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## **The Economic Contribution of Safari Hunting to Rural Livelihoods in the Okavango: The Case of Sankuyo Village**

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### **Abstract**

This study aimed at assessing the economic contribution of safari hunting to rural livelihoods in the Okavango Delta in Botswana, using Sankuyo village as a case study. This study was carried out between June and July 2004. It employed primary and secondary data sources. Findings indicate that, within the context of Community Based Natural Resources Management (CBNRM), safari hunting has socio-economic benefits accruing to Sankuyo (at household and community level). These benefits include income (coming in the form of cash dividends and through employment) that have been generated, and the development of recreational and household sanitation facilities that has taken place in the village. The study also found that the distribution of safari hunting benefits among Sankuyo households is fairly equitable. Income from safari hunting has also been used to purchase communally owned resources such as vehicles. Because of these benefits, the people of Sankuyo have since developed positive attitudes towards safari hunting. These findings thus suggest that safari hunting is important in improving rural livelihoods in the Okavango Delta while at the same time promoting natural resource conservation.

### **Introduction**

Safari hunting has contributed significantly to many African national economies through foreign exchange derived through hunting fees and other spin-off benefits such as employment (Barnett, 2000). A study commissioned by the Botswana Wildlife Management Association in 2000 on the economic analysis of safari hunting in Botswana found that the activity generated a gross income of US \$12.5 million in 2000 (Arntzen, 2003). Prior to the adoption and implementation of the CBNRM programme in the late 1980s, revenue derived from safari hunting was used entirely by government wildlife authorities for management of the resource and did not benefit local communities. Part was also sent to the national central treasury. However, wildlife populations continued to decline even as the wildlife authorities gained significant funds from revenues accruing from safari hunting (Barnett, 2000). This scenario has also occurred in other eastern and southern African states, such as in Mozambique, Zimbabwe, Zambia, Malawi, Tanzania and Kenya, as revealed by TRAFFIC (Trade Records Analysis of Fauna and Flora in Commerce) in a recent survey by Barnett (2000). While reasons for the declines varied, the major underlying factor was found to be the failure to recognise the socio-

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economic significance of wildlife resources to rural livelihoods (Barnett, 2000; Mvimi *et al*, 2003; Thakadu, 1997).

In realising that the lack of involvement of local communities in the management of wildlife resources could endanger the future viability of safari hunting, some governments together with safari operators opted for partnerships with local communities and to 'devolve greater financial and social benefits of safari hunting to local communities' (Barnett, 2000; 15). This approach was initially applied to community-based cropping schemes in eastern and southern Africa. The schemes originated from the wildlife sector as they were initiated mainly with a focus on community conservation of wildlife. This therefore explains why safari hunting, undertaken through joint ventures with the private sector, has continued to dominate CBNRM programmes (Rihoy *et al*, 1999). Barnett (2000) noted that the community-based cropping initiatives have been recognised and welcomed by communities as they generate substantial tangible wildlife benefits. In Botswana, community involvement in wildlife management was carried out through the CBNRM Programme (Dikobe and Thakadu, 1997; Mvimi, 2000; Mbaiwa, 1999, 2004a).

The CBNRM programme was established to promote natural resource conservation and rural economic development. The programme, which was initially entirely wildlife based, is characterised by consumptive (e.g. hunting) and non-consumptive (e.g. photographic) tourism activities (Mbaiwa, 2004a). CBNRM coverage has been growing ever since the first Community Based Organisation (CBO) was initiated in 1989 in the Chobe district. In 1993 only two districts and five villages were involved, whilst currently CBNRM programmes have spread to nine districts. Arntzen *et al* (2003) indicate that by 2002, 46 registered CBOs were in place covering 120 villages, 14 of which are in joint venture agreements mostly in commercial safari hunting. While statistics indicate that over 103,000 people nation-wide are involved in CBNRM programmes, in Ngamiland District alone 10% of the total district's population of communities are CBNRM communities (Rozemeijer, 2003).

Much has been accomplished through CBNRM since the adoption of the programme over a decade ago. For instance, employment opportunities for villages have been created and some of the communities involved have been able to raise considerable amounts of income. Studies and reviews (e.g. Mbaiwa, 2002; Arntzen *et al*, 2003) have been carried out on the performance of the different CBOs, and have generated information on the income contributed by different CBNRM sources and the employment opportunities created through these projects. However, there is little in-depth knowledge on the economic impacts of specific components of tourism within communities involved, and in particular how safari hunting has improved rural livelihoods at the household level. Little is also known on the perceptions of the people within CBNRM Programme areas towards safari hunting as well as on the investments of income derived from hunting into other projects.

A study was undertaken to this effect, which aimed at providing knowledge and information on these issues as they affect residents of Sankuyo village. The study was guided by the following questions: 1. What are the socio-economic benefits of safari hunting to the people of Sankuyo village? 2. Is the distribution of benefits from safari hunting equitable amongst the various households in Sankuyo village? 3. How is the income from safari hunting utilised by the community? 4. What are the perceptions and attitudes of the people of Sankuyo towards safari hunting? By providing some answers to these questions, this paper hopes to ascertain the relationship that exists between CBNRM (through safari hunting) and rural livelihoods in the Okavango Delta.

In terms of structure, the remaining sections of this paper are organised as follows:

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Background of the CBNRM Programme in Botswana and its relationship with the sustainability of rural livelihoods; Brief description of the study area; The methodology used in the study; Analyses the findings of the study; and Conclusion.

### **CBNRM and Sustainable Rural Livelihoods**

Community based natural resources management programmes were initiated in eastern and southern Africa in response to factors such as the threat of species extinction due to over utilisation of resources (especially wildlife resources through poaching); the inability of the state to protect declining wildlife resources; land use conflicts between rural communities living in resource areas and national resource managers; and the need to link conservation and development (Mbaiwa, 2004a; Steiner and Rihoy, 1995). There are two key policies that facilitated the implementation of the CBNRM programme in Botswana: the Wildlife Conservation Policy of 1986 and the Tourism Policy of 1990 (Mbaiwa, 2002). Both policies called for communities living in resource areas to participate in natural resource management and tourism development. The Wildlife Conservation Policy proposed the division of nine districts of Botswana into Wildlife Management Areas (WMAs) and Controlled Hunting Areas (CHAs). As a result, Botswana is divided into 163 CHAs, 42 of which are designated for community management; and 14 of these 42 community-zoned CHAs have been leased out to communities (Rozemeijer, 2003). The lease gives the communities exclusive user rights: that is, they gain the legal right to utilise natural resources within their area to benefit themselves (Rozemeijer, 2003).

The CBNRM programme involves local communities in the sustainable utilisation and management of the natural resources in their own areas. The assumption is that if rural communities actively participate in the management of their natural resources and derive some economic benefits therefrom, a spirit of ownership will be cultivated amongst them that will result in a more sustainable use of natural resources by those communities. It is further based upon the notion that all citizens share an interest in conserving Botswana's environment, but those people who live closest to the natural resources feel the most impact from the use, abuse and non-use of the resources. Therefore, these are the very people who, if given proper tools and incentives, will best manage these natural resources (MoLG, 2003). CBNRM thus promotes the conservation of natural resources and the enhancement of the livelihoods of rural people who live among and use those resources. CBNRM implementation has emphasised a 'win-win' situation by enhancing livelihoods sustainably by protecting the natural resources base while improving communities' standard of living (Turner, 2004). CBNRM recognises the value of the knowledge of local people and places an emphasis on the relationship between natural resources and people's quality of life. It addresses poverty by letting the benefits of sustainable utilisation accrue to the people that interact most with the resources (Dikobe and Thakadu, 1997). CBNRM thus aspires to achieve the following goals: increase rural economic activity through natural resources management, and improve community attitudes towards wildlife through associating conservation with increased incomes, thereby improving the status of both wildlife and conservation (Boggs, 2004; Steiner and Rihoy, 1995).

CBNRM projects aim at ensuring that revenues from the utilisation of natural resources within community managed CHAs accrue to the local community in order to benefit rural livelihoods and rural development. Thus, the revenue and other benefits should be used to improve the living conditions of families and communities; to compensate families that are affected due to "living with" CBNRM resources; be re-invest in natural resources management;

and be invested in programmes that will strengthen and diversify the income sources of communities (Arntzen *et al*, 2003). CBNRM programmes are attempts at alleviating poverty by improving rural livelihoods. Poverty is one of the major challenges facing Botswana today, with approximately 30% of all households - most of which are in rural communities - living below the poverty datum line in 2002/03 (MFDP, 2005). Since CBNRM programmes mainly take place in rural settings where poverty is high, Turner (2004:58) asserts that 'to the extent that CBNRM achieves economic benefits for such communities, it is reasonable to infer that it significantly alleviates poverty there'. CBNRM can therefore be one of the tools to promote sustainable rural livelihoods in Botswana.

The term livelihood was defined by the Department for International Development (DFID) as a combination of the resources used and activities undertaken as a means of living (DFID, 2001). The resources in this aspect are livelihood assets which comprise natural, physical, human, financial and social capital. The activities and access to resources are mediated by institutions and social relations, and these together determine living gained by individuals or households (Ellis, 2000; Turner, 2004). The concept of sustainable rural livelihoods implies that stakeholders with different perspectives will engage in debates about the factors that affect livelihoods, their relative importance and the way in which they interact. The sustainable livelihoods approach ensures that peoples' livelihoods remain the focus of attention, and depends mostly on the core principles of being people-centered, holistic, dynamic, and sustainable (DFID, 2001). This can help in identifying appropriate entry points for support of livelihoods. In linking CBNRM to livelihoods, Turner (2004) noted that the natural resources base, which translates into natural capital, serves as the pillar of rural livelihoods. Using DFID's sustainable livelihood framework, he outlined the tangible and intangible dimensions of livelihood and the livelihood benefits generated through CBNRM (DFID, 2001; Turner, 2004). This framework can be applied to individuals, households, villages, regions and even nations (Mbaiwa, 2004b; Scoones, 1998). To this effect, Turner (2004) noted that the successful performance of CBNRM enhances livelihoods by developing a sense of empowerment at individual, household and community levels, even though these are indirect livelihood benefits. This framework is the base for the assessment of safari hunting and its impact on the improvement of rural livelihoods in Sankuyo.

### The Study Area

This study was carried out in Sankuyo village, situated in the eastern part of the Okavango Delta within the Batawana Tribal Territory in the northwestern part of Botswana. The village has a population of 372 people (GoB, 2002). In terms of tribal composition, it is primarily a Bayei community with Basubiya forming an important minority.

The main economic activities of Sankuyo residents are arable agriculture and the gathering of veld produce. Residents also keep donkeys, goats and chickens, although - because the village is situated in a stock-free zone - cattle are not kept (Maotonyane, 1996). When government zoned some CHAs for community management, the village registered their CBO - Sankuyo Tshwaragano Management Trust (STMT) - in 1995, and Sankuyo village was then allocated CHAs NG33 and NG34 for photographic and hunting purposes, respectively (Mbaiwa, 2002). These areas have high concentrations of wildlife. STMT operates both NG33 and NG34, which are strategically located south of the Moremi Game Reserve. Sankuyo village was chosen as a study area mainly because it was the first village in Ngamiland to establish community-based tourism.

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### **Methodology**

This paper is a result of the study conducted in Sankuyo village during the months of June and July 2004. Data collection entailed the utilisation of both primary and secondary data sources. The latter included published and unpublished documents and reports on previous studies carried out in the area, STMT records, and government reports and policy documents with relevance to CBNRM mainly in the Okavango region. Secondary literature was meant to provide information on the background of CBNRM and the achievements of the programme in the Okavango with particular reference to Sankuyo Village.

Primary data collection was in the form of structured interviews. A total of 31 out of the 49 households (approximately 63%) in Sankuyo village were sampled. The initial intention was to interview all the households but, because of absentee household owners, only 31 were interviewed. Questionnaires were used to guide the interview process. Structured interviews were used mainly to cater for illiteracy in the community. Household interviews were aimed at assessing direct benefits from and perceptions towards safari hunting.

Informal interviews were also conducted with central and local government officials from North West District Council, the Department of Wildlife and National Parks, the Department of Tourism, and other key informants such as the village Headman, Chairperson of the Board of Trustees, and community Escort Guides. Information from these respondents was also meant to provide information on the background of CBNRM and the achievements of the programme in the Okavango with particular reference to Sankuyo Village.

### **Findings and Analysis**

#### ***The Joint Venture Partnership***

Safari hunting through the CBNRM programme at Sankuyo Village is carried out through a joint venture partnership. From its inception in 1995, the STMT has had four joint venture partners, namely Game Safaris, Crocodile Camp Safaris, HCH Safaris and the current operator, Johan Calitz Hunting Safaris. (Table 1). The joint venture partnership between the people of Sankuyo and the private sector (and with government through the Departments of Wildlife and National Parks, Tourism, and the Tawana Land Board) should be seen as one of the positive achievements by the Sankuyo community in their efforts to participate in tourism development and natural resource management. It would be rather difficult, if not impossible, for the people of Sankuyo to derive benefits from safari hunting tourism without some form of partnership with the private sector and government, since the people of Sankuyo lacked adequate entrepreneurial skills in safari hunting tourism. Partnership was therefore adopted as one of the ways in which these skills could be transferred to the STMT. If this was effectively implemented, it would become one of the major benefits of safari hunting to them in terms of capacity building. However, studies by Mbaiwa (2004a) indicate that the transfer of entrepreneurial skills between safari operators and community-based organisations in Ngamiland is very insignificant if not almost non-existent. This may be so because government is not effectively providing adequate advice to communities nor monitoring these joint venture initiatives. There are no appropriate skills transfer plans in place to guide the process.

Table 1: STMT Joint Venture Partners.

Period	Safari Operator
1996-1997	Game Safaris
1998-2000	Crocodile Camp Safaris
2001-2004	HCH Safaris
2005	Johan Calitz Hunting Safaris

### *Socio-Economic Benefits from Safari Hunting*

The joint venture partnership has become the main source of socio-economic benefits that have so far accrued to Sankuyo Village from CBNRM. These benefits include the following: employment, household dividends, meat, transport, sanitation facilities, and contributions to funeral expenditures. 93.5% of households interviewed in Sankuyo indicated that they received benefits accruing from CBNRM activities in the village (Table 2). The various socio-economic benefits that have accrued to Sankuyo since the establishment of CBNRM and safari hunting in Sankuyo village are elaborated below.

Table 2: Households' Receipt of CBNRM Project Benefits.

	No. of Households	Percentage (%)
Beneficiaries	29	93.5
Non-beneficiaries	2	6.5
Total	31	100.0

### *Game Meat*

Most households interviewed linked game meat provision to safari hunting when compared to other forms of material benefits such as employment and household dividends. Results indicated that most of the households (83.9%) ranked meat, while 51.6% and 38.7% of the respondents respectively identified employment and household dividends. These results show that game meat is perceived as one of the most important benefits that villagers derive from safari hunting. The Trust had entered into a contractual agreement with the safari operator, whereby out of every animal shot for trophy, all the game meat save for the trophies (usually the animal's head and skin) would be handed over to the Trust. The Trust, depending on the game species killed, would then either auction the meat (see Table 4) or freely distribute it to community members. For instance, animals such as elephant, warthog and zebra, which are not normally eaten by most residents, are usually offered free. However, impala and kudu meat, together with that of other animals such as buffalo, which are eaten by most people, are sold by the Trust and the money becomes part of the overall Trust revenue.

Some respondents pointed out that the distribution of meat benefits them especially since there is no butchery in the village; others still pointed out that the meat they get from the Trust supplements subsistence arable agriculture. Some of the respondents felt that they would like all game meat to be free, whilst others suggested that the arrangement was good because the sale of meat increases income for the Trust. As noted above, meat from species not preferred by the majority due to beliefs and taboos is distributed free of charge to Trust members, because even if this could be sold, it would not attract enough buyers to dispose of the meat. Meat from species preferred by all or a majority of the community, is auctioned to Trust members to

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achieve a fair and transparent distribution, as the amounts hunted may not necessarily be adequate for free distribution to all households. However, an exception exists for the poorest people in the village, usually classified as destitute, as meat from all game species is supplied free to them. The availability of meat through community-based safari hunting at Sankuyo not only provides protein but also makes the villagers directly benefit from wildlife resources in their local environment. This approach thus has the potential to reduce poaching, which before the adoption of CBNRM in Ngamiland was described as a problem.

*Employment*

As noted above, employment is one of the main benefits to Sankuyo Village from safari hunting. HCH Safaris, the 2001-2004 STMT joint venture company, employed 56 people, while the STMT employs 48 (Table 3). Table 3 shows the total number of people employed by both the STMT and the different safari operators since 1996. From all the 31 households that were surveyed, 22 had a member who had been employed by STMT at one point since its establishment in 1996, and of these 11 had not been employed anywhere else prior to their employment with STMT. Twentyfour of the households had a member who had been employed by one or more of the safari operators. From these 24 households, 14 of those employed by the safari operator had not previously been employed. Most of those who had been employed by both the Trust and the safari operator had no prior formal employment. It was observed that there has been a reduction in rural-urban migration as a result of youth being employed.

Table 3. Number of employees from STMT and Safari Operators.

Year	Number of Employees	
	STMT	Safari Operators
1996	10	N/A
1997	10	N/A
1998	11	51
1999	11	51
2000	11	51
2001	13	9
2002	35	56
2003	42	56
2004	48	56

From Table 3, results further show that safari operations had commanded the highest number of employees from Sankuyo village since 1998 to date, except only for 2001. This low 2001 figure was attributed to the delay in entering into a joint venture agreement, as there were conflicts between the land authority and the community over the choice of safari operator. This delayed as well the issuance of the safari quota and hence shortened the hunting season for the operator.

The creation of jobs by STMT and HCH Safaris, as well as previous joint venture partners, is a very important strategy for poverty alleviation as it brings social security into the lives of people who were historically poor. As noted previously most of those who had been employed by either the Trust or the safari operator had no prior formal employment. This was also observed by Maotonyane (1996). Every economy aims at full employment for its labour

force, and this is also the case for the rural economy. Since safari hunting has led to the creation of employment for the community, those who are employed are now able to support their families and thereby raise the standard of living in the household.

In terms of the utilisation of wages and salaries from safari hunting, workers of both the STMT and safari operators noted that wages are used for a variety of household needs. The main uses identified were building houses, buying food, toiletries and clothes, supporting parents, and helping meet the expenses associated with education for children and siblings. Still, some of the income is saved: for instance, 54.8% indicated that the income is saved, 19.4% said it is not and 25.8% were not sure whether it was saved or not. Respondents who were not aware of any income being saved were elderly parents and therefore did not have access to their children's personal accounts. Some households failed to save because they did not have any surplus that could be saved, as all their money was used to cover domestic needs. This shows that employment opportunities which were not available at Sankuyo before the adoption of CBNRM have become one of the main factors that improve livelihoods of many in the village.

This study found that there is a fair distribution of employment benefits from CBNRM at Sankuyo. Each of the households surveyed had at least one person working for either STMT or the safari operator. Whenever there were job offers at the Trust or safari company, a *kgotla* meeting was convened within the village for the purpose of recruiting the manpower needed. During the meeting, the villagers make an assessment of the number of individuals already employed from each household in the village. If there were two or more people already employed in a household, the household is skipped and the next household is assessed accordingly, until the one in which no one was employed or with the minimum number of persons working for the Trust or the safari operator is found. The members of the household due for employment will then be recruited for the available posts. This is done to ensure that households in the village should have at least one person employed either by the Trust or the safari operator. Most of the village labour force is unskilled, therefore qualifications are usually not considered and those who are employed receive informal on-the-job training. The equitable distribution of employment benefits at Sankuyo is important, since this reduces internal conflicts and promotes social harmony within the community and with natural resource management and CBNRM development.

#### *Income*

Various CBNRM projects in Ngamiland District have so far generated substantial revenues through their joint venture partnerships with safari operators. The STMT has since its inception generated huge sums of revenue through land rentals and the sale of wildlife quotas (Table 4).

Table 4. Revenue Accruing from Safari Hunting, 1999-2003.

Year	Rental	Quota fee	Meat Sales	Total
1997	285 000		-	285 000
1998	345 000		-	345 000
1999	154,000	223,135	-	377,135
2000	169,400	245,450	-	414,850
2001	500,000	55,600	510	556,110
2002	492,000	872,550	5,929	1,370,479
2003	466,509	965,770	4,473	1,436,752

Source: Adapted from Mbaiwa (2002).

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Although the community engages in both safari hunting and photographic safaris, most of the income that comes to the community is from hunting; returns from land rental and the sale of the hunting quota generally exceed those from photographic safaris. This was verified by the analysis of STMT financial statements and files, which showed that quota fees contributed much more to the community than concession fees. In fact for a typical year, quota fees contribute more to the community than all the other sources of income combined. For example, in the year 2002, quota fees contributed 63% to total community income, land rental contributed 35% while concession fees only contributed 2%. This shows that CBNRM at Sankuyo is heavily dependent on wildlife revenues, particularly the wildlife hunting quota fee. These findings therefore confirm findings by Mbaiwa (2004c), who states that many of the CBNRM projects in Ngamiland rely on income generated from safari hunting. Arntzen (2003) also stated that over 70% of the income at Sankuyo is from the sale of the quota. This income subsequently ends up in the households in the form of household dividends and monthly payments for those employed.

*The Kaziikini Camp and Santawani Lodge*

In any business some of the profits are distributed to shareholders and some are reinvested in the business. The way in which profits are shared can have important implications for commercial sustainability as well as in determining the impact of the enterprise on development objectives. Reinvestment of profits into the business is an important mechanism to growth. In the case of Sankuyo, the income that the STMT generates from safari hunting was reinvested into other community development projects such as the Kaziikini Camp, Shandereka Cultural Village and Santawani Lodge. STMT acquired Santawani Lodge as part of its developments in NG33 when they were allocated the photographic area in 2002 by the Tawana Land Board (Rozemeijer, 2003). The lodge, which is community-managed, was officially opened in June 2004 and was partly funded by the African Wildlife Foundation. Kaziikini and Shandereka Camps, a community managed campsite and cultural village, were initiated in 1999 'to provide an alternative to the joint venture model that was showing some signs of dysfunctionality' (Boggs, 2004:152). However, the cultural village collapsed in 2001 due to indifference and complaints among Trust members that it was not bringing benefits to them. These initiatives were also developed by STMT to generate income and provide employment to the people of Sankuyo, both of which are important aspects of rural development and the improvement of livelihoods. Kaziikini Campsite and Santawani Lodge have so far generated a considerable amount of funds since 2001 (Table 5). Santawani Lodge and Kazikini Campsite also provided employment to 16 and 15 people respectively by June 2004.

Table 5. Income Generated by Kaziikini and Santawani, 2001-2003.

<b>Year</b>	<b>Kaziikini</b>	<b>Santawani</b>
2001	27,926	48,204
2002	26,623	59,897
2003	159,746	188,536
<b>Total</b>	<b>214,295</b>	<b>296,367</b>

Apart from Kazikini and Santwani, the STMThas reinvested its income from safari hunting into projects such as the construction of recreational facilities (especially community halls), and the provision of recreational equipment such as television (one of the television sets was donated

by the safari company). These therefore not only provide recreation to the youth in the village but also keep them educated and informed on current issues.

### ***The Distribution of Benefits from Safari Hunting***

The distribution of benefits is probably the most crucial component of CBNRM, and if not done effectively it can have adverse effects on the development of community-based tourism (Rozemeijer and van der Jagt, 2000). The STMT is one of the main CBNRM projects that aim at promoting the equitable distribution of benefits from safari hunting to all the households in the village. This is discussed below.

#### *Household Dividends*

The STMT is the only CBNRM in Botswana to date that has been able to distribute income it generates to individual households. For example, in 2002 each household at Sankuyo was given P250; this increased to P300 in 2003 and P500 in 2004 (Mbaiwa, 2004c). This distribution is an important aspect of the improvement of livelihoods in the village. According to Ellis (2000), even though the terms livelihood and income are not synonymous, they are however inextricably related because the composition and level of individual or household income at any given point in time is the most direct and measurable outcome of the livelihood process. Ellis (2000) further states that income comprises both cash and in-kind contributions to material welfare of the people, deriving from a set of livelihood activities in which the household members are engaged. The household dividends the Sankuyo community received can be seen as a form of livelihood diversification in that the residents are able to diversify their existing revenue base as a community and as individual households. Also, the dividends add to their existing income and this therefore can be seen as an improvement in livelihoods. While benefits that trickle down to household level have been regarded as more meaningful and significant in catalysing positive attitude change to conservation (Winer, 1996; Mbaiwa, 2002; 2004 a, c; Arntzen *et al*, 2003; Thakadu, 2005), there are still concerns that much has not been done in this area. One concern is that most of CBOs' funds are used for operational costs, while only a little, ranging from 4-14% for STMT, is spent on community benefits (Arntzen *et al*, 2003; Boggs, 2004). This scenario becomes very clear when a comparison is made between per capita income of P3,694.80 from joint venture funds for STMT in 2002 (Arntzen *et al*, 2003) and the P250.00 actually disbursed as household dividends the same year. This is a general trend that continues to cloud CBNRM and its likelihood of impacting rural livelihoods (Arntzen *et al*, 2003; Madzwamuse and Fabricius, 2004).

#### *Other Household and Community Benefits*

Revenue from CBNRM at Sankuyo has been utilised in a number of ways to benefit both households and the community at large. The STMT has bought three Land Cruiser vehicles which are used for a variety of purposes in the village. One of the vehicles is used for transporting clients in Santawani Lodge, which is owned by the Trust; another vehicle is used for transporting goods to the hunting camps, whilst the third is for community use. It mainly provides transport to Sankuyo residents on a daily basis between the village and Maun, which is 80 km away. Maun is the main centre where people get supplies such as groceries, clothes and building materials, and it is also where the Trust offices are located. The vehicle is also used to assist during funerals in the village, such as in fetching firewood and water. The Trust also contributes some money to help cover the funeral expenses for Trust members and families. It

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contributes P3,000 for every adult and P1,000 for children. This scheme was started in 2001 and 21 households have received assistance in this way to date. Local children who need money to go for further education are usually given scholarships by the Trust. For instance, in 2003 seven scholarships were awarded. Apart from these, in 2000 the Trust constructed 40 Enviro Loo toilets for 40 households in Sankuyo from funds generated through CBNRM. The respondents linked this to CBNRM implementation within their village.

The distribution of CBNRM benefits at Sankuyo either as household dividends, transportation, funeral benefits and employment, or through any means that may be adopted at the *kgotla*, has proved to be an important aspect of sustainable development. Sustainable development promotes social equity, which is described as fairness and equal access to resources by all user groups, particularly in the distribution of costs, benefits, decision making and management, all of which in theory will help eradicate poverty (Mbaiwa, 2004a; UNCED, 1992). Social equity results from a situation where all individuals in the community have the same opportunity to be actively involved, benefit, make decision(s) and to manage natural resources. Results from the study show that members of STMT are making this effort to equitably distribute the benefits from safari hunting amongst all the households in the village.

In addition to distributing income amongst its people and reinvesting into other community projects, the STMT has also been able to contribute to national appeals. Mbaiwa (2004c) notes that the STMT contributed P25,000 to the President of Botswana's Masiela (Orphan) Trust Fund and another P25,000 to the HIV/AIDS Fund. In total, the Trust contributed P50,000 to national disaster funds, which by Botswana's standards is a considerable amount of money. This shows that revenue from safari hunting in Ngamiland does not only benefit communities living in the remote parts of Ngamiland District but also within the nation at large.

***People's Perceptions of Safari Hunting and Wildlife Conservation***

According to Arntzen *et al* (2003), it is important that benefits be distributed in an equitable way in order to bring about the desired attitude change towards natural resources and changes in livelihoods. The majority (96.8%) of the interviewed households indicated that they find safari hunting very important to the village because of the socio-economic benefits they get from it. In addition, 90.3% of the households stated that it is important to conserve wildlife because it is a major source of income, not only for the community but also for the nation. The development of positive attitudes towards wildlife conservation and the appreciation of safari hunting and CBNRM at Sankuyo are important contributions to sustainable development. As the people of Sankuyo began to value wildlife and appreciate CBNRM, then the resources will more likely be used sustainably. When local people derive economic benefits from natural resources and are involved in decision-making, particularly in the formulation, implementation and monitoring process of wildlife management policies, they are likely to observe regulations governing the use of these resources and can successfully enforce them. There is no doubt that the people of Sankuyo have become partners in enforcing wildlife resource conservation through the use of escort guides in their concession areas (NG 34). Mbaiwa notes that in 2001 he personally witnessed, while driving with escort guides in a STMT van in NG 34, the apprehension by guides of three poachers after killing a springbok (Mbaiwa, 2004). This therefore indicates that the involvement of local people in the decision-making process in natural resource management, and ensuring that they derive economic benefits from such resources, contribute to sustainable development.

***Constraints for Community Economic Benefit Generation***

Some of the problems experienced by the people of Sankuyo in their safari hunting project follow below.

***Fluctuations in Wildlife Quotas***

The Department of Wildlife and National Parks (DWNP) allocates the community a wildlife quota on an annual basis. The community packages the quota for sale to safari operators, who in turn market the hunting package to international hunters. The wildlife quota issued by DWNP fluctuates in terms of numbers and species every year, depending on the population of specific species. Table 6 shows how the community lost cumulatively in terms of income between 2001 and 2004. These fluctuations in the quota impact the total amount of revenue that accrues to the community: when the quotas are low, the amount of income accruing to the community also becomes low. Arntzen (2003) points out that changes in quota affect the direct value of user rights and hence the community benefits. A total of P298,755 was lost between 2001 and 2004 due to fluctuations in hunting quotas allocated for NG 34.

Table 6. Total revenue lost due to quota reduction for Sankuyo village, 2001-2004.

<b>Species</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>Total Revenue Lost (P)</b>
Baboon	10	10	10	10	0.00
Buffalo	7	7	7	7	0.00
Elephant	12	12	12	12	0.00
Hyena	10	3	1	1	8,850
Impala	100	80	74	74	25,500
Kudu	15	10	9	9	36,350
Lechwe	40	40	23	23	40,970
Leopard	3	2	1	1	72,720
Lion	1	0	0	0	85,070
Ostrich	5	5	5	5	0.00
Sable	1	0	0	0	8,495
Steenbok	15	15	14	14	750
Tsessebe	40	40	36	34	11,600
Warthog	15	10	10	10	5,250
Wildebeest	9	9	9	7	3,200
Zebra	2	2	2	2	0.00
<b>Total</b>					<b>298,755</b>

Source: Adapted from DWNP files and HCH Safaris financial proposal for CHANG 34.

The annual wildlife quota that DWNP allocates to communities is generally determined based on wildlife statistics in a particular region. Based on this understanding, it can be noted that even though the reduction of the wildlife quota by DWNP affects revenue generation for the people of Sankuyo, it also indicates that government is committed to maintaining the wildlife balance within the Okavango Delta ecosystems. The issuing of wildlife quotas to communities without knowledge of wildlife statistics would otherwise affect the ecological balance of resources, particularly if the species concerned are on the decline. It would otherwise translate to an over-utilisation of wildlife resources, which is against the notion and ideals of sustainable development. The quota system is therefore appropriate and contributes to the achievement of

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sustainable development, particularly by addressing ecological sustainability. However, the problem with the quota system is that it is carried out without much knowledge and understanding of the rural communities concerned. Sustainable development, particularly the notion of social equity, promotes the participation of rural communities in the decision-making process that governs the environmental resources that sustain their livelihoods (WCED, 1987; UNCED, 1992; Mbaiwa, 2004a). This suggests that DWNP should in future ensure the active involvement of rural communities in quota settings and decision-making processes. This, however, will call for prior awareness-raising to ensure communities understand the process and to enhance their capacity to undertake wildlife monitoring within community areas.

*Moratorium on Hunting of key Trophy Species*

A ban on the hunting of lions instituted by the DWNP has been identified as having reduced community income, because lions formerly constituted an important part of the wildlife quota. A lion attracted the highest price for trophy hunting in the safari sector and hence its exclusion from the quota significantly impacted the revenues accruing to communities. A study commissioned by the Botswana Wildlife Management Association in 2000 revealed that a moratorium on lion hunting in some areas cost the safari hunting sector US \$1.3 million or 22.8% of its gross income (Arntzen, 2003). A review of previous NG 34 hunting quotas showed that lions were only part of the quota for the 2000 and 2001 hunting seasons, and quota fees for this period showed no significant increase as a result of the inclusion of lions in the quota. This is because the lion quota for NG 34 (and for most of the community areas) has been always set at one, hence exclusion was less significant.

However, in comparison with most animal species on the NG 34 quota, the fee that the safari operator was proposing to pay per lion every year was significantly higher. That is why the cumulative amount of income lost by the exclusion of lion species in the quota since 2002 is highest at P85,070.00 when compared to other species (Table 6), whose fluctuations were even highly significant. The Problem Animal Control (PAC) unit of the DWNP indicated that lions were removed from the wildlife quota as a result of a decline in their population countrywide. The moratorium on lion killing and hunting was received with resentment by communities throughout the country as it also prohibited killing lions as a problem animal control measure. To communities involved in CBNRM as well, this was viewed as a draw-back since most residents were beginning to appreciate the importance of these species - previously viewed as predators to their domestic livestock - as they contributed partly to their livelihoods.

The moratorium on the hunting of lions is not only causing dissatisfaction to the Sankuyo community alone, it is also causing problems to safari hunting companies operating in the Okavango Delta generally who also lost potential revenue since the ban. Ross (2003) notes that in 1985, professional hunting of big game within the CHAs leased to safari companies in the Okavango earned US \$ 2 million in foreign exchange, and this grew to US \$ 5 million by 2001. It is also important to note that the moratorium on hunting is not only limited to lions but has also been extended to other species such as sitatunga. Ross (2003: 192) notes,

...the government of Botswana has placed a moratorium on hunting certain species in view of the decline in their numbers. The Okavango Lion Research Project recorded a lion population in the delta of just over 1,000 animals (and fewer than 20,000 worldwide) in 2001. It led to a moratorium on the hunting of lions. In 2002 hunting sable and sitatunga antelopes was also banned. Predictably, this has caused dissension in the hunting fraternity, only some members of which supported the ban. More research is needed to clarify the issues and establish the status of the species that are hunted.

Thakadu (1997:96) similarly advocated the inclusion of local communities in decision-making, particularly in recognition of their local knowledge, when he noted,

Researchers should devise research partnerships with the indigenous communities. This can be done by opening dialogue with the communities and making concerted effort in developing methodologies and approaches together with the local communities. This will help to establish right combination of collaborative research and monitoring methods in resources management agreeable to both parties. Through this, the local communities will show a sense of commitment to the research findings because they participated and were involved in the formulation of research projects.

The conclusions by Ross (2003) and Thakadu (1997) suggest that consultation between stakeholders in the safari hunting industry in the use of wildlife species is lacking. However, sustainable tourism promotes collaboration among stakeholders, all of whom should make input prior to decision-making by government. Thus, for the safari industry to be sustainable in the Okavango Delta, government should promote transparency and the involvement in decision-making of all stakeholders. The government has recently rescinded from its 2000 statutory position to restrict the killing and hunting of lions by re-introducing lion hunting and provisionally allowing the killing of lions as a problem animal control measure (GoB, 2005). A quota of one lion has been introduced in community areas, Sankuyo included.

#### *Ambiguous CBNRM Procedures and Process*

The procedures guiding communities in CBNRM seem to be ambiguous, not only to communities but also to government. In 2001, STMT tendered out NG 34 to the private sector, and after the tender assessment process STMT selected a joint venture partner of their choice, Johan Calitz Hunting Safaris (JCHS), which was the second best financial bidder. Government, through the Technical Advisory Committee (TAC), objected to the community's choice on the basis that it was not the highest financial bidder. Senior policy implementers were advised accordingly by the TAC and a letter was written by the Ministry of Environment, Wildlife and Tourism to STMT informing them that they will not be issued with a wildlife quota on the basis that they did not satisfy the tender process. Later, the same Ministry withdrew the letter to STMT as they realised that they did not have powers to overturn a decision arrived at legally by a CBO. This erratic decision which was later withdrawn and the tossing back and forth of communities by Government indicates the ambiguity of CBNRM procedures within government. During the course of this process, the land authority did not approve the sub-lease application between STMT and JCHS as the company was not prepared to match the highest financial bid proposed by HCH safaris. This led to a protracted legal court case between JCHS and the land board.

The community, in an attempt to benefit from wildlife quota for 2001, opted to take the highest bidding company, HCH Safaris, and entered into a sub-lease with them. However, due to the delays which came about through the confusion created by the Ministry of Environment, Wildlife and Tourism's letter and the court case between the land authority and JCHS, the agreement with HCH Safaris came later (in July 2001), and this negatively impacted on the revenue for 2001 (Rozemeijer, 2004). This may be seen in the lowest quota fee amount of P55,600.00 (Table 4). This indicates that vague government procedures can drastically affect the generation of economic benefits within CBOs.

Another example is the unilateral position taken by the Ministry of Local Government in 2001, whereby the Ministry wrote a directive to district councils informing them to take over

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the management of community funds derived from CBNRM (GoB/MLG, 2001). The letter did not address itself to the modalities of this take-over process, nor did it recognise that the CBOs were legal institutions independent from government. Whilst implementation of this directive is yet to be effected, its memory still haunts CBOs. This ambiguity in government attitudes towards CBNRM does not create a favourable environment for communities to succeed in tourism development.

Most of these ambiguities that end up negatively impacting on CBOs are due to the lack of a policy dedicated to guide CBNRM (Thakadu, 2005). The draft CBNRM policy (GoB, 2005), initiated in 1997, could have provided CBNRM with the necessary policy backing and support by advocating for the development of guidelines and procedures that would adequately address CBNRM issues and concerns. However, the time it has taken this policy to be drafted since its initiation (eight years) casts uncertainty as to whether there is sufficient political will to ensure the continuity of CBNRM (Thakadu, 2005).

### **Conclusion**

In conclusion, safari hunting has made a very significant economic contribution to the livelihoods of the people of Sankuyo. It has improved people's livelihoods in both direct and indirect ways. Safari hunting has, for instance, contributed to the improvement of livelihoods through employment, as wages and salaries were used to finance basic household necessities. Safari hunting has also improved livelihoods through revenues that come to the community in the form of land rentals and quota fees. This income is used for village developments such as building sanitation facilities for households in the village. Safari hunting is also another way of diversifying sources of livelihood, especially when there is low rainfall and arable agriculture is poor, as may be seen by the process of dispensing game meat derived from the safari hunting operations.

The socio-economic benefits that accrue to rural communities, and the contribution from CBNRM to rural livelihoods such as those of Sankuyo indicates that the global campaign against safari hunting should not be applied indiscriminately without due consideration of particular cases in different parts of the world (Mbaiwa, 2004c). This is particularly because safari hunting in the Ngamiland District is controlled, since it is carried out during the hunting season (April to September) in specific demarcated concession areas. In addition, wildlife hunting quotas in Ngamiland and Botswana are determined on the basis of an annual wildlife census carried out by the Department of Wildlife and National Parks. Mbaiwa (2004c) therefore notes that the application of a global ban, without considering the control measures that have been put in place to promote sustainable wildlife use and improve rural livelihoods by Botswana, may defeat the entire spirit of sustainable development, and in the process is likely to hurt many small and remote economies in Ngamiland District.

Finally, this paper recognises the limitations of CBNRM and safari hunting tourism at Sankuyo Village and the rest of Ngamiland District. These include a lack of entrepreneurial and managerial skills in the tourism business. Marketing of safari hunts, which in most cases is carried out in developed countries (particularly at the International Safari Club in the United States), is one of these problem areas for the people of Sankuyo. They have therefore relied on the joint venture partnership to do the marketing, which at times fails to live up to their expectations and promises. The joint venture partnership as it currently operates is ineffective in transferring marketing, managerial and other needed entrepreneurial skills to rural communities in Ngamiland (Mbaiwa, 2004a). This suggests that if CBNRM projects in

Ngamiland District are to become sustainable, there is a need to invest in capacity building, particularly in marketing, management and other entrepreneurship skills. Factors such as quota fluctuations, arbitrary restrictions on hunting of certain key trophy species within community areas, and ambiguities in government's application of CBNRM procedures are seen to be constraining the generation of maximum economic benefits by CBOs. It is suggested that the draft CBNRM policy be expeditiously adopted in order to facilitate giving CBNRM necessary policy guidance and support.

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