

Past and present perspectives on the sustainable use of wildlife resources among Basarwa communities in Ngamiland district, Botswana: the case of Khwai and Mababe

Joseph E. Mbaiwa

Harry Oppenheimer Okavango Research Centre, University of Botswana, Maun

E-mail: Jmbaiwa@orc.ub.bw

This paper discusses the past and present perspectives of wildlife resource use amongst Basarwa communities in Ngamiland District. For purposes of illustration, the Basarwa of Khwai and Mababe will in this paper be used as examples. The paper explores the sustainability of wildlife utilisation amongst these communities from the pre-colonial period to the present time. It argues that they have utilized wildlife resources sustainably ever since they inhabited the Okavango Delta and its surroundings. However, the introduction of European trade in wildlife products, colonization and later post-independence practices altered these traditional and sustainable practices. The paper notes that even with current efforts of introducing community-based natural resource management amongst the Basarwa communities, the implementation is associated with several problems resulting in general marginalisation of the communities.

Historically, wildlife resources have played a significant role in sustaining the livelihoods of traditional societies. Eltringham (1984) notes that human development has been possible partially because of the exploitation of wild animals. Apart from meat, animals provide people with skins and fur for clothing, sinews for rope and thread, fat for fuel, antler for tools, horns for drinking vessels and musical instruments and bone for all sorts of purposes from tools to weapons. Although Botswana is one of the few African countries still endowed with a variety of natural resources of which wildlife is a major component (Barnhoorn et al. 1994), wildlife resources are currently facing a constant decline in terms of population (Perkins and Ringrose 1996; Albertson 1998). Sustainable ways of resource management must be adopted if wildlife resources are to remain available for the present and future generations.

The concept of sustainable development (WECD 1987) of which the arguments in this paper are based, is hinged on three main concerns. These are social equity, economic efficiency and ecological sustainability (Angelson *et al*, 1994; Munasinghe and McNeely 1995). Social equity advocates for fairness and equal access to resources by all the user groups. This is aimed at ensuring equity in the distribution of costs, benefits, decision-making and management. Economic efficiency aims at the optimal use of natural resources to meet human needs or to maximize human welfare within the constraints of existing capital (Serageldin 1993; Munasinghe and McNeely 1995). Ecological sustainability stresses the need to preserve the integrity of ecological subsystems viewed as critical for the overall stability of the global ecosystem. That is, the use of renewable natural resources should not be faster than the rate at which the natural process renews them (Serageldin 1993). Despite the positive assumptions of the concept of sustainable development, there are those who feel that such development involves contradictory goals (e.g. Redclift 1987; Arnold 1989; Lele 1991; Warren 1996). In spite of this, it has come to be generally accepted that "real" development cannot be achieved unless the strategies are sustainable and consistent with social values and institutions.

This paper, therefore, discusses the past and present perspectives of wildlife resource use amongst two Basarwa communities in Ngamiland District. Both primary and secondary data sources were used, and unstructured questionnaires were administered to key informants among local people both in Khwai and Mababe. Informal interviews were also conducted with central and local government officials as well as Board members of the community-based natural resource management initiatives. Data was collected between July and October in 1998 and between February and April 2001.

Description of Khwai and Mababe settlements

The settlements of Mababe and Khwai are located on the south eastern fringes of the Okavango Delta. They are both located between Moremi Game Reserve in the south and Chobe National Park in the north. In 1998, Khwai had a population of 360 and Mababe 290 people (Taylor 2001). The people of Khwai and Mababe are Basarwa, but they belong to different clan groups. Those of Khwai are Bugakhwe (OCC 1995; Bolaane 2000a; Taylor 2001) while those of Mababe are Tzexa (OCC, 1995) or Ts'exa (Taylor, 2001). The Basarwa of Mababe and Khwai previously lived a nomadic life of hunting and gathering. This has, however, changed because of the recent land use management regulations which restrict them to specific locations.

While the people of Khwai and Mababe are still involved in the gathering of veld products (e.g. wild fruits, berries, roots, etc) for consumption purposes, the suspension of the Special Game Licence in Ngamiland District in 1996 generally altered their way of living. The Special Game Licence previously allowed them to hunt without prohibition. Restrictions in hunting have made them become involved in new economic activities that were previously not part of their traditional economic activities. In Khwai, this includes harvesting of thatching grass for sale to the various lodges in the Okavango Delta (Mbaiwa 1999), a limited amount of arable agriculture, and weaving of baskets (Mbaiwa 1999; Bolaane 2000a) that are sold to tourists. The people of Mababe also keep a few donkeys and chickens and practice arable agriculture, but to a limited extent. In Khwai, crops are often destroyed by elephants and hippos (Bolaane 2000a) while elephants, zebras and kudu destroy crops in Mababe (Mbaiwa 1999). Since 2000, the Basarwa of Khwai and Mababe have become involved in Community-Based Natural Resources Management (CBNRM) projects. These have produced some economic benefits such as income and employment opportunities.

Wildlife utilisation among Basarwa communities: a historical perspective

The use of wildlife resources by the Basarwa communities in the Okavango Delta during the pre-colonial period is generally assumed to have been sustainable. This was possible because of the traditional and religious attachments which the Basarwa communities had with their natural environment (Tlou 1985; Thakadu 1997). The Basarwa perceived wild animals to be an intimate part of the environment controlled by God. Misuse of wildlife could bring down God's wrath upon them (Campbell 1995). Darkoh (1996) argues that Africa as a whole has a long tradition of sustainable resource utilization and management especially at a community level. He further argues that indigenous people in pre-colonial Africa possessed knowledge of resource utilization and management which was not static but dynamic, depending on the socio-economic and environmental circumstances of particular local communities. This knowledge was possessed by both males and females who collectively utilized and managed their natural resources. Mbanefo and de Boerr (1993) also note that indigenous peoples in remote areas developed wise procedures to protect their natural resources over centuries and could thus be called the original environmentalists.

The livelihoods of the Basarwa in Ngamiland District depended on natural resources found around them. Each band had traditional customs, norms and institutions that governed resource use, and the differences in these practices between the different bands were minimal. Examples from Khwai and Mababe illustrate how the Basarwa used their traditional customs to promote the sustainable use of wildlife resources in their areas. These include the following:

(i) *Basarwa traditional wildlife management.* The Basarwa in Khwai and Mababe had strong traditional leadership institutions, which governed the utilisation and management of all natural resources in their respective territories. The Basarwa lived around the delta in small bands composed of 30-50 people who were mostly of the same clan. Each Basarwa band or group had its own leader who was not necessarily referred to as a king or headman. Thakadu (1997) notes that the leader in each Basarwa band was responsible for the utilisation and management of all the natural resources like wildlife in his territory. He dispatched hunting and gathering expeditions and made sure that other Basarwa bands did not use the resources within his area. The leader would defend resources in his territory in any conflict with other infringing bands.

Thakadu (1997) notes that the bandleader would remind the people of their hunting territories and conservation ethics to be observed during hunting. Informants in Khwai and Mababe confirmed that they had leaders who always directed the hunting and gathering activities around the delta. Specific lessons on hunting were given to Basarwa boys by male elders while women provided skills and information on gathering to girls. Boys would accompany their male elders in hunting expeditions while girls joined their mothers or women in gathering expeditions.

(ii) *Land use management amongst Basarwa.* To avoid land degradation and wildlife resource deterioration, the Basarwa were mobile, but always kept the same camps or sites in their movements. The availability of natural resources like water, wildlife and various products influenced the location of such camps or settlements. Mababe residents said that they would move towards the delta when there was no water in drier seasons and outside to dry places in times of good rains. The nomadic lifestyle of the Basarwa not only demonstrated the ecological understanding of their environment, but also helped to give the resources in different ecological settings and seasons time to recuperate.

Campbell (1995) states that Basarwa groups recognised mutually exclusive hunting grounds in which they lived, and the territories of neighbouring bands. A band could hunt freely in its own territory, and the spoils of hunting belonged to its members. However, a band would ask for permission from a neighbouring band in case they wanted to track a wounded animal which went into their territory. The spoils of such an animal would either be shared or reverted to the alien band (Campbell 1995). Campbell notes that each band knew very well that hunting or gathering natural resources in another band's territory without permission would lead to conflict, and thus respect of each group's rights over certain areas of land was observed (Thakadu 1997). Natural features such as rivers, hills and big trees marked the territories or boundaries for each band. One may assume that the individual group rights and custodianship over the natural resources in one particular area would motivate the group to utilise the resources in a sustainable way.

(iii) *Ecological understanding amongst Basarwa.* The way of life of the Basarwa shows a deep understanding of how the ecosystem functions. The migrations into the Okavango Delta during dry seasons and away from the delta during wet seasons provided an opportunity for natural resources to regenerate in vacated areas. Wildlife belonged to the community, not the individual, and as such it was controlled by the community through

their leaders. Community ownership of wildlife resources ensured that no individual was able to maximise personal wildlife gains to the detriment of communal wildlife resources. Meat of large animals was shared equally amongst the households after every kill and would bind the community and households together (Campbell 1995). The sharing aspect of what was provided by nature was a way of controlling the use of natural resources that resulted in avoiding waste, and secured the continued availability of such resources. The communal ownership of wildlife resources thus meant that resources were not exposed to an open access system of resource use, which often results in the degradation of natural resources in a 'tragedy of the commons' syndrome (Hardin 1968).

Although Basarwa hunted throughout the year, hunting intensified only in winter, and became limited in summer. Big game such as gemsbok, eland and giraffe were not hunted in summer because it was assumed that the bulk of the meat might be spoiled before being made into biltong (Thakadu 1997). Although, this was done to preserve the meat, it gave these species time to regenerate. In summer veld products were readily available to supplement their diet. The fact that hunting was done mostly in winter and became less pronounced in summer shows that defined hunting seasons existed and these were upheld by a set of cultural norms.

During breeding seasons, only old male animals were killed, leaving female animals with the young reproductive bulls to continue with the reproductive cycle (Thakadu 1997). Selective hunting by the Basarwa communities shows an understanding of how to maintain a balance of wildlife population in their surroundings.

(iv) *Basarwa traditional hunting tools and methods.* Although the sandveld Basarwa group used a variety of means to kill game, the most effective weapon for hunting was the poisoned arrow, which was capable of killing game as large as the elephant (Tlou, 1985).

The Basarwa of Khwai relied more on game pits and snares than on poisoned arrows (Tlou 1985). Snares were set and camouflaged pits were dug along river banks and across game paths leading to the waterfront where game drank (Tlou 1985, Campbell 1995). Sometimes the pits were lined at the bottom with poisoned stakes pointing upwards. These holes were covered with a mat of sticks and grass supporting a thin layer of sand and made indistinguishable from the trail. Often fences made from branches and leaves of trees were built along the riverbank leaving only the trails open, and guiding animals into traps. Such traps could catch animals as large as elephant or hippo.

The use of snares, traps, bows and arrows, pitfalls, canoes and spears were appropriate and environmentally friendly methods, and ensured that only a limited amount of game was harvested at a time. Wildlife utilisation amongst the local communities was at this time mainly used for consumptive and religious purposes. There was little misuse especially since it was believed that any misuse would anger the gods (Campbell 1995). The whole traditional practice of when to hunt and which animal to hunt indicates that people were aware of how they should use the wildlife resources around them to avoid over-harvesting. Wildlife was a community resource base from which each member of the community benefited through sharing. Sharing was a practical way of lessening conflicts between rival interests over community property.

Effects of Batawana arrival on Basarwa wildlife management

The Batawana, an offshoot of the Bangwato of the Central District, seceded in the nineteenth century and immigrated to Ngamiland District. The Batawana state was thus superimposed on the hitherto stateless societies of the area. The period before the arrival of the Batawana in Ngamiland District was characterized by the absence of a unitary state and the prevalence of small-scale communities with diversified social and political structures

(Tlou 1985). None of these entities was powerful enough to impose its rule on others. They were relatively autonomous until their incorporation into the Batawana state in the early nineteenth century.

The use of customary, totemic and tribute laws came to govern wildlife utilisation and management under the Batawana rule in Ngamiland. The laws were built upon local knowledge and were modified with time to meet the changing needs and nature of the wildlife industry. Under customary law, all the ethnic groups in the Okavango were required to surrender their user rights to the Batawana kings. The king would then hold all wildlife resources in trust for his people, or as a titular owner of the land, he was entitled to share in the proceeds of every hunting expedition (Schapera 1943). Communal ownership of the resources meant communal policing or protection of wildlife against poaching or over-harvesting. The management of natural resources under customary law endured for centuries in part because of the strong religious links with ancestors and also because of the low population densities which helped to maintain an ecological balance (Chenje and Johnson 1994; Campbell 1995).

According to Campbell (1995), all the different ethnic groups in Botswana recognised totemism, the belief that under certain circumstances, some humans can transpose their spirits into those of wildlife animals or take an animal form before and after death. The animals and birds considered as totems were respected, which, led to the preservation and conservation of such animals. The Basarwa in Khwai mentioned lion, sun, and warthog as some of their totems. Killing or eating of totems was forbidden, because it might pose hazards to the individual. For example, it was generally believed that anyone who touches or eats his totem will have his teeth removed or develop sores all over the body.

Killing and eating of totems not only affected the individual, but the community as well. Natural calamities like droughts, hailstorms, locusts, disease and other forms of pestilence were interpreted to be the result of anger by the gods due to misbehaviour on the part of society, and the eating or killing of totems was considered one of the causes. The respect and observing of totems by the people was an important cultural norm since it meant preservation of the totem species.

Effects of European trade and colonisation on Basarwa wildlife management

The arrival of Europeans and the introduction of European trade in Ngamiland District in the 1830s altered the traditional wildlife management systems of all the ethnic groups in Ngamiland District. Trade between the people of Ngamiland and European traders involved the exchange of ivory, ostrich feathers, karosses and, to a lesser extent, hippo teeth with cheaper items such as household goods, clothes, wine and guns (Tlou 1985). Before the coming of Europeans, all these commodities were previously not regarded as valuable by the people of Ngamiland District. The involvement of these people in European trade changed their traditional wildlife utilisation patterns, as wildlife species were no longer used only for consumptive and religious purposes, but for commercial purposes as well. These changes were also burdensome to the subjugated groups such as the Basarwa who were required by the Batawana masters to provide wildlife products for trade with Europeans.

The commercialization of wildlife resources led to the over-harvesting of particular species since the trade was driven by profit making without any consideration for the ecological aspects. The involvement with Europeans also led to Batawana kings failing to control the use of wildlife as they had done before. Thus there were two major players responsible for the over-exploitation of the wildlife resources in Ngamiland: the European traders, and the local kings and their people.

The expansion of European trade in Ngamiland introduced the use of guns which later spread at an alarming rate. An example is that, by 1874, *Kgosi* Moremi of Ngamiland District personally owned more than 2, 000 modern rifles, which he dished out to his people to hunt on his behalf. It is estimated that, there was a total of about 8, 000 rifles in Ngamiland District at that time, all these subjected wildlife to terrific pressure (White 1995). The Batawana kings used their regiments (*mephato*) and newly acquired guns for hunting wildlife resources for sale in the whole of the Okavango region.

As trade of wildlife products increased in Ngamiland, the tribute system (*sehuba*) became the source of most trade goods used by Batawana kings in Ngamiland District. Officials or representatives of the Batawana king travelled throughout the state to collect tribute, and this collection became more frequent, systematic and rigorous for the people of the Okavango. The standing of the Batawana provincial governors within the administrative system was enhanced because of their role in tribute collection from hunting. The tribute system was no longer used as a sign of respect and loyalty to the king as well as ensuring sustained wildlife populations in the veld, but became a system to enrich the kings. This indicates the breakdown of the traditional culture of wildlife conservation due to European influence in trade and the introduction of an open access regime in resource management in Ngamiland District.

The colonisation of Botswana by the British in 1885, with Ngamiland District included in 1894, resulted in wildlife management being approached in two ways. Firstly, there were statutory laws that governed the use of wildlife resources and only applied to Europeans, and secondly, pressure was imposed by the colonial government on the local kings to come up with customary laws (*melao*) for their people, along lines similar to the statutory game laws for Europeans. These laws in both cases were allegedly targeted at curbing the unsustainable commercial exploitation of wildlife resources in Botswana. The major controlling interest was in both cases the colonial government as these decrees were only to operate with the approval of the British Resident Commissioner (Spinage, 1991). Thus both the rights of the Batawana and the Basarwa to manage wildlife utilisation according to their own customary laws and practices were replaced by the European colonial system.

One of the significant laws passed during British rule in Botswana was the Bechuanaland Protectorate Game Proclamation No. 17 of 1925. This law called for the creation of national parks, game reserves, and wildlife sanctuaries, whereby wildlife species and areas, or species within a defined area were to be protected. This proclamation led to the establishment of protected areas such as the Chobe Game Reserve (1961) and Moremi Game Reserve (1965). The creation of protected areas resulted in hostility between the Basarwa groups and the new wildlife managers. This was because protected areas were exclusive and the Basarwa were denied access as well as hunting and gathering rights in the areas which they previously enjoyed.

Modern wildlife use by Basarwa communities

After Botswana's independence in 1966, several problems emerged, affecting wildlife management not only in Ngamiland and amongst the Basarwa communities but also in Botswana as a whole. Firstly, the old British colonial wildlife management policies and institutions were either adopted or partially modified by the new post-colonial leaders of Botswana. This has resulted in wildlife resources remaining centralised with little or no participation of local communities in wildlife policy design except when a community is allocated a hunting quota. Secondly, wildlife policies and institutions in Botswana have continued to be formulated and adopted without the full involvement and participation of all major stakeholders, especially local people living in wildlife areas. Thirdly, all natural resource agencies, institutions and policies are fragmented among different government

ministries and departments. This arrangement results in policies conflicting with each other during implementation. For example, under the National Settlement Policy of 1992, Khwai, with its 360 people, is supposed to be recognised as a permanent settlement. This, however, is currently not the case as residents of Khwai have been asked to re-locate elsewhere. Fourthly, agencies and institutions dealing with natural resource management are located within line ministries and hence often lack teeth or political support.

The centralisation of wildlife management is the source of all the land use conflicts between government and the local Basarwa communities in wildlife areas in Ngamiland District. In an attempt to address the problems of wildlife management especially in rural areas, government adopted the concept of Community-Based Natural Resource Management (CBNRM) in the late 1980s.

Community-based natural resource management and Basarwa communities

The evolution of Community-based Natural Resource Management (CBNRM) in Southern and East Africa from the 1980s is a result of the following; the threat of species extinction due to over utilisation of wildlife resources through poaching; the inability of the state to protect its declining wildlife resources, land use conflicts between the rural communities living in resource areas and wildlife managers, and the need to link conservation and development (Steiner and Rihoy 1998). In Botswana, government introduced CBNRM after adopting the Wildlife Conservation Policy of 1986 and the Tourism Policy of 1990. The Wildlife Conservation Policy resulted in Botswana's districts being divided into Wildlife Management Areas (WMAs) and Controlled Hunting Areas (CHAs). Botswana is divided into 163 CHAs which are zoned for various types of wildlife utilisation (both consumptive and non-consumptive uses), under commercial or community management (Rozemeijer and van der Jagt 2000). CHAs in Ngamiland District are zoned around existing settlements, Moremi Game Reserve and the Okavango Delta. NG 18 and 19 have been allocated to the Khwai Community while NG 41 has been allocated to Mababe. It is in these community areas that the Basarwa communities are expected to practice wildlife based tourism activities.

The allocation of CHAs to the people of Khwai and Mababe through a 15-year lease provides residents of the two settlements the right to use allocated resources (e.g. wildlife and veld products such as thatching grass) and to manage the land as their own and derive economic benefits. This partial return of land to Basarwa communities is one way in which it is hoped they will be able to use resources in their territories sustainably.

The adoption of CBNRM is based on the assumption that local populations have a greater interest in the sustainable use of natural resources around them than have distant government or private management institutions. CBNRM presumes 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 around them sustainably (Mbaiwa 1999; Tsing *et al* 1999).

The adoption of CBNRM demonstrates that conventional methods of natural resource management on their own are not adequate for the sustainable use of natural resources. CBNRM should, therefore, demonstrate the extent to which traditional and conventional methods of natural resource management can be fused together to achieve a higher degree of sustainability in wildlife areas. In Khwai and Mababe, CBNRM has taken the form of hunting and photographic tourism activities. These activities are co-ordinated by a trust referred to as a Community-Based Organisation (CBO).

The Khwai Development Trust (KDT) is a trust owned by the people of Khwai. It started operating in 2000 and was allocated NG 18 and 19 which cover 1 982 square kilometres. The KDT is the only CBO in Ngamiland District which did not sub-lease its community

CHAs to any safari operator; instead the people of Khwai operate the tourism business on their own. In 2000, KDT sold its community wildlife quota at an auction sale and made PULA 1,500,000 (US\$ 300,000). In an attempt to re-invest this money, KDT is currently involved in the construction of two safari camps in the two community areas. Employment opportunities have as a result been created for about 78 people. These people are employed either as builders, spot guides, waiters, housekeepers, cooks, guards and labourers. Findings indicate that ever since the implementation of CBNRM in Khwai, there has been a development of positive attitudes among residents towards tourism and wildlife management (Mbaiwa, 2002). This is contrary to the recorded negative attitudes recorded by Mbaiwa (1999) before CBNRM was implemented in the settlement.

The Mababe Zokotsama Community Development Trust (MZCDT) started operating in 2000. It is a trust owned and operated by the Basarwa of Mababe. The trust has been allocated NG41 that covers an area of 860 square kilometers. Like KDT, MZCDT uses its community area for hunting and photographic tourism purposes. The trust, has sub-leased its territory to a safari company called African Field Sports and in 2000, it generated P675,000 (US \$135,000). The trust and the safari company employ about 53 of the people of Mababe. Apart from the Land Cruiser vehicle that the trust has so far bought, most of the money is not yet re-invested in any project. Mababe also does not have a village development plan on which revenue generated from the community-based tourism can be reinvested.

The implementation of CBNRM in Khwai and Mababe and in Ngamiland District as a whole is associated with a host of problems that bring about poor results. Taylor (2001) notes that despite being the first villages to be encouraged to participate in CBNRM programmes and having amongst the highest potential economic benefits in the whole country, Khwai and Mababe have been amongst the last in Ngamiland to implement CBNRM projects. In respect to Khwai, Mbaiwa (1999) notes the Basarwa of Khwai propose a different model of community wildlife management projects as compared to that of government. They propose full community ownership and control of land, wildlife and natural resources found in the area.

The proposal by Khwai was generally not accepted by government, which preferred leasing the land for a 15 year period to participating communities and an annual allocation of a wildlife quota. In addition, Khwai proposed an exclusive Basarwa CBNRM trust where other ethnic groups within the settlement were to be excluded from participation or deriving benefits from the trust. Apart from creating internal conflicts amongst the residents of Khwai, the proposal delayed the registration of the trust as government could not accept a constitution which discriminated against other ethnic groups within the settlement (Bolaane 2000b, Mbaiwa 2002). As a result, Taylor (2001:3) notes "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".

Even after the implementation of CBNRM in Khwai and Mababe, findings indicate that it is generally performing poorly as is the case in other projects in Ngamiland District. The poor performance is a result of the lack of entrepreneurship skills in the tourism business by these communities, lack of a full understanding of the concept of CBNRM by local communities (Mbaiwa 1999), and a general clouded picture of how benefits derived from the sale of wildlife quotas land rentals should be shared; that is, should they benefit individual households or the community as a whole? There is also the problem of mistrust between the general membership of trusts and Board of Trustee members as the latter are often accused of enriching themselves with community funds while the rest of the communities benefit nothing from CBNRM (Mbaiwa 2002).

This problem of successfully implementing of CBNRM is further exacerbated by the confusion created by a savingram in January 2001, addressed to district councils. The savingram instructed district councils to retain all the funds from community projects instead of having them directly going to community accounts (Molale 2001). Through the savingram, government also noted that wildlife resources are a national resource such as diamonds and hence questioned the logic of having communities living in wildlife areas (such as those of the Basarwa) directly benefiting from wildlife resources while other groups in the country do not have these opportunities (Molale 2001). All these factors, therefore, negatively impact on the successful implementation of CBNRM in Khwai, Mababe and Ngamiland District as a whole.

Resource conflicts between Basarwa and other stakeholders

Although it is difficult to establish a direct link between resource conflicts amongst stakeholders and wildlife decline in Botswana, Wood (1993) notes that fighting and insecurity may prevent appropriate management of natural resources and reduce their production, thereby worsening shortages and intensifying competition and conflict. Conflicts over resources arise when several interest groups use them differently in the same natural system or geographic location. Resource conflicts involving the Basarwa in Ngamiland and other resource users are illustrated by the following:

Conflict between wildlife management and the Basarwa. The establishment of the two protected areas of Moremi Game Reserve and Chobe National Park in Ngamiland District conflict with the socio-economic activities (e.g. subsistence hunting, gathering) of the people of Khwai and Mababe. Through informal interviews, it was found that the two protected areas were established in the hunting and gathering lands of local communities without their consultation. For example, in Mababe, respondents noted that the establishment of Chobe National Park and the extension of Moremi Game Reserve in 1989 resulted in the reduction of their land, and access for hunting and gathering which they previously had to these areas was now denied. Respondents in Khwai also noted that they have been re-located several times from Moremi Game Reserve and in some instances their properties (e.g. huts) were burnt down while they were loaded into trucks to give way for wildlife conservation (Mbaiwa 1999). They noted that they used to live at Xakanaxa area in Moremi Game Reserve. Their re-location from Xakanaxa resulted in the area becoming one of the major tourist attractions in the region. At present, three lodges of Okuti, Moremi (Okavango) and Delta Camp operate in the area. There is also a public campsite operated by the Department of Wildlife and National Parks and several Hotel and Tourism Association of Botswana (HATAB) campsites (about nine) in the area. There are also a few boating safari companies operating. The re-location of the Basarwa from the present Moremi Game Reserve was a condition for the subsequent tourism development.

The community leaders in Khwai and Mababe also indicate that people in these villages want to have access, control and benefits from natural resources found in protected areas. This includes hunting and gathering of veld products such as firewood, thatching grass, wild fruits, berries and roots (edible tubers). However, the Department of Wildlife and National Parks (DWNP) does not allow hunting or gathering of resources in protected areas. Access in protected areas is allowed to individuals for tourist purposes and gate entry fees are required. Rural communities in most cases are unable to pay park entry fees, besides they do not see the need to pay the required fees since they regard the area as historically theirs. These communities believe that the DWNP has usurped them of the resources which previously belonged to them. This conflict situation has resulted in a lack

of cooperation between the two groups in the management of natural resources such as wildlife.

The conflict between local communities and DWNP demonstrates government's unwillingness to involve local communities in wildlife management in protected areas. This conflict should be understood on the basis that government approaches the utilisation of natural resources following western concepts and ideas of protected area management. The western concept perceives a protected area to be an untouched and untouchable wilderness (Adams and McShane 1992). This view of nature is based on ignorance of the historical relationships between local people and their habitats and of the role local people play in maintaining biodiversity. Hence the antagonism between people living in wildlife areas and government promoting conventional methods of wildlife conservation in the Okavango Basin.

Conflict between the tourist sector and the people of Khwai. The growth of tourist activities in the Okavango Delta and the concept that the Okavango should be kept a complete wilderness area for tourism and wildlife management have become the source of conflict between tour operators and the local communities. Tour operators of Tsaro Game Lodge, Khwai River Game Lodge and Machaba Lodge located along the Khwai River consider Khwai village to be situated within a wildlife and tourist area, a sentiment also expressed by officials from the Departments of Tourism in Maun and Wildlife and National Parks at North Gate in Moremi Game Reserve. The Khwai settlement is claimed to be destroying the wilderness picture that tourist clients pay to see. The presence of domestic animals such as donkeys and dogs and the littering at Khwai is also perceived as destructive to the tourist industry. Both the government and the tourist industry have as a result proposed that the settlement should relocate elsewhere away from the Moremi Game Reserve and give way to tourism development and wildlife management.

However, the people of Khwai are opposed to re-location mainly because they regard the wildlife and the tourist sectors as having intruded in their territory. In response, the government has implemented draconian measures designed to indirectly force or intimidate the people of Khwai to consider re-location. These measures include the government suspension of the provision of all social services such as water supply, clinics, shops, schools and communications. Hence Khwai remains virtually undeveloped when compared to most settlements in Ngamiland.

In addition to indirectly influencing hostility between the people of Khwai on the one hand, and the wildlife and tourist sector on the other, the suggestion to re-locate Khwai contradicts government's strategy of Community-Based Natural Resource Management (CBNRM). As noted earlier, CBNRM is designed to have local community involvement in the management of natural resources, thereby ensuring them direct resource benefits from these resources. These contradictions show the lack of harmonisation and co-ordination of government policies.

Finally, it should be noted that the area around Khwai settlement has in the past years had increased pressure on resource use by the different stakeholders. The area forms a major tourist link and route between Chobe National Park and Moremi Game Reserve. The rich wildlife resources have resulted in the location of three lodges, a public campsite and the opening of North Gate for entry into Moremi Game Reserve. In addition to these existing facilities, at the time of the study, the Khwai community was constructing two camps for hunting and photographic tourism activities respectively. Therefore, the various stakeholders, that is, the private tourist industry, government and the local communities are bound to conflict with each other as competition on the use of the same resources in this

area grows. As already noted, the people of Khwai have been on the losing side as they continue to live under the threat of a possible re-location of their settlement.

Conclusion

This paper has argued that in the pre-colonial period, sustainable utilisation and management of wildlife resources was practiced with minimal conflict amongst the Basarwa societies, as illustrated by examples in Khwai and Mababe. However, the sustainable traditional wildlife management systems of the Basarwa were later affected by several factors; firstly, the arrival of the Batawana in Ngamiland, secondly, the introduction of European trade and the subsequent colonization of Botswana by the British, and thirdly, the centralization of wildlife resources by both the colonial and post-colonial governments.

These effects and changes to the Basarwa's traditional wildlife management systems suggest that these people have been overtaken by modern events. Hence they are bound to either shift, incorporate or adopt the new patterns of wildlife management. However, evidence in this paper shows that it is possible for the traditional or ingenious knowledge possessed by the Basarwa to be fused together with scientific knowledge in order to bring about sustainable utilization and management of wildlife resources in the area. This is reflected by the introduction of CBNRM in Ngamiland District. If it is successfully implemented, CBNRM can provide an opportunity whereby a hybrid form of management is produced, using both traditional and conventional methods. It is this form of management that is likely to result in the sustainable use of wildlife resources and the harmonisation of the various stakeholders in the area.

However, resource conflicts between the Basarwa and the wildlife and tourist industries indicate that there has been an increase in human population with diverse resource interest in the recent past. Therefore, in order to reduce resource conflicts between the various stakeholders and resource users, there is need for an integrated management plan that will take into consideration the views of all the stakeholders.

Finally, the involvement of communities such as Khwai and Mababe in CBNRM should ensure local empowerment (e.g. training and acquisition of entrepreneurship skills) and participation in the decision-making process on the use of wildlife resources management. Sustainability of wildlife resources in Ngamiland District suggests that the Basarwa should be involved in decision making regarding wildlife use, they should derive meaningful economic benefits from the wildlife-based tourism industry and they should ensure the wise use of wildlife resources.

References

- Adams, J.S. and McShane, T.O. (1992) *The Myth of Wild Africa: Conservation Without Illusion*. New York: Norton and Company.
- Albertson, A. (1998) Northern Botswana Veterinary Fences: Critical Ecological Impacts. Okavango People's Wildlife Trust, Maun.
- Angelson, A. Fjeldstad, O. and Rasheed-Sumala, U. (1994) *Project Appraisal and Sustainability in Less Developed Countries*. Oslo: Bergen Print Services.
- Arnold, S. (1989) Sustainable Development: A Solution to the Development Puzzle? *Development*, 2/3: 21-5.
- Bolaane, M. (2000a). The Common Property Management Regime of the Khwai, Botswana: A Pre-CBNRM System of Governance? In: *Commons Southern Africa*, Vol 2, Pt 2, Nov. 2000, 8–10.
- Bolaane, M. (2000b) Community-Based Models of Wildlife Enterprise Development in Botswana: A Comparative Study of Khwai and Sankuyo in Ngamiland. In Doré, D. and Chafota, J. (eds) *Institutional Analysis of Community Based Wildlife Enterprises and Land Use of Other Natural Resources: Case Studies From Southern Africa*. Lilongwe: WWF.

- Barnhoorn, F., Jansen, R., Riezebos, H.T., and Sterkenburg, J.J. (1994) *Sustainable Development in Botswana: An Analysis of Resource Management in Three Communal Development Areas*. Utrecht: The Royal Dutch Geographical Society, Utrecht University.
- Campbell, A.C. (1995) Utilisation of Wildlife in Botswana from Earliest Times to AD 900. In: *The Present Status of Wildlife and its Future in Botswana*. Kalahari Conservation Society and Chobe Wildlife Trust Symposium/Workshop, Gaborone, pp.45-67.
- Chenje, M., and Johnson, E., (eds) (1994) *The State of the Environment in Southern Africa*, Johannesburg: The Penrose Press.
- Eltringham, S.K. (1984) *Wildlife Resources and Economic Development*. New York: John Wiley And Sons.
- Hardin, G. (1968) Tragedy of the Commons: The Population Problem has no Technical Solution; It Requires a Fundamental Extension in Morality. In: *Science*, 1243 – 1248.
- Lele, S. (1991) Sustainable Development: A Critical Review. *World Development*, 19 (6): 607-621.
- Mbaiwa, J.E. (2002) The Socio-Economic and Environmental Impacts of Tourism Development in the Okavango Delta, Botswana. Final Report. Harry Oppenheimer Okavango Research Centre, University of Botswana, Maun.
- Mbaiwa, J.E. (1999) Prospects for Sustainable Wildlife Resource Utilisation and Management in Botswana: A Case Study of East Ngamiland District. M.Sc. Thesis, Department of Environmental Science, University of Botswana, Gaborone.
- Mbanefo, S., and de Boer, H. (1993) CAMPFIRE in Zimbabwe. In: Kemf, F. (ed) *Indigenous Peoples and Protected Areas: The Law of The Mother*. London: Earthscan.
- Molale, E. (2001). Management of Funds Realised from the Community Based Natural Resources Management Project. Savingram No LG 3/6/2/1 IV (46) of 30th January 2001. Ministry of Local Government, Lands and Housing, Gaborone.
- Munasinghe, M. and McNeely, J. (1995) Key Concepts and Terminology of Sustainable Development. In: Munasinghe, M. and Shearer, W. (eds). *Defining and Measuring Sustainability: The Biological Foundations*. Washington: The International Bank for Reconstruction and Development/The World Bank.
- Okavango Community Consultants, OCC (1995). Management Plans for Controlled Hunting Areas Allocated to Communities in Ngamiland WMAs. Maun.
- Perkins, J.S., and Ringrose, S.M. (1996) Development Cooperations, Objectives and the Beef Protocol: The Case of Botswana, A Study of Livestock/Wildlife/Tourism /Degradation Linkages. University of Botswana, Gaborone.
- Redclift, M.R. (1987) *Sustainable Development: Exploring the Contradictions*. London: Methuen.
- Rozemeijer, N. and Van der Jagt, C. (2000). Community Based Natural Resource Management in Botswana: How Community Based is Community Based Natural Resource Management in Botswana? Occasional Paper Series, IUCN/SNV CBNRM Support Programme, Gaborone.
- Schapera, I. (1943) *Native Land Tenure in the Bechuanaland Protectorate*. Lovedale: Alice.
- Serageldin I. (1993) Making Development Sustainable, *Finance and Development*, pp 10-13.
- Spinage, C. (1991) History and Evolution of the Fauna Conservation Laws of Botswana. Gaborone: The Botswana Society.
- Steiner, A. and Rihoy, E., (1995) The Commons Without Tragedy? Strategies for Community-based Natural Resources Management in Southern Africa. Proceedings of the Regional Natural Resources Management Programme Annual Conference: SADC Wildlife Technical Co-ordinating Unit, Kasane, pp.1-36.
- Taylor, M. (2001) Whose Agendas? Reassessing the Role of CBNRM in Botswana. National Museum of Botswana, Gaborone.
- Thakadu, O.T. (1997) Indigenous Wildlife Knowledge Systems and their Role in Facilitating Community-based Wildlife Management Projects in Botswana. M.Sc Thesis, School of Environment and Development, University of Natal, Pietermaritzburg.
- Tlou, T. (1985) *History of Ngamiland: 1750–1906 The Formation of an African State*. Gaborone: Macmillan Publishing Company.
- Tsing, A.L., Brosius, J.P. and Zerner, C. 1999: Assessing Community-Based Natural Resource Management. *Ambio* 28, 197-8.

- Warren, A. (1996) Comments on Indigenous and Scientific Knowledge: Some Critical Comments. *Indigenous Knowledge and Development Monitor*. 4(1): 13-14.
- White, R. (1995) Licencing, Utilisation and Public Attitudes to Wildlife. In: *The Present Status of Wildlife and its Future in Botswana*. Kalahari Conservation Society and Chobe Wildlife Trust Symposium/Workshop, Gaborone, pp 79 - 87.
- Wood, A. (1993) Natural Resource Conflicts in South West Ethiopia. In Hurskanien, A. and Salih, M. (eds) *Social Science and Conflict Analysis*, Uppsala: Nordiska Afrikaistitutet.
- World Commission on Environment and Development (WCED) (1987) *Our Common Future*. London: Oxford University Press. London.