

**NATURAL RESOURCES IN THE CHOBE ENCLAVE
A REVIEW OF THEIR STATUS AND POTENTIAL USES**

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Introduction

The Chobe Enclave is situated in the extreme north of Botswana, bounded by the Caprivi Strip to the north and west and the Chobe National Park to the south and east. The area is partly tribal land (approximately 159,000 ha) the remainder being Forest Reserve, (140,000 ha).

The Enclave climate is described as semi-arid to sub-humid with mean annual rainfall of 664mm (October to April) and a mean annual temperature of 30 C. The variability of rainfall is high, both within and between years, and there are extended periods of low moisture availability. Conversely, high levels of floodwater occur regularly, with a return period of about 10 years recorded. During these years, the presently dry Lake Liambezi may be recharged and much of the floodplain inundated, covering the more fertile molapo lands and reducing grazing areas.

In recent years there have been a number of studies on the potential of the Enclave, with a view to developing the area for commercial and smallholder agriculture. The constraints to agricultural development are numerous, rainfall, flood, drought and a shortage of manpower and equipment; consequently little has been achieved by these efforts. Local people practice shifting, adaptive agriculture, and the authors feel that given the above constraints this is the most suitable system. In good years local people are able to produce substantial crop surpluses but in drier times they are barely able to subsist.

The Natural Resources Management Project (NRMP) team have recently spent time profiling the natural resources of the Enclave, their past, present and potential uses; with a view to learning what local people see as potential options for resource based development projects. This report presents and discusses these community options, and the team have made further suggestions for community based natural resource projects.

In keeping with the NRMP objectives, the team followed a schedule of meetings with Enclave Village Development Committees and local residents, to explain the concepts of natural resource management and to learn what local people saw as potential options for natural resource use. The suggestions made at these meetings were largely based on each village's perception of the scarcity of, or limited access to familiar resources.

Suggestions put forward by the communities included a village guest house (Satau), fishponds (Satau and Parakarungu), a furniture workshop (Kavimba) and community hunting/game harvesting project (Kachikau). In addition the NRMP team present a number of potential options for discussion in this summary (section 2.). These are for

the creation of a 'community reserve', joint ventures with photographic safari companies, tourist camps and lodges, community managed public campsites, research group facilities and artists workshops. Suggestions are also made for the acquisition and sale of the hunting quotas for CHA1 and CHA2 for the 1992 hunting season. Other options proposed, indirectly related to the natural resources of the area are for the commissioning of an abattoir, improvements to the Kachikau-Maun road and the building of a secondary school for Enclave children.

The report's purpose is therefore to present information in such a way that discussion can be generated at the community and district level. Much of the information presented will be familiar to students of the Enclave. The main function of re-presenting this information is to match a process of consultation designed to strengthen work already begun in this field with technical assessments generated by external observers. A process which we believe needs to be further nurtured to the point at which project proposals and management decisions can truly be felt to be those of the Enclave residents and not of interested outsiders.

1. Issues

1.1 Project Objectives

The Natural Resource Management Project (NRMP) is a USAID funded project of assistance to the Government of Botswana. The project aims to promote sustainable, conservation based, development on lands that are marginal for crop production and domestic livestock. NRMP has a number of closely linked objectives which can be summarised as follows:

1. Demonstrating that sustainable natural resource utilisation is a profitable and viable development option for rural marginal communities.
2. Increasing local employment and incomes through the diversification of rural employment opportunities as represented by the sustainable utilisation of natural resources.
3. Strengthening local institutional decision and management units so as to empower them to become self-sufficient managers of their local resources.
4. Improving the participation and role of women in resource management programmes, thereby improving their incomes.

Community based resource utilisation projects will be based on being able to define local resources as a community asset.

Projects, selected for funding will be generated by community interaction with a local NGO and/or district council and supported by NRMP and DWNP. This is only likely to succeed with the active participation of communities in decision making and if Government is willing to respond by encouraging the decentralisation of licensing and guarantees the direct return of revenue to the communities concerned, and supports appropriate land leasing arrangements for them, as necessary. Community resource utilisation projects are expected to cover:

- a. Wildlife utilisation through tourism, hunting, fishing and the processing and marketing of animal products.
- b. Sustainable utilisation of veld and forest products in support of women who traditionally bear the brunt of the harvesting of such products. The project will support the processing and marketing of traditional veld foods, medicinal plants and local handicrafts.

The writers feel that natural resource projects in the Enclave that are able to retain working age labour, or induce the return of migrant labour should be given priority.

1.2 Community Proposals

The Natural Resources Project Team followed a schedule of meetings with Village Development Committees and attended one Kgotla, to learn what local people saw as potential options for natural resource use. Previous to these meetings the concepts of resource management and wildlife utilisation had been explained to local councilors and members of village development committees. Communities were also given time to prepare their suggestions.

The thinking behind this approach is that local residents are considered to know best what their needs and aspirations are, and more importantly, they have a clear understanding of the local environment and its resource base. NRMP's role at this stage was to encourage discussion and note suggestions, whilst exploring the possible limitations such suggestions may represent.

The community proposals presented at these meetings were largely based on previously suggested and/or half heartedly implemented projects. It seems that Enclave people have either been confused or inadequately advised by various government departments on a number of projects.

It is evident that local people have little knowledge of government processes, grants or assistance that would enable them to re-structure failed projects. They claimed that

government officials were disinterested, too busy or too far away to deal with their requests for guidance and assistance. These meetings showed that local people were, to some extent, more interested in what NRMP could do to set their failed projects right, than in offering new community project proposals and suggestions.

On further investigation the team learned that local criticism of the authorities appears largely unfounded, as communities had failed to tender the required LG38 forms for funding assistance. It was also learned that communities had come to expect that government departments would establish and manage village projects with minimal community participation.

After talking around the above problems, most meetings introduced a number of interesting and potentially feasible community proposals. These were, to some extent, based on each village's perception of the scarcity of, or limited access to familiar resources.

Thus, the people of Satau and Parakarungu suggested **fishponds** and assistance with **woodlots**, because fishing had been an important activity before the recent dry times and firewood is collected from some distance away from settlements.

The people of Kachikau were interested in **game harvesting**, and hoped to be given a quota to hunt as a community. They suggested that they should be given a vehicle and firearms for hunting purposes and a **tannery** should be constructed to process skins for leather and craft work. The project would aim at producing fresh game meat and biltong, for sale locally and in Kasane.

Suggestions from Kavimba involved training residents in **cabinet making** and the construction of a **workshop to produce furniture**. They also suggested assistance in collecting reeds and thatching grass and support in developing markets outside the Enclave, in particular to safari companies and lodges in the District. The potential for developing a **fishpond** was also discussed but finally rejected due to the shortage of water.

No proposals were made by the residents of Mabele and to date no response has been received.

Of all village suggestions the most interesting came from Satau, where villagers proposed a **guest house** to cater to both local and international tourists. Residents felt that this facility would attract visitors who may wish to experience local village life and if the guest house was positioned next to the proposed fishpond they may also enjoy some fishing.

1.3 Hunting Quotas

Enclave residents have a long tradition of living with wildlife, which has played an important part in their daily lives, providing sustenance, clothing and leather goods. The creation of Chobe National Park in 1962 restricted their rights to use wildlife over a vast area of traditional hunting grounds. In 1981, the gazetting of Chobe Forest Reserve, was seen by Enclave people as a further forfeiture of rights (although they are still entitled to hunt in the reserve, if they hold a licence). The Safari hunting concession and quota are also seen by local people as a loss of access to a portion of the wildlife resource.

To compound the above situation outsiders have been granted more and more of the citizen hunting quota. In the 1991 hunting season the quota for Enclave residents was only 6% of the citizen quota for CHA 1. This situation must be regarded as a recipe for disaster, for if local people lose all rights and control of the wildlife they live with, they will no longer place any value on the resource. Wildlife will merely be seen as a nuisance to their crops and livestock that must be eliminated.

The Botswana Wildlife Conservation Policy of 1986 states that a wildlife utilisation industry should be established, with rural people being the primary beneficiaries. Since 1989, the DWNP has made efforts to sensitise district officials and community members on the need to institute community management of game quotas as a means of implementing the policy.

The Minister for Commerce and Industry recently indicated his wish that DWNP implement the Conservation Policy as quickly as possible. This means that DWNP must facilitate the handing over of the management of game quotas to the relevant communities, and ensure that local management capabilities are in place.

In concert with the Government's intended policy of decentralising the game licencing system and affording communities the right to retain revenues derived from licencing; a visible demonstration that GOB is adhering to its commitment would be the allocation of the annual game quota to the community for their disposal.

It is envisaged that the community would be advised by DWNP of the economic returns potentially available from the different options for the disposal of the quota and the practical implications for each option. The choice and selection of options would be left to the community.

The limited number of animals potentially available on the 1992 quota, will reflect the decrease in wildlife numbers in the Enclave, with the exception of elephant. This decrease is thought to be attributable to a combination of disturbance, over hunting in the past and a periodic shortage of water.

When suggesting offtake options therefore; it should be borne in mind that those that create the least disturbance to the wildlife populations are preferable, for the sustainable harvesting of wildlife in the Enclave.

1.4 Labour Issues

As there are few employment opportunities in the Enclave, 70% to 80% of the working age group (20-44 years) migrate in search of wage earning work. The University of Utrecht survey, 1988, estimated that 75% of Enclave people working outside the area remained in Chobe District, most of them finding employment in Kasane, with tourist lodges and in the construction industry. Others work in the Pandamatenga area and at tourist lodges and camps in Savuti.

The migration of the working age group has left the remaining population with the difficult task of subsisting by agriculture, livestock production and various secondary activities; most do not have the time or energy to be involved in other ventures.

Enclave children who wish to attain a secondary education, leave the area to attend schools in Kasane and elsewhere. This is a major contributing factor to the shortage of working age members of the population remaining in the Enclave. Residents of the area may consider consulting the Ministry of Education on the feasibility of constructing a secondary school in the Enclave and so reduce urban drift.

A natural resource project in the Enclave should be seen as an opportunity to retain younger people and to attract members of the working age group back to their home areas. Many of the skills acquired by them will be required for the successful implementation of development projects. Their experience in commerce will be especially important as the Enclave presents a number of opportunities for tourist development and related enterprises. The return of members of this group should also be seen as a means of improving all round productivity, thereby improving the local standard of living.

1.5 Resource Issues

The natural resources available to Enclave people can be described as intact, except in the case of the Chobe Forest

Reserve, which has, in recent years, been used for the commercial extraction of tropical hardwoods.

Commercial timber extraction from the CFR can be seen as 'mining' the valuable and fragile forest ecosystem, compounded by the effects of uncontrolled dry season fires and to some extent damage by wildlife, particularly elephant. Regeneration of Mukwa, a valuable timber species, seems to have reached a critical state and other commercially valuable species are under considerable pressure.

The floodplain area, where the local populations activities are centered, still retains numerous resources that can be efficiently utilised, particularly thatching grass, reeds and the leaves of the two varieties of palm used in weaving handicrafts. The main danger to these resources is the incidence of uncontrolled fires, which burn vast areas of the floodplain, later in the dry season, destroying grazing lands, reed beds and the areas where thatching grass is collected.

Wildlife is no longer found in the floodplain area, due to the activities of the expanding population, their livestock and the recent reduction in water availability.

The remaining Enclave area seasonally contains reasonable wildlife numbers that are hunted by both resident and non-resident hunters. Commercially valuable wildlife species utilising the area are generally migratory and in recent years there has been a noticeable decline among all species excluding elephant.

The Chobe flats are little used by local people for gathering veld products as they are some distance from Enclave settlements, consequently veld resources remain underutilised and largely in their natural state.

In the case of local fisheries, harvests tend to fluctuate due to the cyclical nature of local floods. Fish species valuable to Enclave residents, for both commercial and subsistence purposes, are normally carried to the area by floodwaters and only establish viable breeding populations when there is permanent water available.

1.6 Lessons from Past Projects

NRMP have reviewed one existing wildlife utilisation project in Southern District and a proposed wildlife utilisation project in Ghanzi District. Both projects are based on game harvesting and the processing of meat and skins to provide employment and income for project participants and ultimately for the local community. In both cases the wildlife resource

is scarce, limited by seasonal availability and most often found at a considerable distance from project headquarters. Both project areas are somewhat remote and sparsely populated, with limited access to markets in the main population centres of eastern Botswana. Neither of the areas reviewed is situated on or close to existing tourist routes, yet both have some potential if they were to be included in a tourist circuit.

The existing project in Southern District is based solely on game harvesting, although attempts are now being made to broaden project activities to include tourism, veld products, handicraft production and the possible purchase or amalgamation of an existing tannery project. The original project design clearly stated that game harvesting alone would not be feasible, and the community would have to include the above options in order to achieve some degree of success. To a large extent initial problems encountered in the first year of operation have been due to ignoring the project plan and the identification and training of project participants.

Within the Enclave, previously implemented projects have experienced difficulties for a number of reasons. In the case of village woodlots, communities feel they are government projects and not their own. Consequently, they are prepared to wait for government personnel to carry out the work.

The fisheries project group, that fish the Linyanti 106Km south of Satau, experience transport difficulties when their project vehicle is diverted for other purposes.

Other problems involve poor management at VDC level, due to time constraints (farmers are constantly busy looking after their fields and livestock), and due to pessimism and a lack of motivation.

1.7 Project Implementation

An essential component of the NRM Project design, is that community development activities are expected to be implemented by Botswana NGOs. These organisations will work with communities and local authorities, to facilitate planning and the decision-making processes of local institutions, as they select the best options for development, assess potential impacts on community members, and address issues of distribution of benefits. It is expected that the capacity and capability of the local institutions for self-determination and management will be expanded, and strengthened, as they design and implement community based natural resource utilization projects.

There are two types of skills that may be needed for project implementation. Those that deal with technical, project management, and those dealing with community organization, which require language and cultural skills. Can these skills be found in one person, one NGO or any NGOs?

The demonstrated ability of any Botswana NGO to provide these management and community organization skills is in doubt. CORDE is experiencing management problems with a game harvesting project in Southern District, KCS is only just beginning to implement a community tourism project at Nata Sanctuary, and Chobe Wildlife Trust has yet to become involved in utilization projects.

1.8 Funding Sources

Botswana has numerous funding sources that support all levels of rural enterprise. The following list outlines the assistance schemes available and the sectors of the economy they aim to promote.

The Agricultural Extension (AE10) Small Projects Programme is principally aimed at supporting projects undertaken by village communities, farmers committees, VDCs or other groups that intend to create new agricultural facilities or contribute to an increase in agricultural production.

Horticultural Estates (AE11), is designed to assist small scale farmers who work in groups. The programme objectives are to support Botswana's horticultural industry and increase horticultural production in order to achieve self-sufficiency.

The Arable Lands Development Programme (ALDEP) is a programme designed to assist a specific target group, consisting of poor farmers, who are in the majority in Botswana. The programmes objectives are to achieve food security and to provide farmers with essential inputs.

The Agricultural Credit Guarantee Scheme is designed to protect rainfed arable farmers against the effects of drought, in respect of loans secured and employed exclusively for arable agricultural activities. The scheme provides insurance cover against crop losses due to drought as well as providing loans and guarantees for the purchase of farm equipment, water development and seasonal inputs.

Services to Livestock Owners in Communal Areas (LG15) this scheme is aimed at encouraging small scale livestock

owners to develop improved management techniques that will lead to an improvement in productivity, range utilisation, soil conservation and farmers incomes. The programme provides matching grants to farmers' groups and individuals to stimulate effective asset management.

The Financial Assistance Policy (Small Scale) provides incentives in the form of grants, for productive enterprises that create employment, promote self-sufficiency and diversify economic activity. There are three scales of FAP, small, medium and large that assist productive manufacturing projects. The small scale category presently aims to support projects whose fixed capital does not exceed P.25,000. The programme supports both new businesses and those wishing to expand, that benefit the Botswana economy by creating employment and produce goods that substitute imports or that may be sold as exports. The FAP offers greater incentives to female owned businesses and in particular to those based in rural areas.

The Training and General Support Fund (TGSF) addresses the constraints to the expansion or establishment of viable rural, non-farm, production with the aim of generating employment and income in the rural areas. The fund also aims at the sustainable utilisation of local resources and to satisfy local demand through local production.

The Village Development Programme (LG17) is divided into four components;

a) The Block Grant Allocation System (BGAS), gives village development committees spending authority over a specified amount of money each year for small infrastructure and self help projects. The programme objectives are to increase the VDCs understanding of project planning and decision making and to speed up the allocation procedures for village development projects.

b) The Pilot Component, aims to improve the living standards of rural communities by encouraging production and employment generating activities. The Pilot Component's objectives are to evaluate and exploit the resources available in each village, to diversify village development and to promote participation in solving the problems of unemployment and the lack of resources.

c) The Training and Support Component provides training for VDC members, local leaders and village

groups by organising seminars, conferences and workshops. This component also provides training for NGOs on LG17 related activities.

d) The Village Infrastructure Project Component assists villages in the creation of employment and the development of village infrastructure by encouraging a spirit of self-help and self-sufficiency.

The LG20, Support to Primary Health Care Activities provides funds to support community based health education and other participatory health activities.

The American Ambassador's Special Self-Help Fund supports community development projects where the community has already demonstrated support in the form of labour, locally generated funds or the donation of materials. The objectives of such projects are to benefit the greatest number of people possible and improve the community's economic or social condition. Projects must have their basis in local community action and be within the means of the local community to operate and maintain.

The Small Projects Assistance Programme (SPA) was established by the US Peace Corps and USAID to support small self-help efforts, through direct grants to community organisations. The programme offers both support for community projects and a technical assistance component, providing training and technical advice to Peace Corps Volunteers, staff and host country nationals working in the field. The programme supports development in the areas of food production, energy, competitive enterprise development and health.

The Canada Fund for Small Project Development Assistance is administered by the Canadian Development Agency (CIDA). The objectives of this grant are to support projects within the general categories of economic and social development. Women in development are a priority of the fund as are community participation and local contributions, which are a prerequisite for receiving funding assistance.

Most of these sources aim to encourage the small producer, producer organizations and community groups. They offer grants, loans and guarantees of less than P 5,000 up to P. 80,000, depending on project viability, area of operation and the number of employment opportunities created. In addition to the above sources of funding there are other schemes and institutions in Botswana that offer assistance, advice, loans and grants, usually to development projects with larger

capital requirements than those mentioned above.

2. Options and Constraints

Below are presented some broad options for natural resource use by the Enclave communities and the constraints that may be encountered by each. The options presented are aimed at creating discussion at both district and community level, and should not be seen as project proposals. The authors believe that by presenting a number of wide ranging suggestions, the most workable options will naturally come to the fore. The sections covered deal with tourism, hunting, the use of veld products and the community proposals presented earlier in this report.

The Enclave has potential for tourist development, both by the private sector and by local communities. Its position in relation to Chobe National Park and on the most direct route from Kasane to Moremi Game Reserve and Maun is of great importance, and affords an opportunity for well planned development. Kasane is to become a major tourist destination, with the recent commissioning of the new airport, the construction of a new tourist lodge and extensions to existing units, which will raise the number of beds available to 554.

Some view these developments as a boon to Botswana's tourist industry, while others question the wisdom of placing so much emphasis on containing development in one location, whose main attraction is the Chobe river front and access to Victoria Falls in Zimbabwe.

The importance of these developments on the tourist potential of the Enclave are numerous. First, they are expected to provide a greater volume of tourist traffic, which will place increased pressure on an already over-crowded section of Chobe Park extending in a 40Km radius from Kasane. Secondly, tourists to Botswana generally seek the experience of being close to nature and wildlife, and it is unlikely that Kasane will be used as more than an overnight convenience for those arriving or departing the country. Therefore, the Enclave should be seen as an important area for tourists to enjoy a 'bush' experience, whether in small tented camps or lodges or as a day trip destination from Kasane.

The Enclave is ideally placed as the first or last night stop for tourists on their way to, or from Kasane, and it is on these pretexts that the following options are presented.

2.1 Community Proposed Options

The community proposals contained in Section 1 of this summary are discussed below.

2.1.1 Village Tourism

The Village Guest House suggested by residents of Satau is a feasible option and one that should encourage further debate. The Guest house should be constructed using local labour and materials and be in keeping with the style and structure of local housing. Initially, two Lelwapas containing two double rondavels with toilet and ablution facilities and one Lelwapa as a cooking/dining area, should be constructed. The only concessions to modernity should be concrete floors, cement painted hessian walls and toilet and ablution facilities.

Ideally this facility would be constructed and managed by a women's group or cooperative. Funding for such a project could be sought through the LG17 Village Infrastructure Programme, or the small/medium scale component of FAP.

Initial consultations with tour companies indicate that such a facility would be of interest to some tourists who may wish to experience village life and local culture. Such a facility would improve the marketing potential of local craft work and may encourage villagers to cultivate vegetable produce for sale to overnight guests.

The problems foreseen are as follows;

- a) Local people have little experience of the tourist industry, the marketing or management of tourist facilities.
- b) Tourists visit northern Botswana in the dry season only, the beginning of which is harvest time and the end, when thatching grass and reeds are collected and when field preparation begins. Will women have the time to manage the guest house? Will they become discouraged or disinterested in the tourist 'low season'?
- c) It can take up to two seasons for new tourist units to break even.

We suggest that if such a group were interested in going ahead with this project, they should consult Kasane based tour companies on joint venture or management options.

2.1.2 Fishponds

Both the villages of Satau and Parakarungu suggested the construction of fishponds to provide fish for local consumption and to offer fishing to Enclave visitors.

Satau residents identified a site for such a purpose to the south west of the village and suggested that the proposed village guest house should be placed near it.

The team feel, that while these suggestions have some merit they are not workable for the following reasons;

a) any area permanently containing water, will raise the water table in the vicinity and in turn cause sodium toxicity. This problem could be overcome if the suggested areas are lined with heavy duty plastic or concrete, which is expensive and requires long term maintenance.

b) during the dry season village livestock would water at the ponds, sapping and muddying the reservoir. This would also extend the already considerable sacrifice areas around villages. In our experience fencing the ponds will only prove to be a temporary measure, due to maintenance and management problems.

c) fishponds may only be used for subsistence purposes.

2.1.3 The Community Hunting Quota

Kachikau VDC meetings suggested that the community would be interested in acquiring a greater proportion of the hunting quota and even starting a game harvesting project. The DWNP is making the necessary arrangements to enable communities to manage the quota for the Enclave CHA, beginning with the 1992 hunting season. This proposal should therefore be supported, but extended to all the remaining communities.

2.1.4 Furniture Workshop

The people of Kavimba suggested that they would be interested to establish a furniture/woodwork factory and have asked for training courses in cabinet making. We suggest that this proposal should be investigated, when the Forest Inventory Project have reached their conclusions for the management of the Reserve.

2.1.5 Thatching Grass and Reeds

Towards the end of the dry season large numbers of Enclave residents collect thatching grass and reeds that are used in the repair of roofs and house compounds. Some gather thatching grass and reeds for sale to businesses and individuals from outside the area and they have

proposed that the NRMP should support them in developing markets for such their produce.

Enclave thatching grass is of superior quality to most, as it tends to be longer and has more durable characteristics. In the case of reeds, demand is limited to northern Botswana where there is a local tradition of constructing reed Lelwapas. However, reeds could be used to line ceilings and to make screens. Market research into potential uses for these materials should be conducted to establish viability.

2.1.6 Handicrafts

Local craft producers have benefitted from the recent stationing of a handicraft advisor in Kachikau, who offers advice on quality control and helps market local crafts. The advisor is encouraging local production of all types of local crafts and hopes to establish a marketing outlet somewhere in the Enclave.

2.2 The NRMP Team's Suggested Project Options and Constraints

The authors have identified a number of potential project options which could be of benefit to the local community, by providing income and employment. Many of these options will also provide indirect benefits to the community, through increased commercial activity, and the development of subsidiary industries usually associated with tourism.

2.2.1 Tourism and the Non-Consumptive Use of Wildlife

The Creation of a Community Reserve

The planned improvements to the Kasane-Kachikau road are expected to increase tourist traffic to Savuti and Moremi Reserve and vice versa. This increase offers the Enclave considerable potential to enter the tourist market and appreciate the associated benefits. One way in which this could be done is to create a community reserve and charge tourists a moderate entry fee. The writers believe that the 'Reserve' area could consist of the Chobe flats and the Forest Reserve and would include the Linyanti and Chobe river areas. This option would offer employment to gate guards and tourist guides and revenue would be distributed to Enclave villages for approved community development projects. This may be a workable option if the Enclave developed some of the tourist facilities and attractions mentioned below.

Joint Ventures with Photographic Safari Operators

The Enclave offers potential for photographic safari operators who offer game viewing, bird watching, fishing and boating safaris to their clients. In addition, safari operators could include walking and ox wagon safaris, visits to villages, local cultural activities, even balloon safaris, that may be of interest to tourists. We expect that operators may either bring day trip tourists from Kasane and Savuti or negotiate concessions for permanent camps or lodges in the Enclave. In both cases the community would benefit from employment, daily rate payments per tourist and/or by maintaining an equity interest in lodges or camps situated in the Enclave.

There are a number of different options for joint ventures that could be discussed by local authorities, Enclave communities and potential safari operator partners. A joint venture is an activity, or venture, undertaken by one or more partners for their mutual benefit. Thus, the Enclave community on the one hand believes that its natural resources may appeal to photo tourists or non-resident hunters, but has no experience of the market or the management of tourist enterprises. On the other hand an established tourist company believes that they can develop a profitable business with the resources available in the Enclave but do not have the rights of access to the area, or its resources.

These joint venture agreements may embrace the following suggested community objectives:

- a. To maximise medium and long term benefits to Enclave communities and their joint venture partners.
- b. To provide incentives for improved resource management in the Enclave.
- c. To increase employment opportunities for the local population.
- d. To provide education and training in sustainable natural resource use, wildlife management and the tourist industry, and so develop local capacities for managing natural resources and tourist enterprises.

Therefore, Enclave communities and their potential partners must explore the best possible means by which they can fulfill these objectives. Some guidelines to aid the selection of joint venture options are as follows;

Option 1. Joint Venture Agreements

These are agreements between the community and safari companies that do not involve the merging of either partners assets.

a. The community lease the land and the resources contained therein to a safari company, who pay an annual rental fee. The community benefit solely from rental income but may potentially benefit from employment opportunities and the development of associated enterprises or services.

The main constraints to this option are that there is no commitment by the company to employ or train local people. There is no guarantee that the resources will be utilised sustainably or that local people will participate in resource management.

b. The community leases specific areas to the safari operator for the development of tourist infrastructure. The community manage the natural resources of the remaining area and benefit from the income derived from hunting, fishing, wildlife viewing and other activities, while the safari operator aims to profit from lodge and camp income. The operator has security of tenure on lodge and camp sites and the community are involved but not in charge.

This option is complicated to set up and terminate, if either partner is dissatisfied with progress. It is also difficult to value either partners contribution.

c. The safari company provide their services at an agreed daily rate cost per tourist, the remainder of the daily rate income (gross profit) is then equally divided between the partners. In this case there is no merging of assets and the agreement is easy to set up and to terminate.

This option may be difficult for the community to understand or keep track of and the safari company may be unwilling to assume the risk.

Option 2. Joint Venture Partnerships

Joint venture partnerships involve the merging of portions of both parties assets.

a. The community becomes a safari operator, develops

the area for tourism and hires the services, or offers equity to a skilled management company who market and run the enterprise. The community provides most of the labour and all tourist facilities and the managing company the expertise, in exchange for a fee (normally 20% of turnover). This is not a true joint venture as the community is essentially in control, but it is worthy of consideration as it guarantees employment and directly involves local people in the day to day management of the enterprise, so broadening their experience.

The disadvantages to such an arrangement are that the community is inexperienced in business and may make costly mistakes, also, income from the enterprise may be discouragingly low for a number of years.

b. A joint venture partnership is formed between the safari company (providing expertise, infrastructure and equipment) and the community (providing the land, natural resources and labour) and this entity effectively becomes the Enclave tourism management group, receiving all revenues and responsible for all costs. The community learn about the business aspects of the tourist industry and have a say in day to day resource management decisions. The community and the safari company share all profits from the enterprise.

The option may not be workable if profits are unable to meet each partners desired return. The community may not have the business or resource management experience to manage their side of the partnership.

c. The safari company and the community develop the areas tourist potential as joint venture partners, the community holding equity in the safari company's Enclave operation (say 35%) and paid a daily rate or bed night fee (say P 10 per day visitor and P 20 per bed night). The safari company have a lease agreement for a number of years but pay no rental fee and supply all facilities, marketing and management, and agree to employ local people and support local enterprises that may complement their activities. The community supply local building materials, guide services etc., and are actively involved in managing the resources and able to learn about the tourist industry.

Constraints to this option are that the community

- may not have enough business experience to keep track of safari company performance and the system may be too complicated to set up and run efficiently. The safari company may be unable to meet its commitments to the community if tourist business is inadequate.

Tourist Camps and/or Lodges

We have identified four potential areas where tourist camps or lodges could be sited, each within different ecological zones and each able to offer the photo-tourist a wide range of different activities and experiences. These areas are

- a) on the banks of the Linyanti close to Chobe National Park
- b) on the channels and depressions of the Chobe floodplain
- c) on a sand island between the villages of Chituza Mataka and Liambezi
- d) on the pans in the Chobe Forest Reserve bordering Chobe National Park.

These sites could either be developed by the community and managed by safari operators, or leased to an operator with the community holding equity in the camp or lodge.

By having four different units with photo tourist facilities the Enclave should be able to induce tourists to stay longer, offering a package to visit the different areas and to enjoy the more remote sections of Chobe Park. It is unlikely that this type of operation would be managed by more than one tour company and we would expect only the most ambitious and innovative operators to apply.

Community Managed Public Campsites

With the expected increase in tourist traffic through the Enclave the community should consider providing two public campsite facilities. The first should be close to the Park gate at Ngoma and the second sited on the escarpment between Kachikau and Kataba.

Research Group Facilities

Universities and museum groups in Europe and North America and organisations such as Earthwatch, are

constantly looking for new areas in which students and researchers can carry out field work or savor new experiences. The facilities they require are basic - camp sites, water and local foods, which could easily be provided by the community. Either of the above mentioned campsites could be exclusively booked by such groups which tend to be less seasonally dependent than the average tourist. Groups such as these are true 'eco-tourists' and pay prices comparable to mobile camping safari clients.

Artists Workshops, Craft Shops and Other Facilities

A number of artists - painters and sculptors - seasonally work in the Chobe area, and one has expressed an interest in setting up a studio near Ngoma Gate where he may work and exhibit. He has suggested that other artists would also be interested in such a facility. A gallery displaying artists work and local crafts, combining a restaurant, campers store and fuel facilities would quickly become a popular stopping place for passing traffic.

A similar restaurant, craft shop and fuel facility near the suggested public camp site between Kachikau and Kataba may also prove to be popular.

Constraints to the above options:-

All the above options rely on the ability of outsiders to work with the Enclave communities. Few, if any, Botswana based operators have this experience and it is unlikely that more than one or two companies have the foresight or imagination required to see the Enclave's potential. These options would therefore require careful development rather than immediate start up.

2.2.2 Citizen and Non-Resident Hunting, The consumptive use of Wildlife.

The Enclave communities will be offered the 1992 quota for CHA1 and CHA2. If the community are agreeable, this quota will be sold to them by the DWNP at current licence fees. In order to pay for this they will have to select one or more of the options presented below to generate the required revenue.

Some options available to the community and the constraints presented by each are presented below;

Option a. The total quota is raffled by the community and sold to local residents, and if there

are not enough residents to take up the quota, the remainder is sold to Kasane residents.

This would involve a large number of individual hunters, resulting in disturbance, unacceptable wounding of animals and low financial returns compared to the following options.

Option b. The whole, or part of the quota is sold by the community to Safari companies, and the balance is raffled and sold to community hunters.

This option will cause proportionately less disturbance to the wildlife resource and offers a higher financial return on the quota, whilst allowing local hunters the opportunity to hunt the game they want.

Option c. The balance of zebra and buffalo quota not sold to Safari companies, are culled by the companies on behalf of the community. The hunting and processing of animals (skinning, butchering etc.), and delivery of meat and skins to the community becomes the responsibility of the Safari companies. In return for this service the safari company pay less for the concession and/or the portion of the quota they require for their clients.

This will cause the least disturbance of all the options. The community benefits financially from the sale of part of the quota to the Safari company and from the sale of buffalo/zebra skins culled by the them. The community also benefits from the meat of culled animals.

Option d. Establishment of a regular market for game meat, to meet expected demand by tourist hotels in Kasane and safari camps in Savuti. As in option c, the safari company cull game on the community's behalf but transports and sells the meat outside the area, with the community benefitting from the sale of meat and skins.

This option offers greater financial returns to the community as the prices paid by tourist lodges will generally be higher than those paid by Enclave residents.

Option e. The community introduces a hunting ban on all species in the Enclave, with the exception of buffalo and zebra, and with these 2 species, halve the present quota. This would allow the wildlife

population in the Enclave to recover and increase.

This option offers little financial return in the near term (except from photo tourism), but may lead to greater hunting returns in the future, e.g. 5 years.

2.2.3 Community Wildlife Scouts

The formation of a community scout unit would offer employment opportunities to Enclave residents and instill a sense of custodianship for local resources. This group would also allow the community to regulate and control the use of resources.

The role of such a body could be to;

- 1) collect data on the natural resources in the area (game counts, surface water distribution, game movements).
- 2) monitor the users of these resources, e.g., hunters, wood users, fishermen, safari firms
- 3) manage problem animal control
- 4) liaise with the DWNP on anti-poaching issues
- 5) act as guards and guides at proposed safari camps and lodges.

The scout unit, in their monitoring role, would accompany all hunters, and prior to hunting ascertain;

- a) the hunters knowledge of the vital areas of an animal,
- b) the hunters marksmanship ability
- c) that the hunter proves the accuracy of his own firearms.

The authors believe that this unit should be financed by community projects but to a large extent we would expect costs would be subsidised by safari operators. The duties of this unit could be supported by a resident manager of the project. Senior ranks of the scout unit could be Honorary officers of DWNP to enhance their legal status should they wish.

The constraints to the formation of such a unit could be:

- a) the availability of people of the right calibre, willing to join the unit
- b) the urban attractions for males to work outside the Enclave and enjoying competitive salaries.
- c) the need to have community wide acceptance of the use of residents in their own area to monitor community laws.
- d) part of the community's income from resource use may be required to support such a group.
- e) hunters may resent testing and supervision by individuals whom they may perceive as having less experience than themselves. Particularly when professional hunting safaris are available within the District.
- f) there may be many members of the community who would be resentful of activities that they may perceive as law enforcement functions being taken on by other community members. (See sections 2 and 4 above in particular).

2.2.4 Other Development Options

The authors of this report feel that a number of other options, indirectly related to natural resources, may increase Enclave incomes and the local standard of living.

These are as follows;

The Ministry of Agriculture and local livestock producers should consider constructing an abattoir in the Enclave, capable of processing both livestock and wildlife products. MoA should then also station a meat inspector at this facility - Chobe District does not have a meat inspector. We expect that the provision of an abattoir will encourage local livestock producers to increase the off-take rate, which is presently in the region of 4%. The stationing of a meat inspector will encourage demand from Kasane butchers which over time should improve overall herd quality.

The people of the Enclave should be encouraged to support the current negotiations regarding improvements to the Kachikau to Maun road. Such an

improvement could bring a greater volume of tourist traffic and generally open up the area to a broader range of commercial activities, and provide easier access to the markets of northern Botswana.

We would expect that an increase in tourist activity will create demand for fruit and vegetable produce. Enclave farmers are ideally placed to meet this demand and will require considerable senior level support from the MoA in extension services, seed and equipment. If this is not forthcoming, the writers hope that tour operators and safari companies will provide farmers with the necessary inputs and purchase their crops. At the moment almost all fruit and vegetable produce required by safari companies is brought from Francistown and in some cases, from as far away as Johannesburg.

3. Conclusions

- 3.1 The natural resources of the Enclave are varied and abundant and offer a number of options for the development of community managed projects. Until now most project proposals for the area have concentrated on agricultural development of the floodplain, where the local population is centered. The NRMP sees the Enclave as the whole area bordered by Chobe National Park and Namibia's Caprivi Strip, in which the resources available can be utilised by the community, or their joint venture partners, to provide income and employment benefits.
- 3.2 The authors believe that the resources contained in the area are capable of supporting the various project options contained in this report, whether they be for consumptive or non-consumptive utilisation. However, the levels of off-take and the sustainability of resource utilisation, especially in the case of wildlife, must be carefully monitored.
- 3.3 Aerial surveys conducted over wet and dry seasons reflect low animal populations, with the exception of elephant, and show a trend of declining numbers since surveys were introduced in 1987. Reduced hunting quotas also reflect this trend. Apparent reasons for this decline are postulated as disturbance, over hunting and the recent scarcity of water.
- 3.4 The community will benefit from the allocation, by sale, of the whole CHA1/CHA2 hunting quota in the 1992 season, whether they hunt the animals themselves or negotiate the on-sale portions of the quota to resident or non-

resident hunters.

- 3.5 The introduction of tourist activities, both from developments outside the Enclave as well as a result of Enclave based project activities, could have a significant impact on the lives of Enclave residents through the creation of direct employment, and the indirect employment created by the expected development of subsidiary or associated enterprises. Not only will the expected increase in employment opportunities benefit the Enclave communities, the revenues generated by both community and joint venture tourist enterprises should increase household incomes and raise standards of living.
- 3.6 Arable agriculture should be seen in future as a useful commercial enterprise during good years but will essentially remain a subsistence activity. The difficulties and costs involved in attempting to promote increased agricultural production far outweigh the benefits to both the local and national economy. This is especially true as the soils will not support irrigated agriculture.
- 3.7 However, expanding tourist activity in the district should naturally increase the demand for local produce, which should (labour, seed and other in-puts permitting) lead to increased productivity. The authors do not see this potential increase in production being effected or led by outside agencies (NGOs) or government departments, but by the private sector.
- 3.8 The private sector can have a similar influence on the Enclave's livestock industry, through an expected increase in demand for livestock by the expanding tourist industry; and we would expect an improvement in animal husbandry, resulting in increased quality and productivity.
- 3.9 The major constraint to any form of project development will be the shortage of available labour and the time constraints imposed by the subsistence lifestyle of local residents. Many people do not have the time or energy to become involved in additional activities over and above their daily tasks.
- 3.10 The fact that the majority of working age males are employed outside the area leaves many households headed by females, which also presents a number of constraints to the proposed options, unless such options are able to induce the return of some migrant labour (the impending recession in the construction industry may speed up this return).

4. Recommendations.

4.1 Consultative Process.

It is recommended that the consultative process continue at both the district and community levels. In order to maintain continuity with the process begun, we are recommending that this should be based on a series of Kgotla meetings to interpret, discuss and make decisions about this report. In order to achieve the objective of a real consensus on development options, management structures, beneficiaries and other issues, wide community participation will be necessary.

Community based projects rely on an understanding that the resource that is being used belongs to all of the community and not just those with the skill or the opportunity to use any particular resource. As not all community members will participate in any or every activity a process which (a) selects the best options, (b) selects the participants with the most knowledge and need of such options and (c) institutes a system for ensuring that community as a whole is both represented and recompensed is needed. We believe that this sort of responsive community mechanism will only emerge over time and be subject to change as project based experience is accumulated. Accordingly, we recommend that sufficient time and effort be allocated for mobilisation, discussion and consensus.

An introduction to the options and three other major issues are presented below, followed by key questions to be answered by the communities.

4.1.1 Project options

The options presented in this report are meant to represent the range of feasible natural resource options to be discussed and selected by the communities. In summary, these include various alternatives of tourism, veld products and wildlife harvesting. They are a combination of community, DWNP/NRMP and local government proposals. In reviewing the options laid out in the document, the following questions may be considered important:

- Are there other uses of natural resources that people have experience of which have not been included ?
- Who are those with experience of using the different natural resources, and are these the same people who would be best able to benefit from the different natural resource utilisation options proposed ?

- , Which options do women believe offer them opportunities to participate ?

4.1.2 Community Management Structures.

Traditionally, natural resources belonged to the communities that relied upon them, and were managed by them through traditional structures of representation and authority. Now, government policy is to return some of these management functions to communities. In the intervening period new structures of communal and district government emerged to suit a changing world. In returning resource management to communities, the capacity of existing structures to take on these new responsibilities will need to be considered.

Not all members of the community use each of the natural resources, and not all members will participate in projects; some may not even be interested. It will therefore be necessary to identify: (a) those individuals who know how to use the resources, (b) those who have a clearly expressed need to benefit from them and (c) those who have an interest in the development of their communities and who can support project participants and community members as natural resource use is promoted and expanded.

When decisions are taken it will be helpful if this is done in an environment in which all the potential individual interests outlined above have been able to consider issues and express their opinions. Only by ensuring that all of those who need to be represented have been consulted, can institutional arrangements emerge, which have sufficient respect and trust within and by the community to work successfully. Before seeking to make changes which may not be necessary, we believe that posing a number of questions may be helpful:

- Are there existing community institutions that can manage the development of the sorts of projects outlined in the report ?
- If there are, how responsive would these institutions be to the needs of individual users/beneficiaries ?
- If changes or additions, or even entirely new groupings were needed, whose interests need to be represented and who is best able to represent these interests ?
- Will institutions offer women the opportunity to

participate in management on equal terms ?

Because some projects may include more than one; or even all the villages in the Enclave, some management structure will be needed to make decisions at that broader level. Whilst it will be important for each community to feel that it has its own accountable and responsible project management structure; it will also be important that the Enclave as a whole has a similar structure for those times when decisions affecting more than one community need to be made.

- What is the right forum for discussing suggestions for managing this process ?
- Is a new institution needed that will act on behalf of, and in concert with, each community's project management structure ?

4.1.3 External Project Advisors.

Since the Kachikau Initiative, started in 1989, through to the field work for this report, villagers have been consulted by visitors coming back and forth from Gaborone. A new and more intensive phase of discussions is now being envisaged; one that will lead to the selection of some development options, the design of community management structures, the consideration of external assistance and the implementation of community based projects through the building of specific and detailed proposals.

- How helpful or otherwise is it to have outsiders generating discussion ?
- At what point should responsibility for leading this discussion be taken by communities ?
- What kind of information, advice or assistance is needed from either Gaborone or advisors that could be posted to the community to work for them ?

4.1.4 Community Managed Hunting Quotas

National policies now aim at offering communities the opportunity to manage hunting quotas set by DWNP. Communities will be able to buy the total quota's licenses from DWNP. They can then decide what to do with those licenses; to use it themselves or sell it to other citizens, non-residents, safari or other private sector companies.

Whilst this is also discussed as another option within the report it is felt that special consideration needs to be given to this particular option. The game quota is, at present, Enclave wide and, although not large, capable of being husbanded into a growing asset capable of benefitting more and more people. It is not village specific, yet individual villages may each have their own views on the value of the annual quota. In order to make decisions at both a village and an Enclave level, it is proposed that consideration could be given to some questions:

- Are communities satisfied with the way the quota and licensing has been handled before ?
- If not, how should these be handled now, and who should manage the process ?
- Do villages wish to participate in this community management of the hunting quota ?
- If so, how should we discuss suggestions for the management of the quota ?

4.2 Gradual Implementation.

Because of the newness of these community based projects to communities, districts and central government, we are recommending that options be implemented slowly or even one at a time, to give institutions, linkages and policies time to evolve and strengthen at the community and district levels. The discussion above has tried to draw together a range of issues that seem to be important for consideration if communities are to successfully take over the management of their local resources.

A successful project is clearly far more than simply harvesting a resource. The resource needs to be maintained for future harvesting, the community needs to feel that the resource is theirs, and those harvesting the resource need to be adequately recompensed for their investment in taking on the work involved. These competing needs must be reconciled through a consultative, community based decision making system.

Individual project experience will give communities the experience from which they can gauge the effectiveness of the processes that they elected to put into place to manage their resources and disburse the benefits gained from that management. By not embarking on too many options at the beginning there will, it is believed, be time for monitoring and learning which will allow for this management capacity to grow and thus take on more projects or expand existing ones.