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**COMMUNITY POWER, PARTICIPATION, CONFLICT
AND DEVELOPMENT CHOICE: COMMUNITY
WILDLIFE CONSERVATION IN THE OKAVANGO
REGION OF NORTHERN BOTSWANA**

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“It is difficult to comprehend the magnitude of the changes that have affected Botswana’s wildlife and range land resources over the past twenty five years. The contrast either side of this time period could not be greater, with resource use over large areas of range land undergoing a shift from wildlife and hunting and gathering to extensive livestock production. Drastic reductions in the populations of some key wildlife species have resulted, coincident with increasing restrictions upon the distribution and movement patterns of almost all large herbivores.”

(from Perkins J.S. and Ringrose S.M., 1996)

1. INTRODUCTION

In the early 1980's, the government of Botswana began to evaluate its wildlife conservation strategy in response to reductions in wildlife indicating that some wildlife populations were declining rapidly. Significant losses of wildlife resources were primarily attributed to consequences of a livestock development program promoted by the government, and were at the expense of traditional utilisation of resources by rural communities. As a result of a wildlife census confirming declines, the government decided to take action. In 1992, the Wildlife Conservation and National Parks Act was legislated initiating a move from central government control of wildlife and other natural resources while providing concessions to allow communities living in, or adjacent to wildlife areas a greater role in management of those resources.

Several underdeveloped areas surrounding the Okavango Delta in Ngamiland District of northern Botswana were designated as 'community areas' within the broader designation of controlled hunting areas or CHA's (now called wildlife management areas or WMA's). Communities within these designated zones could apply to the local tribal land board to lease the area. Management of the resources would then fall under their control and consequently, benefits derived from these resources would accrue directly to the community members. Each community could apply to the Department of Wildlife and National Parks (DWNP) for a wildlife hunting quota provided they met established conditions: to select a community council and legal registration of a Community Based Organisation (CBO). Communities were then encouraged to commercially utilise the natural resources within their areas by selling the quota to a licensed hunting company and leasing the non-consumptive (i.e. photographic tourism) rights to a commercial operator who would then become the joint venture partner. The USAID funded Natural Resources Management Programme (NRMP), in partnership with the DWNP, became the implementing organisation for all Community Based Natural Resources Management Projects (CBNRMP) in Botswana. At the end of 1994, one community was successfully established as a legal CBO. By the end of 1998, an additional four were established and three more were in process.

In 1993, as part of the Botswana Wild Dog Research Project, a study was initiated investigating local attitudes and behaviours towards wildlife with special emphasis on predators. In 1995, an investigation into the social factors that influence the conservation of wildlife in general became an official objective of the project with the approval of the DWNP and the Office of the President. A survey of wildlife /livestock conflict was carried out in 1995 in four communities situated at the periphery of the project study area. In 1996, three of these communities, that also border on the Moremi Game Reserve, were awarded management responsibility for areas surrounding their communities. Current research aims to describe the transition of natural resource management from the state to the local communities and to investigate the implications and results of development choices taken by two of these aforementioned communities. The two focal communities, Khwai and Sankuyo, were chosen for their differing perceptions, attitudes and management strategies as a result of their divergent development approaches.

2. OBJECTIVES

The main objective of this research is an evaluation of the process of decentralisation while examining the current and potential effects of a community based approach to wildlife management in northern Botswana. Directly addressing the reality that there are only a few successful community based initiatives in southern Africa, several hypotheses are tested that aim to evaluate the performance of these two communities in terms of their benefits, leadership and capacity with respect to the existing CBNRM model for improved wildlife management. Within this context, a comprehensive analysis of the transformation of social life and social structures is considered essential to discussions of land and resource tenure, conflict, power, institutional linkages, benefits, representation and participation.

3. THEORETICAL FRAMEWORK

Fundamental to an investigation of CBM is an understanding of the theory and assumptions underlying political decentralisation. Adopted by international aid agencies, lending organisations and governments, CBM has become a dominant development paradigm of the 1990's. Decentralisation implies a process of redistribution of power and transfer of responsibilities from top (central government) to bottom (rural communities). The fundamental lynchpin of this paradigm is the important assumption that decentralisation will result in improved management of natural resources. Therefore any investigation into the efficacy of CBM should include validation of this central assumption, as well as issues of the motivation and motivators of the process, the relationship between the decentralised and the central entity, the actual extent of transfer of power and capacity of the decentralised rural community.

Centralised and privatised control of resources has been the predominant management strategy since the early 20th century. This already established strategy was strengthened by Garrett Hardin's widely acclaimed 1968 theory described as "The Tragedy of the Commons" (Hardin, 1968). Hardin argued that common ownership of a resource cannot succeed, as the innate human desire to maximise individual benefits will inevitably cause overuse of a common resource leading to ultimate resource degradation. However, as if in direct challenge to Hardin's theory, state managed resources have experienced frequent and chronic declines in the past several decades. In the last decade a growing discussion in the social sciences is promoting local resource management and decentralisation as a remedy to the chronic failings of state management. Central to this shift is a body of theory collectively known as Common Property Theory (CPT) which argues for the potential success of commonly managed resources and identifies several broad but crucial criteria for success in commonly managed natural resources.¹

Community Based Natural Resource Management programs have been implemented throughout the world including Botswana in the past decade. Eagerly embracing the theory and principles of Common Property and decentralisation, the primary goals of the Natural Resource Management Programme are twofold. 1) to increase rural economic development and 2) to improve natural resource management through improved attitudes to wildlife.

¹ Common Property Theory reveals several general criteria that appear critical for successful long term, commonly managed resources. These include autonomy and recognition of the community as an institution, proprietorship and tenorial rights, rights to make the rules and viable mechanisms to enforce them, and ongoing incentives in the form of benefits that exceed costs (Ostrom 1990, Bromley 1992). Another body of research on the socio-economic factors that shape human relationships to land and natural resources (Little and Horowitz 1987, Redclift 1987) suggests that attitudes towards wildlife and natural resources are central to the relationships of people with the land and resources. However, it clearly states that attitudes are not the explanatory variable, but are the outcome of individual relationships to wildlife, their historical and/or changing access to land and resources and their perception of the benefits and production options available to them. It infers that improving the conditions of access to land and resources will improve attitudes and consequently more sustainable practices of wildlife and natural resource management will be initiated. Numerous development initiatives world wide are based on this assumption.

However, there are few examples of long term success of community based initiatives as these have a high incidence of degeneration through time. Due to the short duration of their implementation, it is premature to pass judgement. Many of the problems outlined in this paper can be regarded as temporary and associated with a program in its infancy. Understanding these issues and dealing with them while they are young and not yet habit forming is essential for success. For this reason, it is considered worthwhile to make the following assessment.

The assumptions underlying the programs, specifically that improved incomes will improve attitudes towards wildlife require systematic research and validation. Recent investigations, both theoretical and applied, of the underlying causes of the success and failure of decentralised natural resource management have necessarily turned to an evaluation of community power and participatory conservation in a framework of political, historical, and social issues.

4. METHODS

Data collection for this study began in 1995 and data are being collected from three perspectives. The primary focus and majority of data is from a) the decentralised entity – the local village residents who have been charged with the responsibility of managing an area's natural resources. The secondary and tertiary focuses are on (b) the partner organisations that have been chosen by the central and decentralised entities together in a co-management capacity and, c) the central entity – the government bodies and NGO's that are involved in various advisory, or implementation capacities.

A variety of data collection methods are being used. Quantitative information used in this paper was collected during 1997/1998 via three formal surveys: First, a socio-economic census of all individuals in both communities (340 in Sankuyo and 362 in Khwai). Second, a more comprehensive questionnaire addressing knowledge, attitudes to wildlife, livestock dependency, benefit flow and, perceived value of wildlife was administered to the head of each household (23 in Sankuyo and 31 in Khwai). Third, a detailed questionnaire was administered to 22 Sankuyo members to determine specific attitudes towards CBNRM, perceived benefits and satisfaction.

Qualitative observations were used to investigate and establish the patterns of social transformation, benefit flow, power relations, conflicts and behaviours as well as to validate quantitative observations. In Khwai, qualitative observations are derived from 9 weeks of residence, attendance at village meetings and 12 comprehensive personal interviews. In Sankuyo, observations derive from three weeks of residence, one formal community workshop, and regular attendance at weekly trust meetings for a period of 7 months. All data from the secondary and tertiary informants are via unstructured interviews, discussion groups, and meeting attendance. The remaining observations are via documentation of local media reports and articles, photographs, videotapes and extensive literature review.

5. Ecological Setting, Biodiversity and Status of Wildlife in Botswana

The study is located in northern Botswana's remaining wildlife stronghold, the Okavango Delta; a wilderness area recognised as one of the world's ecologically important wetlands. Rich in natural resources, the region is a haven for numerous threatened wildlife species as well as providing for the primarily subsistence oriented pursuits of the rural peoples of northern Botswana. The climate is semi-arid, with erratic and unevenly distributed rainfall averaging 500 mm per year. Flood waters from the catchment basin in the Angolan plateau fill the Okavango Delta river six months after the rain has fallen providing water and life during the otherwise inhospitable dry season.

The Okavango Delta is an anomaly in Botswana and known colloquially as the "Jewel of the Kalahari". Botswana consists predominantly of Kalahari desert is characterised as having a semi-arid climate, periods of prolonged drought, poor soils and little permanent water. There are two distinct biogeographical systems in the country with over 80% of the land area falling into the southern or Kalahari system. This system is characterised by aridity, the absence of surface water, and scrub vegetation. The smaller northern system or Okavango Delta and Kwando river system is characterised by areas of permanent water, seasonal flood, and higher rainfall, producing primarily broken woodlands and vast stands of *mopane* woodland. The northern system supports the majority of the country's natural biodiversity, and is now the exclusive refuge for the large herbivores such as elephants and buffaloes that are restricted to areas with permanent water.

5.1 Status of Wildlife

One of the important assumptions of and motivations for this research is that wildlife in Botswana is in a state of decline. To confirm the validity of this assumption, the following discussion briefly states where both the data and the data analysis come from to make this statement and highlight that it is the necessary assumption based on the best government data available.

5.1.1 Wildlife population data available in Botswana

In the late 1970's, the government of Botswana recognised the need to inventory and monitor the country's wildlife population. Funded by the European Union (EU) and carried out by the hired consulting firm; DHV, the countrywide animal and range assessment project (CWARAP) was done. Results were released in 1980 jointly by DHV and the DWNP. The next significant survey was done in 1989 by the DWNP and hired consulting firm; Bonfica. Following this, the DWNP (assisted by the firm; ULG) continued wet and dry season monitoring until 1996. All primary data sources of wildlife population surveys are therefore found in DHV 1980, Bonfica 1992, DWNP 1993, and DWNP 1994 a,b,and c. Analysis of this data is vast, but found in three primary sources: 1. FGU 1988- A review of the aerial monitoring program of DWNP done by FGU-Kronberg Consultants and Engineering GMBH under contract by the DWNP; 2. DWNP 1994c- Written by Dr. Crowe, (the then primary wildlife biologist and head of the research division of the DWNP). All aforementioned primary sources were used in this analysis. This report is the most recent official government statement on the status of wildlife and its future in Botswana; and 3. Perkins and Ringrose 1996 – An independent review of the livestock industry contracted by the consulting firm Metroeconomica, done by two

University of Botswana professors, and again using the aforementioned primary sources. Additional sources of analysis include; Joos-Vandervalle 1993- Movements and distributions of migratory zebra and wildebeest in northern Botswana, and Williamson 1994.

5.1.2 Discussion of data by analysts

Using the data, analysts as outlined above conclude for all of Botswana that “almost all wildlife populations in Botswana are in a state of decline” (Perkins and Ringrose 1996,4). Some migratory species such as blue wildebeest and red hartebeest declining as much as 90% (Crowe 1995). Trends show that the vast and abundant wildlife populations reported in the early part of the century and as late as the 1970’s, no longer exist (Perkins and Ringrose 1996). Wildlife populations in Botswana throughout the past century have expressed dramatic fluctuations and are characterised by “boom” and “bust” cycles characteristic of semi-arid climates... “what has become apparent, however is that the boom cycles have become less robust in the past twenty years” (Crowe 1995).

In the 1994 DWNP report on the status of selected wildlife resources, it is reported that in the northern system, buffalo and zebra are in pronounced decline (DWNP 1994c) See figure 2. This is significant because of their economic importance, but also because several other species are also shown to be in decline. Data from Perkins and Ringrose 1996 showing trends over the period 1987-1996 in the northern system, show that population decreases appear for eland, springbok, hartebeest, sable, tsessebe, and ostrich. Other species including lechwe, kudu, giraffe, gemsbok and reedbok and roan show an increase.

Findings reveal that some of the large water dependent ungulates in the northern system are thriving- specifically elephants and lechwe. It is notable, however, that the increase in the elephant population is coincident with a ban on elephant hunting in 1981. In addition, the landuse development plan implemented in the early 1990’s served to expand wildlife access to the riparian ecosystem on which both lechwe and elephant are dependent.

There has been some discussion surrounding the validity of the wildlife population data specific to the northern system. First, it has been argued that data for the northern system is less reliable than that in the south due to large confidence limits associated with the difficulty of counting smaller herbivores in dense woodland (Perkins and Ringrose 1996 and Bell 1998 pers.com) It has been counter argued that as the aerial survey technique is consistent over the years, so too is the error (Crowe 1995 and McNutt 1998 pers. com). As a result of the debate all available analysis disregards real numbers and looks only at trends in dominant species. Second, the general mobility of the wildlife population in Botswana has been cited as a reason to question the validity for any one region. These concerns are however outweighed by the long term trends that show a consistent decline in some species of wildlife and a decreasingly mobile population as a result of fences (as discussed in the next section on reasons for decline).

The following figures show the most significant population trends in both the southern and northern systems.

Figure 1. Comparative population numbers of some key species in 1987 and 1994 for the southern Kalahari system:

SPECIES	Kalahari System		Known Distribution	
	1978	1994	1978	1994
Zebra	100,000	20,863	Numerous and widespread	Decimated but widespread
Hartebeest	293,462	44,737	Numerous and widespread	Decimated but widespread
Wildebeest	315,058	17,934	Numerous and widespread	Decimated but widespread
Springbok	101,408	67,777	Widespread but clumped	Widespread and concentrated
Kudu	6,429	7,849		
Ostrich	92,286	27,744	Widespread	Widespread

(DHV 1980 and DWNP 1994 a,b)

Figure 2. Population changes of the key species in the Northern system from 1987 to 1994

Species	1987	1994
Elephant	45,449	78,304
Buffalo	72,290	29,037
Zebra	64,808	48,787

(Crowe 1995)

5.1.3 Reasons for wildlife decline

There are several hypotheses for the significant decline wildlife populations over the past twenty years. The first is the impact of veterinary cordon fences that have been erected across Botswana for forty years for disease control purposes (to keep buffalo away from cattle to stop the spread of foot and mouth disease). The Kuke fence that runs across the northern boundary of the Central Kalahari Game Reserve was built in 1954 and has received the most attention. During the severe drought of the 1980's, the fence stopped the entire migratory populations of ungulates from reaching seasonal water and was responsible for massive reductions in the large herbivores (conservatively estimated at over 50,000 dead animals) reducing the wildebeest and zebra populations by almost 80% (Williamson 1988)². Fences do have their greatest impact when first built and this northern Kalahari fence has probably had the single most detrimental effect on wildlife in Botswana's history. However, fences have continued to go up over the decades and "problems continue to arise from the restrictive nature of habitats in National parks and

² See Lomba 1992 and Williamson 1984 and 1988 for a comprehensive review of the impact of buffalo fences on wildlife populations. See also Alberston 1997 for a survey of current critical impacts of the northern buffalo fence on wildlife.

Game Reserves and the needs of migratory species to move over wild areas” (Crowe 1995).

Other hypotheses for wildlife decline throughout Botswana are; cyclical but prolonged drought, expansion of a commercial cattle industry via boreholes in vast areas otherwise inhospitable to livestock and therefore reserved for wildlife, the continual loss of wildlife habitat to mineral exploration, cattle and human populations, and an expanding tourism industry. The combined effect has been the channelling of wildlife into increasingly isolated populations throughout the whole of southern Africa.

What these data show is that wildlife populations throughout Botswana are in decline. The northern system, although not entirely isolated, has become an overall wildlife refuge and essentially an island population for large water dependent ungulates. Key species including buffalo and zebra are declining along with several other ungulate species. Until there is evidence to the contrary, it is necessary to assume that some wildlife species in northern Botswana are in a state of decline.

5.2 Wildlife Policy

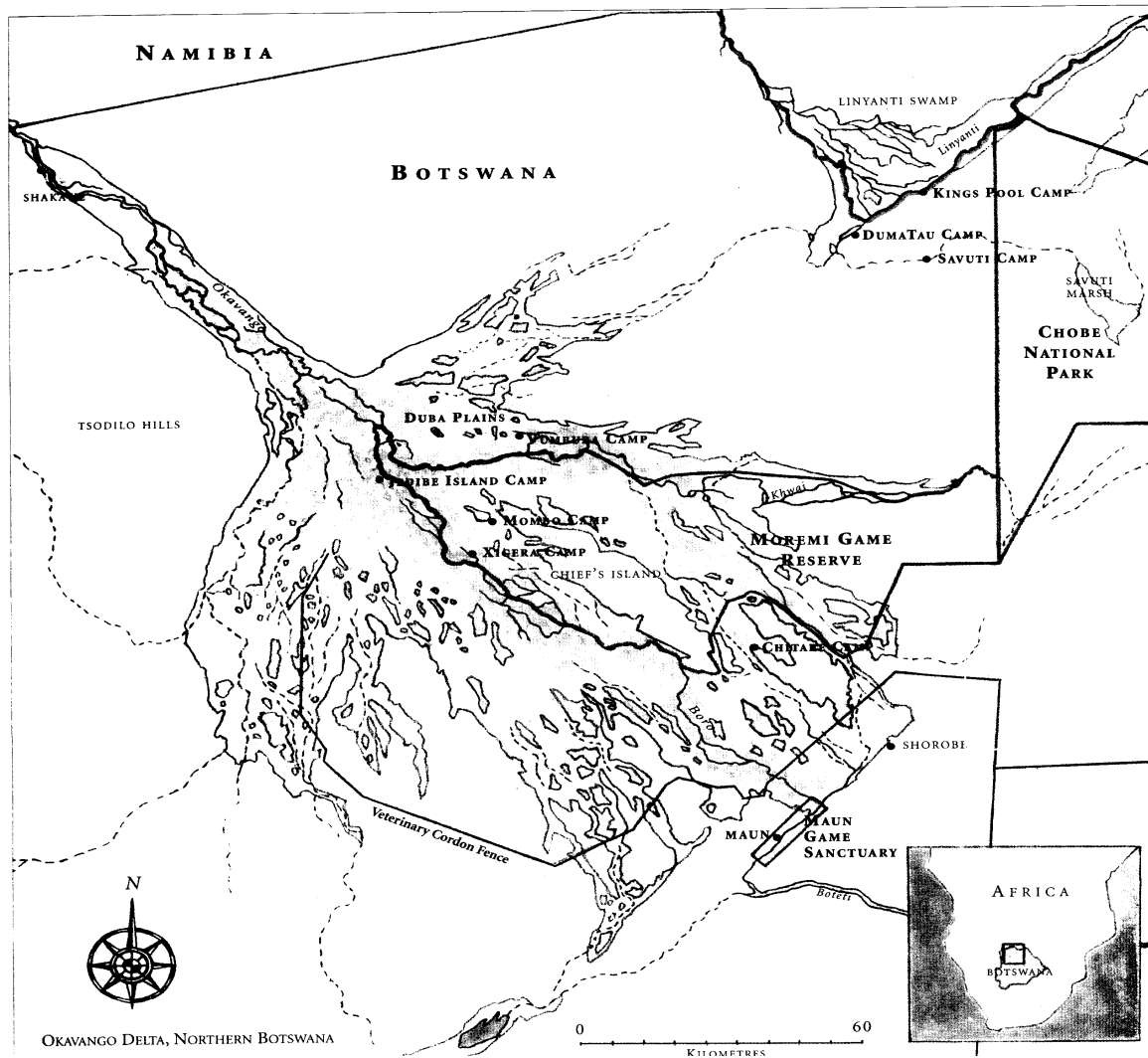
Botswana’s development during the protectorate era predominantly took the form of expansion of the livestock industry and control of water development to support it (Peters 1994). Gradually, the emphasis on livestock development (and consequent fencing) resulted in declining wildlife populations, the Government of Botswana has had cause to re evaluate its livestock and wildlife policies.

Over the past 30 years, it has set aside 17% of its land as protected areas for wildlife conservation, and an equal amount to Wildlife Management Areas that are designed to promote sustainable utilisation of wildlife. Although Botswana has historically resisted co-signing foreign-initiated treaties or conventions that propose to monitor biologically diverse areas such as the Okavango, they signed The Ramsar Wetland Treaty in 1996. Also, they have become increasingly receptive to foreign pressure via international NGO’s working in the country to evaluate their policies on fencing, mineral exploitation and habitat conservation.

At the national policy level, the government has been promoting development that fosters the creation of incentives for the sustainable use and conservation of natural resources. The most recent policy on Community Based Natural Resource Management (CBNRM) should be viewed as an extension of the Wildlife Conservation and National Parks Act of 1992, the Tourism Act of 1992, the Tourism Policy of 1990, The Botswana National Conservation Strategy of 1990, the Wildlife Conservation Policy of 1986, the Fauna Conservation Act (circa 1961) and the National Development Plans. Each of these policies calls for increased opportunities for local communities to benefit from wildlife and/or tourism. They recognise the importance of conservation policies which are national and ecosystem in perspective and yet local in approach (see Appendix 1 and 2 for Outline of Institutional Framework and Summary of Key Government Policy Documents on Wildlife and Tourism).

Figure 3.

Okavango Delta Region of Northern Botswana



Source: McNutt, J.W. and Boggs, L.P. 1996

6. Cultural History

Evidence of inhabitation in the Okavango delta dates to the early stone age, approximately 10,000 years ago. The first inhabitants were ancestors of the present day click speaking, khoisan peoples (Tlou, 1985). They are now referred to as BaSarwa, a collective name for several groups of khoisan or click speaking people, previously and pejoratively referred to as “bushmen”. They relied on foraging and hunting and nomadically moving throughout the scrub savannah and parts of the sand belt. In the Okavango region, all BaSarwa groups are collectively referred to as BaNoka (people of the river) or ‘river bushmen’. All other groups in the region speak Bantu languages. Historically, there have been three major migrations into the delta region. These involved first the BaYei, then the HaMbukushu and finally the BaTawana. The BaYei were the first Bantu speakers to emigrate to the delta around 1750. Middle Zambezi people, they came from DiYei, their homeland to the east of the Chobe river. The HaMbukushu came from the Kwando valley in Zambia. Both were described as riverine people, fishermen, agriculturists and to a limited extent pastoralists. The BaTawana refers to those of Tswana origin who come from the central district of Botswana. They could be classified as sedentary, self sufficient communities with communal ranges relying primarily on agriculture and pastoralism. Movement of the BaTawana to the delta took place in the early nineteenth century. The BaTawana represent the largest and politically dominant ethnic group. (Tlou, 1985)

Before incorporation into Tawana state, the Bayei were matrilineal in descent and organised around extended family units. The political structure of the BaSarwa was organised around kinship ties where the band was led by a skilled hunter and was semi-nomadic. The most important characteristics of the period before BaTawana arrived was the absence of unitary control, an organisation of small stateless societies that were relatively autonomous and existed as independent settlements. The BaTawana arrival changed the nature of northern Botswana. BaTawana were patrilineal, organised around household and wards, all ruled by the king, a hereditary position. Tawana political philosophy was based on ‘fusion and fission’ (Tlou, 1985:38). BaTawana accepted all groups under its rule, but demanded conformation to Tawana rules, customs and institutions. It is interesting that today, the term BaTawana officially refers to all inhabitants of Ngamiland, including the BaYei and BaSarwa.

7. Economic Setting

Some of the important events and decisions that have affected the economic landscape are outlined here. First, as stated above, the growth of a commercial cattle industry founded in British protectorate initiatives, and subsequent subsidies provided by the European Economic Community for Botswana beef (Beef Protocol Agreement). In particular, the EU subsidies because they provide an artificially high market for Botswana's beef market and incentive for the erection of fences. Most importantly livestock development has failed to provide the essential link between environmental sustainability and socio-economic advancement. Second, the wealth generated by the discovery of diamonds in central Botswana shortly after independence (1966) resulted in an affluent central government committed to rapid development of large industry designed on the principle that wealth would eventually be channelled to the rural sectors (trickle down theory). Third, the relatively wealthy government and small population (1.8 million) that has resulted in a rural population heavily dependent on government subsidies that has arguably challenged the success of new community based, self run initiatives. Fourth, the international reputation that Botswana is a successful, multiparty, democratically elected country has resulted in massive foreign support and aid available for economic development.

8. Background of CBNRM

Path to CBNRM

Based upon the assumption that management of communal land resources is not necessarily bound to follow Hardin's tragic path, (Steiner and Rihoy 1995), the management of natural resources in Botswana began a slow evolutionary process from state control to community management. The key factors that triggered this process were growing tensions between the livestock industry, local communities and the wildlife industry, a diversifying economy and a tourism policy in need of revision. Wildlife Policy was revised in 1986, and in 1992, legislation was passed to enable communities to apply for a quota from the government and retain revenues.

Objectives of NRMP/USAID

The early mandate of the overall CBNRM program was to "...in due course, provide the legal, institutional and economic frameworks for communities to become co-managers of a nation's wildlife resource and possibly other resources.

As defined by the NRMP team, the goals of the NRM program were to:

- 1. increase rural economic activity through natural resource management**
- 2. improve attitudes on the part of the communities towards wildlife through associating conservation with increased incomes and thereby improve both the status of wildlife and conservation. (Rihoy proceedings, 1995, pg53)**

CBNRM was implemented in Botswana by a joint DWNP/USAID-NRMP team. The first two steps in implementation were:

1. establishment of a legal community based organisation (CBO); which required the completion and registration of a constitution with the government of Botswana and the village election of a representative management group and,
2. for the community to choose between sub-leasing the hunting quota and/or photographic rights to a commercial organisation, or utilising it directly.

Following completion of these steps, a lease would be awarded based on the community's decision and the lease agreement protocol (as outlined in the box below). Although each community has some autonomy in how they choose to manage their area, all areas are required to work within the limits represented by an approved area specific management plan, which includes a government prescribed yearly hunting quota. Although the DWNP/USAID-NRMP team was the only official body involved and primary source of support and resource available to the communities, they were able to decline any help or involvement with the team.

9. Introduction to Study Communities

Box 1. Lease agreements

Lease Agreements Leases were awarded for 15 years. In the event of a sublease to a commercial outfit, the area was put to tender and interested parties submitted a proposal to a technical committee (made up of representatives from various government bodies). The technical committee selected 'suitable' proposals and the community was then able to select a partner from these. Joint venture agreements were established to allow for training and capacity building with the understanding that full management of the area would revert to the community at the end of the fifteen years. Leases were then arranged on the basis of 1-1-3-5-5 years; one probationary year, followed by one more, followed by three years and then two five year leases. Therefore, at the end of year one, two, five, and ten, the community could choose to change joint venture partners. This design was to protect the community from mismanagement, corruption or maltreatment, but has also served to encourage extortion and bribery.

9.1 Sankuyo Village

Sankuyo is primarily a BaYei community of approximately 350 residents. Cattle are cited to be of primary importance (over wildlife and agriculture). Small livestock and donkeys are kept in the village. Prior to CBM, there was no means of formal employment in the village and residents either left to find work or subsisted through self employment (i.e. basket making), agriculture, or state funded welfare programs. The community was awarded the approximately 860 sq. kms (GoB.1991, DLUPU Land Use Plan. p.80) Ngamiland Area 34 (NG34) in March of 1996. The area is situated on the south eastern terminus of the Okavango Delta. It is dry and has not flooded for over a decade. The habitat is mixed scrub and broken woodland. Wildlife populations in the area appear healthy, although other traditionally utilised natural resources such as thatch grass and reeds are scarce due to drought and exploitation.

Sankuyo became the second community area to pass a local constitution, elect a representative management group get their quota from the DWNP. Sankuyo opted to sublease their area for both the hunting and photographic rights and to enter a joint venture agreement. Tangible financial benefits from this arrangement over the past three years amounts to approximately P2,000,000 in lease fees, benefits and wages from employment. Sankuyo chose a representative committee in the first year but were unhappy with the committee (allegations of theft and corruption) and were successfully able to re-elect new committee. At the end of the second year with their initial joint venture partner, they chose not to continue and are now starting their third year of CBM with a new partner. Sankuyo has chosen to remain in a working relationship with the DWNP/USAID-NRMP and accept all capacity building opportunities offered to them. They have received vast support in the form of leadership and facilitation training, scholarships for individuals to attend training courses, and additional monetary aid to carry out community projects. Major problems centre around a poorly defined power hierarchy, weak leadership, and the resulting misuse of power.

Figure 4.

Landuse Designations in the Okavango Delta Area

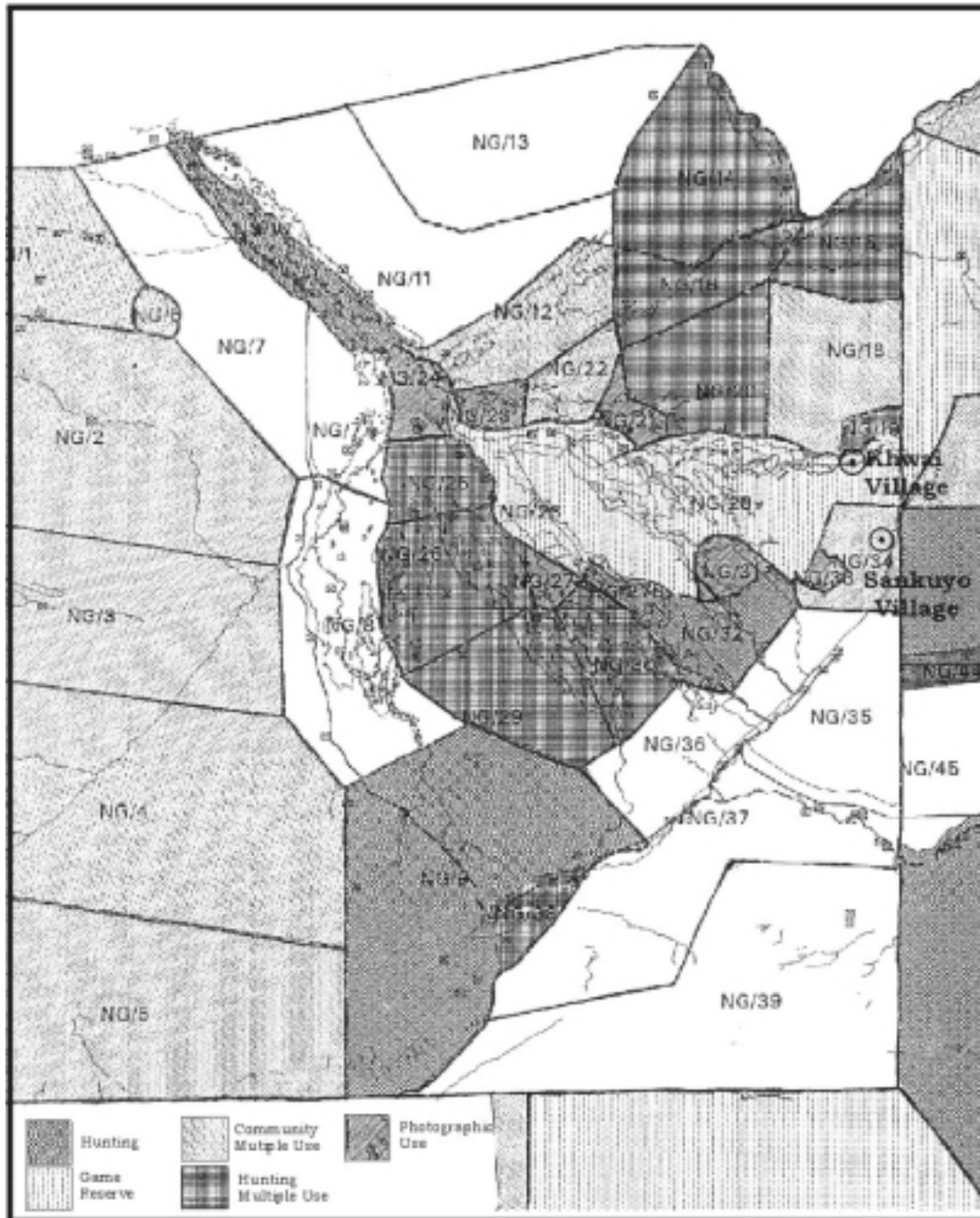


Figure 4.

9.2 Khwai Village

Khwai village lies to the north of the protected Moremi Game Reserve on the permanently flowing Khwai river. It is situated in the middle of one of the primary game and tourist areas of the delta region. Wildlife populations also appear healthy in this area and other veld products such as thatch and reeds are abundant. Khwai is almost exclusively a BaSarwa community with, what they would describe as a hunter/forager history where hunting remains of primary importance as a form of social cohesion. Khwai village is the result of the resettlement of various smaller family groups out of what is now the Moremi Game Reserve at the time of its designation in the early 1960's. Many residents now make a living through employment at one of the three adjacent tourist lodges. Like Sankuyo, Khwai was awarded the 1815 sq km (GoB. 1991, DLUPU Land Use plan, p.59) area NG18 in March of 1996.

In the months following the designation of Khwai as a community area, conflict between the DWNP/USAID-NRMP team and the community resulted in the breakdown of this relationship. An alternative advisor, who is not a member of the community nor of Basarwa heritage, was chosen by the community and has since become a main 'power broker' responsible for many decisions relating to community management. Under his guidance, the community has been reluctant to enter into any joint venture agreement. Fear of losing power and distrust of commercial operators is prevalent among the majority of community members. The philosophy that has become paramount is that 'self management is critical to successful long term management, no matter how long it takes'. The community plans to build run and operate their own photographic and hunting operations. Skills for management are derived from existing indigenous knowledge and the decision has been made to 'learn from their own mistakes'. Presently concluding their third year of community management, Khwai just finalised a constitution in October 1998 enabling them to now sell their resource assets commercially. Tangible benefits are not yet appreciably different than they were prior to the formal allocation of NG18 making an analysis of questions of CBNRM benefits somewhat premature. Current benefits are in the form of thatch grass and reeds which are cut and sold, meat from hunting their quota, and subsistence fishing. Key problems centre around; internal village conflict, resistance to change and misallocated power.

Box 2. Brief comparison of two study villages

<i>KHWAI VILLAGE</i>	<i>SANKUYO VILLAGE</i>
<i>Ethnic Identity</i>	
Almost exclusively Basarwa with a small minority of Bayei. Self defined as Bugakhwe/Khwe, known by Batswana as Banoka (River Bushmen)	Primarily Bayei with minority groups of Bosubiya, Bonajwa, Basarwa, Bakewna, Barotsi and Batawana.
<i>Socio/Economic Information</i>	
Population of village: 362	Population of village: 340
Number formally employed: 43	Number formally employed: 71
No. employed as a result of CBNRM: 0	No. employed as a result of CBNRM: 48
Direct financial benefits as a result of CBNRM from Mar 1996 to Dec 1998: \$00.00	Direct Financial Benefits as result of CBNRM from Mar 1996 to Dec 1998: \$600,000.00
<i>History of Representation</i>	
Largely egalitarian with no historic leadership hierarchy . The eldest and most skilled hunters were conflict managers and providers.	The inherited position of “chief” has been a recognised position, but Kgotla form of decision making is historically accepted.
<i>Social and Economic Systems</i>	
Have lived in the region for hundreds of years. Hunter/forager history where hunting remains of primary importance as a form of food, income and social cohesion. Many generate an income as employees of safari operations.	Forefathers moved to the region 100 years ago. Cattle is cited to be of primary importance (over agriculture and wildlife), but subsistence is based on small stock in the village, some agriculture, welfare and self employment.
<i>Internal Conflict</i>	
Primarily factional between various families and kin groups in the village	Conflict largely between generations, where the elders mistrust their young and educated children
<i>Controlled Hunting Area</i>	
Received rights to manage Ngamiland Area 18 (NG18) in March 1996. The 1815 sq. km. area borders the Khwai river. Abundant and permanent wildlife population and healthy natural resources such as reeds and thatch grass. One of the primary game and tourist areas in the region.	Received rights to manage Ngamiland Area 34 (NG34) in Mar. 1996. Area is approx. 870 sq.km. Located at terminus of delta, area is dry. Wildlife is healthy but migratory. Other traditionally used resources such as reeds and grass are scarce due drought and exploitation.
<i>Management Philosophy</i>	
To retain full control over the management of the area and its natural resources without entering a Joint Venture Partnership (JVP). Believe that “self management is critical to long term success , no matter how long it takes {or how many mistakes are made along the way}”.	To enter immediately into a JVP where hunting photographic operations were largely managed the partner and a lease fee paid to the community. Choose to maintain ties with the DWNP/AID taking advantage of all training opportunities and benefits.
<i>Power Brokers</i>	
Main power broker is a non community member but an educated and respected outsider. The elected Interim management committee is home to the four other young individuals who hold most power.	Ultimate power rests in the hands of a few young, educated members, who do not necessarily sit on the management committee. Most operational decisions are motivated and made by the current JVP.
<i>Major Issues</i>	
Difficulty accepting leadership due to lack of experience with representative mgmt system. that has led to weak leadership and a consequent Fear and mistrust of government and outsiders. Absence of local skills and resources to carry out	Poorly understood and defined power hierarchy misuse of power. Passive participation in management has resulted in an increasing focus

the desired self management strategy leading on benefits, quite distinct from the management to frustration and stagnation of process. and conservation of natural resources.

Box 3. Objectives and Intentions of the primary role players

The Sankuyo Community

The primary objectives of Sankuyo are currently centred on socio-economic improvement. When the community management committee was asked to determine their objectives, the overriding theme was to enter into a JV partnership whereby monetary benefits would accrue to individuals and the community. Specifically it was stated that the JVP should: own and run the tourism infrastructure but that all resources for construction should be purchased from the CBO, only individuals from the community should be hired and trained to work in the camps, half of all meat collected through commercial hunting should be given to the community, and the joint venture partner should provide incentives to help generate business activities in the village. When individual community members were asked about their objectives for CBNRM, a significant majority stated they wanted to improve their living standard via development in the village in the form of an improved road for easier access to town, better housing, a store and a petrol station. Maintenance of traditional lifestyles and improved wildlife conservation did not factor significantly in their immediate objectives for CBNRM, although a few did acknowledge the need for preserving wildlife.

The Khwai Community

Although the bottom line for Khwai is similar to Sankuyo, they give primacy to maintaining control of their resources, their land and to have equal distribution of opportunity and wealth to all members of the village. Motivated partially by the fear of relinquishing rights to resources, representatives of the interim management committee maintain that slow progress and self governed initiatives are more important than the 'quick cash' being received by neighbours such as Sankuyo. Khwai's development intentions are in keeping with those of the CBNRM policy in that they plan to operate both hunting and photographic operations and pursue small scale business initiatives in the community such as basket making. Although economic empowerment is an important driving force, stated objectives always include cultural strengthening and resource management. The essential distinguishing factor at Khwai is their desire to pursue development independently.

The Joint Venture Partners

The stated objectives of the JV Partners follow those of the CBNRM policy and are; 1. To run photographic and/or hunting operations in the area that empower local people via education, training and employment in the tourism industry 2. To practice responsible natural resource management for the long term sustainability of wildlife in the area and, 3. To promote and develop the area for future success under the management of the local community. Although valid and honest intentions, the immediate reality of high lease fees, requirement for large initial outlay of infrastructure, fear of loosing the area at the end of the probationary periods and the finite nature of the lease agreements (maximum 15 years) has meant that the JVP's, like the communities, are primarily focused on the politics of keeping the lease and the economics of running a business.

The Government or Central Entity

The government of Botswana recognises CBNRM as a valuable mechanism for linking conservation and rural development. CBNRM is seen as a tool that will help fulfil the primary national objective of continued economic expansion. Natural resources hold the greatest hope for economic growth in rural communities but because of their proximity to wildlife, rural communities must absorb the greatest costs associated with conservation and have the most impact on resources. It is the intention of the government to use CBNRM to provide the appropriate tools and incentives so that rural communities are most likely to conserve and benefit from resources.

10. RESULTS

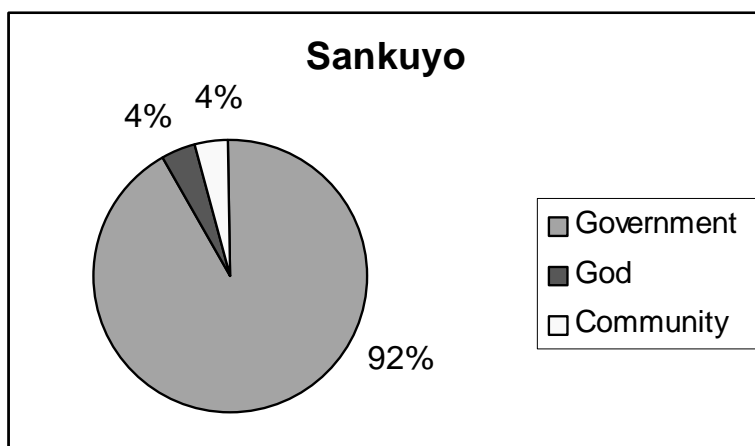
10.1 Potential Obstacles to CWM Success in Northern Botswana

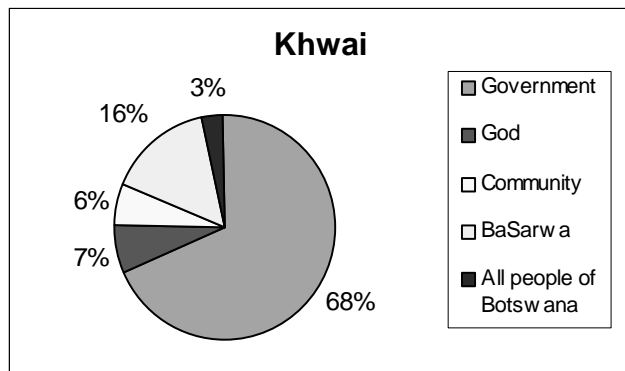
10.1.1 Resource Rights

Historically wildlife in Botswana was perceived as common property and control or authority over its utilisation was held by the local chiefs. Since independence in 1966, ownership and management of wildlife has fallen under the authority of state government. This shift has contributed to growing antagonism between government and the rural people who perceive they no longer have direct ties to wildlife. Recurring complaints describe dissatisfaction with compensation for wildlife caused losses of livestock and/or crops; the disappearance of benefits from wildlife based tourism that now go into central government coffers or to private enterprise; and constraints on resource harvesting in historically utilised areas. Understandably, there is little sense of responsibility to protect wildlife and other natural resources when it is perceived that these no longer belong to nor benefit them.

CBNRM was designed to change this attitude, but interestingly, after three years of CWM, both Khwai and Sankuyo membership overwhelmingly perceive the management and ownership of the land and wildlife resources still to be the ultimate responsibility of the government: In response to the question; *Who owns and manages the land and wildlife?* the following results (out of 23 heads-of-households surveyed in Sankuyo, and 31 in Khwai) were found:

Figure 5. Perceptions of management and ownership of wildlife and natural resources in 1998, three years into CBNRM.





This indicates a continuing perception that the responsibility for wildlife management does not ultimately fall with communities. Therefore, the sense of responsibility and curatorship that is hoped for has likely not been attained, and concurrently, behaviours towards wildlife and wildlife protection can also be expected not to have changed.

10.1.2 Policy Design

One of the first obstacles associated with the design phase can be attributed to a failure to take into account available information on common property. As mentioned earlier, CBM projects world wide, including those in Botswana, are loosely based on the principles of common property theory. In the NRMP background paper, a set of operating principles were listed to create “the optimum conditions for resource management under communal property regimes”(Steiner and Rihoy,1995). Although there is some overlap in these conditions and well described theoretical conditions, nowhere do they demonstrate comprehensive utilisation of extensive information available on common property theory. It exemplifies a lack of productive synthesis by applied field work and theoretical work.

10.1.3 Enforcement

Specifically in Botswana, although potentially coincidental, some problems that are presenting themselves are homologous with missing common property criteria. For example, the issue of enforcement related to illegal harvesting of natural resources is not addressed in the NRMP program. In CPT, the ‘rights to make the rules and viable mechanisms to enforce them’ is perhaps the key element to success (Ostrom 1990). In both Sankuyo and Khwai, little effort is invested in enforcement. In neither constitution is the issue directly addressed nor are sanctions for offenders established. Enforcement is recognised as a critical component of CPT. Logic would follow that it should be integrated as an important component of Botswana’s CBNRMP.

Enforcement is important for several reasons: First, there is evidence, as discussed above, that the overall wildlife population in northern Botswana has declined over the past twenty years. The popular local perception is however of an increasing wildlife population. When asked whether “there has been a decrease or increase in wildlife numbers over the past ten years” (referring to the local situation as other results from this

study showed a limited understanding of the national wildlife population or the dynamic nature of the population), an overwhelming majority believe there to be an increase (see Figure 6).

Figure 6. Perception of wildlife population change in Botswana over the past ten years

	% who believe wildlife populations have Decreased over past 10 years	% who believe wildlife populations have Increased over past 10 years
Khwai	13%	87%
Sankuyo	8%	92%

The common explanation for this belief is illustrated by statements such as *“there are more now because of normal reproduction and stricter hunting laws than ever before. Old people may poach, but overall, there is less hunting than ever before”* (chair, Sankuyo committee). It is possible to understand this perception as was shown above, some species are increasing while others decreasing. Also, wildlife numbers are not consistent throughout northern Botswana. The Botswana Wild Dog Research Project has conducted a systematic wildlife census in the western section of NG34 since 1990. The results show a slight decrease in resident herbivore species and a slight increase in regionally migratory herbivore species in the area from 1994 to 1998. This is however only a small area and does not indicate that density estimates are representative of the entire population or ecosystem. It is possible that there is an increasing migratory population in the area, but more likely, it reflects a shift in habitat utilisation as a result of the commencement of hunting in 1996 in the eastern section of the area after a 15 year moratorium and/or shifting seasonal migration patterns which concentrate animals in the area.

Secondly, there is the reality that some illegal wildlife harvesting does occur. A figure often quoted is that illegal wildlife harvesting amounts to 4 times the legal (and estimated sustainable) quota. There is no official documentation for this figure, but as Ringrose and Perkins state; the combined effect of a growing human population, increasing pressure on habitat, rural poverty, and the “long term effect of the EU beef agreement that has led local people to come to regard wildlife populations as a constraint” (Ringrose and Perkins, 1996, p.46), leads one to assume that some illegal offtake does occur. This research can confirm this assumption with several recorded incidents of illegal hunting, but cannot estimate the actual number of animals that are killed above the official quota.

The important point is that enforcement is not being emphasised, in part, because there is a local perception that the wildlife population in the northern system is increasing. This has led to a misperception of overall wildlife health. As Dr. Crowe points out; “information on wildlife resources in the north east system is cause for concern. Future conservation policy and management action will need to be progressive and comprehensive if the region is to continue to support the wildlife resource for which it has become famous and which comprises the basis for a major part of its economic and

social activities” (Crowe, 1995. P.24). Enforcement should fall under the category of progressive and comprehensive management.

10.1.4 Policy Implementation

A set of obstacles associated with successful policy implementation, has been a failure to precisely communicate the process and degree of decentralisation . As a example, the initial step to implement the CBNRM program was to announce the news to the selected communities in the region. A team of local experts, conservationists and government representatives travelled to each community to explain that the CBNRM program was designed to address their complaints³. It was explained that the responsibility to manage the area and the rights to its benefits will be transferred to the community. The news was received with enthusiasm and celebration, and in one village conflict arose when several village members and employees of a nearby tourist lodge demanded the camp be turned over to them immediately. Although this was sorted out with extended discussion, it became clear that the magnitude of the change and the details of power relations were not clearly explained nor understood. The misunderstandings of power arrangements as a result of poorly communicated policy changes have undergone the multiplier effect and continue to be a problem. A constant and concerted effort to communicate should allow these misunderstandings to be overcome and expectations made more realistic.

10.1.5 Technical Arrangements

Some particular technical arrangements such as the 1-1-3-5-5 lease agreements have lead to (a) development stagnation, (b) unhealthy power relations by allowing individuals and communities to exercise a type of extortion over their joint venture partners and (c) a window of opportunity for other interested but unsuccessful partners to undermine the existing operators relationship with the community by promising more. First, because there is no guarantee of agreement beyond the first probationary year, but a continued agreement is based on ‘tangible development’, joint venture partners are caught in the situation where they are predictably reluctant to invest, yet need to produce jobs and infrastructure in order to gain the support of the community. This produces an environment ripe for a second problem, that of corruption. There is evidence of ‘financial incentives’ being passed from joint venture partners to Sankuyo community leaders. It could be interpreted that joint venture partners have little choice but to give what is demanded or they risk losing their investment. Although leases were established this way in order to protect the community, it has resulted in unforeseen conflicts over power and the issue of lease arrangements needs to be re addressed.

³ Complaints expressed among rural communities include dissatisfaction with compensation for wildlife caused loss of livestock and crops, that local people do not benefit directly from wildlife based tourism because revenues go to the central government or to private enterprise, that areas previously available for resource harvesting are no longer available due to government restrictions, and finally, because the wildlife does not belong to them, there is little sense of responsibility to protect it.

Furthermore, it has been charged by the communities that the program was rushed and did not give sufficient time for people to adjust to the transition in power and governing. Communities were forced to elect management committees to represent them in order to take advantage of their 'rightful benefits'. This transition to a representative governing system is foreign and difficult for many to accept, as illustrated in Khwai. It is argued in Khwai that the USAID-NRMP team rushed them into decisions they were unprepared to make in order to fulfil their own contractual time frame.

Change is a necessary part of development and there is no obvious alternative to electing a representative management committee to carry out the CBNRM function. It is possible, however, that the process was protracted in Khwai as a result of insufficient council and communication rather than a genuine aversion to the process.

10.1.6 Institutional Linkages

First, established and effective linkages that serve as communication channels between the various layers of the larger political organisation is a well identified theoretical criterion in the common property debate. Obstacles to establishing these effective linkages in the case of Botswana are partially related to the political affiliation and motivation of the USAID-NRMP team and can be traced back to the design and policy implementation phase. A binding relationship between the project engineers (NRMP-USAID team) and the communities involved should have been a mandatory condition of CBNRM in Botswana. The absence of this linkage has resulted in a lack of accepted and therefore effective council and leadership. In the case of Khwai, the community has no formal assistance, their self chosen advisor is unfamiliar with the goals of the NRMP and as a result, advises the community to establish their own goals and parameters. Again, reinventing the wheel, but this time with even fewer resources. The result is, essentially, a divided community still receiving no formal benefits from their resources. The issue here is that binding institutional linkages should have been established from the beginning. The responsibility to see the project through and have a vested interest in its success rather than simply its implementation should have been a commitment made at the project's conception.

Second, the need to be established as a legal entity is a prerequisite to acquiring the legal rights to manage an area within the institutional hierarchy of government and is recognised in CPT as another criterion necessary for success. In Botswana these conditions *are* legislated, but the gap between legislation and practice can be wide. There must be real and working relationships between the institutions involved and there must be real and working parameters that distribute power and jurisdiction over various different issues. In the case of Botswana, there appear to be two potential avenues for system collapse. First is the fact that the primary authority for the implementation of CBM was given to a consulting team that will be gone in 1999. The primary management will fall to the DWNP after 1999, but a history of antagonistic relationships between local communities and the DWNP (Boggs, in prep) could lead to a difficult working relationship. Second, the technical committee (the board of government representatives given the task of liaising between government and communities in an official capacity) is

generally mistrusted by community members and have been charged with being disinterested in the communities. While the validity of this accusation is questionable, the fact remains that reliable institutional linkages have not been sufficiently established.

The limitations of decentralisation should also be noted. Some critics suggest that, “any decentralised system complex enough to be called a system, simply cannot work”. (Alfonso 1997, p.171). Although the move toward an increasing decentralisation of power is imperative, it is argued by Alfonso, Bromley, Ostrom and many other CPT theorists, that no system can function completely independently in our increasingly global world, making institutional linkages the system glue. With out them, the effectiveness of the system falls apart.

10.1.7 Linking Socio-economic Benefits to Wildlife

A related and perhaps more important potential obstacle having to do with linkages comes from within the CBNRM model itself where the social benefits are not bound tightly enough to wildlife. This could have occurred partly as a consequence of individual biases from within NRMP. As would be expected, some members of the team are focused on the social development, others on wildlife management. The lack of linkage between social empowerment and wildlife management has been apparent from the design phase and continued through the implementation phase as illustrated by the fact that these personalities have not often appear together in the villages and work autonomously on project development. It is possible that this absence of tangible relations has impacted the data showing approximately only 1/3 of all community members directly relate financial and social benefits to wildlife.

Figure 7. The percentage of community members surveyed and their perceived relationship between benefits (financial and social) and wildlife.

	Perceive no relationship	Perceived a relationship
Khwai	61%	39%
Sankuyo	60%	40%

It is interesting that the distributions were the same for both communities, suggesting that it may have more to do with policy than the experience of the individual communities.

10.2 Benefits and Benefit Flow

Providing benefits as a means to “improve natural resource management through improved attitudes to wildlife” is a primary objective of the NRMP/CBNRM program. The notion of *benefit* however is typically narrowly defined in terms of economic incentives and is poorly understood in terms of cultural priorities. This research attempted to look at the range of benefits generated from CBNRM and also distribution of benefits or benefit flow. Data suggest that benefits are not equally distributed among community

members, that benefits are not yet automatically associated with CBNRM, and that typically only those directly participating in CBNRM recognise changes in the community as beneficial to them.

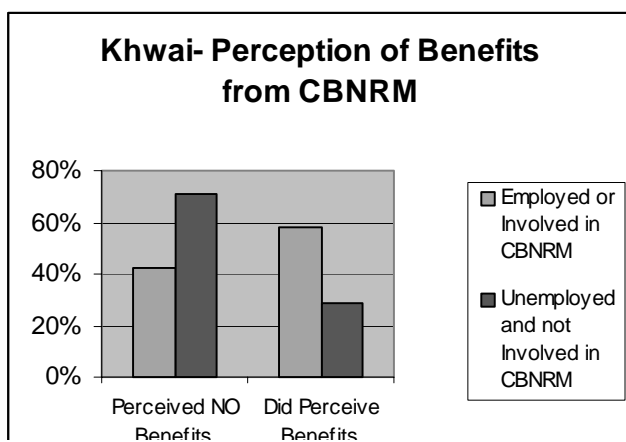
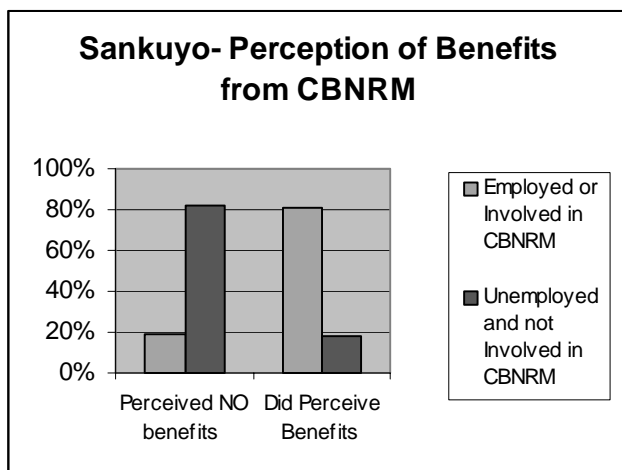
10.2.1 Definition of Benefits

Benefits include the narrowly defined direct financial rewards, as well as a host of non financial benefits including capacity building and skills training, cultural and aesthetic values, empowerment, livelihood security and environmental sustainability (see Ashley 1998 for a review of non-financial benefits of CBNRM). For the purposes of this research, benefits were explained to informants as; anything that included financial incentives, cultural enhancement, ecological improvements, food security and capacity building. Although this was understood on a theoretical level, financial benefits were given primacy over any other benefits types and often regarded as the only important benefits. Largely due to their socio-economic reality and partly due to the emphasis of the CBNRM on financial (rather than non-financial) benefits, benefits remain narrowly perceived, at least in this analysis, as financial gain.

10.2.2 Perceptions of Benefit

Perception of ‘benefit as a direct result of CBNRM’ is an important component of the success of CBNRM. Extensive discussion and interviewing revealed that benefits are perceived by most to mean direct financial input and those who are not receiving money (via employment) generally do not consider themselves as beneficiaries of CBNRM.

Figure 8. The distribution of those who do or do not perceive benefits as a result of CBNRM in relation to employment status and/or direct involvement with the community based organisation.



Although trends were consistent for both Sankuyo and Khwai, the distinction between those who were unemployed and/or uninvolved in the CBNRM and perceived no benefits vs. those that were involved and did perceive benefits was marked in Sankuyo. This could be partially explained by the reality that Sankuyo has very real and tangible benefits to measure in comparison to the Khwai community who still regard benefits a theoretical future development of their CBNRM process. In Sankuyo particularly, the data emphasise the important role that participation plays in the perceptions of benefit, but it is interesting to note that in Khwai, the majority of those employed (mainly at local safari operations) were able to recognise the benefits of CBNRM. This suggests that the knowledge and experience component of working with wildlife increases ones understanding of the flow of benefits from wildlife to economic and social development. The important finding from these results is that there is not yet a strong relationship made between benefits and CBNRM, especially by those who are not directly involved in the process of CBNRM either via employment or involvement in the trust. Part of the explanation also lies in the fact that real and long term benefits have yet to materialise.

Furthermore, 21 individuals in Sankuyo were asked to explain the purpose of Community Based Natural Resource Management. Only 2 (10%) mentioned resource management as a component of CWM. Of the remaining 90%, 14% could not explain CWM and 76% reported that it was designed to improve the living standards of the local community and bring employment.

10.2.3 Benefits and Satisfaction

Are those who benefit directly more satisfied than those who benefit indirectly? Surprisingly, when Sankuyo members were questioned about satisfaction with the CBNRM process, those who were employed or involved in CBNRM were less satisfied. 44% of those directly surveyed on this point were dissatisfied and a further 29% were unable to comment on their satisfaction with the current CBNRM arrangement due to a lack of information on the project and its intentions.

Figure 9. 21 interviews in Sankuyo where individuals were asked to state whether they were satisfied with the current CBNRM project.

Employed with JVP		Employed or member of the Community Trust		Not Employed or involved in the Community Trust or CBNRM		
Satisfied	Unsatisfied	Satisfied	Unsatisfied	Satisfied	Unsatisfied	No opinion
4%	11%	4%	19%	19%	14%	29%

Most of the above informants cited ‘*exploitation by the joint venture partner*’ and ‘*increased local community conflict*’ as the reason for dissatisfaction. Others stated lack of involvement as the reason for ignorance. Interestingly, the more involved one was in the process and benefit distribution (ie. by being a trust member or employee) the greater the level of dissatisfaction. Discussions surrounding this revealed that individuals felt they had to work too hard for their compensation, that the joint venture partner was not doing enough to provide skills training and capacity building and, violation of agreements by the joint venture partner. One interpretation of this is that the transition to wage employment coupled with a sense of losing control of ones own lifestyle choices is a difficult adjustment. Those most affected are, ironically, those benefiting the most.

Since it is well documented and widely accepted (in human resources literature) that job satisfaction leads to success, this data supports the need for further investigation surrounding the question of satisfaction and motivation: If the current system of CBNRM based on increasing financial benefits dissatisfies those benefiting most, how valid is the underlying assumption that improved benefits will improve wildlife management? What are the important components of individual satisfaction and how can they be achieved within context of improved wildlife conservation?

10.2.4 Financial Benefits

Based on the above results, equal distribution of benefits seems an important criteria for success. An understanding of the flow between wildlife-tourism-employment and community empowerment must also be realised in order for there to be satisfaction with, and support for CBNRM. In Sankuyo, several methods were used to assess benefit flow and answer the question posed: are the benefits to individuals or households meaningful?

Figure 10. From the 21 detailed interviews in Sankuyo, these questions suggest that the majority of individuals do not feel their own situation has improved as a result of CBNRM.

Question	Yes	No
Is money earned from CBNRM related to benefits from wildlife?	39%	61%
Has your means of income improved since the implementation of CBNRM?	38%	62%
Has there been any positive change in the village as a result of CBNRM?	43%	57%
Has there been any negative change in the village as a result of CBNRM?	48%	52%

Figure 11. Direct financial benefits to Sankuyo village 1996-1998 (in pula)

Type of financial benefit	1996	1997	1998
Lease payment	285,000	345,000	450,000
Wages/rations/uniforms	100,000	206,000	300,000

Community development fund	8,000	16,000	85,000
Other: transport/animals/quota	61,000	134,000	100,000
Total Financial Benefits	454,000	701,000	935,000

Approximate values (in Pula where P1=approximately US\$.25) of the direct financial benefits to Sankuyo community from the Joint Venture partners

Figure 12. Primary financial beneficiaries of direct funds to Sankuyo from 1996-1998

Employment by the JVP	Approximately 50 people per year
Employment by community	Approximately 10 people per year
Household dividend in 1997	P200 per household
Community Vehicle purchased in 1998	Communal benefit (P125,000)
Office and community centre	Communal benefit (P40,000)

The financial benefits from CWM are therefore substantial and not overestimated. The problem is distribution. Sankuyo has earned close to 2 million pula in the last three years, but to date, the substantial majority of the benefits go to the 16% of the community members who are employed. Plans are to spend money on community improvement projects such as toilets for each household and development of a tourist campsite, but these projects are slow to be realised. Culturally, distribution of benefits can be difficult as people fear angering other individuals. As a result, benefits and power remain in the hands of a few. In one other CBNRM area (Ng32) in Botswana, the majority of community members surveyed were not even aware that joint venture partners were paying a lease fee or that they were entitled to benefits from wildlife related tourism (pers. comm. Paul Scheller 1998). The figures suggest that the next generation of development efforts should go beyond providing benefits and focus on the types of benefits that are most important to people and how they are provided and distributed.

10.2.5 Non Financial Benefits

Non financial benefits, whether realised or not by the community are critical in the long term success, especially in light of the primary objective of the CBNRM to “improve wildlife management”. Biodiversity benefits are just one of the important non-financial benefits. This research suggests that Biodiversity benefits of CWM can be substantial, but the focus, at least in the early stages of CBNRM, is on socio-economic benefits as illustrated above by the lack of institutional, theoretical and practical linkages between biodiversity and socio-economic benefits. The vast majority of time at community trust meetings is spent discussing labour and economic issues. Empowerment, economic development and improved lifestyles are all discussed outside of the context of wildlife. Perhaps it is impossible to expect that the two could be realised simultaneously, but it seems the most critical step is to make the connection between wildlife and benefit strong and clear.

What other capabilities did communities attain as a result of CWM? The data show the other objectives, such as a vehicle for easier access to town, a village radio or toilets for each household are clear priorities. The attainment of assets that will elevate them, in their minds, to a development level that is on par with the rest of the country is given primacy. CBNRM is simply the vehicle through which they may be able to realise these goals. The challenge is to ensure that the link between natural resources and benefits is solidified and that wildlife management objectives are not marginalised in the process of 'development'.

Finally, cultural benefits need to be accounted for and understood. In this case study it appears, on the surface, that cultural benefits are disregarded as unimportant, at least in comparison to financial benefits. It would be difficult to argue that cultural objectives are unimportant to these communities, as culturally important objectives vary among individual and communities. Cultural objectives range from maintaining traditional hunting lifestyles, as is often cited in Khwai, to maintaining access to homelands to dancing in the evenings as reported by members in Sankuyo. Results from this study reveal that cultural objectives (defined by one informant as "*maintaining the ritual parts of our past*") are important in the context of economic benefit. When 22 Sankuyo residents were asked 'what economic, cultural or ecological objectives they held for the future of their community', approximately 50% stated they wanted to "improve the culture", but the overwhelming answer when asked *why?* was "cultural activities (such as traditional dancing) that will provide the community with direct monetary benefit, should be pursued". It could be argued here that maintenance of traditional lifestyles or ritual parts of the past are used to increase the bargaining power of communities for improved access to resources and land, or to have access to direct monetary benefit. What this may suggest, however, is nothing more than the fact that cultures are fluid and the overwhelming current priority in the study villages is economic and material benefit. Cultural objectives are not necessarily non-existent, just pale in comparison to the contemporary desires for wealth and modernisation.

Benefit and benefit flow is clearly a complex dynamic. The missing link between wildlife and improved living standards, and the unequal distribution of benefits appear to be the primary blockages to benefit flow. Not only do they serve to defeat the wildlife management mandate of the program, but have in essence orchestrated a glorified welfare program where financial benefits in the form of handouts are demanded. The welfare rut is extremely difficult to reverse and it is particularly worrisome in Sankuyo as they are predisposed to it, with 43% of the village membership currently dependent on government welfare through drought relief or destitute status. Contributing to this problem is the trend throughout Ngamiland of inflationary lease agreements between communities and the joint venture partners. Benefits, financial and other, need to receive more equal status, the links with wildlife need to be reinforced. Distribution must be improved before the have-nots are tempted to defect and finally, benefits need to be viewed as just that, benefits, not rights.

10.3 Development and Institutional Change

10.3.1 Representation

In accordance with the requirements of the NRMP, all communities have been required to “identify a representative and accountable management group” (Steiner and Rihoy, 1995). There being no clear alternative to this form of management, this single first step has posed many difficulties.

The traditional Batawana governing system, now adopted by BaYei and BaSarwa, is by a kgotla (village meeting). In a kgotla, each community member is given the chance to express their opinion, though final decisions, which may take days, may be more influenced by the chief. Asking people to select a representative to replace their vote and their voice commonly induces fear and anxiety. The kgotla not only acts as the parliament; providing a forum for expression of demands, information exchange, explanation of problems and discussion of local issues, but is an important form of social cohesion. A kgotla gives an opportunity for social interaction and even provides an important activity for women and children to socialise and participate.

During the period of British protection (1870’s to independence in 1966), the kgotla remained as a rural institution but leadership roles and representation changed. Historically, the chief was a provider and caretaker with the interests of the people clearly in mind. Through the protectorate era, chiefs were seconded by the British government and were paid to be tax collectors. At independence, those same chiefs became ministers and land owners taking their power and amassed fortunes with them to Gaborone. In the recent past, therefore, there has been little faith that traditional chiefs, now official representatives in government, have the interests of the rural people in mind. In fact, acting chiefs, putative representatives of their communities, are still paid by the state thereby perpetuating potential for suspicion as to their affinity where rural communities interests and central government conflict.

It is not surprising then, that the process of choosing a representative management committee has been difficult. In Sankuyo and Khwai, the anxiety has presented itself in two very different forms. In Sankuyo, an official committee was selected in 1995 to prepare for the official designation of the area in 1996. This committee was composed of young educated ‘sons and daughters’ of the village, but the elders immediately began to distrust them, fearing they would somehow use their education to sell their land away from them and the committee was dissolved in less than one month. The replacement committee lasted one year but was dismissed on grounds of corruption. The current committee membership changes from month to month. Furthermore, the CBM in Sankuyo has been described by an NRMP representative as “too democratic” and thereby inefficient, in that the committee has virtually no authority to make a decision without community consultation. This could be interpreted as a failure of representation or simply as a confused response to difficult change. In Khwai, data is difficult to get as they are much further behind in the process. Khwai general members continue to hold regular kgotlas to discuss the issue of representation, but until recently, before the constitution, the representative group was tenuous, lacked official status and was not widely accepted.

10.3.2 Collective Identity

Notably, and somewhat distressing, is the fact that this type of obstacle, the inability to commit to a representative system, was predicted. “The tragedy of the commons is produced...by the inability of members of social groups to find (partial) solutions to competition and conflict”. (Peters 1994 p.7) In other words, community managed commons predictably break down as a result of conflict between community members. Nowhere in the implementation of CBM in Botswana has the NRMP specifically addressed the validity of the assumption that a common interest can be found in these communities. The assumption is indicative of the myth that a rural village has a single voice. The example given by both Sankuyo and Khwai communities clearly demonstrate that internal conflict and the struggle to accept representation can be a major obstacle to the success of any CBM project.

10.3.3 Institutional Capacity

Although there is no clear alternative to imposing new institutions, the evidence does weigh against the ability of these new local management institutions to cope. The main problem lies in the inability to train the members of the committees and/or to keep them in the village once trained. In Khwai the problem still rests in the early stages of conflict, whereas in Sankuyo, now in its third year of active CWM, it is becoming more apparent that the management requirements of committee have become more challenging. As a rule, they defer to the joint venture partner to deal with ongoing financial and labour issues. Although training opportunities have been abundant, trained individuals do not typically stay in the village. For example, in 1996, 5 community members were trained in bookkeeping, 6 sent for leatherworking in Zimbabwe, and 3 trained in PRA in Kenya. Of those, only one person is working for/or is on the committee and only three are living in the village. According to one key informant, the community liaison officer in Sankuyo, *“the real problem is that those who are trained are usually young and ambitious and will leave for another job once trained. Those who are old, are largely illiterate and difficult to train.”*

The challenge then is to build up a skilled workforce and keep them in the village. Developing a pride in the community via education, cultural development and improving socio-economic status will help in the longer term, but paying the trust members competitive salaries should go a long way to building a stronghold in the management committee in the immediate future.

The main actors at a community level do not, at present, have the necessary skills or experience to manage independently. The joint venture partner, aid organisations, and government departments are therefore important to long term success. The problems of local defection, the short term and long distance nature of the aid NRMP/PACT relationship to the community, and the insufficient government resources has resulted in a situation where the joint venture partner is left with the primary responsibility for success. The nature of the 1,1,3,5,5 lease arrangements has meant, as a rule, that the joint venture partner is financially stressed in the early stages of CBNRM and working relationships

between the community and joint venture partner are new and consequently unrefined. At present, the whole system could be described as tenuous. As the participation of the government is enhanced, relations between all parties improved, and the process matures at least into the '5-year lease' stage, the system will presumably become more stable.

10.4 Decision Making and Control

10.4.1 Leadership

The primary role of local leadership is to synthesise a common plan of action from a collection of individual objectives. A system without established mechanisms of strong local leadership will typically fail due to increasing individual defection. In Botswana leadership roles have changed in the recent past (as e.g. see explanation of the roles of chiefs above) and communities and individuals are currently in the process of defining new leadership roles and identifying important leadership qualities. Leaders traditionally and necessarily have been invested with certain elements of authority and power. The degree of this power is also in flux. Coincidentally, both Sankuyo and Khwai are in the process of selecting a new chief. This process has proven to be difficult for both villages and has already taken several months. Discussions have focused on individual popularity rather than an evaluation of criteria such as moral stature, political or ideological views, or managerial and administrative capabilities. The chief is not directly involved in CBNRM, but rather has a responsibility to the village operation in general.

In both Sankuyo and Khwai, power is becoming increasingly differentiated along generational boundaries. The young are relatively better educated and considered 'clever' and are inserting themselves into positions of power that have traditionally been determined by birthright and reserved for elders. This change, although perhaps a natural consequence of development, has added fuel to the fire of internal community conflict.⁴

The imminent selection of new chiefs in both communities, is however a positive step and should improve overall relations with the JVP. Namely, there will be one voice to represent the community as a whole rather than the current, rather fractured voices of many community members.

10.4.2 Power

An analysis of power within rural communities in Botswana reveals a rift between those who are officially in positions of authority and those who actually hold power. For example, some individuals in Khwai who have no official capacity or decision making authority are clearly respected and have particularly influential opinions. Furthermore, specific to the Khwai community is the unusual situation where a single person who is not a community member has been selected as the community management advisor. This position carries an enormous amount of power and is indicative of a developing trend that

⁴ Recent discussions in the Botswana news (BOPA 1999, June 08/09) provide credence to this conflict by addressing concerns over traditional vs. contemporary roles of chiefs

removes power from traditional elders and gives it to those who are considered educated in contemporary development issues and commercial enterprise.

Power relations in Sankuyo have some overlapping themes with Khwai. Sankuyo's power relations, however are captured more by the concept of a still non-existent power hierarchy and the resulting misunderstanding and misuse of individual power. Difficult employee/employer relations, and threats of expulsion of joint venture partners and others officially working in their area represents a misunderstanding of individual roles and lack of understanding of binding business agreements with joint venture partners. This may reflect back on communication of the original presentation of the transfer of power (decentralisation) but can only be resolved by a communities leadership demonstrating a clear use of power consistent with the collective community objectives.

10.4.3 Collective Control

The idea of collective control or true community management, desirous or not, is difficult to attain. Twenty one Sankuyo members were asked about who makes the decisions in the community. 51% reported that it was the trust members who made all the decisions, 24% believed decisions were democratically made by the whole community and 38% didn't know enough about the process to answer the question. In Khwai, control was clearly in the hands of a few individuals evidenced by the fact that decisions were often made without a kgotla and by only a few individuals.

In addition to the above data is the fact that people of Bayei and BaSarwa heritage are culturally disadvantaged with respect to leadership. The BaYei and even to a more pronounced degree, the BaSarwa, are driven by their desire to belong and not to stand out in a community. Skills and knowledge are often hidden for fear of local backlash in the form of public chastising or even witchcraft. Decisions are often prolonged or deferred to another. Leadership, in a "western" context is not necessarily a valued position. True collective community management is therefore extremely difficult to achieve as people are typically hesitant to voice opinions. (Lee,1982:53. and pers. comm; Smith, P.) Local individual leadership is equally difficult to achieve as few are inclined toward such a public position. The result is that initiatives are primarily driven by resourceful non-community individuals.

10.4.4 Outside Control

It appears in the case of Sankuyo the JVP has most of the daily control, but because the 1,1,3,5,5 lease agreement, the community holds the ultimate power (as illustrated by their ability to change JV partners). There is an element of conflict in that particular arrangement, but the measure of success for all involved parties seems, at least in the early stages, to revolve around economic gain. In Khwai, similarly, control rests with the outside individual but ultimate power is vested in the community. It all comes down to the ability or decision to wield that power. Conflicts, it seems, are not so much the result of activities and actions which conflict in principle, but rather the result of unfulfilled expectations by both parties or the perception of unfairly distributed benefits.

10.4.5 Responsibility

Data from this study suggest a degree of unwillingness and inability on the part of the Sankuyo community to take full responsibility for the management of wildlife. Conflict avoidance may have been a factor behind the central governments decision to decentralise the management of wildlife, but the adopted backseat role of the community appears to be related to culturally dictated leadership roles, received benefits without the need to actively manage, and a general lack of appreciation for the need to practice sustainable wildlife management. The situation in Khwai is different in principle, placing emphasis on community management and long term benefits. The relinquishing of operational control to the outsider in Sankuyo may be in a bid to avoid conflict, but may be more simply out of uncertainty surrounding their ability to successfully self manage.

10.4.6 Participation

NRMP defines participation as direct involvement in the everyday decision making and management of natural resources and assumes that this participation together with receiving direct benefits are the twin pillars of successful CBM. Participation is considered important as it provides the necessary knowledge to enable management decisions. Participation ranges from expressing ideas, to making decisions, to utilisation of resources. The degree and type of participation varies considerably between the two study villages, as does the desire to, and understanding of participation.

Presented with options regarding the allocation or dispensation of the natural resource available in the community area, the Sankuyo community have chosen the joint venture option allowing them to (passively) receive substantial financial benefits with minimal participation in wildlife management. Participation takes the form of employment at the three small tourist lodges, serving in the community on the board of trustees, or attending kgotla meetings. It could be said that passively receiving benefits is similar in the end product to receiving direct aid, already been shown to be of little value in improving wildlife management. In a sense, this community has gone into “receivership” finding very few incentives to participate in management or incur risk.

Khwai, in contrast, express that joint ventures are simply the most recent form of exploitation. Perceiving Sankuyo’s decision as a “sell out” where they don’t actually have any control, nor will they develop the skills for self management, Khwai has chosen participation in all facets of management and decision making, believing that the longer term social and economic benefits will be far greater. This decision has resulted in a slow process change, already causing a degree of dissension within the community, particularly from those who compare their situation with their seemingly already rich neighbours in Sankuyo. It will be interesting to see if the members of Khwai are able to maintain their integrity with regard to their choice of community control.

11. FINAL COMMENTS

After only three years of decentralised management, it is premature to make conclusions regarding the long term success of CBNRM projects in Botswana. The above discussion identifies potential obstacles to indicate that some re-thinking and re-organisation of the process might be productive or worthwhile. Many issues raised centre around poor communication, unrealistic expectations, and invalid assumptions. Most can be considered part of the learning process of a program in its infancy. For this reason specifically, these issues need to be understood and acted upon while still in their infancy.

The essential question underlying this research is whether CBNRM in Botswana is successful. As this is still unanswerable, the primary finding of this research has to do with the process of CBNRM: A review of all relevant government statutes and CBNRM policy documents reveals that the fundamental aim of development (including community based natural resource management) is to maximise economic gain and benefit the people of Botswana. Environmental and conservation goals do exist, but are secondary to economic goals. With this in mind, CBNRM can be evaluated as successful. What remains to be seen is how, and if, these social and economic benefits will lead to improved conservation and management of wildlife and other natural resources. The most important next steps in the CBNRM process are therefore to strengthen the ties between socio-economic benefit and wildlife, and to give wildlife conservation in a much higher priority than it currently enjoys in the daily operations of CBNRM.

11.1 Three fundamental operating assumptions upon which CBNRM is based that have been shown to be invalid or unproven

The first; in conjunction with the primary goals of the Natural Resource Management Programme (which are i. to increase rural economic development and ii. to improve natural resource management through improved attitudes to wildlife), it is assumed that by improving financial benefits, attitudes towards wildlife and the associated wildlife management practices will necessarily improve. This is an unproven assumption. Data from this research shows that changes in attitude and management have yet to be expressed following three years of CBNRM. It is anticipated as the program matures, economic expectations will be satisfied and the less tangible benefits of conservation and wildlife protection will be recognised. It highlights the need for; a) a more clearly defined time frame against which data can be judged and, b) ongoing monitoring that will be able to definitively validate or invalidate this assumption.

The second assumption is that wildlife numbers are adequate enough in northern Botswana to permit community management and subsistence utilisation. Again, this is unproven, but given the fact that two key wildlife species and several others are in a state of decline in northern Botswana, “the policy and management action needs to be aggressive and comprehensive” (Crowe, 1995). If the actual control over the management of wildlife during the early years of a CBNRM regime is unknown, then it should be considered not to be “aggressive or comprehensive” and should be re evaluated.

The third assumption is that communities are autonomous, have a collective identity and economically dependent on natural resources alone. Findings from this research conclude this is a false assumption and recommend it be removed from the thinking and the rhetoric of CBNRM practitioners.

11.2 Key issues that have also surfaced as factors in need of attention and consideration

There is a need to better understand power and its various manifestations.

There exist in these two cases, power struggles between generations, between traditional vs. new leaders, between birth rights vs. education rights, between ethnic groups, between communities and joint venture partners. All are taking place as the boundaries and parameters of the new CBNRM regime are being sorted out. These need to be acknowledged and monitored so that appropriate changes can be made when necessary.

Specific cultural realities such as the predisposition to “fit in” must be understood and rules of management (ie. the requirement to vest power in the community management trust) may need to be altered accordingly.

The data suggest a strong correlation between participation, benefit and awareness of the benefit flow between wildlife-tourism-and economic empowerment.

Emphasis should therefore be placed on encouraging participation from the local community in decision making and responsibility for management of natural resources.

There is need for improved local institutional capacity and resources to manage democratic participation.

There is need for improved institutional linkages with government and other outside agencies.

Finally, there is need to understand what makes community members satisfied and motivated and design policy accordingly.

Problems surrounding CBNRM are multifaceted, complex and case specific. It appears that the real solutions must lie in a series of systematic changes that span the multiple layers of government, involve the political, historical, and social realms and lead to real transfer of power. The theoretical CBNRM model itself must be regarded as a guideline. The assumption that benefit equals improved wildlife management must be questioned. The flaws, it appears, are not so much in the model, but as a result of “human error” in the implementation phase and unrealistic expectations for change. Benefits from wildlife are substantial, no matter how they are measured, but the incentive needs to be shifted so that benefits are earned, rather than given out as rights.

Finally, there is a feeling at the end that the whole sense of community, co-operation and collective management is lost in the shuffle of policy, management and process. Actions appear to be motivated by self centred desires for economic gain. Getting away from the 'what's in it for me' attitude should therefore take primacy in future planning. An attempt to generate more effective participation and leadership and more pluralistic and decentralised systems that operate as components within the larger political organisation and provide real incentives for long term wildlife management should be the goal. Transcending the "me" is a means of shifting the emphasis away from the individual and putting conservation and preservation within the context of a biological imperative. Eventually people will begin to shift the way they think and design their own arguments.

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Appendix 1:

Outline of Institutional Framework for the Management of Wildlife, National Parks and Tourism. *(National Development Plan 8 1997/8 – 2002/3. direct extract p 305-6)*

“Government Policies on wildlife and tourism are embodied in the following policy documents and relevant legislation: Wildlife Conservation and National Parks Act of 1992, the Tourism Act of 1992, the Tourism Policy of 1990, The Botswana National Conservation Strategy of 1990, the Wildlife Conservation Policy of 1986, the Fauna Conservation Act (circa 1961).

The key responsibility for the operation of wildlife and tourism related policies falls under the Departments of Tourism, and Wildlife and National Parks, both of which are within the Ministry of Commerce and Industry.

The Department of Tourism is responsible for pursuing the primary policy objective of maximising utilisation, on a sustainable basis, of existing natural resources in order to increase social and economic benefits to Botswana.

The Department of Wildlife and National Parks is responsible for:

- conservation of the natural habitat and biodiversity in National Parks and game reserves by minimal interference and adaptive management within these areas, and by appropriate initiatives outside for the interest of present and future generations;
- promotion of the realisation of the full economic potential of wildlife resources outside national parks and game reserves through sustainable utilisation while maintaining the country's biodiversity;
- enforcement of laws relating to wildlife resources.

The meaningful development and utilisation of Botswana's wildlife resources and tourism potential requires the mutual co operation and willingness of government organisations, local authorities, local communities, the private sector and non-governmental organisations. Government will continue to facilitate the provision of infrastructure (roads, camp sites, boreholes, etc) , identification and promotion of utilisation schemes, manpower development and training and provision of legal control, monitoring and policy guidance

Parastatals and the private sector will be expected to conduct project specific studies for investment purposes, provide the necessary investment for the utilisation schemes, provide the necessary training programmes for unskilled labour and advise government on new initiatives, policies and legislation”.

Appendix 2:

Key Government Policy Documents on Wildlife and Tourism

Wildlife Conservation and National Parks Act of 1992

(Wildlife Conservation and National Parks Act, 1992 direct extract p. A.120)

An act to make further and better provision for the conservation and management of the wildlife of Botswana, giving effect to CITES and any other international convention for the protection of fauna and flora to which Botswana is, from time to time, a party, to provide for the establishment, control and management of national parks and game reserves, and for matters incidental thereto or connected therewith.

Tourism Policy of 1990

(Tourism Policy, 1990, direct extracts from p. 14)

“General Objectives:

11.1.1. The main objective of this tourism policy is to obtain from the tourism resources of the country, on a sustainable basis, the greatest possible net social and economic benefits for Botswana

11.1.2 Among the subordinate objectives, two stand out:

- a) to shift the mix of tourist away from those who are the casual campers towards those who occupy relatively permanent accommodation; and
- b) to increase substantially the financial returns from tourism to the people of Botswana

The Botswana National Conservation Strategy

(National Conservation Strategy, 1990, direct extracts from p.2 and 3)

2. Strategy Goals

2.1 Primary goals in formulating the strategy are to pursue policies and measure which:-

- a) Increase the effectiveness with which natural resources are used and managed, so that the beneficial interactions are optimised and harmful environmental side-effects are minimised;
- b) Integrate the work of the many sectoral ministries and interest groups throughout Botswana, thereby improving the development of natural resources through conservation, visa versa.

2.2 A series of Detailed strategy goals have also been identified by the government.

Development goals:-

- i. the development of new and better natural resource uses which are sustainable;
- ii. the optimisation of the existing uses which are made of all natural resources;
- iii. the development of multiple rather than single purpose, natural resource uses;
- iv. the diversification of the rural economy so as to generate new jobs;
- v. the increased education of, and participation by, all members of society in improving the environment;
- vi. the development of links with neighbouring countries in conserving resources;
- vii. the established of a balance between population growth and the supply of natural resources.

Conservation goals:-

- i. the conservation of all main ecosystems, wildlife and cultural resources;
- ii. the protection of endangered species;
- iii. the maintenance of stocks of renewable resources (e.g. veld products), while increasing their sustainable yields;
- iv. the control of the depletion of exhaustible resources (e.g. mining) at optimal rates;
- v. the distribution of incomes and rewards more equitably, in the interests of conserving natural resources;
- vi. the cost-effective restoration of degraded renewable natural resources, including improved capacity for regeneration of the veld;
- vii. the prevention and control of pollution

2.3 Fulfilment of these detailed goals entails designing development so as to minimise environmental costs and to enhance the quality of the environment. It likewise requires that, when trade-offs have to be made involving the use of natural resources, full account is taken of the environmental and social costs as well as the economic costs.

Wildlife Conservation Policy of 1986

(Wildlife Conservation Policy 1986, direct extracts from section 6, p.6)

“Overall aim and objectives of the policy:

6.1 ... the policy not only recognise but also emphasises the need to obtain a better ‘yield’ or economic return from land allocated for wildlife while at the same time ensuring the continuity of this resource. Rational and effective conservation and management programmes are, therefore, the essence of this wildlife policy. When the substantial flow of benefits of wildlife utilisation on a sustained yield basis begin to be realised the resource’s value will be more widely appreciated. Conservation will then enjoy even greater national support.

6.2 The specific objectives of the policy in the context are:

6.2.1 To realise the full potential of the wildlife resource

- 6.2.2 To develop a commercial wildlife industry in order to create economic opportunities, jobs and incomes for the rural population and to enable more rural dwellers to enter the modern wage economy. This will reduce the number of rural dwellers who rely on subsistence hunting.
- 6.2.3 To increase the supply of game eat as a consequence of the further development of wildlife commercial utilisation. The increased supply of meat can be directed to commercial use or to subsistence. In either case, it will be a valuable contribution to national nutritional objectives established under the National Food Strategy.
- 6.3 The three general guidelines to be applied in pursuit of the overall aims of the policy:
 - 6.3.1 Rural Development
 - 6.3.2 Citizen Participation
 - 6.3.3 Government Control of Development”

Fauna Conservation Act (circa 1961).

(Fauna Conservation Act, direct extract from p.38:5)

“An act to make further and better provision for the conservation and control of the wild animal life of Botswana and give effect to the International Convention of 1933, as amended, for the protection of the fauna and flora”.