Bridging the gap between livestock keeping and tourism in Ngamiland District, Botswana

Concept paper

Prepared for

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Summary of key issues

- Traditionally livestock, particularly cattle, has been the primary sector in the rural economy of Ngamiland. With the outbreak of CBPP in 1994 the importance of cattle as a livelihood option has dwindled, and the post eradication survey showed that only 7% of residents cited cattle as a primary source of income.

- Tourism, particularly wildlife tourism, has emerged as the other livelihood option. Interest in local tourism initiatives is growing; however, from the perspective of household economy, information from CBNRM activities indicated that the dividend from this sector was less important than employment in other non-farm activities.

- With the restocking exercise, livestock numbers are again building even if they may not reach the pre-cull levels. Hence, there is an expectation that livestock keeping and tourism will become the primary sectors of the rural economy in Ngamiland. However, there is potential for conflict since the same natural bases of pasture and water essentially drive the two sectors.

- The challenge is how the two can be harnessed and integrated to achieve the vision of diversified sustainable rural development in the district.

1. Introduction

Botswana is a landlocked country with a total area of 581, 730 km^2 and a population of approximately 1.7 million (2001 census).

In summary (Adapted from Whiteside, 1997):

- Rainfall is generally low with periodic droughts. Severe droughts were experienced in the mid 1980s and early 1990s. On average rainfalls are generally below 500mm in the east of the country and below 400mm in the centre and south of the country.
- Soils in the eastern third of the country are moderate textured with low fertility. Much of the rest is sandy soils with low fertility and very low moisture retaining capacity.
- Water supply is limited with a scarcity of surface water and an increasing reliance on boreholes.
- Botswana is semi-arid savanna country and her vegetation is typical of semi-arid savannas. Savannas are neither forests nor grasslands; their unifying feature is the dual significance of herbaceous plants (grasses) and woody plants (trees). It is the interaction between trees and grasses that distinguishes savannas from forests or grasslands.
- Wildlife numbers have either stabilised or declined in recent years owing to a combination of factors such as veterinary cordon fences (preventing migration), drought, fragmentation and/or compression of wildlife habitat due to human encroachment, and hunting. Only the numbers of African elephant have significantly increased in and around protected areas.
- Mineral resources include diamonds, copper-nickel and coal; with the diamonds contributing towards considerable export earnings and coal used for electricity generation.
- Botswana has experienced a considerable population migration from rural to urban areas, particularly by the young and by men.
- Performance of the agricultural sector has been poor (DFID, 2001), with little growth in either production or productivity. The sector currently accounts for only 2% of formal sector employment.
- The main agricultural activity is rearing cattle, goats and other livestock. The agricultural sector is composed of traditional and commercial farming; and both engage in crop production (United Nations Botswana, 2001). The basic system, with a number of variations, is for people to live in villages and to grow crops in fields (*masimo*). Fields are ploughed by animal traction or tractor and most crops are broadcast. Few people use fertiliser, and weeding is important to obtain a good crop. Sorghum is the main crop, with maize, beans, groundnuts and watermelons also grown, usually mixed in the same field. Yields vary enormously, depending on amount of rainfall, and most families do not grow enough to last them throughout the year.
- Livestock were traditionally kept further from villages in cattle posts using communal grazing. Following the Tribal Grazing Land Policy

(TGLP), some large cattle owners gained access to exclusive leasehold ranches; by sinking their own boreholes some farmers were able to gain de facto control over grazing around those boreholes. The situation left many small cattle owners disadvantaged and many lost their cattle during droughts. The situation was exacerbated by the large cattle owners in the leasehold areas, who practised dual grazing, using both their exclusive leasehold areas and communal areas. The resulting situation undermined the objectives of the TGLP, which was to reduce grazing pressure in communal areas by removing the largest herds.

- Tourism is a growth industry both globally and in Botswana. According to available statistics, there were 106,800 tourist arrivals in 1993, which increased to 203,172 in 1998. In 2000, there were 2,145,370 arrivals to Botswana; of this total, 14.8% were tourists at 317,515 representing the second largest category of arrivals to the country. Furthermore, this category was forecast to increase annually by 10% over the period 1997 – 2010. Tourism is therefore legitimately set to make a significant contribution to Botswana's Gross Domestic Product (GDP).

1.1 The Ngamiland situation

Ngamiland District covers an area of 111,223 square kilometres (Scott Wilson, 2000). This figure is slightly more than that quoted in the Ngamiland District Development plan 1997/8 – 2002/3 where it is indicated that Ngamiland covers an area of 109,130 square kilometres. According to Scott Wilson (2000), the gazetted and proposed land uses in the district can be summarised as follows:

■ National Parks and Game Reserve areas occupy Ngamiland	5.7% of
■ CBNRM in ungazetted WMA occupy	9.2%
■ Commercial and CBNRM wildlife use in gazetted WMA occupy	54.5%
■ Commercial farming occupies	4.6%
■ Communal pastoral activities occupy	26%
o Of which Pastoral activities with possible CBNRM occupies	11.3%

Overall, 79% of the land is tribal, and the remaining 21% is state land (Kgathi, 2002); there is no freehold land.

By definition, Wildlife Management Areas (WMA) are those in which the primary form of land use is wildlife. In practice, WMAs are principally used for tourism purposes, both consumptive (for example, sport hunting) and non-consumptive (for example, game viewing) tourism. In Ngamiland, commercial farming and arable agriculture are still limited; however, it has been noted (Scott Wilson, 2000) that ranching is being expanded in the southeast part of the district adjacent to the Kuke fence. The distribution of potable ground water significantly determines settlement and livestock distribution, which is concentrated along the Okavango River, the delta and the south east of the district. Bendson (2002) also noted that the distribution of livestock in Ngamiland was directly related to the availability of water. In 2000

researchers from the Harry Oppenheimer Okavango Research Centre and Ecosurv (Pty) Ltd. noted that in most communal areas, livestock was mainly concentrated along the permanent open water sources at the fringes of the Okavango delta, or was watered from shallow wells dotted along old river channels, inter-dune valleys, floodplains, or the old bed of Lake Ngami.

1.2 Overview of livelihood strategies

People in Ngamiland depend on a mixed economy, and very few people are able to earn a living from livestock sales (Albertson, 1996). Groups such as Bayei, Hambukushu and Khwe still rely on natural resources. The prevalent from of agricultural land use on communal land is agro-pastoralism, which consists of small-scale, low-input animal husbandry. This type of land use yields a range of direct use values, including milk, live animal sales, meat, draught power, manure, as well as cultural use values. Livestock keeping is commonly associated with low-input, small-scale crop production drawing on draught power from the livestock.

The main livestock rearing areas in Ngamiland are Maun/Shorobe, Toteng/Sehithwa/Tsau, Nokaneng/Gumare, Shakawe, and Seronga (Bendson, 2002). The areas from Nokaneng southwards up to Lake Ngami and eastwards to Toteng are primarily used as grazing land intermixed with small arable fields. In this area, the Baherero are the dominant ethnic group, who eke out their living as pastoralists. The Batawana are mainly livestock farmers but do practise dryland farming around Toteng and the Maun area. The Bambukushu reside in northern Ngamiland and place more interest on arable farming (Gibson et al., 1981). However, they are increasingly accumulating livestock (Bendson, 2002). The Hainaveld in the dryland south of Maun are part of the TGLP ranches that have been developed over the last 25 years as commercial livestock zones. The hainaveld is fenced for ranch development and was being extended to Toteng and Sehithwa.

Although livestock farming is one of the main economic activities in Ngamiland, the outbreak of Cattle Lung Disease in 1995 resulted in about 320,000 cattle being killed in an effort to eradicate the disease (Scott Wilson, 2000). The Botswana Government also erected veterinary cordon fences such as Setata, Ikoga, Samochina and the Northern buffalo fence to control the disease. Other fences such as the Southern buffalo fence and Kuke fence were also meant to control livestock diseases. Fidzani and others (1999) noted that the eradication of cattle in Ngamiland caused major social and economic hardships. Some households opted for 100% cash compensation for their cattle and the majority of these households used the cash for routine household expenditure to meet immediate needs. According to Fidzani et al. (1999) cattle, which are the mainstay of the rural household economies in Botswana, were a major source of livelihood for the majority of the Ngamiland population; in 1996 they were ranked as the first most important source of livelihood by 52% in a sample of 753 households. In 1999, after restocking, cattle were ranked first by only 7.2% in a sample of 1,124 households.

On the other hand, it has been increasingly recognised that tourism, especially community-based tourism, can play a significant role in improving rural livelihoods in Ngamiland. But, to what extent can this be achieved?

1.3 Significance of the agricultural sector

At present, the contribution of Botswana's agricultural sector is of minor significance to the macro-economic structure of the country (Tahal consulting engineers, 2000), with its overall contribution to GDP at just 3.1%, and broken down as follows:

■ Arable agriculture	0.50%
■ Livestock	1.95%
■ Natural resources (hunting, fishing, fishery)	0.65%

However, the significance of agriculture lies in other domains of Botswana's economy and society, namely:

- Food security at the household and national levels – the policy of food security is defined as permanent access by all people to productive sources of income in order to be able to satisfy their food demand. The policy therefore advocates the diversification of income sources and efficient, competitive and sustainable domestic production (Tahal consulting engineers, 2000);
- Employment creation and income generation for the rural population – despite a significant rural to urban migration in the last 30 years, about 50% of Botswana's total population still reside in rural areas. Out of this rural population, about half (350,000) depend on arable farming for its income, and about 25-30% of the economically active rural population is engaged in agriculture (Tahal consulting engineers, 2000);
- Untapped potential in productivity of sorghum and maize – Tahal consulting engineers (2000) have computed the present yields of maize and sorghum to be just 2-9% of potential yields (depending on the region), and thus indicating a real potential for increasing crop production in the country.

It is government policy to improve productivity in agriculture, and one way of achieving this is through expansion of commercial practices and exploitation of niche markets such as horticulture and dairy farming. In this regard, a "Revised National Policy for Rural Development" was produced in 2002, as well as a government *white paper* on "National Master Plan for Arable Agriculture and Dairy Development (NAMPAD)."

In Ngamiland, arable agriculture is marginal owing to poor climatic and soil conditions (Scott and Wilson, 2000; Tahal consulting engineers, 2000); while cattle have been central to the rural economic activity (Scott Wilson, 2000). Since the eradication of cattle in 1996, other sources may have become more important components of rural income; for example, veld products, hunting, small stock and beer making.

It is apparent that endeavours to enhance rural livelihoods need to be driven by a policy that aims for a more integrated but diversified approach to rural development, incorporating other sectoral areas of comparative advantage besides agriculture. In Ngamiland, natural resource-based rural livelihoods, particularly tourism, offer a growth potential in contributions to the welfare of rural dwellers.

1.4 Tourism in Ngamiland

> *"Botswana raked an estimated US$313 million from tourism in 2000. The industry contributed 5 per cent to GDP and created over 10,000 jobs. Over P9 million was realised from tourism in Ngamiland in 2002/2003 financial year. About P5 million was paid as lease rental to Tawana Land Board, while the North West District Council received P4 million in royalties."*
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> **BOPA report, Botswana Daily News.**

Over the years, there has been a significant increase in tourist arrivals to Botswana. There were 106,800 tourist arrivals to Botswana in 1993, which increased to 203,172 in 1998. in 2000 there were 2,145,370 arrivals to Botswana; of this total, 14.8% were tourists at 317,515 representing the second largest category of arrivals to the country. Furthermore, this category was forecast to increase annually by 10% over the period 1997 – 2010. Tourism is therefore legitimately set to make a significant contribution to Botswana's GDP and has been described as the 'economic driver for the 21st century in southern Africa.

Ngamiland includes the Okavango delta, which is among the world's last unspoilt wetland ecosystems; Okavango is one of Botswana's leading tourist destination areas mainly because of the rich wildlife resources it sustains. There seems to be no consensus on the size of the industry in the district; instead figures have been presented in the context of Ngamiland's tourism node to the national economy (e.g. Botswana Tourism Development programme, 2000; Scott Wilson Resource Consultants, 2000).

However, the Harry Oppenheimer Okavango Research Centre has spearheaded a baseline study on the status of the industry in Ngamiland. For example, the environmental and socio-economic impacts of tourism in the Okavango Delta have been published (Mbaiwa, 2002; 2003).

According to Mbaiwa (2002) some of the positive attributes ascribed to the tourism industry by both local people and tourism entrepreneurs in Ngamiland are that:

- Tourism is the backbone of Ngamiland District through its provision of employment, income generation and the provision of social services.
- Tourism is the driving force behind all the conservation and management strategies being developed for the Okavango Delta; in particular, the deliberate policy of high-cost, low volume is perceived as having been designed to promote environmental conservation.
- Tourism encourages cultural exchanges and diversity in the district.

However it is also noted that,

- Like the rest of the country, tourism in Ngamiland is still largely based on the commercial utilisation of wildlife resources; apart from wildlife and wilderness, there are a limited number of other natural tourist attractions.
- The growth of the industry has been characterised by the so-called "enclave tourism" (Mbaiwa, 2000), which could partly be a consequence of the government's approach of "high value-low volume" concept.
    - *…"Hotels, lodges and camps are established to meet the needs of foreign tourists and usually fail to take into consideration the needs of the local population*" **The Courier ACP-EU, No. 198, May – June, 2003**.
- Community Based Tourism (CBT) that has emerged in Ngamiland and elsewhere has been synonymous with Community Based Natural Resources Management (CBNRM). The CBNRM concept has itself been thriving on wildlife-driven joint venture arrangements with private sector companies. In these arrangements community members have been 'passive participants', to the extent of merely subleasing their hunting and photographic rights and then selling all or part of the wildlife hunting quota procured from the Department of Wildlife and National Parks (DWNP).
- Up to now, equitable distribution of benefits accruing from the existing CBT in Ngamiland has not been achieved, and poverty is still endemic.

2. The challenge of sustainable rural development

Regarding livelihoods, it has been noted that:

> *"Overall, reliance on rain-fed agro-based livelihoods by rural dwellers is a major problem in the context of vulnerability to climate, especially given the recurrence of droughts. In line with this, diversification of the rural economy is an absolute necessity. Considerable time, effort, and training will have to be availed to provide skills for other non-agriculturally based livelihoods".*
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> **Revised National Policy for Rural Development, 2002, Section 3.3(vi)**

Based on the foregoing, it has emerged that the two primary livelihood options in Ngamiland are:

(i) Agro-pastoralism (see Box 1)
(ii) Tourism

As it is, tourism in Ngamiland is overwhelmingly dependent on wildlife; and both livestock and wildlife are dependent on the same natural resource base of pasture and water. Ultimately, it all boils down to the question of wildlife.

Box 1: Who are pastoralists?

Pastoralists are people who are highly dependent on livestock for their basic food, income and social needs. Pastoral production systems have normally developed in arid lands, where climatic uncertainty/unreliability and the nature of soils affects spatial as well as temporal variations in the availability of crucial natural resources, notably pasture and water. Livestock represents the main asset while mobility patterns is the key strategy to cope with these conditions. Market exchanges related to livestock and livestock products represent the key source of livelihood.

Pastoral groups tend to be classified according to their degree of mobility:

- **Nomadic** (opportunistic and variable migration patterns)
- **Transhumant** (set migratory routes on seasonal basis)
- **Agro-pastoralists** (almost sedentarised and also attached to crop production)

Source: Excerpt from: Focus – Pastoralists under pressure, October 2001)

As it is, tourism in Ngamiland is overwhelmingly dependent on wildlife; and both livestock and wildlife are dependent on the same natural resource base of pasture and water. Ultimately, it all boils down to the question of wildlife conservation versus livestock keeping.

2.1 Wildlife conservation versus livestock production

The view that wildlife conservation and animal husbandry were incompatible forms of land use is no longer tenable (Boyd et al., 1999). In Africa and perhaps elsewhere, a myriad of complex causes has led to a drastic decline in biological diversity. Competition and conflicts over land use and access to water have intensified as demographic pressure on rangelands and international concerns for the conservation of the biological diversity have increased (Boyd et al., 1999). However, not all the causes can be attributed to a human population explosion (Krug, 1998), which is forcing agriculture to extend into previously unsettled areas.

Rural poverty, inappropriate land use, lack of training and an unsatisfactory economic and legal framework have also contributed to the problem. Many observers have noted that the fate of African wildlife and African pastoralists seem to be inextricably linked (Aveling, et al., undated); hence, rendering it "impossible to address wildlife issues without being closely associated with, and informed by, the livestock economy." Yet, the alliance between pastoralists and wildlife managers is an uneasy one, due to the ever-increasing pressure of competing and sometimes conflicting forms of land use. It has been suggested (Aveling, et al., undated), that pastoralism and wildlife both have "first-order conflicts" (fundamental incompatibility) with intensive agriculture, whereas they only have "second order conflicts" (some constraints to compatibility) with each other.

Traditional pastoral livestock production has been found to be highly compatible with wildlife conservation (Aveling, et al., undated); but this compatible interaction is showing signs of disintegration where,

- Livestock and wildlife are viewed as competitors for limited forage (grazing); and,
- Livestock are seen as spreading disease into wildlife, and wildlife are seen as spreading disease into livestock.

Box 2: Cattle – wildlife/tourism conflict in Ngamiland

Interestingly, traditional pastoralists did not express any antagonism towards wildlife or tourism during field consultations (Scott Wilson Resource Consultants, 2000). Instead tensions were raised around the damage caused by increased elephant population to the north of the delta and with predators attracted by cattle whose movement is restricted by fencing. Furthermore, the Basarwa of Caecae were concerned that veterinary fences would lead to farmers enclosing grazing and squeezing out wildlife. They perceived this as a threat to their way of life as hunters and gatherers as well as the activities of Caecae Thabologo Trust. The consultants were then led to conclude that any potential conflicts were likely to be centred on land use in NG/4 and NG/5, and exacerbated by habitat fragmentation and compression due to fencing for disease control.

According to Ashley, Boyd and Goodwin (2000), one of the key issues is assessing whether tourism clashes with or complements the seasonality of agriculture, livestock management or fisheries. Based on case studies in Namibia, they were able to indicate how tourism could support or conflict with other livelihood activities in a rural area (Table 1).

Regarding livestock production, some strategies to deal with the conflicts might be to:

- Combine the political and economic forces of pastoralism and wildlife conservation to restrict the expansion of agriculture into certain areas (including tracking the use of subsidies and land use policies leading to conversion of inappropriate lands from pastoral to agricultural use);
- Try to minimize and mitigate the second-order conflicts which exist between pastoralism and wildlife management, such as predation, disease and grazing competition;
- Try to maximize the positive and complementary aspects of pastoralism and wildlife conservation such as spreading economic risk and maintaining opportunities for ecological and cultural diversity

An emerging paradigm is the concept of “Integrated Management” or specifically, “Integrated Wildlife and Livestock Management (IWLM)” which incorporates benefits to local people; it may also be referred to as development of sustainable resource use strategies. However, the development of sustainable resource use strategies requires development of a predictive understanding of the constraints and opportunities for the development of IWLM enterprises. For example, the primary limitation of sustainable utilisation of natural resources in the drylands of Africa is an understanding of the biological relationships between climate, soils, plants and animals under socio-economic constraints (The Macaulay Institute, undated; online).

Table 1: How tourism supports or conflicts with other livelihood activities		
Livelihood activities	**Conflict between tourism and current activities**	**Complementarities between tourism and other activities**
Livestock	Competition for water and grazing	Cash for investing in herds
	Exclusion of livestock from core wildlife areas	Jobs near farm so tourism worker can continue as farmer
	Litter and environmental damage harm livestock	Cash in dry years limits livestock de-stocking
	Can increase tension and decrease cooperation with neighbours	Can boost community management of renewable natural resources, including grazing
Agriculture (crops)	Competition for time	Cash for investment in crop farming
	Crop damage by wildlife (elephants)	
Veld products harvesting	Competition for time	Can boost community management of veld products
	Lost access for harvesting in exclusive tourism areas	
Employment		Transferable skills
Small enterprise		Market expansion
Livelihood strategies		
Cope with drought	Lost access to grazing and veld products	Income continues in drought
Diversify		Additional livelihood opportunity
Minimise risk	Risky investment	
Maintain liquidity and flexibility	Earnings lagged	
	High initial investment	

In east Africa the following key issues were identified as pertinent to successful IWLM, while also carrying some lessons for Ngamiland:

- *Tradition and culture*: It is essential to recognise that pastoralists are skilled and knowledgeable herds with a long tradition of making the best of a harsh environment, increasingly forced by economic and environmental pressures to modify their traditional management systems.
- *Development*: Wildlife and livestock systems are subject to ever-increasing pressure from human populations and levels of consumption. In order to cope with these changes, it is essential to recognise what is valuable in traditional natural resource management systems and yet assist pastoral people to adapt to changing socio-economic and environmental conditions.
- *Production*: In the semi-arid lands of east (and southern) Africa, livestock and wildlife are the primary 'mediators' through which

humans derive usable resources from an uncertain environment, one that is characterised by dramatic changes in productivity due to patchy rainfall and resource distribution. If the goal is to maximise production from this environment while, at the same time, supporting biological and cultural diversity, wildlife and livestock can play complementary roles.

- *Cooperative resource management*: Both pastoral and wildlife management in arid and semi-arid lands require an area large enough for wet and dry season grazing, and range areas for viable populations for the wildlife species concerned. Such large areas are necessary to enable movement between “good” and “bad” patches over time, and to incorporate the unevenly distributed range of resources needed for both survival and production. Achieving access to such large areas normally implies some form of cooperative or common pool resources management.
- *Differential values*: In looking at production systems that combine livestock and wildlife, it is important to be aware of the different values and uses associated with such resources by women and men. In many cases men may focus on the cash and status value of livestock and women may recognize a broader set of needs related to daily family requirements and risk reduction.

Ultimately, the question of whether livestock and wildlife can co-exist is centred on type of land use. Livestock-wildlife conflicts are primarily focussed on access to grazing and water resources, but predation and disease are also significant issues for livestock-owners (Bourn and Blench, 1999). Grazing is the most extensive form of land use in southern Africa (Darkoh, 2003). One of the risks particularly associated with arid and semi-arid grazing systems is land degradation as a result of inappropriate grazing – often referred to as overgrazing. But new thinking around the subject suggests that the quality of pastures is constrained more by density-independent factors such as climatic variability and other external shocks to the system, than by density-dependent factors such as stocking rates and grazing pressure. Consequently, it has been suggested that pastoral stocking strategies are less damaging to rangeland resources than previously thought, and that rangeland conservation would be better served by allowing traditional patterns of pastoral movements than by promoting more sedentary lifestyles (Behnke et al., 1993). The theory is illustrated below (Case 1) where pastoralism was combined with wildlife conservation.

In Botswana, the impacts of agriculture practices on the environment are less related to population density (stocking rates) as such (Southern African Savannas Network, 2001); they are more related to the density and distribution of cattle and recurrent droughts.

Case 1: Ngorongoro Conservation Area, Tanzania: Pastoralism combined with conservation

The Ngorongoro Conservation Area (NCA) was established in 1959 as a multiple land use area dedicated to the promotion of both natural resource conservation and human development. The NCA combines wildlife conservation and management with pastoralism and tourism. Pastoral settlement in the crater itself has been banned since 1974, but in 1987-88 nearly 25,000 Maasai pastoralists still resided within the NCA, together with some 286,000 head of livestock. Livestock has been excluded from the crate since the early nineties. Long-term monitoring of wildlife populations of the Ngorongoro crater itself confirm exceptionally high density of wildlife during the 1980s, although declines in some species have been attributed to illegal hunting and a decline in pasture quality. Annual income from tourism in Ngorongoro was equivalent to US$3.7 million.

Various commentators have argued that conservation goals have been achieved at the expense of development goals, because of restrictions on grazing, burning and agriculture. A common criticism has been that local pastoral inhabitants see very few benefits from wildlife. Conservationists, on the other hand, argue that livestock mismanagement underlies the decline in pastoral livelihoods. However, the need for alternative sources of income is highlighted by the widespread decline in the ratio of livestock to people among pastoral populations, attributed largely to human population growth and shortages of grazing land. **Concerns over the impacts of cultivation, and the compatibility of wildlife and agro-pastoralism have led to suggestions that community-based tourism and improved livestock management may make a growing contribution to livelihoods.**

Source: Boyd et al., 1999

Recent efforts in east Africa to persuade local people to live with wildlife have generally incorporated a combination of the following strategies:

- Reduction of the costs of living with wildlife, for example, through controlled resource use in conservation areas and improved control of problem animals;
- Alternative income-generating strategies to reduce the conversion of wildlife habitat for agriculture or grazing lands, and/or reduce the unsustainable exploitation of natural resources, such as bushmeat and fuelwood;
- Increasing the benefits of living with wildlife: for example, through revenue-sharing and support to local development projects;
- Enhancement of rural livelihood strategies through involving local communities in wildlife-related enterprises such as tourism and safari hunting. Amboseli National Park and the Maasai Mara Reserve provide contrasting examples of attempts to mitigate the costs and increase the benefits of living with wildlife (see Case 2).

In Botswana, there has, as yet, been no project that can be described as IWLM *sensu* this report; however, such integration is possible especially in certain Controlled Hunting Areas that have been designated for “community managed wildlife utilisation in livestock area.” In Ngamiland areas specifically designated for communal pastoral activities occupy 26% of which pastoral activities with possible CBNRM (or Community Based Tourism) occupy 11.3% (see 1.1 above).

Case 2: Amboseli National park and Maasai Mara Reserve, Kenya: Contrasting examples of attempts to mitigate costs and increase benefits

Amboseli National Park was created in 1974 against a background of decline in pastoral livelihoods and a shift towards a mixed economy, and controversy about the future relationship between wildlife, livestock and people in southern Maasailand. In recognition of their role in shaping the ecosystem, the local Maasai became joint owners of surrounding bushlands through a number of group ranches. In order to mitigate conflicts, a compensation system was developed, involving improved access to water, direct economic benefits through the development of tourism, safari hunting and possibly wildlife cropping on group ranch land, and additional benefits in the form of social services. However, high initial expectations were not fulfilled and the compensation system broke down. In particular, the water supply was interrupted during critical dry periods, and the Maasai had little option ut to return to their traditional sources of water and grazing inside the Park. Direct income was limited by the concentration of tourism facilities inside the Park and the ongoing hunting ban. New conflicts were threatened by the expansion of agriculture in an area adjacent to the Park in an attempt to diversity livelihoods, associated with the need for diversification and lack of confidence in the potential benefits of wildlife management. These failings have been attributed largely to lack of support from the Ministry of Tourism and Wildlife.

Responses from the mid-1980s included first the gradual strengthening of local participation and development of more community-based wildlife management initiatives, and second institutional reform, in particular the creation of the Kenya Wildlife Service. While the Amboseli experience has been protracted and controversial, it has played a significant role in stimulating policy change. There has been a gradual shift of authority and control over natural resources in favour of the Maasai, and the policy framework now in place provides greater scope for local participation in wildlife management.

In the Maasai Mara Reserve, competition over water and grazing resources in the dry season is less intense than in Amboseli, and expectations of revenues and development associated with the Reserve have largely been fulfilled through increasing tourism revenues. The local population was also more settled and concentrated, which has facilitated the development of social infrastructure such as schools and clinics.

“The traditional Maasai custom of maximising the number of cattle kept has begun to change, and local Maasai have been heard to say that wildlife has become as important to them as cattle, if not more so, because wildlife revenues continue to come in during times of drought of flood. Poaching and expenditure on anti-poaching measures have reportedly dropped to negligible levels, and unlike the situation in most of the country, numbers of elephant and rhino are increasing inside the Park”. (Talbot and Olindo, 1990:71).

Source: Boyd et al., 1999

The Revised National Policy for Rural Development specifically calls for a more **integrated** but **diversified** approach to rural development, incorporating other sectoral areas of comparative advantage besides agriculture (section 3.1); and CBNRM has been identified as a rural development approach that supports natural resource conservation. As defined in the CBNRM draft policy, ‘the approach alleviates rural poverty by empowering communities to manage resources for long-term social, economic and ecological benefits. CBNRM advances identified national engines of growth such as tourism, wildlife, forests and veld products that rely upon a healthy environment for profits.’ The potential benefits of the approach are indicated in Box 3.

Box 3: Anticipated benefits of the CBNRM approach in Botswana

Rural development: a CBNRM project will generate income and employment and as such contribute to rural development, a benefit that especially applies to remote areas.

Conservation in communal areas: the benefits derived from the use of natural resources will prompt the community to use these valuable resources in a sustainable way hence encouraging conservation.

Tourism development: CBNRM projects will add value to the national tourism product through diversification of the products, increasing volume and economies of scale

Source: National CBNRM Forum in Botswana, 2001

2.2 Assessing the constraints to compatibility between tourism and livestock keeping in Ngamiland

Communities can only improve their alternatives and the quality of livelihood options depending on the opportunities and power they have, the incentives and prices they face, and their access to skills, training, capital and markets (Africa Resources Trust, undated). In the context of this concept paper we are seeking to assess synergistic approaches to the development of livestock products in the rural economy and linking it all with tourism. There appears to be consensus that sustainable co-existence of livestock and wildlife/tourism can be achieved. However, such efforts would entail careful livestock and rangeland management, in order to mitigate the inevitable competition between livestock and wildlife for limited natural resources (Launchbaugh, undated; online).

As indicated above, the nature of the existing small-scale livestock industry in Ngamiland is such that there is no antagonism with wildlife/tourism. Yet, the potential to integrate the two in diversifying the rural economy has not been maximised. The situation is not unique to the district or even the country; rather, it has been the experience in sub-Saharan Africa (Ashley and Elliot, 2003) that,

- Sometimes it is not appropriate given local conditions; or
- It has simply not been tried; but often because
- The policy environment is not conducive.

2.2.1 Indeed, policies do matter

The development of sustainable resource use strategies (or IWLM) has been found to be constrained by **isolated and incoherent policies**.

In particular (Ashley and Elliot, 2003),

(i) CBNRM has had limited enterprise focus;
(ii) Poverty reduction strategies and related processes tend to exclude tourism and wildlife; and
(iii) There is limited application of pro-poor tourism approaches within tourism-based growth strategies (see Box 4).

Box 4: What is pro-poor tourism?

Pro-poor tourism (PPT) interventions aim to increase the net benefits for the poor from tourism, and ensure that tourism growth contributes to poverty reduction. PPT is not a specific product or sector of tourism, but an approach. PPT strategies aim to unlock opportunities for the poor – whether for economic gain, other livelihood effects, or participation in decision-making.

Source: Ashley, Roe and Goodwin, 2001.

It is instructive to consider the different sectoral policies and the effects they have had upon user groups and sectors in Ngamiland (Table 2). The matrix of policy interactions was based on comments raised by a team of consultants and the Reference Group assembled to assess the impact of veterinary fences in the district. It was found that livestock disease control policies and fencing were not compatible with other productive and conservation sectors. Also, many policies tended to have negative effects upon the poorest members of the community and upon issues of equity and access (Scott Wilson Resource Consultants, 2000).

To illustrate further,

- While the 'tenure policies' (TGLP and Tribal Land Acts) were found to have some positive influence or intent on livestock and arable agriculture, they were perceived to be negative on wildlife; neutral on tourism and rural diversification; and either neutral or negative on CBNRM and poverty alleviation.
- The wildlife and tourism policies were found to be neutral on agriculture; but could either be positive or neutral on other sectors (Table 2)

2.2.2 People can own cattle, but not wildlife

"Wildlife is yet to be recognised as a productive asset, like any other common property resource, with a similar need for locally rooted rights and mechanisms for its sustainable use" (Ashley and Elliot, 2003).

Instead, it has often been seen more as an international good to be conserved. To make matters worse, measures to conserve wildlife and ensure its sustainability have often conflicted with approaches that build on those assets for local development. Hence, policy-makers have had to contend with the international communities' interest along with their allure of conservation-oriented funding. This has at times resulted in an enduring people-wildlife conflict where the people suffer the costs of living with wildlife and lost access to productive land.

Table 2: Policy interactions (Source: Adapted from Scott Wilson Resource Consultants, 2000)								
Policy or Act	Livestock-large scale	Livestock-small scale	Arable agriculture	Wildlife	Tourism	CBNRM	Rural Diversification	Poverty alleviation
Tribal Grazing Land Policy	P	PN	PN	N	X	N	X	N
Tribal Lands Acts 1969 and 1993	P	PN	P	N	X	X	X	X
Agricultural Resources Conservation Act 1976	X	P	P	P	X	X	X	X
Agricultural Policy 1991	P	P	P	N	N	PN	PN	X
Diseases of Animals Act 1977 and Fencing policies	P	P	X	PN	N	N	N	PN
Wildlife Conservation and National Parks Act 1992	X	X	X	P	P	P	X	X
Unified Hunting Regulations 1979	X	X	X	P	X	PN	PN	P
Wildlife Conservation Policy 1986	X	X	X	P	P	P	P	P
Community Based Natural Resource Management Policy	X	X	X	X	P	P	P	P
Natural Resources Conservation Policy 1990	X	X	X	P	P	X	P	P
Tourism Policy 1990	X	X	X	P	P	X	X	X
Tourism Act 1992	X	X	X	P	P	X	X	X
Community Based Strategy for Rural Development	X	X	X	X	X	X	X	X

KEY:

P – Positive influence or intent
N – Negative influence
PN – Positive and negative influences
X – Neutral

2.2.3 Rural areas are not necessarily ideal for tourism development

While livestock keeping may have developed over many years as part of a rural culture and atmosphere, seeking entry into the other livelihood option would be confronted with barriers that are inherent in the structure of the tourism and wildlife industries (Holland, Burian and Dixey, 2003). It has been acknowledged that the key features of successful tourism development and the key characteristics of rural areas are not always consistent (Table 3).

Table 3: The gap between requirements of tourism and characteristics of rural areas

Common requirements for tourism development	**Common characteristics of rural areas**
➢ A product or potential products	➢ Variable. May have a high-value unique selling point, may be an attractive desired location for travellers from cities, may have little to offer
➢ Access – transport infrastructure, limited distance, limited discomfort	➢ Distant from cities/towns, poor roads, limited transport
➢ Investment in facilities	➢ Limited access to financial capital, affordable credit and private investment
➢ Skills in service, hospitality	➢ Low skills (skills migrate)
➢ Regular and quality inputs, e.g. of food and other supplies	➢ Undeveloped commercial production, distant from market
➢ Marketing skills	➢ Distant from marketing networks
➢ Clustering of tourism products to create a 'package' holiday	➢ Lower concentration of tourism products in one place
➢ Government investment	➢ Low priority for governments, particularly tourism/trade departments, particularly in sub-Saharan Africa
➢ Source: Holland, Burian and Dixey, 2003	

However, the above obstacles do not detract from the tourism product itself. Ngamiland contains wetlands of the Okavango and Linyanti, vast forest, savannas and semi-desert; it forms the most important part of southern Africa's last barrier free wildlife system (Albertson, 1996). Hence, Botswana's tourism is based almost entirely in this district, and the quality of the product can compensate for other problems, and act as an incentive for the industry and tourists to overcome them. In actual fact, the obstacles listed above are commercial, economic and logistical.

3. Bridging the gap

3.1 Put poverty reduction strategies at the heart of tourism development in Ngamiland

This implies shifting from ‘enclave tourism’, which is currently a characteristic in Ngamiland to pro-poor tourism.

According to DFID (1999), tourism offers some advantages to pro-poor growth while compared with other sectors because:

1. The customer comes to the ‘product’; hence, there are opportunities to make additional sales.
2. There is some evidence that tourism is more labour intensive than say, manufacturing and employs a higher proportion of women.
3. Unlike many other traded-good industries, it has potential in poor countries and marginal areas with few other competitive exports.
4. Tourism products can be built on natural resources and culture, which are assets that some of the poor have.

3.2 Recognise tourism as an additional diversification option for the poor, not a substitute

The rural poor can maximise their returns by avoiding forms of involvement in the tourism industry, which require capital investment, and choosing forms that complement existing livelihood strategies.

3.3 Seek and promote synergistic approaches to development of livestock products in the rural economy with links to tourism

Livestock are more than meat, milk or fibre production. They also form part of the rural landscape and produce a rural atmosphere. When tourists visit the Okavango Delta and spend money in lodges, camps and game viewing, they also consume the landscape and rural atmosphere, but without payment. The farmers produce this landscape; but rather than exploiting this very attractive rural tourism asset, some of the small-scale farmers abandon this productive activity for ‘good jobs’ in the classical tourism trade.

Therefore, there are many opportunities to stimulate such forms of rural tourism as **Agricultural tourism** where tourists can visit a working cattle post or any agricultural, horticultural or agribusiness operation for the purpose of enjoyment, education, or active involvement in the activities of the farm or operation.

Safari companies can contribute in bridging the gap by developing complementary products with local communities to make destinations more attractive to tourists, extend the length of stay and provide employment and other income benefits to the poor whose way of life constitutes an important part of the holiday experience.

4. Next step

The next step is to establish a pilot demonstration project to promote synergy between the two primary livelihood options of livestock and tourism in

Ngamiland. The demonstration project can be called **Ngamiland Rural Tourism Initiative**, and it should be based in Seronga.

Apart from being one of the main livestock rearing areas, Seronga is also part of an ongoing CBNRM programme, which should provide a supporting framework for the initiative. It is necessary to locate the project in an area with a large traditional livestock sector so as to adequately demonstrate the complementarities of the sector with tourism.

The demonstration project is recommended as an appropriate form of intervention in order to have the benefit of a **learning-process** through **action research**. It is envisaged that the initiative could kick-start using a livelihoods approach, with livelihoods analysis done by the community, with facilitation by ACORD, to help the community with their decision-making as well as to generate lessons to share with others (for guidance refer to Ashley (2000)).

The specific activities (adapted from Ashley (2000) at the start shall be a workshop, focussing on:

- Current land-use management strategies and the livelihood priorities that lie behind them (for example, livestock keeping strategies and how these are linked to risk avoidance, coping with drought, and cash generation strategies).
- Outlining various wildlife use options.
- Assessment of the pros and cons of each option, focussing on its fit or conflict with current land uses and with livelihood priorities

After this, the focus can shift to developing a tourism product based on a "cattle post trail" around Seronga, possibly involving willing tourists in partaking of the various traditional activities at the cattle post.

4.1 Keys to success

- The Revised National Policy for Rural Development already promotes integrated but diversified approach to rural development.
- Seronga already has experience with CBNRM, which should provide a supporting framework regarding issues of equity and access.
- Ngamiland already attracts a large number of tourists who come mainly for wildlife-based activities.

5. Bibliography

1. Albertson, A. 1996. Botswana: Death by cattle. http://www.forest.org/
2. Ashley, C. 2000. Applying livelihood approaches to natural resource management: Experiences in Namibia and Kenya. Sustainable Livelihoods, Working paper 134. Overseas Development Institute, UK.

3. Ashley, C. and Elliot, J. 2003. 'Just Wildlife?' Or a source of local development? Natural Resource Perspectives No. 85. Overseas Development Institute, UK.
4. Ashley, C., Boyd, C. and Goodwin, H. 2000. Pro-poor tourism: Putting poverty at the heart of the tourism agenda. Natural Resource Perspective No. 51. Overseas Development Institute, UK.
5. Ashley, C., Roe, D. and Goodwin, H. 2001. Pro-poor tourism strategies: Making tourism work for the poor – a review of experience, Pro-poor tourism report No. 1. Overseas Development Institute, UK.
6. Botswana Government. 2002. Revised National Policy for Rural Development: Government paper N0. 3. Gaborone.
7. Botswana Tourism Development Programme. 2000. Botswana Tourism Master Plan. Final Report.
8. Boyd, C., Blench, R., Bourn, D., Drake, L. and Stevenson, P. 1999. Reconciling interests among wildlife, livestock and people in eastern Africa: A sustainable livelihoods approach. Natural Resource Perspectives No. 45. Overseas Development Institute, UK.
9. DFID. 1999. Tourism and poverty elimination: untapped potential. Department for International Development.
10. Holland, J., Burian, M. and Dixie, L. 2003. Tourism in poor rural areas: Diversifying the product and expanding the benefits in rural Uganda and the Czech Republic. PPT working paper No. 12.
11. Mbaiwa, J.E. 2002. The socio-economic and environmental impacts of tourism development in the Okavango Delta, Botswana. Harry Oppenheimer Okavango Research centre, Maun.
12. Mbaiwa, J.E. 2003. The socio-economic and environmental impacts of tourism development on the Okavango Delta, north-western Botswana. Journal of Arid Environments 54:447-467
13. Mulale, K. undated. The challenges to sustainable beef production in Botswana: Implications on rangeland management. Iowa State University website.
14. National CBNRM Forum in Botswana. 2001. Proceedings of the second national CBNRM conference in Botswana 14th - 16th of November 2001 and the CBNRM status report 2001.
15. Roe, D., Goodwin, H. and Ashley, C. 2002. The tourism industry and poverty reduction: a business primer. Overseas Development Institute, UK.
16. Scott Wilson Resource Consultants. 2000. Environmental assessment of veterinary fences in Ngamiland. Volume 1. Final report.
17. Southern African Savanna Network. 2001. The status of southern Africa's savannas. UNEP.
18. Tahal Consulting Engineers Ltd. 2000. National Master Plan for Agricultural Development. Final Report, Volume 1.