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**A REVIEW OF BERE/MAITLO-A-PHUDUHUDU WILDLIFE UTILIZATION
PROJECT PROPOSAL**

A Report to the DWNP

By

The Natural Resources Management Project

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1. INTRODUCTION

The Department of Wildlife and National Parks (DWNP) has sought to involve District and local authorities in specifying and initiating wildlife utilisation schemes in rural areas, particularly those designated as Wildlife Management Areas (WMAs). In these areas, wildlife and veldt products are to become the focus of major development initiatives designed to sustain both the resources and the livelihoods of people living within them.

It is within this context that DWNP welcomed the initiatives of the Ghanzi District Council in sponsoring the proposal for a Wildlife Utilization Scheme for the settlement of Bere. This proposal was submitted to the Interministerial Committee (IMC) of the Natural Resources Management Project (NRMP) at its meeting in January 1991. The IMC responded to the proposal by asking Ghanzi District Council to provide clarification on a number of points, prior to approving funding.

Firstly assurances regarding the need for a framework to ensure that the resources of the Maitlo-a-Phuduhudu WMA would be used exclusively for its residents were requested. Such a legal structure would guarantee exclusive user rights to the area's resources. Secondly, the IMC solicited Council's advice in selecting a Non-Governmental Organisation (NGO) to implement and monitor the daily operations of the project. Thirdly, the IMC requested the Council's advice on whether funds should be provided to the community in the form of a grant or a loan or a combination of the two. This response was communicated to the Council by a Savingsgram from the Director of DWNP on the 29th January, 1990.

Whilst awaiting an answer to this savingsgram, DWNP initiated a dialogue with the Council as to whether they would welcome a visit from the Natural Resources Management Project (NRMP) Team to discuss and review the project by visiting the area and gathering information. On 16th May, 1991, the District Commissioner invited the NRMP team to the District Land Use Planning Unit's (DLUPU) meeting scheduled for 20th May, 1991.

The purpose of the visit was to review and discuss the implications of the IMC's request and to make a brief visit to the Bere and Maitlo-a-Phuduhudu area. Specifically, the goals were as follows:

- a. To inform DLUPU and Council Officials as to the status of the Bere proposal within the DWNP/NRMP,
- b. To review relevant documents and information on Bere, including previous studies on the community,
- c. To assess the status of current wildlife populations and their abilities to sustain exploitation with particular reference to the project proposal.

2. HISTORY OF BERE COMMUNITY

The settlement of Bere began as an experiment to meet the needs for permanent water, land and resources for several bands of !Xo speaking Basarwa. During the drought of the 1960s, several bands concentrated around the Veterinary Department's borehole at Takatshwane. The severity of this drought together with the selection of this site for a government drought relief distribution center, prolonged the stay of these Basarwa bands. This growing dependency upon government relief supplies and water, together with the close proximity of inter-related bands, led to frequent disputes. Social tensions were further intensified as some individual members within these bands acquired a few donkeys and goats. These new acquisitions, watered at the trek route borehole, alienated the Veterinary Department, whose staff threatened to shoot locally owned animals and to refuse to provide water to individual band members.

Dr. H.J. Heinz who had been engaged in anthropological research among these Takatshwane bands for many years, initiated the first settlement scheme at Bere as a personal attempt to ameliorate the problems associated with the Takatshwane borehole. Furthermore, he had taken some band members to visit other Basarwa bands in the Okavango Delta where his wife, for he had married a young Masarwa woman, had acquired, amongst other things, a wish for goats and cattle. Thereafter, Heinz had encouraged the acquisition of cattle and the planting of crops among band members at Takashwane.

According to Dr. Heinz's account, the catalyst for establishing Bere as a separate settlement was a plan, since abandoned, to establish a ranching block east of the trek route between Takatshwane and Hannahai. In his bid to make his Basarwa band the first ranch owners in the area, Heinz, with the aid of private funds, drilled a borehole at Bere, some 12 km south of Takatshwane. Bere was then established as a cooperative ranch, with membership open to band members who acquired two cows per family. Although begun with enthusiasm, cattle ownership brought many problems as band members sought to adapt to conditions demanded by the husbandry of domestic animals.

One report mentions that the original goat herd of 350 was no longer in existence by 1976. Observations by NRMP team members that some Bere families owned and/or looked after goats, donkeys, and cattle suggests that this band has gone through several cycles of ownership and dispossession of livestock during the settlement's twenty year history.

Heinz was aware that he was erecting "some kind of 'model village' or 'planned settlement'" and it was this concern, according to Wily (1973) which led to his emphasis on physical structures as "concrete and visible signs of 'betterment'." Liz Wily, appointed

as a school teacher at Bere and later the first Basarwa Development Officer, along with Heinz, was concerned to record the lessons from the experiments at Bere. Consequently the two of them have left details of events and their effects for the initial years of the settlement. By 1975, Dr. Heinz no longer visited the settlement. Yet the settlement continues and has established linkages to other settlements and various government agencies.

The initial bias towards livestock rearing was replaced by other concerns, including attempts to develop other local resources including wildlife. Wily pointed out that the major reason the bands remained at Bere was not because of its potential as a commercial ranch (1976 p 6). Rather, she suggests that the continued settlement at Bere stems from the people's strong identification with their traditional territory, and the feeling that "this is our place and our water; people know we are here."

3. POPULATION ESTIMATES OF BERE COMMUNITY

The mobility of bands, necessary to secure a livelihood in a difficult environment, has been well documented by outsiders. Families often move considerable distances within a recognised "territory" as food resources become available in different places. As a consequence, meaningful and consistent figures for the population of Bere have not been obtained. The table below compiles figures from the various studies reviewed for this assessment.

Surveys and population estimates by outsiders were accomplished during the few days which the researcher resided in the settlement. Such short periods of residence do not encompass the time spans necessary to document the changes in human numbers. The mobility of the local population and inconsistencies in numbers also finds its expression in concerns over the definition of what constitutes the "community", especially its ability to determine and control its long term group membership (see Ghanzi District Council, Project Plan for Bere Game-Harvesting Project, 1989)

The NRMP team experienced these same difficulties during its brief stay at Bere. The team arrived after the 20th of May, the normal payday for the road crews and others on drought relief work. Many residents had gone to Ghanzi and elsewhere for shopping. Others had left for courses at D'Kar and Kanye. Rather than make a census, the sociological team focused on interviews and observations centering on households.

The earlier concern that Bere would be swamped by outsiders who came there to take advantage of developments has never materialized. Insiders know who they are, can, and do differentiate between themselves and non-members when such discrimination becomes necessary. Residents have closed ranks against outsiders on several occasions.

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Population Estimates for Bere

Year	Families	M	F	Adults	Children	Total	Researcher/ Comments
1971						145	Childers 1982 orig. settlers.
1981						155	GOB Dept of Statistics.
1985		24	21	45		45	Selected sample of households M. Mazebedi.
1987	33	116	104			210	Loermans.
1987	26			72	69	141	Saleshando, Nurse.
1987/88?	23			58	102	160	Unknown. In DLUPU office, Ghanzi.
1990					+/-	180	Smit, CODEC map of Bere.
1991						203	Forecast, CSO.
4th June, 1991						342	B. Daily News.

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4. REVIEW OF PREVIOUS DEVELOPMENTS AND SURVEYS

The initial developments, both successes and failures, at Bere have been amply described by Heinz, Wily, Childers et al. Begun as a private scheme, the settlement soon incorporated more public institutions, such as a school, health centre and other government services. Many projects have been brought to Bere; yet, few have sustained themselves through time. These projects, inter alia, include those centered around the rearing of chickens, tortoises, goats and cattle, the attraction of tourists and crafts, the collection and production of veldt products and the fencing and tillage of agricultural fields. Most of this development assistance has been designed, implemented, and staffed by outsiders.

Among continuing and successful projects are the school, the cooperative and craftmaking. Despite numerous problems the school

continues to educate students up to Standard Four. Upon completion of these studies, some students may continue their education by attending boarding schools at Xanagas and Kalkfontein. The cooperative has a shorter history and has been closed once to force creditors to pay. Craftmaking proceeds accrue according to individual sales, with occasional purchases by Ghanzicraft and sales to passing tourists.

A survey was conducted on Bere settlement in 1985 by a University of Botswana student, M. Mazebedi. His main objective was to determine the major needs and problems of the community. He interviewed 45 resident adults and 7 extension workers using a questionnaire. Only five of his interviewees were unmarried. Most claimed to be hunters and gatherers, twelve produced crafts, two claimed to be farmers and one was employed as a pump operator. Households averaged about five individuals. Those surveyed claimed no knowledge of the RADP Programme, and when pressed, some said that they expected free food from the programme. Although some were given free seed by the programme, few had planted any seed or cleared land. Only five had implements for farming. Eleven respondents possessed cattle (between one and four animals), whereas thirteen claimed to have goats (one to four goats). Twenty seven claimed to have horses and all those possessing stock responded that they planned to maintain them.

When asked to list their problems in order of priority and to mention those demanding immediate resolution, three quarters of the respondents wanted a craft shop. Some of those interviewed had no ideas to suggest for assistance. Most parents wanted the Government to extend the primary school from Standard Four to Standard Seven and claimed to be aware of the significance of a school education. According to this survey, drought was their main environmental problem and a lack of income generating activities their main economic problem. The problem identified by Government workers was the poor cooperation they received from residents. The report concludes that the development of agriculture was essential and that drought relief was no solution to the problem of how the settlement was to feed itself.

A social survey in 1989 conducted by Loermans was concerned whether households were headed by males or females. She estimated the population to be 220 in predominantly male headed, married, households. Her survey found that few adults had attended school and that more girls than boys were then attending the local school. Few people had moved outside of the district and their movements were mainly to other RAD settlements in Ghanzi and Kgalagadi Districts. Whereas a few adults were employed by the Roads Department, most claimed to be hunters and gatherers. About half possessed Special Game Licenses, and three respondents each claimed to have in their possession three Special Game Licenses.

An unknown person, whose main concern was health, conducted another community survey. The date of the survey is also uncertain, but probably took place in the late 1980s. This investigator estimated the population at 160, found most adults interviewed were married and most households headed by men. Most of those interviewed had not been to school and only six were engaged in some pastoral activities. Six adults were employed by Government; four by District Council. Most settlers had originated from Takatshwane. Of the 23 people interviewed, eighteen claimed to own livestock, twelve had land for farming, and one person had a cattle post. Most lived in Tswana type houses, a few continued to live in SeSarwa huts with intentions of improving them or building more permanent types. None had pit latrines; all mentioned that they would go to Ghanzi for medical problems.

Gary Childers spent two months (December 1981-February 1982) comparing institutional development in four RAD settlements. Most of his time was spent at West Hanahai, with shorter periods each in Xade, Kacgae and Bere. He provides a history of leadership and institutions at Bere which may be briefly summarized here. Each of the original bands of !Xo was led by an elderly man. Conflicts between the two bands settling at Bere under Dr. Heinz's sponsorship reinforced their separate identities so it became impossible to agree on a single leader. The rapid development approach adopted by Dr. Heinz necessitated that band members defer to him as the settlement's "headman". A highly dependent relationship developed between Dr. Heinz and Bere residents, hindering the growth of a more self reliant stance. Heinz also appointed his local wife as "headwoman" with the authority to make decisions in his absence. She was also the only shop owner, a role which further contradicted the egalitarian nature of band society.

Subsequent to Heinz's departure in 1975, there have been a number of attempts to foster institutions at Bere including that of headman, village councillor, PTA, Village Development Council, Kgotla Committee and Kgotla leader. According to Childers' review, all these institutions were either non functional or had only held a few meetings. He concluded that the top heavy manner in which these institutions were placed within the community had created an atmosphere of "cynicism and distrust of government and outsiders in general and appears to have provided a force for unifying the community". Despite this attitude which made cooperation with outsiders difficult at that time, Childers noted that this cynicism was an indication of solidarity and could lead to increased community control over its own affairs and decision-making, thereby leading to a greater degree of self-determination.

5. HUNTING HOUSEHOLDS IN BERE

The sociologists observed household activities and interviewed those who were identified as hunters, including their wives when present. Our sample of households was given us by a local resident, employed as the assistant pump operator, who accompanied us to identify where in the settlement each hunter lived. According to our guide, we failed to interview only two elderly hunters. One of these was out pursuing a group of gemsbok observed the previous day when he accompanied the wildlife group on a trek to find game. The other was cleaning the settlement for the anticipated visit of the Vice President and was unavailable for interview.

The severe drought of the late 1980s, combined with the Government's drought relief programme rendered hunting and gathering marginal as full time activities. Most, if not all Bere inhabitants, continue to practice hunting and gathering during times of the year when conditions are favourable. It is a fair assessment that many RADs now living permanently in settlements are still part-time hunter/gatherers, but the recent decreases in wildlife populations has rendered much of the knowledge and skills of the older men obsolete. The attendance of boys at school and their increasing ability to find employment has removed much of the need for fathers to pass onto their sons hunting skills and knowledge.

Some older hunters said they took their spouses with them when they went on stays extending several days in the bush. Younger hunters went in groups of two or three, unaccompanied by their spouses. Two younger men, who claimed their spouses were alcoholics, were experiencing marital difficulties with their spouses frequently returning to their parent's households. Other spouses observed at home were fetching water, knitting, cooking and making ostrich necklaces. Two groups of women, not married to our sample of hunters, said that they doubted if men would let them tan skins and prepare biltong.

Seventeen hunters were interviewed. Information obtained from these interviews are summarised in the table below.

The last two questions in the table require comment. Most men claimed not to have hunted since January, 1991 (A date taken for convenience as a reference point). The reasons given were that the game was too far away, was scarce (mostly given by older men), or that they had been too busily engaged in work or attending courses elsewhere (given by younger men). Two men said that they no longer possessed dogs to help them track game. Three claimed to have gone hunting on three occasions; only one of these claimed success. These forays had each lasted for several days. The last question sought to measure the level of consultation with hunters on decisions made for the Bere Wildlife Utilization Project which had been accepted by the District Council. About half had not heard

anything about the wildlife utilization scheme. If these answers can be accepted at face value, it casts doubt on local level involvement in the previous project planning and about the range of consultation among the local target group. When those who had heard about the project were further questioned as to what they knew about it, their answers showed that they were passive participants. Three appeared to have been involved in the initial discussions. One of these, a participant in a tanning course, said he wanted only to be a tanner and to hunt occasionally. Another wondered about having a project when wildlife was so scarce and far away.

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Summary of Information provided by Hunters at Bere

May 26-28, 1991

<u>Estimated age group</u>	under 40 years of age	9			
	over 40 years of age	8			
<u>Any schooling?</u>	Yes	3	<u>Current formal employment?</u>	Yes	7
	No	14		No	10
<u>Taught to hunt by:</u>	father	14	<u>Initial kill:</u>	steenbok	3
	grandfather	1		springhare	3
	maternal uncle	1		springbok	2
	stranger from Ghanzi	1		gemsbok	2
				forgot, no answer	7
<u>Familiar with/uses</u>	snares	10	<u>Total species killed</u>		
	dogs/spears	10		1-2 species	4
	bow and arrow	12		3-4 species	7
	rifle	1		5-6 species	4
	run down game	1		9 species	1
				?	1
<u>Familiar with hunting</u>			<u>Travel outside district/</u>		
<u>prescriptions?</u>	Yes	5	<u>taken courses?</u>	Yes	9
	No	9		No	5
	Don't know	3		?	3
<u>Former relative of Dr. Heinz?</u>	Yes	8			
	No	7			
	?	2			
<u>Hunted this year?</u>	Yes	7	<u>Heard about wildlife project?</u>	Yes	8
	No	10		No	9

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6. COMPARISONS BETWEEN HOUSEHOLDS AT BERE AND MAITLO-A-PHUDUHUDU

Our stay in Maitlho-a-Phuduhudu was only for a day. The team camped near the village along the Ncojane - Lone Tree road. Those in the settlement remained suspicious of the team's presence, a distrust compounded by their kill of a gemsbok the day before. Although the sociological team took kinship information from six adult males and ten adult females, their suspicions made it difficult to assess the other information which some of the individuals provided. For example, no man claimed to hunt or to have been trained to snare, or to use dogs. Yet there was evidence to the contrary that someone had done all of these. Women were more responsive to our inquiries about relationships and one gave us the names of ten (and would have given us more) roots and plants which she collects. This day of observations and interviews did allow some tentative comparisons with households observed in Bere.

Some men in these households had a long term association with a neighboring safari company and worked either as trackers, camp keepers, workers or as vendors of handicrafts to safari clients. The material benefits of these associations were visible in the possessions around each household, in the productiveness of adults and in the apparent nutritional condition of their children. Although the inhabitants of this settlement had been encouraged by Government to resettle in Bere, they had refused and consequently had not received any government aid or drought relief. Some families had close connections with those in Bere, some students attended school there and at least four young men worked as members of the road crew. The settlement claimed to have located in their territory prior to the settlement of Bere by Dr. Heinz. A few households lived in substantial mud and straw huts but most were temporary werfs. Those interviewed expressed no intention of moving elsewhere and seemed determined to maintain their present lifestyle.

7. HUNTING

Hunting in the proposed WMA (Maitlo-a-Phuduhudu) are confined to 3 principal types.

1. Subsistence hunting on Special Game Licenses by RADS.
2. Citizen hunting on DWNP quotas.
3. Safari hunting by non-resident hunters.

1. Subsistence hunting is practiced by RAD hunters from Bere and Maitlo-a-Phuduhudu. The majority of hunters use spears and dogs which generally limits their prey to gemsbok and the occasional duiker and steenbok. The gemsbok is the only species that will stand at bay when pursued by dogs, thereby

offering an opportunity for the hunters to spear the animal. Hunters advised us that when hunting gemsbok, the only time that they are able to retain the skin is when they have more than one donkey. The combined weight of the carcass plus the wet skin is too much for one donkey to carry. Dogs are unable to run down hartebeest or springbok. Horses were used in the past to hunt down eland, but the latter have disappeared from the area. There are probably a handful of elder men in the area that still use bows.

By mutual agreement, hunters tend to keep to their own hunting areas. The 2 hunters interviewed at Bere said that they usually went in a party of 2 or 3 hunters for a stay of 2 to 5 days in their hunting area which was 1.5 travelling days from Bere. Their most successful hunt was killing 3 gemsbok in 4 days by 2 hunters. Sometimes they might only kill 1 animal or even none. In the rainy season, wives with non-school children, might accompany them to gather veldt products and to cook. They would use the water in the pans at that time of the year, but when the hunters went alone in the dry season they would carry 5 litres. They said that they and their families would consume most of the meat, but that they might give some to relatives if requested or sell some.

At Maitlo-a-Phuduhudu, 1 hunter said they would go out in a party of 3 to 5 hunters for 2 or 3 days normally, but up to 10 days making biltong if they had killed several animals. Here, 1 hunter said, they usually took extra donkeys with them (some people own up to 5 donkeys). They would all return together rather than send some back with meat, skins and extra donkeys (perhaps suggesting that it was not difficult to get a full load in 2 to 3 days). They were likely to go hunting again between a week and a month later depending on the success of the previous hunt. They do sell meat to passersby and sometimes go to Bere and to sell meat there where they may then buy other foods.

Skins were treated in the bush by pegging them out in the sun (even for a day or two). When the hunters returned to Maitlo-a-Phuduhudu, they would scrape the skin clean if necessary. Then they would spread a mixture of brains and marrow fat on the skin leaving it for a day. Finally they would sprinkle a bit of water over it before folding it. Mats and carosses were made from thick skins while bags were made from smaller skins.

As the opportunities for a viable hunting and gathering lifestyle have diminished in rural areas, individuals have sought to take advantage of the Special Game Licenses issued by the DWNP. In the past few years, Ghanzi District has witnessed an explosion in the numbers of these special game licenses issued. For the District, the numbers of these

licenses have gone from about a hundred to over four hundred in 1990. This year the Ghanzi District DLUPU asked the Principal Game Warden and the Remote Area Dweller's Officer (RADO) to review the situation and revise the criteria for granting these licenses. In an effort to eliminate abuse, this committee suggested that those RADs living in settlements and having the following attributes should no longer be eligible for special licenses.

1. Those who have left villages and "pretend" to be RADs thereby seeking to use RAD privileges to enhance their livelihoods,
2. RADs owning 10 or more cattle or goats,
3. RADs formally employed by Government, Council or the private sector.

Furthermore, the committee was of the opinion that since the intent of the licence was to enhance household consumption, game killed on these licenses could not be sold.

The table below lists the numbers of Special Game Licenses issued for the Bere Community for the last few years. From our economic survey at Bere, it seems likely that if the committee's recommendations are approved as a basis for issuing licenses, then, fewer Bere residents will receive Special Licenses in the future.

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Special Game Licenses issued to Residents of Bere
for Controlled Hunting Area 29

Year	Number of Licenses

1988-89	21
1989-90	4
1990-91	28

(Source: Principal Game Warden, Ghanzi)

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2. Citizen hunting. Local hunters said that they have not encountered citizen hunters for the last 2 years. Statistics on citizen permits for CHA 29 were not available at DWNP in Ghanzi.

3. Safari hunting. Safari South has the present concession for CHA 29. The concessionaire has established a camp near the village of Maitlo-a-Phuduhudu. Questions to the camp staff elicited the information that 3 safaris had been conducted this year and that they had been successful in taking gemsbok, hartebeest and springbok, but not lion or leopard. Any scarcity or wariness of game in the CHA is always attributed, by locals, to the presence of "safari firms". Safari South employs 3 locals as guides/trackers.

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1991 - SEASON'S QUOTA

CHA 29		
Species	Citizen	Non-Resident
Duiker	400	10
Gemsbok	-	40
Hartebeest	-	20
Kudu	-	10
Leopard	-	3
Lion	-	2
Ostrich	-	20
Steenbok	400	10
Springbok	180	50

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8. **WILDLIFE POPULATION FIGURES**

Aerial surveys were conducted by DHV in 1978 and 1979 and by DWNP in 1986, 87, 89 and 1990 for CHA 29. Declines for all wildlife species from 1978 to date are apparent. Contributing factors for this decline are postulated as:

- 1) Mortality from the effects of the recent drought.
- 2) Erection of veterinary fences resulting in deaths of animals unable to use their seasonal migration routes causing wildlife deaths by strangulation at fences and the concentration of animals on inadequate resources.
- 3) Increases in the numbers of domestic stock through the creation of ranches and cattle posts have reduced the carrying capacity of the range for wildlife.

ESTIMATED NUMBERS OF ANIMALS IN C.H.A. 29

SPECIES	19 78 AUG.	DEC.	1979 MARCH	1986 OCT.	19 87 MARCH	JUL./AUG.	1989 OCT.	19 90 APRIL	NOV.
ELAND	100	43	90						
DUIKER				2620	2500	3540			1820
HARTEBEEST	24000	19174	21413	560	680	7180	1187	1756	(rain)
GEMSBOK	4200	7812	4680	740	1920	4280	2422	2608	360
JACKAL					400	340			
KUDU	565	1044	452	100	240	140	160	232	233
OSTRICH	10000	5978	9590	1480	2180	2040	2614	2893	1675
SPRINGBOK	10500	33937	8858	3260	19660	15580	6159	2376	551
STEENBOK				1060	300	2360			445
WILDEBEEST	76500	57922	210714	2000	740	1000	5052	1704	(rain)
HORSE				1900	1100	3760			1399
DONKEY				1440	1820	2680			890
SHOATS				7260	6600	6900			8692
CATTLE				22560	12260	33700			28070

In correspondence with the Ghanzi Council, the Wildlife Biologist, DWNP noted that the WMA was "relatively highly stocked at 28.8% of carrying capacity".

When comparing data for migratory species, counts should be compared from similar times of the year. Counts for hartebeest, springbok and wildebeest in November 1990 show a marked decline in comparison to population estimates for these species in the October 1989 counts. It is believed that the first rains of the season fell in the area just prior to the November 1990 counts. Such a coincidence would account for the absence or decline of these species as their migration movements are triggered by the first rains of the season.

On 3 occasions, local hunters led us to their normal hunting areas so that we could get an impression of the relative stocking of game. We travelled 38 kgs west of Bere to Madakhau and then Xhoogi pans, seeing almost no fresh sign along the way but sighting 3 gemsbok and 12 ostrich at the latter pan. On the return to Bere the next morning, we saw 1 duiker and 2 steenbok, but again, little sign along the way.

In the Maitlo-a-Phuduhudu area we made 2 trips. Heading west, 75 kgs along the Ncojane Rd, we saw 4 steenbok, 4 hartebeest and 5 ostrich. Fresh signs along the way included 36 hartebeest, 11 wildebeest, 2 kudu and 6 ostrich. Turning south at the Ranyane borehole, we travelled 20 kgs to Ngwamasis pan, sighting 1 duiker and about 50 springbok in widely scattered small groups plus abundant fresh sign of more. At the pan were fresh signs of springbok, hartebeest, wildebeest, gemsbok and ostrich. On a final trip of 38 kgs SE of Maitlo-a-Phuduhudu, we saw 468 springbok, 6 hartebeest and 10 ostrich. In addition to fresh signs of other wildlife. From these 3 trips it was apparent that game was relatively scarce near Bere compared to the area around Maitlo-a-Phuduhudu.

9. REVIEW OF CURRENT ECONOMIC ACTIVITIES

In 1984 the D.O.L. in Ghanzi reported that the populations in Ghanzi District settlements did not consider drought relief food as an additional food supply but as their major food source. It was evident that more and more people, instead of going out to hunt or collect veldt foods, were preferring to sit and wait until the next food rations arrived.

When relief supplies are finally discontinued this dependency will generate problems with regard to taking up other economic activities. Many RADs are despondent and believe that as the Government brought them to the settlements, it is the Government's duty to look after them.

The relative economic and physical isolation of these communities is likely to be affected by new externally generated economic activities led by an expansion in western Botswana's road network. The Feasibility and Preliminary Engineering Study of the Secoma-Ghanzi-Mamuno Road outlines a number of effects that the road is expected to have in the area. These effects need to be considered by all those interested in land use and economic activity. (Final report, annex 1, Socio-Economic analyses and Environmental Impact Assessment. VIAK, ADB, November 1989):

- a) The expansion of animal husbandry and of overgrazing in communal areas.
- b) Depletion of wildlife and veldt food resources as a result of the increased encroachment of cattle and human settlement.
- c) An increase in the purchasing power of the majority of the population, but not of the very poor.
- d) An improvement in a wide range of social and administrative services which will benefit all income groups.
- e) The marginalisation of RADs and poor people will continue unless remedial action is taken despite d) above.
- f) The impact of the road on hunting is likely to cause the transfer of a greater proportion of the citizen hunting quota to persons from outside the area. Subsistence hunting will therefore decline.
- g) The road could provide a major stimulus to tourism. Tourists will require petrol, food and drink supplies and they offer a potential market for camping sites and simple facilities at RAD settlements.
- h) Some further commercialisation of gathered products may follow the construction of a better road. Lowered transport costs may make exploitation of grapple, truffles and thatching grass viable over a wide area.

At the present time opportunities for the development of rural industries in the remote rural settlements are limited because of a general resource scarcity and particularly because of a heavy reliance on craft production and wildlife products. In particular tannery groups appear to be characterised by a high incidence of failure. Reasons given for these failures are raw material shortages and poor management (J.I. Barnes 1987). Kaye (1982) and White (1986) pointed out that the products of these enterprises, which use vegetable tanning techniques, are inferior to those of the larger scale urban producers.

Craft production in Ghanzi District is an important source of income for RADs. Ghanzicraft was established in 1983 to stimulate local production. A shop was opened in the town of Ghanzi as a selling point for crafts, and to provide quality control and marketing advice. The main aim of Ghanzicraft is to maximise returns to local craft producers by its virtual monopoly (with the exception of the !Kung San producers in Maun) in the marketing and distribution of traditional Botswana Bushman crafts.

Originally Ghanzicraft sold crafts on consignment, with a surcharge of 10% to cover operating costs. This allocation had its limitations as many producers found it difficult to travel the long distances to Ghanzi and often could not wait for payment. This scheme was replaced in October 1988 by direct purchases from settlement producers and sales from the Ghanzi shop and elsewhere, at a 40% mark-up.

Purchases from the 500 producers in the District for the year 1989/90 totaled P.94,199.72. The Ghanzi shop sold 22% of this amount. Exports to the USA and Namibia amounted to 11%. The remainder was sold within Botswana to safari lodges and camps, curio shops and museums in Maun, Francistown, Mochudi and Gaborone.

Crafts produced in Bere are ostrich egg shell necklaces, bracelets and head bands, some glass bead work, music bows, thumb pianos and hunting sets. Both men and women are involved; the women making jewellery and the men producing musical instruments, hunting sets and skin bags.

Much of the work is shared among family members; for example, while one woman works on chipping and drilling ostrich egg shells, another rounds, smooths and threads them on sinew. Men divide work in much the same way with some specialising in metal work, others making bows and arrow shafts, with still others tanning and stitching leather goods.

The raw materials used in craft manufacture are gathered from the veldt, from ostrich nests and from hunted or snared wildlife. Some craft workers interviewed claimed that due to shortages, especially of game skins and ostrich eggs, they were obliged to buy from people living in other areas. Others said that during the rains ostrich eggs were reasonably plentiful. At that season, they rob nesting scrapes and carry the eggs back to Bere for food. Later, they use the shells for beads. All women making egg shell beads claimed that they were working then on the last material for the year. 'Foreign' material used are fencing wire, for the production of arrow and spear heads, and metal zips for skin bags.

Ghanzicraft have been associated with Bere producers since the shop was first established and is considering employing the Bere co-op shop manageress. The employment of a local buyer would encourage local production since producers could convert their crafts into

currency immediately upon completion.

Bere craft workers are almost entirely dependant on Ghanzicraft as a sales outlet. Ghanzicraft visits the settlement once a month and during the 1989-90 year purchased goods amounting to P.1,134. Craft workers with large families said that their income from Ghanzicraft was not sufficient to cover their monthly food requirements. Those with smaller families said they met their food requirements and were not adversely affected by shortages in raw materials.

Two applications for Financial Assistance grants from the Bere community have been successful. The first grant was to a Women's Sewing group in March 1988. Of the investment of P.1,686, the group of eight women contributed P.337. The group are not operating currently since their sewing machine is broken.

The second grant went to a blacksmith. This project met the FAP conditions and was approved in November 1990. The total investment being P.1,390, with the grantee contributing P.382. He now works on the roads and only occasionally as a blacksmith. There are currently applications from a carpenter and from a leather work/shoemaker.

10. LIVESTOCK OWNERSHIP

When Dr Heinz left in 1975, the management of livestock at Bere declined. Cattle were eaten, sold and exchanged until few remained. Shortly thereafter, the community became dependent on food donations and drought relief labour projects.

To reduce this dependance on drought relief, the Ghanzi District Council established a cattle scheme for RADs in 1988. To date, 19 households have been issued with 57 cows. Each household was issued with three cows for a period of three years, thereupon the original stock are returned to Council for further loans with the progeny remaining the property of the first household. It was impossible from our interviews to establish how well the scheme was working. When asked, many denied their participation even when their names were on the Council's list as recipients. Others claimed that the cattle allocated to them had not yet arrived. Respondents gave conflicting answers to questions relating to cattle and small stock in their possession. It was also difficult to count Council cattle as many were left out at night. Some cattle were unbranded and large numbers from neighbouring areas used the settlement's water trough.

The veterinary department's livestock census of 8th February 1991 counted the following stock numbers:

Improved Bulls	2	Goats	100
Steers	15	Horses	5
Oxen	2	Donkeys	37
Bull calves	8	Dogs	17
Cows	28		===
Heifers	33	Total	157
Heifer calves	12		
	===		
Total	100*		

* The veterinary officer was informed that 34 cattle remained at large.

THE BERE CO-OPERATIVE STORE

Dr Heinz's Masarwa wife established a general dealership to serve the community. When Heinz left Bere this operation collapsed. For sometime thereafter the settlement depended on mobile hawkers, who periodically visited the area. Residents also travelled to Ghanzi to make their purchases. With the help of the co-operative movement, the settlement opened the present co-operative store on 16th June 1987. Today there are also vendors operating in the village. The Village Development Committee (VDC) is responsible for running the shop. The Co-operative staff from Ghanzi pay regular visits to inspect accounting books and to advise on how operations could be improved. Tirelo Setchaba has attached a school leaver to the store to assist the local managers with day to day operations.

The Co-op has 20 members. These members get a bonus at the end of each financial year based on their purchases. The mark up for goods varies from 20-40%. The shop sells mainly consumer goods - sugar, salt, tea, tobacco and radio batteries.

Until recently store goods were given on credit. This seriously affected the operation as most goods were not accounted for and tracing the defaulters was difficult. Oasis wholesale store in Ghanzi supplies the Co-op with stock and sells goods on credit. It charges interest on arrears. From September 1989 to June 1990, the shop was closed as it was unable to pay Oasis wholesalers the sum of P.1,256.22. The Botswana Christian Council donated the outstanding sum of P.19,000 to the Co-op to clear this debt and to provide additional working capital. The store's debtors were also ordered to settle their debts, yet some have not done so. At the end of June 1990 the co-op had P.3,594 credited in its account. It is unclear whether this sum was generated by sales, profits or if it is the residue of donated funds.

The Co-op's cash flow was impossible to gauge because of poor book keeping practices. Yet some information suggested that the Co-op shop has been running at a loss and remains dependent upon subsidies. The Co-op's monthly purchases are estimated at P.1,400.

The Co-operative provides an important service for the Bere community. It provides residents with an alternative to hawkers and saves travelling to the main commercial center of Ghanzi. Lack of qualified management contributes to the financial losses incurred by the shop. The Co-operative movement could organise courses to cover basic book keeping and co-operative education for co-op shop managers and closely monitor transactions. There are a few Form 2 and Standard 7 school leavers in the village who would be suitable candidates for such courses. The Co-op's activities could be extended to include craft marketing and vegetable production.

12. EMPLOYMENT AND ECONOMIC OPPORTUNITY

The economists sought to determine the numbers of those formally employed in Bere and of those who had some means of supporting themselves in the informal sector. Those employed in the formal sector, mostly government officers, was determined by interview. The numbers for the informal sector were provided by the RADO office in Ghanzi.

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ECONOMICALLY ACTIVE POPULATION OF BERE BY WORKER STATUS, MAY 1991

EMPLOYMENT	Number	%
<u>Formal</u>		
Government	17	43
Co-operative	2	5
Mission Church	2	5
Roads Department	16	40
School Cook, Pumper	3	7
Totals	40	100
<u>Informal</u>		
Sewing enterprise	5	6
Craft Production	22	30
Tannery	3	4
Vending	2	3
Brewing	2	3
Farm Labour	40	54
Totals	74	100

NB. Informal sector contributes a third of minimum wages.

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13. CONCLUSIONS

1. A literature review and a 10 day team visit to the Ghanzi and Bere area failed to accumulate sufficient, reliable base line data to allow the team to submit valid assessments on the viability of the proposed wildlife utilization project at Bere. The sociological information is not recent enough to assist in project design or implementation. The methodologies used to gather information on the community were mainly untested questionnaires focussing on topics of interest to the researchers. For a natural resources project, a more protracted and detailed baseline survey focusing on household activities, organization and economy would be valuable.
2. The potential population of beneficiaries of a natural resources utilisation project should include the main groups living in the proposed Maitlo-a-Phuduhudu Wildlife Management Area and should not be restricted to Bere settlement. The status of the Maitlo-a-Phuduhudu community needs to be ascertained so that a project can cover this self-sufficient and informally settled group whose access to game and tradition of exploiting it appears greater than that at Bere.

The interviews conducted by the NRMP team depict certain characteristics of Bere's hunters with which any wildlife utilisation project will have to contend. First, few hunters have any formal schooling and most of their hunting skills and methodologies are oriented towards local consumption rather than towards a market. Only one claimed any facility with a rifle, a weapon which he did not own. These characteristics imply a need for protracted, hands on, training and continuous monitoring in firearms use and in the preparation of skins and meat for market. Bookish approaches will probably have little utility.

3. Hunting households are found in both major cultural divides (the Naro and Xhong) in the settlement. Attention must be paid to the possible consequences stemming from how the hunting groups are composed. Should hunters from each of these divides be placed within the same group, or should they be kept separate? Would it make any difference? Most hunters (12) claimed to have killed only four species; that is hartebeest, gemsbok, steenbok and springbok. Some of the older men could extend this list to include eland, lion, antbear and leopard, amongst others. Such a short list of prey may suggest a specialization stemming from methods of take, of declines of formerly occurring species or of hunter interest.

4. The low wildlife and limited grazing resource around Bere is in contrast to their relative abundance around Maitlo-a-Phuduhudu.
5. Links between Maitlo-a-Phuduhudu as a source of primary produce and Bere as a community with more processing and marketing facilities should be further explored.
6. Until more creditable census data is to hand, it is difficult to assess the options for a utilization project, of which there could be several, e.g.:
 - a) Village hunters trained and hunting commercially for meat, biltong and skins, as at the Western Ngwaketse operation.
 - b) Safari company leasing the area and paying rent and a proportion of trophy fees to the villagers. Local villagers carry on their own hunting at the present subsistence level.
 - c) as in (b), but if the wildlife census shows springbok populations in sufficient numbers, the safari company could be instructed to supply vehicles and marksmen for culling a predetermined number of springbok. Local RADs would participate in skinning, preparing biltong and transporting. The meat etc., would be given to the participating settlements.
7. The Bere settlement is short of capable managers.
8. Bere craft producers consider their main problems to be:
 - a) shortages of Mositsane root (Elephantorrhiza elephantina),
 - b) lack of transport
 - c) shortage of working capital
 - d) shortages of equipment
 - e) shortages of raw materials
 - f) numeracy and marketing problems
9. The community has a 25 year history of livestock ownership. Economic development will need to encourage and monitor herd expansion at the same time as a natural resources utilisation project is being developed.
10. The availability of water offers economic opportunities in agriculture that are as yet undeveloped.
11. The construction of the Trans Kalahari Road should provide many opportunities for tourist development and the sale of crafts and other veldt products.

14. RECOMMENDATIONS

A. INFORMATION

1. The deficiency in baseline data for the WMA must be rectified before it can be determined whether a useful project can be developed.

Wildlife

It is necessary to assess the wildlife populations of the area in order to decide whether they could support a sustained yield harvesting programme. A detailed and site specific census of animal populations and their distributions in the area for all seasons is required. It is suggested that:

- A. Aerial surveys be conducted during the following months:-
 - i. July/August 1991,
 - ii. October/November 1991 (timed to coincide with the onset of the first rains),
 - iii. March/April 1992.

This recommendation is based upon the following assumptions:

- a. That these surveys should be non-random transects of the CHA.
- b. Standard Error (SE) would be considerably reduced by increasing the number of surveys from the present 1 flight, to at least 4 consecutive flights (i.e., 4 independent counts per survey, using a different randomly selected starting point from which the transects would be evenly spaced). Flights shall be flown on consecutive days.
- c. A SE of an estimate calculated across a number of surveys is a better measure of the repeatability of that estimate than a SE derived from the variability of a single survey.
- d. Increasing the intensity of a single survey does not permit direct comparison between surveys, as does the increase in the number of surveys.

These aerial surveys would be combined with:

- i. Stratified counts in blocks where prior knowledge indicates higher concentrations of springbok. (Since springbok congregate in local sites,

randomized flights are unlikely to provide good estimates of their number).

- ii. Ground surveys providing an additional assessment for comparisons. Estimates could be made at intervals from the same tracts.
- iii. Inclusion in future lease agreements with safari companies, a stipulation that the company is responsible for providing information on total animals encountered during its hunts. These counts would be based upon methods mutually agreed upon by DWNP and the contracting safari company.

B. Dialogue with safari companies be opened to ascertain their need to retain hunting rights in the area and their support for utilization and monitoring projects. Safari companies will need to be approached and their views obtained on:

- i. the incorporation in future lease agreements between themselves and the Council, of payment of trophy fees to the local community, and rent in one form or another to the Council.
- ii. supplying assistance in the form of personnel and vehicles for the cropping of springbok should the quota justify this, with the subsequent donation of the carcasses to the community.
- iii. a requirement of the lease of the company be to undertake annual aerial surveys using census methods approved by DWNP and monitored by them.

C. An assessment by the DWNP Research Division on the condition of the range in the WMA, in relation to the present non-burning regime, and its relevance to the distribution of wildlife in the area; and the possible effects on the fauna and flora of the area should permanent water points be established for wildlife.

Socio-economic information

Further information is needed. It is recommended that this process will require the consistent presence of someone in the area capable of responding to a set of terms of reference generated by DWNP, the NRMP and those concerned at the District level.

It is envisaged that the time required to collect base-line data for the socio-economic studies would be a 1 year period. The first set of aerial surveys would be completed by Mar/Apr 1992 and should provide sufficient data to propose creditable offtake figures for

a wildlife utilization project, and it is suggested that Research Division DWNP could complete their assessments within this period.

B GHANZI DISTRICT COUNCIL

1. Council is recommended to accept that any project in the proposed WMA should cover the whole area and not just the settled community at Bere. The status of the community at Maitlo-a-Phuduhudu therefore needs to be clarified.
2. Council is recommended to support partnerships or other collaborative arrangements between Safari operators and communities. Council should confirm that any hunting ban will not affect the development of a project in this proposed WMA.
3. Council is recommended to accept that more information is needed to help ensure that the current proposals can be effectively implemented to provide the benefits envisaged and that it may therefore be advisable to delay full project start up until the next hunting season.
4. Council is recommended to seek appropriate support from government or non-government sources for the generation of the appropriate socio-economic data.
5. Council is recommended to encourage the Co-operative movement to provide greater institutional support to its shop at Bere.

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