly in the formulation, implementation and monitoring of wildlife management policies, they are likely to observe park regulations and can successfully enforce them. This enhances the assumption that partnership between the wildlife and tourism sectors, the people of Khwai and other communities living around MGR can provide a lasting solution to the wildlife and tourism conflicts in the Okavango Delta.

The development of positive attitudes towards wildlife conservation due to benefits from tourism and the level of

participation in resource management at Khwai appears to be the case with other communities in other parts of the world. This is shown by studies carried out by Weladji et al. (2003) who assessed stakeholder attitudes towards Benoue Community Area in North Cameroon and Alexander (2000) who assessed attitudes of local residents towards the Community Baboon Sanctuary in Belize. Weladji et al. (2003) found that while rural people had positive attitudes towards the existence of the Bonoue National Park, their attitudes were negative towards the system of hunting concession areas in the community area. The negative attitudes were a result of the fact that local communities disliked the hunters and professional guides from companies that hunted in the concession area. Weladji et al. note that local people felt that professional hunters and tour operators were misusing wildlife resources, which they consider to be traditionally theirs. Rural communities were, however, positive towards the Bonoue National Park because they derive socio-economic benefits from it. In Belize, Alexander (2000) notes the unequal distribution in income, employment and the lack of transparency in the management of the community tourism project as the main factor why people had negative attitudes towards wildlife conservation in the Community Baboon Sanctuary. The Cameroon and Belize case studies confirm the Khwai situation that attitudes depend on the whether local communities are satisfied with the amount of benefits they derive from resources in their local environment and the level of participation in resource management and in their community project.

The Khwai, Cameroon and Belize case studies indicate that if community-based tourism projects are to be successful, local empowerment in natural resource management and tourism development should be given priority. While the meaning of empowerment is debatable to those in academia, Scheyvens (1999) notes that empowerment has four main components, these are economic, social, psychological and political empowerment. In relation to community-based tourism, economic empowerment suggests that community-based projects should have sustainable economic benefits which in turn are equitably distributed in the community either to individuals or to a community; political empowerment involves the existence of a forum where local people express their views freely in the management of their community project irrespective of gender, ethnicity and social status. It also includes the existence of local institutions that transparently and effectively promote and manage community projects. Social empowerment suggests that community projects should promote local harmony and unity to enhance a good working relationship between the different individuals within a community. When there is unity within a community, the chances of a community project succeeding are higher. Psychological empowerment is where local people develop self-esteem and confidence to independently and effectively manage community projects without much

outside influence. When local people are empowered to run projects independently from outside assistance and derive sustainable economic benefits from their projects, programmes such as CBNRM at Khwai in the Okavango Delta can become effective tools in promoting positive attitudes towards wildlife conservation and related natural resources. It can also minimise resource conflicts and promote rural development as well as improved rural livelihoods in rich biodiversity areas of the world such as the Okavango Delta in Botswana.

6. Conclusion

The Okavango Delta, whose inner areas have been designated as MGR, contains numerous biotic and abiotic elements, all of which have the potential to be valued as natural resources by one or more groups. The Basarwa of Khwai see the Okavango Delta as their patrimony and their livelihoods are mostly dependent on the utilisation of wildlife resources and veld products found in the area. The Government of Botswana and the private sector interest groups see the area's wildlife resources as a potential source of wealth through safari hunting and photographic tourism. Each of these groups thus constructs a different image of the Okavango Delta with different sets of natural resource uses. This results in competition over resource use and conflicts between resource users. To the people of Khwai, there appears to be an encroachment on their territorial rights and deprivation of traditional sources of livelihood and means of sustenance through the establishment of MGR in 1963. State policies have affected natural resource use with insecurity of access to land, wildlife and veld products. As a result, the people of Khwai are forced to compete for the same resources in territorial land that has decreased because of government imposed interventions and restrictions. As a result, competition for the same resources in a shrinking territorial land is the source of conflict between the people of Khwai on the one hand and the wildlife and the tourism sectors on the other. Studies have shown that conventional policies on their own are not able to solve wildlife conflicts between protected area management and communities living in the outskirts of protected areas (McNeely, 1993). As a result, local participation and local knowledge are necessary in protected area management in order to minimise conflicts between stakeholders and promote sustainable wildlife utilisation.

The prevailing land use conflicts in and around MGR show that the management of protected areas as isolated islands from surrounding communities is not a sustainable and feasible option for DWNP or government. As a result, there is need for DWNP to promote partnership and cooperation with local communities in the management of MGR. This new partnership can play a useful role in

helping to revive, renew, and re-interpret traditional approaches to make them adaptive to modern conditions in the management of resources found in protected areas such as MGR. This means that partnership between local communities and wildlife management agencies can benefit both local people and protected areas in biodiversity conservation and improved livelihoods. In addition, partnership in the management of MGR between the Government and the people of Khwai can be possible if the CBNRM programme is extended to the reserve. What is needed therefore is to encourage private and community investment in MGR through the CBNRM programme or sharing of benefits such as gate takings and employment opportunities. Employment at MGR can include jobs such as wildlife wardens, interpreters, annual wildlife counting and monitoring, and the clearing of roads and tracks. This strategy can reduce tension and conflicts over access and the use of resources in MGR and promote cooperation with adjacent communities in wildlife conservation and tourism development. It can also create a sense of ownership of the reserve by rural communities.

In relation to NG 18/19, the implementation of CBNRM in the area has shown that local community participation in decision-making regarding wildlife resource utilisation and management is an important aspect of the sustainable use of wildlife resources. The partial decentralisation in land management and access to wildlife utilisation in NG 18/19 has shown that government control and management of wildlife resources through DWNP is not satisfactory since it precludes community participation and engenders friction and conflict. It has also shown that effective and quality wildlife management and monitoring require the involvement of those living in natural resource areas since they are better placed and are economically motivated to monitor the use of resources on a daily basis. This indicates that the involvement of local people in wildlife resource management should incorporate rights over land use as is the case with the current arrangement with Khwai residents through CBNRM in NG 18/19. This approach can enhance commitment and ownership or stewardship of wildlife and land resources by local people and thus promote sustainability in resource use. It is necessary to recognise that local communities living in wildlife areas such as those of Khwai village possess local knowledge on wildlife resource utilisation that can be fused together with the modern scientific knowledge to promote sustainable wildlife utilisation and management. As a result, partnership between stakeholders (e.g. government, tour operators, local people and NGOs) in natural resource management in wildlife areas remains an important aspect of sustainable wildlife management and sustainable development. This is necessary in rich biodiversity areas such as the Okavango Delta in Botswana.

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