

# Community-based natural resource management, poverty alleviation and livelihood diversification: A case study from northern Botswana

Caitlin Mary Lepper & Jessica Schroenn Goebel

*This paper presents a case study from Ngamiland, northern Botswana, where community-based natural resource management (CBNRM) has been implemented through an ecotourism joint venture between a community-based organisation (CBO) and the private sector. CBNRM is intended to promote sustainable development, by contributing to local poverty alleviation and livelihood diversification through wage employment and CBO fee revenue. The findings in this case suggest that wage revenue and subsequent remittances make a more significant contribution than fee revenue to household poverty alleviation and livelihood diversification. The objective of sustainable tourism development is only partly met by these community benefits.*

**Keywords:** tourism; conservation; community-based natural resource management; Botswana

## 1. Introduction

Community-based natural resource management (CBNRM) is intended to circumvent some of the possible trade-offs between conservation and economic development, in line with the tenets of sustainable development. Governments, non-governmental organisations and donors see CBNRM as a way of pursuing conservation objectives while generating income from natural resource based activities – most commonly, (eco)tourism – and thereby alleviating poverty in rural communities. Southern African countries have thus increasingly adopted tourism-oriented CBNRM as a poverty reduction mechanism (Jones, 2004).

This paper presents a case study from Ngamiland, northern Botswana, where CBNRM has been implemented through a tourism joint venture between a community-based organisation (CBO) and the private sector. The significance of the resulting employment and CBO fee revenue for poverty alleviation and livelihood diversification is evaluated; investigation of wage revenue and remittances in particular is intended to contribute to existing studies, which have primarily emphasised the contribution of CBO fee revenue.

## 2. Development measures and context

### 2.1 Poverty measurements and livelihood strategies

While poverty is a complex and multifaceted issue, income and human capability are the most common measurements. This paper focuses primarily on the income contribution of CBNRM programmes to household poverty alleviation. Reference is made to the World

---

Respectively, North America Marketing Manager, Conservation Concept & Great Plains Conservation, Louisville, USA; and Senior Lecturer, School of Economics and Finance, University of KwaZulu-Natal (Pietermaritzburg), South Africa. Corresponding author: [schroenn@ukzn.ac.za](mailto:schroenn@ukzn.ac.za)

Bank's most basic poverty measures, the US\$1/day and US\$2/day lines – common benchmarks of poverty (World Bank, 2009) – which provide a contextual measure of the standard of living of residents.

In Botswana, overall poverty, despite having declined in the wake of impressive economic growth since the 1980s, is still high, and is characterised by distinct urban/rural disparities. The 2002/03 CSO census reflects 36 per cent of rural dwellers living on under \$1 a day, compared to 23 per cent of the total population (Teng-Zeng, 2006). Rural Botswana is susceptible to poverty since a large segment of the population receives little or no cash income; remote-area dwellers especially depend for their survival on natural resources that are rapidly being depleted (Good, 1999; Oyugi, 2008). The study area in this case is no exception: the incidence of poverty in Ngamiland in 2002/03 was 43 per cent (Oyugi, 2008). This has been attributed to the lack of employment, cash income, food sources, livelihood diversification and access to education, resulting in large part from the failure of crop and livestock farming and the influence of foreign-owned tourism enterprises (Agency for Cooperation and Research in Development [Acord], 2002).

The idea of livelihood is closely related to poverty, and refers to the collection of activities which allow an individual or household to meet, at minimum, basic needs. Livelihood diversification in rural communities can be ascribed to a range of underlying strategies (Wikan, 2004). The 'accumulation' strategy implies that some, but not all of a household's basic needs (US\$1/day) are met by a primary strategy, and so additional strategies are employed in order to amass a surplus of goods (US\$2/day). This is in contrast to the 'survival' strategy, whereby households need to diversify in order simply to subsist. The 'security' strategy is employed to minimise vulnerability in the event of uncontrollable environmental or social fluctuations. Strategy use varies according to household income, consumption and production patterns, geography and available resources. Livelihood strategies in rural areas are typically a mix of natural resource use, employment and remittances (Ashley, 2000).

## **2.2 Sustainable development, tourism, conservation and CBNRM**

A key ideological concept to emerge from development debates in the late twentieth century was 'sustainable development', first formalised by the World Commission on Environment and Development as '[development that] meets the needs of the present without compromising the ability of future generations to meet their own needs' (1987, cited in Mowforth & Munt, 1998:24). The increased emphasis on environment and intra-generational and inter-generational equity inherent in this concept has increasingly permeated discussions of most economic, political and social activities, including both conservation and tourism.

Following trends in the broader development literature, tourism theory has given increasing attention to topics of sustainability, environmental protection and community involvement (Telfer, 2002), and 'sustainable tourism development' has become the widely accepted industry paradigm since the 1980s. Several overlapping terms, concepts and products have emerged under the banner of 'new' tourism (Mowforth & Munt, 1998) – including 'eco-', 'responsible', 'green', 'alternative' and 'sustainable' tourism (Scheyvens, 2002). Definitions differ in emphasis, but common elements are the focus on environmental impacts, and on local community involvement and benefit. The latter is congruent with 'pro-poor tourism' (Ashley & Mitchell, 2006) and 'fair trade in

tourism' (Scheyvens, 2002:8) – both concepts which focus on the outcomes of tourism for the host community.

Many commentators remain sceptical about the implementation of the new tourism paradigm and its attainability in practice (Mowforth & Munt, 1998; Telfer, 2002). Nonetheless, the premises of new or sustainable tourism stand in sharp contrast to historical mainstream tourism, which in developing countries has commonly taken the form of enclave tourism, criticised for entrenching host countries' dependency through its reliance on imported inputs (including skills), resulting in high leakages and failure to build strong local linkages (Ceballos-Lascurain, 1996; Mbaiwa 2005a). Ashley and Mitchell argue that mainstream tourism does have 'the economic muscle to seriously tackle African poverty at scale' (2006:1), but stress that this requires a change in the 'style' or ethics of travel such that small-scale, locally owned, authentic operations are no longer excluded but rather promoted through trends such as ecotourism.

Ecotourism – a market segment which has grown rapidly since the 1970s, and the most visible version of 'sustainable tourism' – is described by Ceballos-Lascurain as that which 'promotes conservation, has low visitor impact, provides for beneficially active socioeconomic involvement of local population and promotes visitor awareness in environmental conservation' (1996:448). Ecotourism is seen as a channel of sustainable development, by virtue of its purported small scale, local involvement and low environmental impact. It capitalises on developing countries' natural assets, and has been embraced by many governments and rural communities for its promise of jobs, enterprise opportunities, skills development and control over resource use (Scheyvens, 2002). (Commentators have, however, cautioned against the use of the 'ecotourism' label merely as a marketing tool by tourism operations which are not environmentally protective; Scheyvens, 2002; Telfer, 2002.)

Ecotourism is at the convergence of conservation and tourism, and is widely recognised as the most likely vehicle for achieving both conservation and some level of development (i.e. income and employment) simultaneously (Ceballos-Lascurain, 1996; Hoon, 2004; Swatuk, 2005; Rozemeijer, 2003a). As Ceballos-Lascurain has argued, 'symbiosis may occur if tourism and conservation are organised in such a way that both derive benefits from the relationship ... [C]onservation of nature can be a useful tool in improving the quality of life' (1996:24).

Community involvement emerges as a key element of both sustainable tourism and ecotourism as defined above, and in this context is generally agreed to include at least two aspects: public participation in decision-making (i.e. some degree of control over outcomes and natural resource utilisation) and residents' receipt of benefits from tourism (Scheyvens, 2002; Timothy, 2002). Scheyvens (2002) elaborates on the types of community empowerment which may arise from ecotourism: economic, psychological, social and political. The first type (this paper's main focus) is described thus:

Ecotourism brings lasting economic gains to a local community. Cash earned is shared between many households in the community. There are visible signs of improvements from the cash that is earned. (Scheyvens, 2002:60)

Tisdell (2003) summarises the possible economic benefits and costs of ecotourism at a community level. Benefits include increased and more regular employment and income, greater diversification (and reduced risks), and opportunities for locally controlled ecotourism related businesses. Possible costs are the exclusion of locals from ecotourism areas, with associated losses of income, employment and resource availability;

loss of control over ecotourism businesses and resources to outsiders; and consequent disruption of the social fabric of the local community.

Constraints on the processes of participation and benefit include community heterogeneity and sociopolitical dynamics (Timothy, 2002), such that all members may not benefit equitably from access to and involvement in tourism opportunities. Moreover, rural communities tend to lack resources, information and power, which often necessitates cooperation with other stakeholders to realise the potential benefits of tourism (Scheyvens, 2002). Others have cautioned that ecotourism's development contribution is limited by the intrinsic nature of its demand: the areas sought by ecotourists are most vulnerable to environmental and cultural damage, and the very popularity of a destination can lead to its demise as increased tourist numbers detract from the remote, exclusive and pristine nature of the experience (Ceballos-Lascurain, 1996; Mbaiwa, 2005a). This in turn can limit the scope of benefits received by associated communities.

The philosophy of sustainable development is also reflected in the shift from 'preservation' to 'conservation' ideology. The new paradigm represents a departure from the view that environmental and development objectives are necessarily incompatible, and instead advocates seeking complementarities; the focus is on how people interact with their environment, as opposed to protecting the environment from people (Twyman, 1998). In this view, linking natural resource management to development through local participation in the former is expected to bolster conservation while still advancing development objectives, by allowing communities to appropriate more of the economic value of those natural resources (Barbier et al., 1994; Twyman, 1998).

The concept of CBNRM, which seeks to ensure that conservation advances rural development by promoting the management of natural resources by local communities, emerged as part of this discourse. The fundamental assumption of CBNRM is that poverty exacerbates environmental degradation due to unsustainable practices. If the benefits of conservation (i.e. sustainable use or non-use of natural resources) outweigh its costs, a community is more likely to use sustainable livelihood strategies (Jones & Murphree, 2001; Mbaiwa, 2003; Swatuk, 2005).

Specifically in Africa, there has been concern over land-use pressures such that rezoning would favour agriculture, livestock or human development at the expense of the conservation of wildlife (Swatuk, 2005). Development and conservation practitioners thus conceived of CBNRM as a way of striking a balance whereby wildlife would 'pay its way', advancing the economic competitiveness of sustainable wildlife utilisation as a preferred land use (Jones & Murphree, 2001; Hoon, 2004). Both aspects of community involvement highlighted above as key elements of ecotourism – economic benefit, plus local community empowerment as reflected in some degree of control – are central to CBNRM (Scheyvens, 2002).

CBNRM has been adopted by numerous countries, and is especially popular in southern Africa where examples may be drawn from Zimbabwe, Namibia, Malawi, Zambia, South Africa, Mozambique and Tanzania, as well as Botswana, the focus of this paper. The CBNRM approach to environmental management has been endorsed by the Government of Botswana since 2004, and was formalised in the CBNRM Policy presented to Parliament in July 2007 (Piet, 2007). Today, lessons learned from Botswana's CBNRM models are being implemented in areas of extreme conservation and community pressure (e.g. Masai Mara Game Reserve, Kenya, and Selous Game Reserve, Tanzania).

### 3. Botswana's CBNRM programme

#### 3.1 CBNRM framework and process

Botswana is divided into 163 Community Hunting Areas (CHAs); land utilisation rights are determined by a 'secondary zonation', consisting of national parks, national monuments, game reserves and Wildlife Management Areas (WMAs). Of the 163 CHAs, 42 are eligible for CBNRM programmes, which are intended to offset livelihood activities displaced by the land re-classification (Gujadhur, 2001).

Communities which are allocated a CHA and/or WMA designated for CBNRM must form a CBO (a trust, cooperative or association responsible for land management and enterprise development on their behalf) in order to receive user-rights to the land from the government (Twyman, 1998). The CBO's obligations are defined by a 'head lease' which confers rights to use the natural resources for 99 years, with a 15-year re-evaluation clause (Rozemeijer, 2003b). The lease requires that CBOs undertake commercial wildlife utilisation enterprises only. Some examples of CBNRM projects in Botswana include campsites and restaurants, cultural villages, safari lodges, crafts, tanneries, marula harvesting and oil processing, veld products and quota auctioning (Arntzen et al., 2003). The popularity of this process and its potential economic benefits are visible in the steady increase in registered CBOs in Botswana from one in 1993 to 94 in 2007 (Rozemeijer, 2003a; Piet, 2007).

The promotion of CBNRM in Botswana has solicited and required the support of private investors (Twyman, 2000), with joint ventures the preferred commercialisation avenue. The Department of Wildlife and National Parks (1999, cited in Gujadhur, 2001:1) defines a 'joint venture' as:

a business activity undertaken between two or more partners for their mutual benefit. Partners in a community joint venture will be rural people, who have user rights to the natural resources occurring in an area, and established private sector companies that recognise an area's potential for business development.

The essence of the joint venture agreement (JVA) is that the community supplies strictly the land, and the joint venture partner supplies capital investment and operating expertise. Thus the private sector bears most of the investment risk, while the communities are guaranteed a predetermined financial benefit regardless of the profitability of the enterprise (Twyman, 1998; Arntzen, 2003; Swatuk, 2005). Direct benefits to the community come from employment, lease fees, development projects and/or quota replacement fees. Longer term, JVAs can leverage community capacity by exposing communities to the tourism business, natural resource management and asset formation.

#### 3.2 Tourism as a CBNRM programme in Botswana

Tourism contributes about 9.5 per cent to Botswana's gross domestic product, and constitutes the country's second largest economic sector after mining (World Travel & Tourism Council [WTTC], 2007). Wildlife-based tourism accounts for approximately half of the total, with business tourism contributing most of the balance (Government of Botswana [GoB], 2003; Mbaiwa, 2005a). In northern Botswana, where the country's ecotourism resources are concentrated, 40 per cent of employment opportunities are attributable to tourism (Hoon, 2004). Tourism is among the components (others are manufacturing and trade) expected to grow significantly faster than overall gross domestic product over the National Development Plan nine-year period ending 2016 (GoB, 2003).

This growth is borne out by trends in international arrivals, which increased at an average annual rate of just over 15 per cent from 1999, to reach almost 2 million in 2005 (WTTC, 2007). While most arrivals are from other African countries, long haul arrivals – comprising about 12 per cent of the total – have grown more rapidly: arrivals from the Americas grew by an average annual 23 per cent, and from Europe and the Asia Pacific region by 19 per cent over 1999–2005 (WTTC, 2007). In line with this, the number of licensed tourism enterprises grew from 202 in 1998 to 567 in 2006 (Michler, 2004; Nomad Tours, 2006).

Botswana's tourism strategy, especially regarding the WMAs, has set out to expand ecotourism through a low-volume/high-cost approach designed to ensure a very exclusive experience. This approach was adopted when it was realised that the 20 per cent of tourists who favoured permanent (as opposed to self-guided camping) accommodation accounted for over 80 per cent of total tourist expenditure (Bank of Botswana, 1999, cited in Mbaiwa, 2005a).

CBNRM, as part of this strategy, has focused on capitalising on the country's ecotourism attributes: ecotourism tends to favour developing countries, particularly those with diverse flora, fauna and ecosystems (Ceballos-Lascurain, 1996). Arntzen et al. (2003:46) find that there is a 'wide range of impacts ... including material and non-material, short and long-term and direct and indirect'; however, it is accepted that the most direct, short-term benefits to local communities engaged in CBNRM in Botswana are revenue and employment creation.

## **4. Methodology**

### **4.1 Background to the case study**

The focus of this study was a CBO and its member communities, selected by the Botswana Government as recipients of a head lease for commercial wildlife utilisation under CBNRM in Ngamiland (NG) WMAs 22/23 in the northern reaches of the Okavango Delta. NG 22 is approximately 573 square kilometres and NG 23 358 square kilometres in extent. Both are remote, inaccessible and reputed to be the 'most pristine and least developed in Ngamiland' (Okavango Community Consultants [OCC], 1995:125).

The basic principle in the CBNRM selection process instructed that WMAs and CHAs would be offered to local communities according to traditional land rights. However, due largely to the inaccessibility of NG 22/23, there were no resident communities in these areas. Through extensive consultation, five communities were identified to receive the rights to the NG 22/23 WMAs: Seronga, Gunotsoga, Eretsha, Beetsha and Gudigwa. These communities, with an estimated total population of 7779 (Central Statistics Office [CSO], 2003), are located in CHAs NG 11/12 on the northeast finger of the Okavango Delta, a rural area approximately 700 km from Maun (the tourism and commercial hub of Ngamiland). This selection of communities not resident within their partner WMAs is unique.

The CBO – the Okavango Community Trust (OCT) – was established in 1995, to manage and utilise the land and channel sustainable benefits to its communities (Acord, 2002). The OCT is managed by a Board of Trustees comprising two representatives from each community, plus an 11th member from the joint venture partner (Modiakgotla & Sainsbury, 2003). The OCT's first formal JVA started in 1996 with a joint venture partner for consumptive (hunting) tourism. Okavango Wilderness Safaris



(OWS) subsequently took over as joint venture partner, and by 2004 had brought about a transition to non-consumptive (wildlife viewing and photo safari) tourism. At the time of the study, there were five camps in NG 22/23 providing 52 beds, the maximum allowed by the JVA management plan (Eco-Tourism Support Services [ESS], 2002). Tourist access is by air only, and activities are conducted by foot, 4x4 vehicles, *mekoro* (dugout canoes) and boats. The camps were developed wholly by OWS, which owns all of the related assets.

## 4.2 Data collection

The study focused on individuals from the OCT communities employed at the OWS camps. The principal author spent a total of 8 months living and working in the camps in 2004–2005. Two months were spent getting to know the employees and developing basic relationships: the significance of this intangible element of research is noted in numerous socioeconomic studies which rely on the trust and support of respondents (Sammy & Opio, 2005). Formal data collection was completed in August 2005, and took the form of interviews (with a translator where necessary) with staff members from the OCT communities. Interviews were also conducted with the OWS representative to the OCT; the managing director of OWS; and the NG 22/23 WMA manager. A site visit to the OCT plot in Seronga and attendance at an OCT *kgotla* (meeting) provided procedural and cultural insights. Seventy-two per cent of all staff from the OCT communities was interviewed (referred to as the ‘interview population’); leave cycles precluded the interviewing of all staff. In some cases, such as demographics, data for all staff from OCT communities were obtainable (the ‘total staff population’). Several temporary employees were not included in the calculations, which may thus underestimate economic impacts.

## 5. Results and discussion

The analysis focuses on those economic benefits presented by Tisdell (2003), in the broad categories of employment benefits (including remittances) and CBO revenue.

### 5.1 Economic contribution of employment

#### 5.1.1 Employment (total staff population)

In total, the NG 22/23 camps employ 111 employees (an average of 22 employees per camp). Of these, 86 – that is, 77 per cent, or an average of 17 per camp – are from one of the OCT communities. This excludes support staff at the OWS (Maun) and OCT (Seronga) headquarters, temporary employees and expatriate staff (an average of three per camp). (Including the OCT headquarters’ employment of 59 would raise the average number of employees from OCT communities to 29 per camp; however, this figure is highly variable.) There are approximately 1772 households in the OCT communities (CSO, 2003; ESS, 2002), so the employment of 86 individuals translates to just under 5 per cent of all households benefiting directly from JVA employment of a household member (8 per cent if OCT headquarters’ employment is included).

The NG 22/23 figures are lower than those found in other studies in the Delta – for example, Mbaiwa (2003) cites an average employment of 50 per enterprise across a sample of 50 camps and lodges, while a study of six CBOs finds 138 employees per conservation area (Mbaiwa, 2005a). This may be due to OWS’s low-volume/high-cost

model, which may allow for more centralised staffing and fewer employees despite the high product price. The other studies may also include support staff, who in the case of OWS are concentrated at Maun headquarters and have thus not been attributed to the camps. On the other hand, the NG 22/23 employment exceeds that found in four case studies of other JVs throughout Botswana, in which employment ranges from 0 to 95 (Arntzen et al., 2003).

Many (Rozemeijer & Van der Jagt, 2000; Gujadhur, 2001; Jones, 2004; Mbaiwa, 2003, 2005a) argue that CBNRM JVs could and should offer more employment opportunities; however, their growth is limited by community capacity constraints, including unmet basic needs and expatriate ownership. This is especially important given that CBNRM, specifically in the form of tourism, was slated to become one of the main revenue and employment avenues in rural Botswana (Gujadhur, 2001; Mbaiwa, 2003).

However, the context of the case study should be borne in mind. Rural Ngamiland is characterised by extremely high rates of unemployment and poverty; most of the staff in the NG 22/23 camps would be unlikely to have jobs elsewhere, for the reasons discussed: lack of education, access to markets and personal capital. With respect to these conditions, any employment, regardless of whether it could or should be more extensive, is quite significant (Arntzen et al., 2003; Rozemeijer, 2003b).

### **5.1.2 Wages (total staff population)**

On the basis of the OWS payroll, total wages to permanent staff from the OCT communities are (in Botswana pula) BWP 60 519 per month, or BWP 726 228 per annum (excluding annual bonuses and gratuities).<sup>1</sup> On average, each employee earns BWP 703.41 per month (maximum BWP 2800; minimum BWP 540), or BWP 8440 per annum. This is supplemented by an average monthly gratuity of BWP 142.43 (maximum BWP 600; minimum BWP 0); however, this amount is disregarded here because of its variability.

These wage levels are broadly in line with estimates from comparable studies. Mbaiwa (2005a) found that average salaries of local staff in the Delta ranged from BWP 350 to BWP 1000 per month, while the Botswana Tourism Development Programme (1999, cited in Mbaiwa, 2005a) found the range to be from BWP 500 to BWP 5000 per month, with expatriate workers occupying over 80 per cent of jobs paying above BWP 3000. Studies from 2001 (Mbaiwa, 2005a, 2005b) suggest that, due to lack of skills, local staff are mainly restricted to lower-paid jobs such as camp hands, wait staff, laundry staff, housekeepers, cooks and drivers.

A monthly salary of even the lowest level suggested by Mbaiwa (BWP 350) would be substantially higher than the US\$1/day and US\$2/day thresholds (BWP 104.10 and BWP 208.10 respectively), and than average rural income in Botswana (BWP 313.87 per month in 2002/03, of which government and other assistance comprised 35 per cent; CSO, 2003). It follows that the wages paid to local staff in NG 22/23 – a monthly average of BWP 703.41 per person – are likely to be more than just meeting the basic needs of the household. However, they are not necessarily achieving any level of accumulation or security. Nonetheless, in a sociogeographic context, the employees of NG 22/23 are comparatively well off. Good reiterates that context is sig-

<sup>1</sup>At the time of writing the exchange rate was BWP 5.2 = US\$1.



nificant in the analysis of direct income impacts on rural communities: 'poverty as income below "a dollar a day" ... has international utility, but that sum would represent riches for San farm labourers or official destitutes in Botswana today' (1999:185).

### 5.1.3 Remittances and livelihood contribution (interview population)

OWS staff generally work on a 3-month-on/1-month-off cycle, returning to their communities during the off-cycle to tend to their households, visit children and maintain other livelihood strategies, including providing remittances.

The significance of employment revenue to poverty alleviation and livelihood diversification is only fully realised by considering the 'trickle down' effect of cash income remitted to members of the household and greater community. The recipients are usually extended family; the majority of costs are basic needs and then clothing and school fees. The interview population indicated an average remittance of BWP 663.47 per leave to an average of 5.69 individuals, not including dependants (children under 18 years old). This implies an average cash remittance of BWP 116.53 to each of 489 recipients, and an annual collective cash remittance to communities of BWP 171 175, or 23.5 per cent of the joint venture partner's total wage bill. Given the average rural household size of 4.39 (CSO, 2003), it can be inferred that the distribution of remittances contributes to at least one more household than the staff member's own, and elevates an average of almost six other individuals to at least the US\$1/day line.

The respondents indicated numerous livelihood strategies for meeting their families' basic needs. In concert with Wikan's (2004) research, this study found that the poorest households rely almost exclusively on agriculture. All of the interviewees' households engage in subsistence agriculture; in addition, 8 per cent are in retail (e.g. baking, sewing), 12 per cent are in the tourism sector, 17 per cent are teachers, 8 per cent are in government and 5 per cent are mechanics. Thus 50 per cent of the households have some form of income other than subsistence agriculture and wages from NG 22/23 employment. For the other 50 per cent, the NG 22/23 employment is the only source of cash income, other than potential government grants.

## 5.2 CBO fee revenue

There are three main channels for revenue from the joint venture partner to the OCT: the land rental, the quota replacement fee and the Village Development Fund (VDF) (Table 1). The quota fee is meant to replace revenue from foregone consumptive

**Table 1: OCT fee revenue from the NG 22/23 JVA (BWP)**

Year	Land rental	Quota	Other income (e.g. VDF)	Total OCT fee revenue
2004	676 000	400 000	500 000	1.57 million
2003	675 410	434 500	500 000	1.60 million
2002	636 000	435 000	400 000	1.47 million
2001	600 000	400 000	500 000	1.50 million
2000	350 000	340 000	260 000	950 000

*Sources:* ESS (2002); personal communication with Sam Kavindama, Okavango Wilderness Safaris' representative to the Okavango Community Trust, 15 July 2005, Maun, Botswana.

tourism per trophy. The VDF generates BWP 100 000 per community so that dispersal can be more equitable, in theory, and not rely on discretionary distribution by the OCT. In total these fees – as much as BWP 1.6 million in 2003 – are reputed to be the most expensive in southern Africa as regards JVAs between a CBO and a joint venture partner (personal communication, Mike Wassung, Kwedi Concession Manager, Okavango Wilderness Safaris, and Keith Vincent, Managing Director, Okavango Wilderness Safaris, Maun, Botswana, 2 July 2004).

In addition, there are typically numerous incidental fees and contributions to be paid to the CBO. In NG 22/23, the OCT requires additional payments (e.g. for radio operators, soccer tournament, vegetable garden) which effectively add around 30 per cent to OWS's contracted fee expenditure.

According to Arntzen et al.:

the financial revenues [of CBOs] have risen substantially during the 1990s, particularly wildlife-based CBOs involved in joint venture agreements... The average revenue from the joint venture agreement per resident is around BWP 850 per annum [2001] ... This is significant in view of the extremely low incomes in most of the CBNRM villages. (2003:50)

In contrast, Rozemeijer's Botswana review of CBNRM says 'community members involved in CBNRM earn an average of BWP 250 per person per annum' (2003b:10).

Despite the magnitude of the total NG 22/23 JVA CBO revenue, its allocation per annum to each community resident would be a mere BWP 202 if the OCT was to distribute 100 per cent of its revenue – low in comparison to the Arntzen et al. (2003) figures, but on a par with those of Rozemeijer (2003b). The range in data is due in part to population variability (larger beneficiary communities receive less per capita). This suggests that perhaps the size of the recipient population (as well as the quality of the resource) should be taken into account in determining CBO fees, such that there is a minimum per capita return on the lease.

Significantly, both studies referred to above found that most of the JVA revenue accrues to the CBO, and little of it is ever distributed to community members. This practice has been justified by the belief that the small amount of disbursement would make no significant impact on community members and would be better spent on CBO investment schemes. Arntzen et al. (2003) conclude that the impact of CBNRM in Botswana has been minimal, because the failure to distribute revenue means that benefits are not realised at the household level. Yet even a relatively small sum from the CBO fee revenue would make a significant impact on communities given the lack of alternatives for income generation, and would reinforce the positive impressions of such projects (Ashley, 2000; Swatuk, 2005).

Arntzen et al. (2003) and Rozemeijer (2003b) attribute much of the lukewarm response of local communities to CBNRM to the respective CBOs' inability to distribute revenue at a household level. Consequently, most if not all of the direct benefits of CBNRM to households derive strictly from employment (Gujadhur, 2001; Rozemeijer, 2003b). The NG 22/23 JVA supports this conclusion: employment revenue, as opposed to (potential) CBO fee revenue, has a greater impact on household income. However, the scope of each type of revenue differs, as reflected in Table 2. Employment revenue (wages and remittances) affects potentially 11 per cent of households, whereas the distribution of CBO revenue would affect every household an average of 4.39 times, for a total of BWP 886 per household.

**Table 2: Distribution of NG22/23 JVA revenue benefits to local communities, 2004**

	Total amount (BWP per annum)	Number of beneficiaries	Proportion of households receiving benefit (%)	Average per beneficiary (BWP per annum)
Direct employment (wages)	726 228	86	4.9	8 440
Remittances <sup>a</sup>	171 175	489	6.3	350
CBO fee revenue (if 100% distributed)	1.57 million	7 779	100	202

<sup>a</sup>These amounts are funded from wages (reflected in the row above), so should not be interpreted as additional revenue.

In general, interviewees expressed disappointment and caution when queried about their perceptions of the JVA. This suggests that the CBO could be doing much more to benefit its people, either through distribution of revenue or through more transparent, efficient and visible development contributions (Acord, 2002). This lack of accountability and influence exists in many CBOs, and is reputed to be a major barrier to the progress of the transition from JVA to joint venture partnerships, on the basis of which true business institutions can be developed at a local level (Modiakgotla & Sainsbury, 2003; personal communication, Wassung & Vincent, 2 July 2004).

## 6. Conclusion

The immediate question posed in this study has been the degree to which community involvement in CBNRM has, through wage income and CBO fee revenue, alleviated poverty and contributed to livelihood diversification in the study area. Beyond this case and its context, some broader inferences may be drawn with regard to community involvement in sustainable tourism development more generally.

Studies in Botswana indicate that prior to CBNRM most rural communities received little cash income from their natural resources (Gujadhur, 2001; Acord, 2002; Rozemeijer, 2003a; Mbaiwa, 2003). This case study has considered both the amount of revenue and, importantly, its distribution. The NG 22/23 JVA employment revenue to some extent alleviates poverty and acts as a livelihood diversification strategy in the staff member's household and at least one other household, through the distribution of remittances to an average of almost six additional individuals. This income is significant in a region where there are few employment and cash-earning opportunities.

Scheyvens's (2002) criteria for economic empowerment of communities through participation in tourism are met to a certain extent by the flows of wage revenue to households and the greater community. The cash does reach many households, and is a fairly stable income supplement which supports livelihood diversification and the ability to take part in outside activities such as school and/or entrepreneurship for more long-term poverty solutions. However, it is only those individuals fortunate enough to be employed or associated with an employee who gain in this regard; the benefits reach 11 per cent of households in the beneficiary communities, suggesting that economic empowerment impacts are not extensive. The impacts of employment are limited by capacity constraints within the local labour force, and the lack of demand for additional labour.

CBO fee revenue makes virtually no contribution to household poverty alleviation or livelihood diversification, under the present (lack of) distribution strategy. The impact of CBO fee revenue is also limited by a lack of capacity from which to establish and operate successful development or entrepreneurial projects which re-invest that revenue in longer-term endeavours and create sustainable linkages. As a consequence, CBO revenue is received neither in short-term direct benefits, nor in long-term benefits to community members, for either poverty alleviation or livelihood diversification.

Thus the objectives of Botswana's CBNRM programme are only partially met. CBNRM is premised on the link between people's sustainable use of natural resources and the derivation of socioeconomic benefits, especially at a household level and equitably (Mbaiwa, 2005b; Acord, 2002); if most households do not experience quality-of-life enhancements as concrete results of wildlife conservation, the sustainability of the CBNRM programme may be undermined in the long term.

The merits and shortcomings of CBNRM are strongly debated in development circles, especially with regard to tourism. Mbaiwa (2005a, 2005b) makes a compelling argument, substantiated by others (Rozemeijer & Van der Jagt, 2000; Twyman, 2000), that CBNRM in tourism does not make a significant contribution to poverty alleviation. However, these critiques do not grant the programme much leeway as regards implementation and transition time to accommodate skill transfer from experienced tourism managers and enterprises to local participants (Arntzen, 2003; Rozemeijer, 2003a; Ashley & Mitchell, 2006). The assessment of CBNRM impact is further complicated by the absence of baseline data and monitoring, and the need to rely on largely qualitative research based on fieldwork, literature and key informants (Ashley, 2000; Arntzen et al., 2003; Rozemeijer, 2003a).

Unpacking some of the reasons for the mediocre performance of CBNRM as reflected in this case highlights some broader issues to do with community involvement as an aspect of sustainable tourism development globally.

To start with, it appears that community benefit from tourism may be hindered by challenges arising from inherent sectoral features of tourism. The industry is still predominantly characterised by high investment costs and substantial leakages (Turner, 2006), which in this case have probably been intensified by Botswana's high-cost/low-volume tourism strategy and its target market of wealthy international travellers.

The high start-up and operating costs and knowledge-intensity and capital-intensity required, together with rural communities' common lack of resources, power and/or business knowledge, mean that the role of the private sector in carrying costs (and risk) is critical in larger-scale ventures catering to international luxury travellers. Costs are increased by the expectations of a high-end product and, in developing countries, by the merging of traditional and modern socioeconomic systems in community involvement in tourism. High costs increase the risk in cases where communities embark prematurely on owning and managing enterprises independently, and may effectively limit the nature of community participation in the industry, such that employment and possibly resource revenue – as opposed to enterprise ownership and control – comprise the main channels of community benefit.

Allied to this, 'tourism development critics have long highlighted the leakage of tourist spending from destination communities or into the hands of local elites' (Timothy, 2002:163). According to Turner, even in nature tourism, which is less likely to be

controlled by large multinationals, tour companies often capture much of the revenue, and 'benefits often flow away from communities'; further leakage occurs when better-paid employment positions are 'captured by outsiders, ostensibly on the basis of skills' (Turner, 2006). These issues also affect tourism in the Okavango region – which Mbaiwa (2005a) characterises as enclave tourism, highlighting 'the repatriation of tourism revenue, domination of management positions by expatriates, lower salaries for citizen workers, and a general failure by tourism to significantly contribute to rural poverty alleviation' (2005a:157). This suggests that, despite its basis in natural resources and the explicit mechanisms for community involvement, the type of tourism under consideration here is not the 'sustainable' or 'eco'-tourism ideally envisaged in terms of the new paradigm.

Many have stressed the importance of linkages – especially in the form of local enterprise development – in transmitting the economic benefits of tourism to local communities (Timothy, 2002; Ashley & Mitchell, 2006). The corollary of high leakages in certain types of tourism is the weakness of linkages with the local and domestic economy, and the accordingly minimal impact on development. This study focused on wages and fee revenue, rather than enterprise linkages, partly because the communities with title to the NG 22/23 WMAs do not reside in those areas and therefore do not have direct access to tourists and enterprise opportunities. However, the limited size and scope of the revenue flows investigated suggests that, in tourism more generally, enterprise linkages might be the more effective means of transmitting economic benefits. In line with the pro-poor tourism literature (Ashley & Mitchell, 2006), policy efforts would be well spent in encouraging entrepreneurial activities in small-scale ventures and micro-finance, which can have a strong and self-perpetuating local economic impact.

The scale and type of tourism pursued have a direct effect on local linkages and leakages. In Botswana, one reason for pursuing high-end tourism was the proportionately greater spending by this category of traveller; however, the demands of this market are such that a high share of expenditure will leak from the local and even national economy. Expenditure by lower budget tourists is more likely to support local inputs and entrench backward and forward linkages. Building of stronger enterprise and employment linkages also implies a need for local capacity-building, to ensure that community members are equipped to take up enterprise opportunities and higher-level jobs.

Further implications emerge from the issue of fee revenue accruing to but not distributed by the CBO. Likewise, most CBOs in Botswana have not effected the equitable transfer of fee revenue to communities, and are drained by extremely high overheads (Acord, 2002). Questions about the efficacy of community tourism organisations are not unique to Botswana or CBNRM (Timothy, 2002), and point to the importance of reviewing participatory management structures as well as building financial management capacity in community organisations.

The findings from NG 22/23 suggest that the objective of sustainable tourism development is only partly met and they highlight possible reasons for this – in this case and perhaps in similar contexts across the developing world. These are important issues to address: while tourism is clearly not a quick or universal remedy for underdevelopment, in areas that have abundant natural assets but few economic alternatives, sustainable tourism development must surely be a significant part of the solution. Ultimately, if it is widely the case that communities do not see significant tangible benefits from sustainable use of their resources, this presents a threat to both conservation and tourism.

## References

- Acord (Agency for Cooperation and Research in Development), 2002. Through our eyes: Acord's experiences in CBNRM. Unpublished article. Okavango Community Trust, Gumare, Botswana.
- Arntzen, J, 2003. An Economic View on Wildlife Management Areas in Botswana. IUCN/SNV CBNRM Support Programme, Gaborone.
- Arntzen, J, Molokomme, DL, Terry, EM, Moleele, N, Tshosa, O & Mazambani, D, 2003. Final Report of the Review of Community Based Natural Resource Management in Botswana. National CBNRM Forum, Gaborone.
- Ashley, C, 2000. The Impacts of Tourism on Rural Livelihoods: Namibia's Experience. Overseas Development Institute, London.
- Ashley, C & Mitchell, J, 2006. Can tourism help reduce poverty in Africa? ODI Briefing Paper. Overseas Development Institute, London.
- Barbier, EB, Burgess, J & Folke, C, 1994. Paradise Lost? The Ecological Economics of Biodiversity. Earthscan, London.
- Ceballos-Lascurain, H, 1996. Tourism, Ecotourism and Protected Areas: The State of Nature-Based Tourism around the World and Guidelines for its Development. IUCN (International Union for the Conservation of Nature and Natural Resources), Gland, Switzerland.
- CSO (Central Statistics Office), 2003. 2001/2002 Household Income and Expenditure Survey (HIES) Statistics Brief. Central Statistics Office, Government of Botswana, Gaborone.
- ESS (Eco-Tourism Support Services), 2002. Management Plan for Community CHAs NG 22/23. Unpublished article. Maun, Botswana.
- GoB (Government of Botswana), 2003. National Development Plan 9. Government of Botswana, Gaborone.
- Good, K, 1999. The state and extreme poverty in Botswana: The San and destitutes. *The Journal of Modern African Studies* 37(2), 185–205.
- Gujadhur, T, 2001. Joint Venture Options for Communities and Safari Operators in Botswana. IUCN/SNV CBNRM Support Programme, Gaborone.
- Hoon, P, 2004. Personal Markets and Impersonal Communities? Prospects for Community Conservation in Botswana. Center for African Studies. University of California, Berkeley.
- Jones, B, 2004. Developing criteria for the contribution of CBNRM to poverty reduction and sustainable livelihoods in southern Africa. Occasional Paper 7. University of the Western Cape and University of Zimbabwe.
- Jones, B & Murphree, M, 2001. The evolution of policy on community conservation in Namibia & Zimbabwe. In Hulme, D & Murphree, M (Eds), *African Wildlife and Livelihoods: The Promise and Performance of Community Conservation*. James Currey, Oxford.
- Mbaiwa, JE, 2003. The socio-economic and environmental impacts of tourism development on the Okavango Delta, north-western Botswana. *Journal of Arid Environments*. 54(2), 447–67.
- Mbaiwa, JE, 2005a. Enclave tourism and its socio-economic impacts in the Okavango Delta, Botswana. *Tourism Management* 26, 157–72.
- Mbaiwa, JE, 2005b. The problems and prospects of sustainable tourism development in the Okavango Delta, Botswana. *Journal of Sustainable Tourism* 13(3), 203–27.
- Michler, I, 2004. Botswana: The Insider's Guide. Struik, Cape Town.
- Modiakgotla, K & Sainsbury, S, 2003. Labour Laws and Community-Based Organisations in Botswana. IUCN/SNV CBNRM Support Programme, Gaborone.
- Mowforth, M & Munt, I, 1998. *Tourism and Sustainability: New Tourism in the Third World*. Routledge, London.
- Nomad Tours, 2006. Botswana: Government to Review Tourism Policy. Nomad Adventure Tours, Cape Town. [www.nomadtours.co.za/article\\_2006-4-12\\_8.html](http://www.nomadtours.co.za/article_2006-4-12_8.html) Accessed 17 July 2009.
- OCC (Okavango Community Consultants), 1995. Management plans for controlled hunting areas allocated to communities in Ngamiland WMAs. Unpublished article. A Natural Resources Management Project (NRMP) Publication, Department of Wildlife and National Parks, District Land Use Planning Unit (DLUPU), Maun, Botswana.



- Oyugi, LN, 2008. Effects of economic growth on poverty reduction: Experiences from Botswana, Kenya and Namibia. Southern and Eastern Africa Policy Research Network (SEAPREN) Working Paper No. 10. SEAPREN, Windhoek.
- Piet, B, 2007. Botswana: MPs Welcome CBNRM Policy. All Africa Global Media, Johannesburg. <http://allafrica.com/stories/200707241030.html> Accessed 15 May 2009.
- Rozemeijer, N, 2003a. CBNRM in Botswana: Revisiting the assumptions after 10 years of implementation. Unpublished article. IUCN Botswana Country Office, Gaborone, Botswana.
- Rozemeijer, N, 2003b. An overview of the current status and progress made in CBNRM in Botswana. Unpublished article. IUCN Botswana Country Office, Gaborone, Botswana.
- Rozemeijer, N & Van der Jagt, C, 2000. Community-based natural resource management in Botswana: How community-based is CBNRM in Botswana? Unpublished article. IUCN Botswana Country Office, Gaborone, Botswana.
- Sammy, J & Opio, C, 2005. Problems and prospects for conservation and indigenous community development in rural Botswana. *Development Southern Africa* 22(1), 67–85.
- Scheyvens, R, 2002. *Tourism for Development: Empowering Communities*. Prentice Hall, London.
- Swatuk, L, 2005. From 'project' to 'context': Community based natural resource management in Botswana. *Global Environmental Politics* 5(3), 95–124.
- Telfer, DJ, 2002. The evolution of tourism and development theory. In Sharpley, R & Telfer, DJ (Eds), *Tourism and Development: Concepts and Issues*. Channel View, Clevedon.
- Teng-Zeng, F, 2006. The Republic of Botswana. Centre for Research on Science and Technology, University of Stellenbosch, Cape Town. <http://portal.unesco.org/education/en/files/55608/11999775865BOTSWANA.pdf/BOTSWANA.pdf> Accessed 11 May 2009.
- Timothy, DJ, 2002. Tourism and community development issues. In Sharpley, R & Telfer, DJ (Eds), *Tourism and Development: Concepts and Issues*. Channel View, Clevedon.
- Tisdell, J, 2003. Economic aspects of ecotourism: Wildlife-based tourism and its contribution to nature. *Sri Lankan Journal of Agricultural Economics* 5(1), 83–95.
- Turner, R, 2006. Communities, conservation, and tourism-based development: Can community-based nature tourism live up to its promise? Global, Area and International Archive, University of California, Berkeley. <http://escholarship.org/uc/item/0fq311pw> Accessed 8 March 2010.
- Twyman, C, 1998. Rethinking community resource management: Managing resources or managing people in western Botswana? *Third World Quarterly* 19(4), 745–70.
- Twyman, C, 2000. Livelihood diversity and opportunity in Kalahari Wildlife Management Areas, Botswana: Rethinking community resource management. *Journal of Southern African Studies* 26(4), pp. 783–806.
- Wikan, G, 2004. The level of living in rural Botswana re-studied. *Norwegian Journal of Geography* 58: 1–10.
- World Bank, 2009. Overview: Understanding, measuring and overcoming poverty. World Bank Group, Washington, DC. <http://go.worldbank.org/RQBDCTUXW0> Accessed 17 November 2009.
- WTTC (World Travel & Tourism Council), 2007. Botswana: The Impact of Travel and Tourism on Jobs and the Economy. WTTC, London. [www.wttc.org/download.php?file=http://www.wttc.org/bin/pdf/original\\_pdf\\_file/finwttc\\_botswana.pdf](http://www.wttc.org/download.php?file=http://www.wttc.org/bin/pdf/original_pdf_file/finwttc_botswana.pdf) Accessed 17 November 2009.