

**A REPORT
OF THE
SOCIO-ECOLOGICAL
SURVEY OF THE
OKAVANGO RIVER BASIN**

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Acknowledgement

The *Every River has its People* project was developed and implemented in support of the Okavango river basin work being promoted and conducted by OKACOM, a permanent Okavango River Basin Commission established by the governments of the three basin countries of Angola, Botswana and Namibia.

OKACOM has decided to develop an integrated basin-wide management plan to guide the future development and management of the basin, which is one of the most important transboundary natural resources in the region. One of the expressed goals of OKACOM, and one of the key recommendations from the first phase of their work, is that stakeholders – and particularly those living in the basin and dependent on the natural resources of the basin – should have an opportunity to be involved in upcoming phases of OKACOM's work. OKACOM has stated that “the success of the planning exercise will depend on stakeholders as much as on the efforts of government and specialists” and that “stakeholders’ positive collaboration has to be formalised at an early stage”.

The acknowledged need for stakeholder participation in the OKACOM planning process is based on the sound principle that long-term sustainable development is based on reconciling social, economic and ecological objectives, and developing options that meet the needs of different countries and stakeholders in optimal ways. To this end, OKACOM has recognised that civil society has an important role to play, and that non-governmental organisations can assist the process as valuable partners.

The *Every River has its People* Project is thus a partnership between the implementing NGOs and OKACOM. OKACOM is hereby acknowledged for creating a supportive and enabling environment for this project to be carried out, and for giving advice and guidance.

Executive Summary

This is a report of the socio-ecological survey of the Botswana component of the Regional project “Every River Has Its people”. The report presents views, opinions, and experiences of communities and other development stakeholders on conservation, utilization and the status of natural resources of the Okavango region. The report outlines the scope of the socio-ecological survey and provides a description of the data collection tools and activities. A brief description of the Okavango Region, and the delta is provided as background information reading. This is followed by a discussion of the key findings and observations. The report ends by giving recommendations for future action by the project partners.

The overall goal of the “Every River Has its People” Project is to: *Promote the sustainable management of natural resources of the Okavango River Basin for the benefit of the basin residents and states through promoting and facilitating the effective participation of basin stakeholders in natural resource decision making and management, particularly those related to water resources.*

The survey was therefore conducted in order to provide information and data that will assist the project partners to achieve the project goal. Further, the results of the survey are meant to provide information that will contribute to the development of mechanisms and activities which will facilitate the implementation of projects in order to increase the capacity of local level communities and other stakeholders to participate in decision making on the conservation and utilization of natural resources of the Okavango River Basin. In particular, it is envisaged that appropriate information, educational, and capacity building mechanisms will be developed during the second and third phases of the project. These mechanisms should strengthen the link between local, district and national level stakeholders on the use and management of natural resources of the Okavango River Basin.

The survey was conducted between November 2000 and March 2001. The survey methodology was highly interactive consisting of household interviews, focus groups, and key informant interviews. The survey involved 646 household interviews spread over 20 villages in the Okavango Region. Interviews were also conducted at district level with various stakeholder organisations and individuals, at the level of government, the private sector and civil society. The primary data that was collected was complemented by a review of relevant documents.

The following is a presentation of the major findings of the report:

- Communities of the Okavango Region in Botswana are generally aware of the area that is referred in the present report as the Okavango River Basin. Communities are also aware that the Okavango River originates in Angola, and passes through Namibia into Botswana. It is precisely for that reason that some of the community responses on the decline of water volume in the Okavango River

are based on perceptions that the Okavango River has been dammed upstream in Angola and Namibia.

- Communities rely heavily on the natural resources of the Okavango River Basin, and the continued existence of natural resources in this area is central to the sustenance of livelihoods options in the Okavango Region.
- Overall, communities are witnessing a decline in the quality and availability of natural resources of the Okavango River Basin. This decline is attributed to a number of reasons. One of the main and perhaps the most important reason for the present survey is that it does not appear that there are guidelines for natural resource utilization and management. Besides that, the roles and responsibilities of communities towards conservation of natural resources of the Okavango River Basin, as with those of other stakeholders, have not been clearly defined.
- While communities view themselves as holding some knowledge in conservation of natural resources, they also think that there has not been a deliberate effort to balance traditional and modern and/or scientific methods of conservation of natural resources. The lack of balance between the two, constitute an information and capacity building gap.
- There is no shared understanding and vision on the management and utilization of natural resources of the Okavango River Basin. Every other stakeholder uses natural resources of the Okavango River Basin according to their needs and aspirations, but not according to any set criteria of natural resources utilization.
- There is need to develop a clear organizational, communication and development link between local institutions, on the one hand, and district and national institutions, on the other hand. This is precisely because the link between local institutions, district and national level institutions is weak and would need to be strengthened as part of the information and capacity building initiatives of the overall project. The development of clear linkages between communities and other stakeholders could facilitate recognition of the role played by communities in natural resources management.
- There exists a platform to facilitate a shared understanding and vision on the management of natural resources of the Okavango River Basin. The results of the stakeholders' forum indicate that communities, the government, the private sector and civil society institutions are ready to participate in this initiative.
- Currently, the role of communities in the utilization and management of natural resources of the Okavango River Basin is not sound and meaningful, even with the implementation of the Community Based Strategy for Natural Resources. Communities do not have full decision-making powers on resources around them, and the benefits of community Based Natural Resources have not yet reached the household level in a manner that could satisfactorily address poverty and unemployment. This may be a result of the fact that private-individual enterprising in CBRNM has not been encouraged over the years.

CHAPTER ONE

INTRODUCTION

1. INTRODUCTION

This report is a result of a socio-ecological survey conducted in Ngamiland, on the Okavango River Basin. Socio-ecological surveys are normally referred to as surveys that investigate the relationship between people and the environment around them. The report was commissioned by the Kalahari Conservation Society as a national component of the regional project “Every River Has Its people”. This regional project covers Namibia, Botswana and Angola. The present report therefore only covers Botswana.

The goal for the “Every River Has People” project is to:

Promote the sustainable management of natural resources of the Okavango River Basin for the benefit of the basin residents and states through promoting and facilitating the effective participation of basin stakeholders in natural resource decision making and management, particularly those related to water resources

The project has two objectives, which are;

to increase the capacity of communities and other stakeholders to participate effectively in decision making about natural resources of the okavango River Basin, particularly those related to water resources, at the local, national and regional level.

And;

to develop mechanisms to promote and facilitate the participation of communities and other local stakeholders, in natural resources management and decision-making, particularly those related to water, at local, national, and regional level.

The present survey is meant to contribute and lay a foundation for the realization of the overall project goal and project objectives at the same time. The results on the views, opinions, and experiences of communities and other stakeholders on conservation and utilization of natural resources of the Okavango Region should facilitate the development of appropriate information, educational, and capacity building mechanisms. These mechanisms should increase the link between local, district and national level stakeholders on the use and management of natural resources of the Okavango River Basin.

The survey focused on the following main areas:

- The relationship between people and their environment, particularly the Okavango River Basin
- Cultural and Religious aspects of Natural Resources to the people of the Okavango Region.
- Perceptions on the status of the Okavango River Basin and its Natural Resources
- Perceptions on the rights over use of natural resources of the Okavango River Basin, particularly between Riparian communities and Non-riparian communities

- The desired future status of natural resources of the Okavango River Basin
- The existence of community institutions and their roles and responsibilities
- Whether or not there is a shared understanding and vision over the use of the Okavango River Basin

In presenting the survey results, particularly chapter three and four, the consultants have tried as much as possible, to follow the framework suggested by the summarized Terms of Reference.

The report highlights important emerging trends in respect to the use of natural resources around the Okavango River Basin. Some comparisons between household interviews, key informant interviews and district level interviews are made where there appears to be polarized views on specific issues regarding the utilization and management of the natural resources of the Okavango River Basin. Comparisons on the use and perceptions on the status of natural resources are also made between riparian and non-riparian were appropriate.

1.1 Conceptual Framework for Socio-ecological Surveys

Socio-ecological surveys are surveys designed to investigate the relationship between people and the environment around them. The world is generating a renewed interest in the relationship between people and the environment. The main reason for the renewed interest is because of the practical link, which exists between the behavior of people with respect to the environment, and the extent to which the environment could be conserved. This link has some conations to the concept of sustainable development, particularly the role that local level communities could play in the management and sustainable utilization of natural

resources. Sustainable natural resources management presupposes the presence of a shared vision, and that multiple stakeholders will participate in the conservation and/or sustainable utilization of natural resources because they stand to benefit. It is at this point, that the role of local communities becomes even more important, for the main reason that a balance has to be achieved between conservation and improved livelihoods. The desire to achieve this balance by development agents has led to the encouragement of communities living with natural resources to benefit from resources around them. The balance between the two should improve the standards of living for the present generation, and create a good chance for future generations to make a living from the same natural resources. This balance is what is referred to as “sustainable natural resources management and utilization”. Socio-ecological surveys have become an important mechanism towards facilitating sustainable natural resources utilization and management by local communities. One of the ways through which local communities have participated in the management and utilization of natural resources around them is through the Community Based Natural Resources Management (CBNRM)¹ programme.

Socio-ecological surveys are therefore conducted for two main reasons. The first reason is that they are meant to investigate whether or not there exist a balance between the actions of people towards improving their standards of living, and the ability of natural resources to re-generate. The second, and perhaps the most important reason why socio-ecological surveys are conducted, is that they are supposed to generate ways in which a shared vision towards the management of

¹ CBNRM is a programme designed to mitigate against the economic and social costs of people living with natural resources, particularly wildlife. The programme allows communities to accrue benefits for co-existing with natural resources, by providing communities with the opportunity to participate in decision-making around the management and utilization of these natural resources. In respect of wildlife for example, communities living with wildlife are given hunting quotas, and they decide how they can generate some benefits from such hunting quotas.

natural resources could be reached by natural resource users and other stakeholders.

1.2. BACKGROUND TO THE OKAVANGO RIVER BASIN

1.2.1 The Okavango River Basin

The Okavango River runs from Angola through Namibia and into Botswana. The River enters Botswana at Mohembo, in Shakawe, at the Boarder between Namibia and Botswana [see figure 3].

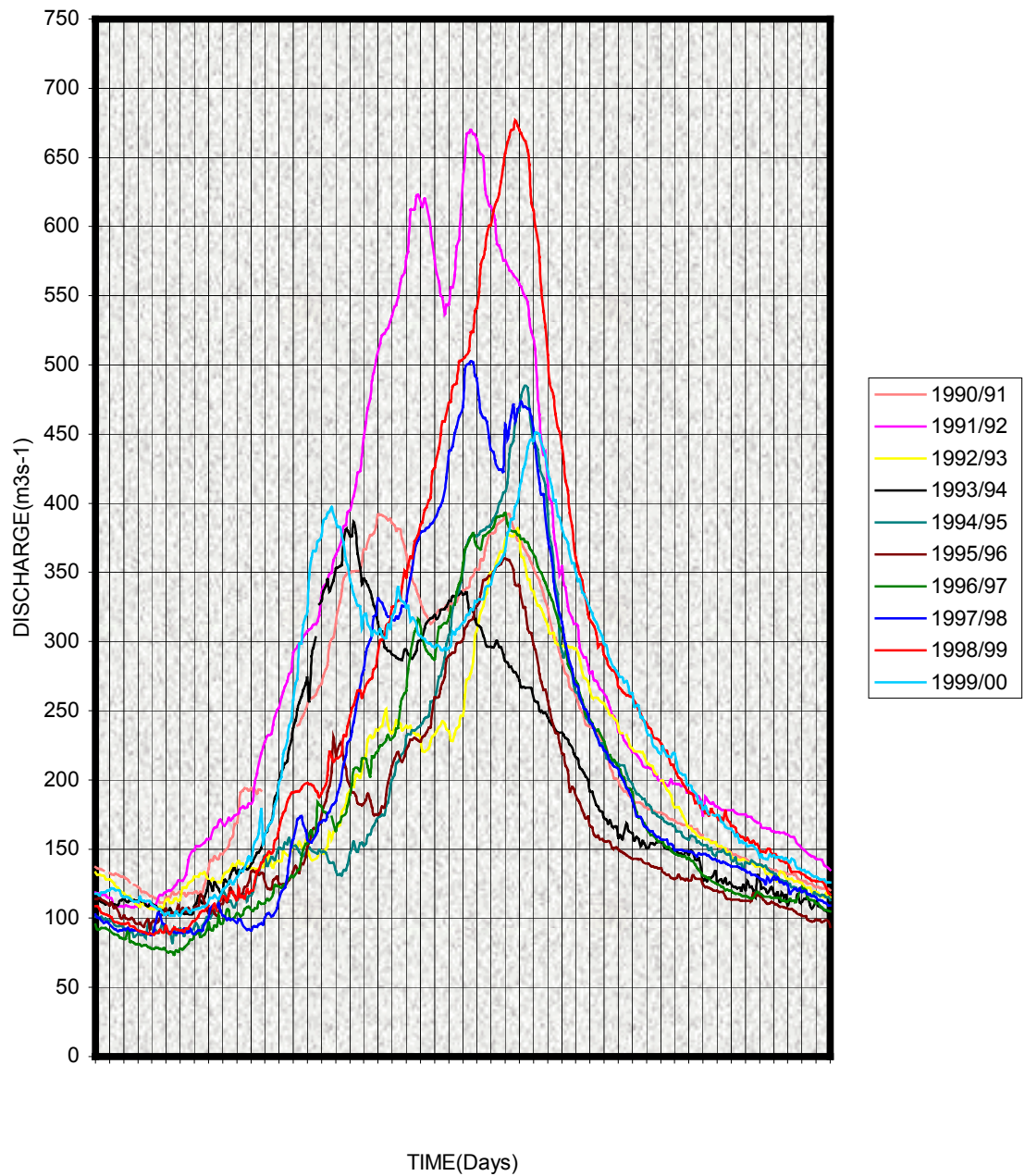
Angola, the country from which the Okavango River originates, experiences a humid climate because of its close proximity to the equator. As a result of its proximity to the equator, Angola receives rainfall through out the year, particularly around Huambo and Kuito highlands. Huambo and Kuito highlands are the main catchment areas of the Okavango River.

The Okavango River basin forms part of a larger northern drainage system of Botswana, which includes the Chobe and Linyanti River basins. Figure 1 shows results of water inflow monitoring at Mohembo, conducted by the Department of Water Affairs. It is estimated that the Okavango River has an annual inflow of about 80 m³ s⁻¹ to 680 m³ s⁻¹ per annum. The inflow varies between the years, in response to rainfall levels at the highlands regions of Huambo and Kuito. In general, high levels of rainfall result in high inflow peaks at Mohembo, while low rainfall levels will result in low inflow peaks. According to figure 1, the highest concentration of inflow peaks happens between December and June of each year. Heavy inflows shown for the years 1991/92 and 1998/99 were probably due to heavy rains in Angola. The Okavango River inflow is estimated to carry sediment load of 0.66 million tons, and sediment load varies over the years. It has been reported that sediments contribute to changes occurring in the form of the Okavango River and the Delta.

The Okavango River is one of the most fragile environmental sites of the world. Some people refer to the Okavango River as the “mantle of Africa” while others refer to it as the “last of Africa’s heritage”. Once in Botswana, the Okavango River runs for a distance of about 110 kilometers before it spreads out into the swamps and lagoons to form what is commonly known as the Okavango Delta. Considerable water losses happen within the Delta itself. According to a report prepared by FAO on behalf of UNDP for the Government of Botswana, ‘Investigation of the Okavango River as a Primary Water Resource for Botswana, 1997’, it was estimated that 95% of the inflow is lost through evaporation, and the rest is used for tourist activities, by wildlife populations, and for national development work, particularly construction, and for domestic uses such as watering of cattle, and for drinking and washing. This view is supported by Snowy Mountains Engineering Corporation (1987), who also argue that considerable water losses happen at the upper parts of the Delta.

In concluding this section, it is important to note that the variation in annual inflows experienced by the Okavango River at Mohembo, can be explained by the fact that the catchments area in Angola seem to respond rapidly to rainfall, and that the decline could be explained by the lack of storage in the drainage system itself.

FIGURE 1: OKAVANGO RIVER AT MOHEMBO HYDROGRAPHS



Source: Department of Water Affairs internal files, 2001

There are a number of theories on how best the Okavango River Basin and the natural resources around it could be sustained into the future. Two of these

theories are important for the present survey and each one of them is discussed in turn.

On the one hand, there are those who believe that the Okavango River and its natural resources should be left alone. On the other hand, others believe that the Okavango River and its natural resources should be utilized sustainably to meet the felt needs of the present generation without jeopardizing the chances of the future generations to meet theirs. The former view is not consistent with the views of communities as expressed during the survey. Communities would prefer sustainable utilization as opposed to preservation.

The Okavango River Basin in Botswana may be divided into two distinct areas: The panhandle and the Delta itself. A brief description of each one of them is presented below.

1.2.2 The Panhandle

The panhandle begins at Mehembo, where the River enters Botswana. At this point the river is well defined with flood plains running adjacent the main river channel. This area is home to a variety of natural resources and supports some socio-economic activities such as farming, fishing, and grass cutting, to mention but a few. High inflow is normally experienced between the months of January and April during the drought years, and shifts to January and early June in years of good rains. The panhandle is characterized by long strips of vegetation, which run along the main river channel. This vegetation, it has been argued, contributes to the form of the river and its channels (Shaw 1958b, SMECO 1973, & 1987). The vegetation has an impact on the momentum and general flow of the waters of the Okavango River.

1.2.3. The Okavango Swamps

In general, it is believed that the swamps are not very deep, and it is estimated that their depths do not normally exceed 4m, but generally range from 1-5 meters in depth (SMECO, 1973 & 1987). These swamps are characterized by islands, and in some cases distinctively spread large tree species, while in other cases the more visible trees are small vegetation that runs along the banks of the criss-crossed channels and streams of the Delta (SMECO, 1973). The swamps vary in size ranging from 7500km² to 10500km². The Delta is composed of large and small channels, which lead the waters of the Okavango away from the Delta into the periphery (SMECO, 1987), and to surrounding villages (see figure 3). The Delta is very fragile, and changes in its form occur within both short and long time periods. For example, Lake Ngami² used to be considered a large inland lake, directly fed by the Thaoge River. The Thaoge River was in turn considered until the most recent past to be the main south channel that carried large inflows of water from the Delta. The view that the Thaoge River was once large, which is not the case at present, is also expressed by Anderson 1857, and Livingstone 1858, as reported in Snowy Mountain Engineering 1987. To the eastern side of the Delta, the Boro channel which until recently has been the main channel, leads into the Thamalakane and Boteti Rivers, and the Makgadikgadi and Mopipi pans³. Santantadibe channel, which runs adjacent Boro Channel, also feeds into the Thamalakane River in Maun. Boteti and Mopipi rivers, which are currently dry, used to be the home of crocodiles, hippos and fish. The people of Boteti and Mopipi areas no longer have easy access to the natural resources of the Okavango River as they used to have in the past.

² Lake Ngami received some inflows during the year 2000/2001 after a long period of no inflows from Delta

³ The Boteti River, Mopipi and Makgadikgadi Pans have not had water over the last 10 years.

Fragility of the Delta

There are a number of theories that have been postulated to explain the fragility of the any Delta in general, and the Okavango Delta in particular. In respect of the Okavango Delta, these theories could be categorized as human and natural causes.

Natural Causes

Natural causes of changes in the form of the Delta include its vegetation, wildlife, large floods, drought periods, rains occurring over the swamps, and seismic activity. The most important ones are discussed below.

Large Floods. Large floods can also change the form of the Delta. Large floods could carry dead vegetation and sediments into the swamps and channels of the Delta. These could cause blockage and in some cases widening of the swamps and channels.

Seismic activity. Scientific evidence suggests that the Delta is located on top of three active faults, and these are Gumare, Kunyere, and Thamalakane (Hutchison and Midgeley, 1973, and SMECO, 1987). Of these faults two (Kunyane and Gumare) are seismically active. These two faults are therefore important in explaining the seismic theory to changes occurring in the Delta. The location of the Delta on these faults suggests that any movement of the faults or earthquake will certainly affect the water flows and could break the channels and/or divert the water flow to new areas.

Drought. Shortage or lack of rain is considered one of the ways in which the Delta changes its form. SMECO, (ibid), for example suggests that during the drought years some aquatic vegetation could die, and that could increase the water flow. By the same token, some vegetation could grow in situations of low water

volumes therefore developing stronger roots and that could reduce or block the water flow. In some cases these activities could cause the creation of new channels and/or streams. In support of the argument, SMECO, (ibid), cite the 1982 drought as the major cause of the decline in water volumes in the Boro River.

Wildlife. The presence of wildlife in the Delta has also been associated with the changing form of the Delta. As can be seen in figure 3, the Delta is composed of swamps and channels. Some of these channels are about .5 meters in depth. These channels and swamps are not very deep and wildlife movement, particularly the movement of large wildlife species, has been cited as one of the causes of changes occurring in the Delta. The movement of wildlife particularly affects the surface of the riverbeds. For example it is believed that trails that hippos use to reach grazing areas can form new channels and new wetlands.

Human Impacts

Human impacts. Human beings cause some considerable changes on the form of the Delta. Human activities considered important include the following: cutting of grass, trees, and papyrus for sale and domestic use. Grass is usually sold or used for domestic purposes at household level while large trees are cut to make fencing poles, rafters, and dug canoes. Firing of vegetation is also a significant cause of changes in the form of the Delta. Communities for example, normally burn large areas of the flood plain to stimulate growth of new grass for grazing cattle, and to clear the fields.

It can be concluded that tectonic activity, interference by human beings, sediment deposition within the channels or a combination of one or more of the these factors is responsible for the changing nature of the Delta.

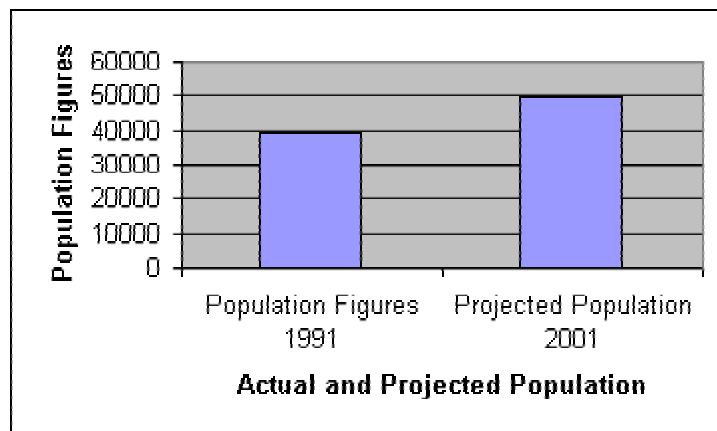
1.2.4 Sociological Aspects of the Okavango Region

Population

According to the population census of 1991, the Okavango region had a population of 36726 people, which is now estimated to be 44000 during the year 2001. The population figure for the year 2001 signifies a population increase of about 21%. The population growth rate should be helpful in facilitating an understanding of some of the findings in the present report, particularly those that relate to the pressures exerted on natural resources by human beings.

The population of the Okavango region is composed of a number of ethnic groups, and these include Bayeyi, Bambukushi, Batawana, Basarwa, and Baherero. The percent distribution of most used language at household level can be seen in figure 4.

Figure 2: Population Figures for the Survey Area 1991 and 2001



Land Use and Land Use Changes

Land

According to CSO 2000, there exist in Botswana two major types of land classifications, which are largely defined on the basis of soil type. These are: The Kalahari sandveld and eastern hardveld. Ngamiland, within which the Okavango region falls, is largely composed of the Kalahari sandveld. The sand veld is made of sandy sub-soils with low rainfall of up to a maximum of 250mm per annum (CSO 2000). Besides Gantsi district, which is recorded to have about 117.910, squares kilometers of sandveld, Ngamiland has the second largest portion of Sandveld at 109.130 sq Km, which is basically almost all of the land in Ngamiland. Of this about 2,000 and 10,500 sq. kilometers are swamps and flood plain respectively. Soil types partly determine the livelihoods options people can engage themselves, particularly decision making on whether to participate in arable farming, pastoral farming, or both.

Land Use and Land Use Changes

Land use in Botswana generally follows three patterns of land tenure: communal land, freehold and state land. Three main types of land use are prominent in communal areas, and these are agricultural production; residential use; and the Tribal Grazing Land Policy farms, and leased ranches. Freehold land largely consists of free hold farms, while state land is reserved land, which mainly consists of national parks, game reserves, forest reserves, wildlife management areas, and government farms commonly referred to as Botswana Livestock Development Centers (BLDC). These farms are normally used for livestock development. According to the Ministry of Agriculture as quoted in CSO 2000; major land use changes have occurred in state and communal land tenure systems. These changes were a result of the introduction of Wildlife Management areas, in order to create buffer zones between game parks and communal areas. Overall,

these land use changes occurred in favor of state land. During the year 1974 game reserve area in Ngamiland was 4282 sq kilometers and increased to 5,560 sq kilometers by the year 1981. Similarly, by the year 1981 land measuring 32,867 sq. kilometers had been gazetted into Wildlife Management Areas to facilitate community based natural resources management and utilization. Communal land, particularly land for grazing, agriculture and residential purposes, which measured 92939 by 1981, was reduced to 60,072 by the year 1995.

Overall 31,8 % of communal land underwent some changes compared to 31.3% of state land. While communal land decreased, state land increased. The evidence presented above points to the fact that there have been considerable land use changes in Ngamiland. Communal land use changes have significantly reduced land that was previously used for grazing cattle, arable agriculture and residential purposes. As with the types of soils, people decide to participate on particular socio-economic options on the basis of land available to them.

CHAPTER TWO

SURVEY AND SAMPLING METHODS

2. INTRODUCTION

The data collection for this report was done through both quantitative and qualitative data collection methods. The two components of the survey were implemented concurrently beginning in October 2000. A stakeholder's workshop for the Okavango Region was also organized as part of the socio-ecological survey. The workshop was organized for two reasons. First, to begin the process towards building a shared understanding and vision over the status and management of natural resources of the Okavango River Basin. Secondly, to validate the findings presented in the preliminary raft report. The workshop report is attached as annex one.

2.1 SURVEY METHODOLOGY

The survey method comprised of the collection of primary data and secondary data. Prior to the 'actual' survey fieldwork, community forums/kgotla meetings were held with all villages covered by the survey in order to introduce the socio-ecological survey. These community forums were conducted by the Kalahari Conservation Society Outreach team and were helpful in establishing rapport between the surveyors and the communities during the actual survey period. The survey fieldwork, which was the second visit to local communities started towards mid November 2001. After the survey fieldwork was completed, a two-day forum for all stakeholders of the Botswana side of the Okavango Region was held. The idea for the forum was to facilitate a shared understanding of the relationships between the Okavango River and its natural resources and all relevant stakeholders [Government, community representatives, NGOs safari companies etc.]. The workshop was also meant to validate the results of the survey. It is expected that KCS will visit the communities again to disseminate the results of

the socio-ecological survey. These visits are expected to generate further co-learning and information sharing and/or consolidate a common understanding with communities on the results of the survey. However, further information exchange should occur during the second and third phases of the project.

2.1.1 QUANTITATIVE DATA COLLECTION

Primary data collected was in two forms: quantitative and qualitative data. Quantitative data was collected through interviews with household representatives. A structured questionnaire was developed for that purpose. Qualitative data was collected through focus group discussions, and interviews with key informants both at village level and at the district level.

Household Interviews

As indicated in Table 2 a total of 646 interviews were conducted for the overall survey area in Botswana. This survey area covered 20 villages with each village falling in any one of the following categories: *Riparian and Non-riparian*. Riparian communities are those communities living close to the river, while non-riparian communities are communities, which do not live close to the river. The majority of villages covered are riparian. Interviews were conducted from a random starting point identified from a census map by listing all households in any one village, and then selecting a random starting household/point from the list of households. In cases where there were no census maps the starting point was assumed to be the most central place in a village. This was the case particularly with small villages. In villages where there were at least two enumeration areas the total number of interviews was shared equally within the enumeration areas, with each enumeration area assuming its own starting point. Interviews proceeded from the starting point with every 2nd household interviewed for small villages, and every 4th household for large villages. This process continued until the required number of interviews was attained. This system of conducting household

interviews was meant to capture as many possible disparities on views regarding the use of the Okavango River and its natural resources in the event such disparities exist. Besides that, the data were useful in generating frequencies on the use of particular resources by household, number of livestock and small stock owned, important socio-economic options, sources of household income, land ownership, whether or not people plough in the flood plain, direct reliance on water from the Okavango River. The survey also generated useful *attitudinal* and *perception* responses regarding the use of the Okavango River and its natural resources. The unit of analysis was the household, and analysis was done on the basis of the overall sample size. In some cases the results are disaggregated by the two village categories [*Riparian and Non-riparian*] where necessary, in order to find out similarities and/or disparities in views and opinions around the use of the Okavango River and its natural resources.

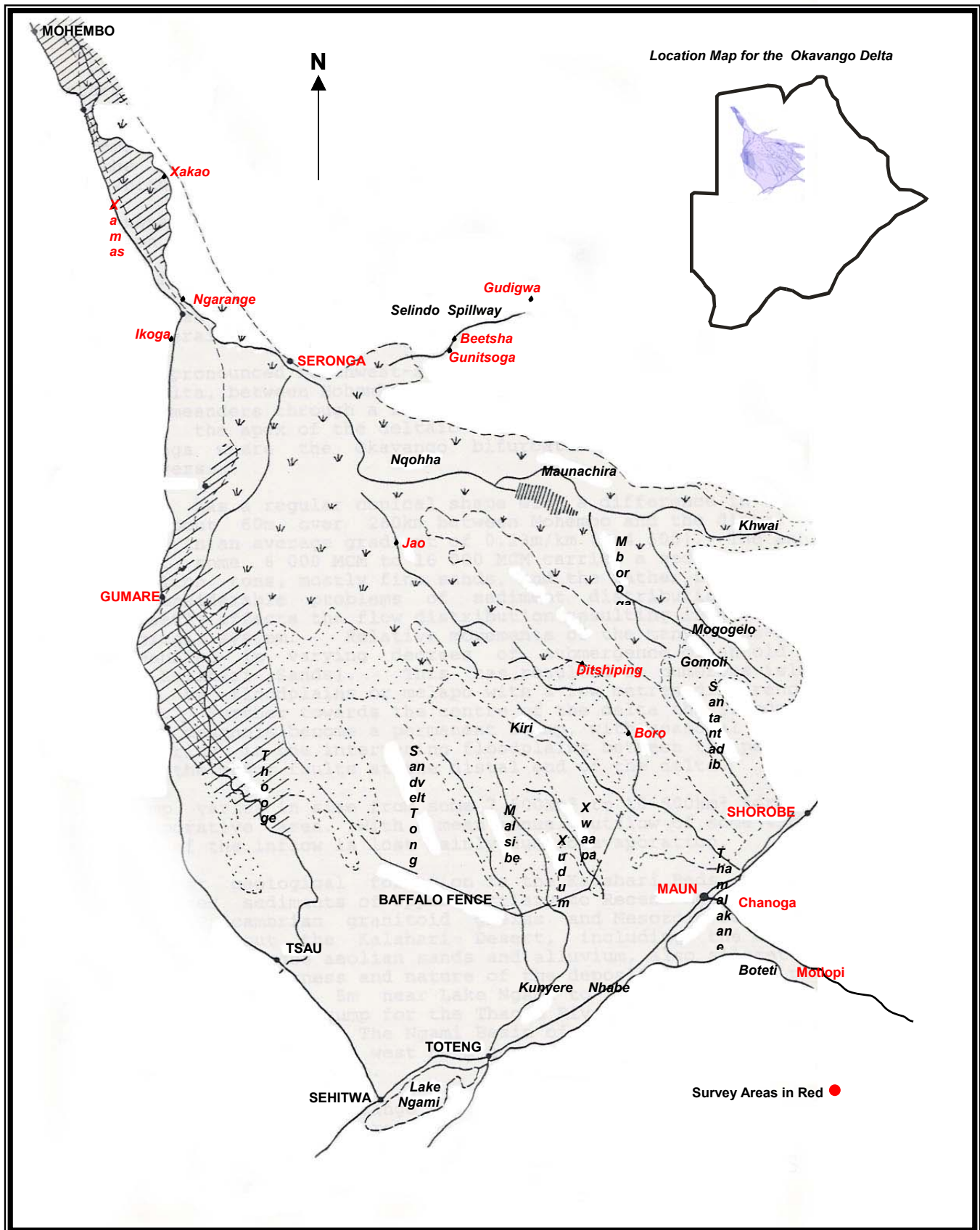
The names of the villages to be surveyed were pre-selected by the client: Kalahari Conservation Society. The consultants then chose a sample size that would allow maximum analysis and sub-analysis across the major key areas of the survey. The minimal sample size for small villages was purposefully set at 15 household interviews per village, and samples for other villages were selected on a proportional basis to small villages.

**Table 1: Villages Covered During The Socio-Ecological Survey
And Sample Sizes⁴**

NAME OF VILLAGE	SAMPLE SIZE
Gudigwa	15
Gunitsoga	15
Beetsha	15
Seronga	32
Xakao	33
Ngarange	18
Shakawe	56
Nxamasere	20
Sepopa	34
Ikoga	20
Etsha 6	48
Jao	15
Gumare	56
Maun	130
Shorobe	28
Ditshiping	15
Xaxaba	15
Khwai	32
Chanoga	15
Motopi	34
TOTAL SAMPLE	646

⁴ While the sample size may not be necessarily statically generalizable, it provides some valuable insights on the opinions and aspirations of the people of the Okavango Region, in relation to the Okavango River Basin and its natural resources.

Figure 3: Map of the Okavango showing the Survey Areas



Adapted from SMECO, 1987

Key Informant And District Level Interviews

Interviews were held with village headmen, chairpersons and /or secretaries of community institutions. District level interviews were also conducted with local authorities, civil and private sector representatives.

2.1.2 QUALITATIVE DATA COLLECTION

Focus Group Discussions

Focus groups were conducted successfully in all the villages that have been surveyed except for Maun. By the time the team reached Maun the rains had started. Due to time constraints it turned out to be impossible to organize a focus groups in Maun within the survey project period.

It is important to note that numerous village residents were engaged in drought relief projects and that tended to slow down the process of organizing focus groups. The village leadership and community organizations' office bearers were helpful in informing people about the presence of the survey teams in the villages. In the event a focus group did not get the right number of attendance, attempts were made to re-organize such a focus group during the following few days after its failure or at the end of the survey, when all the villages had been surveyed. Two forms of focus groups are being conducted.

The main form of focus group was the large community forum, where community members formed a broad group to discuss issues pertaining to their relationship with the Okavango River and its natural resources across a broad spectrum of issues.

The survey also gave a special forum to those groups already organized around the use of particular natural resources [i.e. fishermen, basket weavers]. The latter was *only* conducted whenever a pre-organized group existed in a particular village.

For both types of discussion groups, a summary of the outcomes of the focus group was presented at the end of each session by the facilitators and consensus reached on key issues by the participants.

The community forums were meant to be as ‘discursive’ as possible with communities being free to present their views and opinions on the use and management of the Okavango River and its natural resources. Some key elements of the PRA methodology namely, village timelines and institutional mapping were included as part of the focus group framework in order to facilitate easy information exchange and sharing. The focus groups were also meant to facilitate a *reflective self-understanding* of the views and opinions of communities by themselves.

2.2 SURVEY ORGANIZATION

Two teams composed of four people each conducted the fieldwork. The client recruited the survey teams and the consultant conducted training. Training included interviewing procedures, discussion of the questionnaire, coding and pre-testing. Pre-testing was conducted in Matlapaneng just three kilometers to the north from the Thamalakane River in Maun.

A supervisor, whose main responsibility was to conduct focus group discussions and oversee, on a daily basis, the implementation of the surveys, led each team. Each of the two supervisors had an assistant focus group facilitator. Depending on the size of the village and the number of focus group discussions to be conducted, the assistant focus group facilitators took notes and sometimes co-facilitated the

discussions. The supervisors reviewed the work of the enumerators on a daily basis and reported any problems to the consultant. Repeat visits were conducted with households where necessary, particularly in the event the supervisors identified some information gaps in the questionnaires. For small villages, the two teams were required to split while for large villages all the teams would converge and work in the same village.

Secondary data collection primarily consisted of a review of published and unpublished reports, records, and books. Some of these reports covered population issues, soils of the Okavango, water resources, agricultural production, and the use and conflicts between local communities, wildlife and other natural resources around the Okavango River Basin.

CHAPTER THREE

PRESENTATION OF FINDINGS

3.1 SOCIOLOGICAL INFORMATION

3.1.1 Population and Most Commonly Used Language

As indicated in chapter one of the present report, the population projections show that the Okavango Region has had a population increase of 21% since the last population census, that is, between years 1991 and 2001. While 21% population increase is high, this figure does not take into account the HIV/AIDS pandemic in Botswana. It is therefore possible that the population increase could be lower than previously projected.

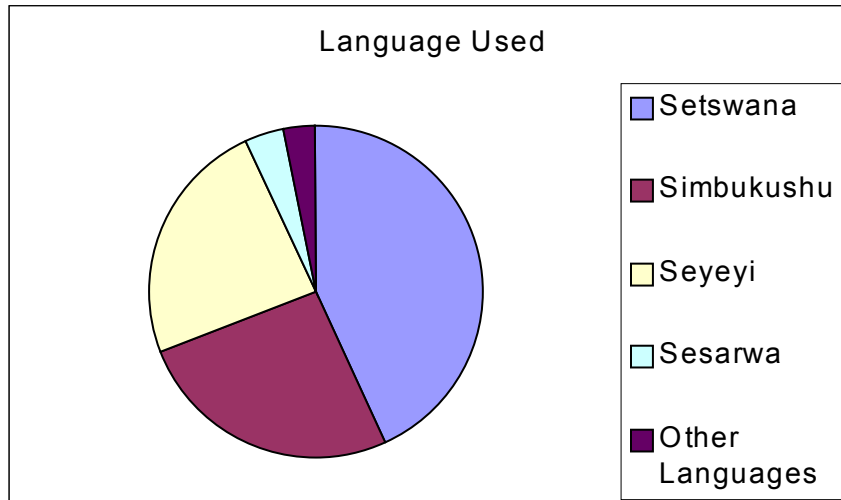
As indicated in Chapter 1, the population of the Okavango region is composed of a number of ethnic groups. These ethnic groups include Bambukushu, Batawana, Bayeyi, and different dialects of Sesarwa speaking people, Basubiya, Baherero, and Bakgalagadi. Table 2 shows the distribution of these languages in the survey area by village. In order to facilitate a culturally sensitive capacity building program envisaged starting soon after the completion of the socio-ecological survey, a deliberate effort would have to be made to translate some of the education and awareness materials into local languages.

Table 2: Language Distribution By Village

Name of Village	Main Language Used at Household Level by Village
Gudigwa	Sesarwa and Setswana
Beetsha	Tjimbukushu, Seyeyi and Setswana
Gunitsoga	Tjimbukushu, Seyeyi and Setswana
Seronga	Seyeyi, Tjimbukushu, and Setswana
Ngarange	Tjimbukushu, Seyeyi and Setswana
Xakao	Tjimbukushu, Seyeyi and Setswana
Shakawe	Tjimbukushu, Seyeyi, Seherero and Setswana
Nxamasere	Tjimbukushu, Sekgalagadi, Seyeyi and Setswana
Sepopa	Tjimbukushu, Seyeyi and Setswana
Ikoga	Tjimbukushu, Seyeyi and Setswana
Etsha 6	Tjimbukushu, Seyeyi and Setswana
Gumare	Tjimbukushu, Seyeyi and Setswana, Seherero
Maun	Tjimbukushu, Seyeyi, Seherero, Sekgalagadi, and Setswana
Khwai	Sesarwa and Setswana
Shorobe	Seyeyi and Setswana
Ditshiping	Seyeyi, and Setswana
Xaxaba	Seyeyi and Setswana
Chanoga	Seyeyi and Setswana
Boro	Seyeyi and Setswana
Tsutsubega	Seyeyi and Setswana

However it should be noted that according to results of the survey the majority of households commonly use Setswana as a means of communication [figure 4]. In fact, all the focus groups were conducted in Setswana, and in few cases the facilitators requested for assistance from community members in the translation of some key words. According to the conclusions of the stakeholders' forum, the language situation could be much different with older people who normally have difficulties in communicating in Setswana. A considerable percentage of households commonly use Tjimbukushu and Seyeyi as well. Some localities particularly that of Gudigwa, communicate mostly in Sesarwa.

Figure 4: Most Commonly Used Languages



3.1.2 Education

About 54.1% of the household heads had had formal education. Of these, 17.2% had actually attempted the primary school leaving examinations certificate [PSLE] with about 10.3% of the household heads of the surveyed population actually having obtained the PLSE certificate. There are significant educational differences between household heads and other members of the households. 49% of the respondents had gone through PSLE, while 31% had achieved JC certification and the remaining 20% had gone through Cambridge Overseas Certificate. The education levels for Ngamiland seem to be on the lower side, and this could be due to the fact that Ngamiland as with Kalahari and Gantsi district are Botswana's poorest districts. Besides, accessibility of some of the areas in Ngamiland is difficult, particularly those areas in sandveld regions and within the Delta.

3.1.2 Gender Distribution

About 65.6 % of those interviewed were females, while the remaining 34.4% were males. The results on the distribution of interviews amongst males and females compare well with the findings on household headship. The majority of households in the survey area are female headed [52 %], while 48 % of the households are male headed. The results of the household interviews contrast the ration of males and females who attended the focus group discussions. More males attended the focus group discussions than their female counterparts. The most probable reason for the variation in attendance between males and females is that the survey was conducted at the time when drought relief programmes were underway, and more females were employed in drought relief projects than males.

3.1.4 Livestock Ownership

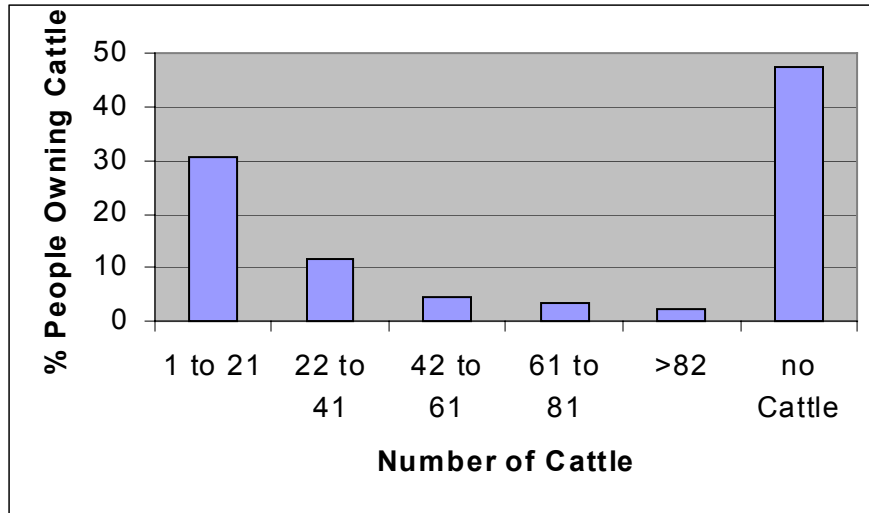
Over 45% of the households interviewed indicated that they did not own cattle. Of those that owned cattle [55% of the total surveyed population] 30% had between 1 and 21 cattle. Just slightly over 10 % of those that had cattle reported owning between 22 and 41 cattle. While there is normally some under reporting of cattle figures⁵, these figures are comparable to the findings of key informant and focus group discussions; therefore any chances of misreporting would be very insignificant.

The low levels of cattle ownership are attributed to the cattle lung disease of the mid 1990's. The government in a bid to eradicate the cattle lung disease killed all cattle in Ngamiland, which were kept under the free range grazing system. A considerable number of those farmers who opted for compensation through money, as opposed to replacement of cattle, ended up losing an important

⁵ Normally traditional cattle farmers would respond "no cattle" meaning a few cattle or that they have some cattle but they are not satisfied with the number.

investment base. This is particularly due to the fact that most of those farmers did not have the knowledge and expertise to re-invest their money in other projects and ended up being poor.

Figure 5: Cattle Ownership in the Okavango Region



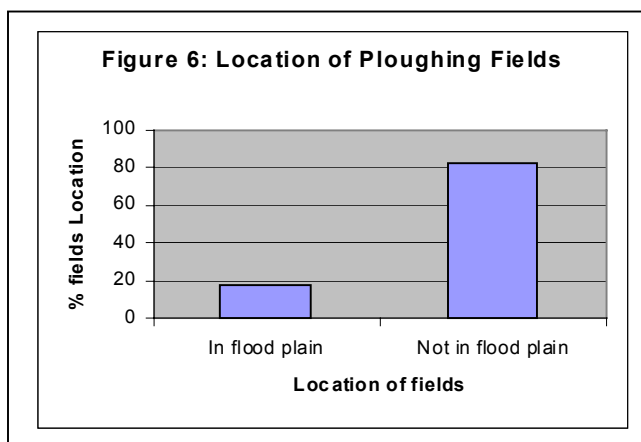
3.1.5 Arable Agriculture and Land Ownership

Agriculture, particularly arable production is considered an important household socio-economic option. This is because a considerable number of households are engaged in arable agriculture particularly subsistence farming [see table 3]. As shown in Table 3 nearly 70% of the people indicated having ploughed during the previous season, 1999/2000. Those that did not plough presented a number of reasons for not plowing and these include; lack of draught power and that the economically active people had emigrated. Others mentioned that the rains came so late during the plowing seasons they had already decided not to plough.

Table 3: Participation in Arable Agriculture

	Frequency	Percent
Ploughed over the last season	451	69.8
Did not plough during the last season	195	30.2
	646	100

A total of 74.1 % of the surveyed population have a piece of land for plowing. According to figure 7, a higher percentage of landowners live in riparian communities (40.9%) compared to landowners living in non-riparian communities (33.2%). Of those who reported having a piece of land for plowing purposes, 89% reported actually owning the land, while the remaining 11% had leased land from others. The results on land ownership suggest that a considerable number of

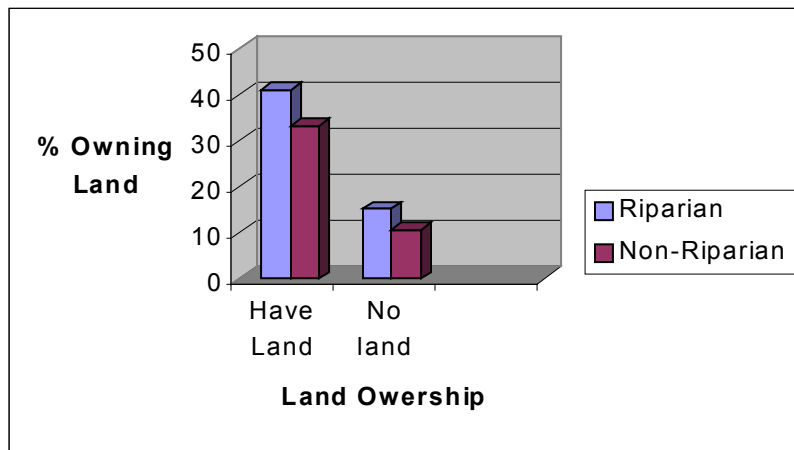


people actual hold land of their own and they are able to make outright decisions on its use. It is also interesting to note that traditional land leasing is still prevalent in the Okavango Region, suggesting therefore that lack of land would be one of the least important reasons for not plowing. While riparian communities own more land than non-riparian communities, most of the land is not located in the flood plain due to shortage of land in the vicinity of the Okavango River flood plain.

The distribution of land between riparian and non-riparian communities is not even. According to figure 6, a large proportion (82%) of plowing land is located outside the flood plain area, and only 18% is located within the flood plain. The variation in the

location of fields in the survey area is a result of the fact that while new allocations are being made off the flood plain, there are in practical terms no new allocations within the flood plain itself. The distribution of land ownership suggests that riparian communities have a habit for farming, and this may be due to the fact that they normally take advantage of plowing on the flood plain during flood periods.

Figure 7: Ownership of Fields by Type of Community



Of the total number of people who own land, some 5.4% riparian communities own land measuring less than one hectares (<1hac). The same size of land is owned by 4.8% of the non-riparian communities who hold a piece of land. 23.4% riparian communities own 1-3 hectares, while 20.3% non-riparian communities own the same size of land. Table 4 confirms that riparian communities own more land their non-riparian counterparts.

Table 4: Size of Fields and Distribution

	Frequency	%	Frequency	%
Size of Land in Hectare	Riparian	Riparian	Non-Riparian	Non-Riparian
< 1	26	5.4	23	4.8
1-3	112	23.4	97	20.3
4-8	94	19.7	71	14.9
9-11	17	3.6	14	2.9
12 and >	14	2.9	10	2.1
Totals		55		45

There are some variations in the number of bags harvested during the previous season, while almost all of those who planted harvested nothing more than 10 bags. 23.1% of the households that ever ploughed harvested nothing at all, while 43.8% harvested only less than five bags (<5) of cereals. About 12.2 % obtained harvests ranging from 11- 81 bags.

Table 5: Number of Bags Harvested During the Previous Season

	Frequency [yes]	% Frequency
Nothing	96	23.1
< 5 bags	182	43.8
5-10 bags	87	20.9
11-20 bags	24	5.8
21-30 bags	10	2.4
31-50 bags	8	1.9
51-80 bags	3	0.7
81 and >	6	1.4
Totals	416	100

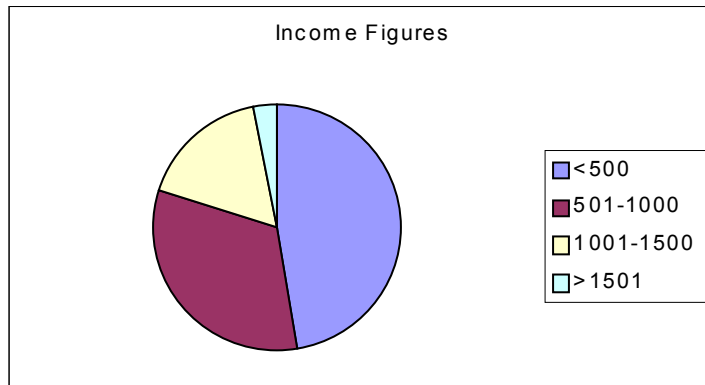
3.1.6 Household Income Distribution

The majority of households [47.3%] earn gross monthly cash incomes of P500.00 and less, and about 32.4% earn between P501 and P1000.00. Only 3.1% of the households have reported earning a monthly income of P1501.00.

The overall household incomes in the Okavango region seem to be on the lower side as compared to the rest of the incomes in Botswana. The prevalence of low incomes in the Okavango Region was mentioned in most focus groups, but particularly in Jao, Matopi, and Gudigwa. The Okavango Region is experiencing low employment opportunities even with the introduction of the community based strategy for natural resources. While there is no doubt that community based natural resources management is an emerging important socio-economic option, the extent to which benefits besides employment, are shared up to household level needs to be explored further. It is therefore important that development agencies

together with communities find a methodology for benefits sharing up to household level.

Figure 8: Current Gross Household Cash Monthly Income



3.1.7 Types of Employment

The majority of household heads 311(48.7%) reported that they were engaged in both self and formal employment. A total of 192 (30.1%) reported that they were formally employed while 135 (21.2%) reported being self-employed. Formal employed refers to those who are hired to do work by others, while self employment refers to those that were not officially employed, but were engaged in an income generating activity by themselves. Self-employment activities include fishing, woodcarving, sale of veld products, etc. The results of the survey suggest that self-employment is an important socio-economic activity in the Okavango region, and as with any sound socio-economic activity, this activity would have to be nurtured and developed in order that it could generate and create more income and employment respectively. While this activity would have to be developed, maximum care should be taken to balance the need to create employment and generate more income with the ability of the natural resource bases to regenerate. This is particularly important because self -employment in the Okavango river basin heavily relies on the available natural resources.

Table 6: Type of Employment

	Frequency	Percent
Formal employment	192	30.1
Self Employed	135	21.2
Formal and self employment	311	48.7
	638	100

Of those who reported being self-employed about 70.3% [95 people out of a total 135 people] reported brewing traditional beer for sale. Apart from agricultural production natural resources are also making a significant contribution to sustaining the livelihoods of a number of households in the Okavango Region. About 10.8 % of those interviewed indicated that they fished to make a living, while 4.8% and 2.5 % make baskets and sell grass respectively, to make a living. Remittance is also an important socio-economic factor in Ngamiland. Most of the economically activity are either employed in Maun, Safari Companies in Ngamiland or elsewhere in Botswana. A total of 6.8 % households indicated that they relied on remittance to sustain their households. Remittance was limited to financial resources only, in order to limit high possibilities of memory lapse on the part of the respondents.

Table 7: The Most Important Household Economic Option

First Most Important Household Socio-economic Option	Frequency	% Frequency
Arable agriculture	250	38.7
Formal employment	124	19.2
Fishing	70	10.8
Remittance	44	6.8
Drought relief	43	6.7
Basket weaving	31	4.8
Sale of River Reed	24	3.7
Sale of Grass	16	2.5
Traditional building material	12	1.9
CBNRM	9	1.4
Others	23	3.6
Total Frequency	646	100

3.2. EXISTING COMMUNITY INSTITUTIONS AND THEIR FUNCTIONS

Each of the villages visited during the survey had at least one village institution. These institutions range from the traditional leadership institutions to institutions formed around the use of natural resources. There also exist institutions that have been formed for formal education and community health purposes. The most

common village institutions are: Village Development Communities, CBNRM trusts and Committees, Crime Prevention, Parents Teachers Associations, Village Health Committees, and Farmers Associations. These institutions differ in strength, scope of work and the problems they experience. Some of the village institutions are dysfunctional, while others are very active. The most active institutions are those that deal with education, health and natural resources and the village development committee itself. Those institutions dealing with natural resources are particularly active for the reason that they seem to address the felt needs of the people [such as employment and incomes] hence the active participation by local communities. The other reason for the active participation in community trusts is that these institutions have received some form of empowerment training from government and civil society. Considerable training on organizational management of trusts, community leadership, and small business enterprising, has been implemented in the Okavango region. Their interface with the private sector, particularly safari companies seems to have some value added benefits, particularly in enhancing the level of participation in kgotla meetings dealing with natural resources conservation and utilization.

Table 8: Local Institutions and their Responsibilities

VILLAGE INSTITUTION	ROLES AND RESPONSIBILITIES
Village Development Committee	<p>Village development and coordination</p> <p>Considered village parliament</p> <p>Coordinates the work of other committees</p> <p>Oversees the work of committees dealing with Natural resources</p> <p>Provides a link between government and communities</p> <p>Development representatives of communities</p>
PTA	<p>Consultation on schools Management</p> <p>Consultation between parents and teachers</p>
Village health Committee	<p>Village cleanliness</p> <p>Education on HIV /AIDS</p> <p>Encourages cooperation between village people and nurses</p> <p>Cooperation between nurses and other development departments</p> <p>Education and awareness on health issues</p> <p>Environmental cleanliness</p>
Farmers Committee	<p>Education of Agricultural production</p> <p>Consultation between farmers and Agric</p>

	demonstrators
	Investigates on best market and prices for farmers products
VILLAGE INSTITUTION Youth Groups	ROLE AND RESPONSIBILITIES Advise to village committees on needs of youth Youth projects on health and empowerment issues
Community Based fishing Projects	Fishing for sales
	Conservation of fish
Village Cooperative	Consumers rights Represents the community to the management of the cooperative Provides feedback between management of coops and villagers
Crime Prevention Committee	Prevention, Fight and education against crime Encourages cooperation between community and the police against crime
Board of Governors	Consultation on schools Management of secondary schools
	Consultation between parents and teachers
Ngwao Buswa	Encourages conversation and maintenance of culture
YWCA	Education of cooking recipes Education of knitting Pre school education

BCW	Pre- school education
Hospital advisory committee	Cooperation between health workers and villagers on health issues
VILLAGE INSTITUTION	ROLE AND RESPONSIBILITIES
Road safety committee	Education and awareness on health Measures
Kamanako Association	Human rights and cultural heritage for Bayeyi
Okavango Community Trust	Creation of employment Village development Conservation of natural resources Village people get income from working for Safari companies
Independence committee	Prepares for independence celebrations
OPT	Facilitates tourism Creation of jobs Incomes for local people Conservation of natural resources
4B	Education on survival skills for young people Recreation for young people
Kuru Dev't Trust /Accord	Education, Awareness, Facilitation of Conservation of Natural Resources and sustainable utilization of natural resources, participation by local Communities in the management of natural resources around them

Overall, the Village Development Committees have a high and positive profile within the surveyed communities. This is primarily the case because of the active role played by the VDC, s in facilitating public works, drought relief projects, and in some cases the VDC, s are able to coordinate and monitor the work of other institutions at village level. VDC, s also provides a link between government, civil society, the private sector and local level communities.

Community Based Natural Resources Utilization trusts are also emerging as important organizations to communities, and these is mainly attributed to the fact that these institutions are facilitating the striking of a balance between conservation and the need to address the felt needs of the people, particularly the problems of poverty and unemployment. In doing so, these organisations have facilitated considerable financial inflows to communities. Other institutions recognized by communities include support organizations, particularly Non-Governmental Organisations.

According to Mr. Dikobe, A Technical Advisor for Kuru projects based in Shakwe: *Trusts have accumulated money, very little has reached households,--- control and ownership of natural resources is [however] still with DWNP, Forestry department, etc*

Notwithstanding the success and positive profile of the village development committees and other community institutions, as with any other development institution, these institutions experience a number of problems. These problems would have to be addressed as part of the overall capacity building initiative for communities in the Okavango region.

- The need for capacity building in the management of community institutions and process documentation.
- Some community institutions have departed from their original mandate and this has caused some commotion and reluctance to participate by community members.

- There is need for empowerment training in order to strengthen voluntarism within communities, to facilitate the development of a cooperative spirit amongst community members, and to create cohesiveness in the communities.
- As with any other development institution, community institutions need continuous capacity building and strengthening, particularly in business management and record keeping.

3.3. UTILISATION OF NATURAL RESOURCES BY COMMUNITIES

Table 9: Types of Natural Resources and Their Uses By Communities

NATURAL RESOURCE	USE
Okavango River Water	Water for cattle and other livestock Drinking at Household level Washing and bathing at household Source of fish Source of river reed Source of Papyrus Back bone to life Transportation Source of Tswii Religious – Baptizing in water Cultural and Medicinal [strengthening of household against bad omens]
Water Reed	Thatching Sale for Household income
Grass	Thatching Fishing basket Basket weaving Sale for Household income
Water Lilly	Household consumption

	Sale for household income
Fish	Household consumption
	Sale for Household Income Medicinal
NATURAL RESOURCE	USE
Wild fruits	Household consumption Sale for household income Beer Brewing
Snakes	Medicinal purposes
Trees	Poles for household building material Mortar and Pistil for household Mortar and Pistil for sale Carving of canoe for household use and transport Canoe for transport Generate good feeling and breathing air Fire wood Building poles for sale Medicinal Beer brewing [roots of some trees] Shade Coloring and painting of baskets
Wildlife	Household consumption for protein Tourism Sale of meat for household income Aesthetic value and cultural beauty
	Skins and hides for other uses
Birds	Household consumption for protein Tourism
	Sale for meat, Cultural beauty
Palm Tree	For sale for income

	Building/construction/thatching Basket weaving
NATURAL RESOURCE	USE
Insects [Xaxaba]	Tourism [Tourists viewing and admiring butterflies for example]
Bees	Honey for household consumption Honey for sale for household income
Soils/Clay	Agricultural production Growth of trees Building and construction Graves for the dead Making of household pottery and for sale
Papyrus	Use at household level Sale for household income Basket weaving

3.5. ATTITUDES AND PERCEPTIONS ON THE STATUS OF NATURAL RESOURCES

3.5.1 Natural Resources Utilization

Communities in the Okavango region heavily rely on natural resources for their livelihood. 66.6% of the sample population uses natural resources for household consumption and/or for sale in order to obtain income. The most commonly used natural resources are grass, soils, fish, river reed and papyrus. Grass is used for thatching and some is sold through informal means to obtain income. Soils are used for constructing traditional houses. Beside that, soils are the basis for arable

agriculture, and a considerable number of households reported being engaged in arable agriculture, although very little has been harvested during the most recent past. The heavy reliance on arable agriculture means that good and fertile soils are also an important natural resource to people in the Okavango Region.

According to the results of the focus groups, riparian communities were more dependent on natural resources than their non-riparian counterparts. Some of the surveyed villages were totally dependent on some natural resources than others. Table 10, for example, shows that almost every body in the villages of Ditshiping and Xaxaba reported using grass, which is abundant in the vicinity of these two villages. The high dependence on grass at these two villages qualifies the view that natural resources utilization is dependent on two things, and these are accessibility and extent of restrictive use by conservation law. Most natural resources were more accessible to riparian communities than non-riparian, hence riparian communities used natural resources far more than their non-riparian counterparts. Apart from sale and consumption of fish, villages that frequently loose their riparian status due to drought and lack river water [Motopi and Chanoga] registered low levels of natural resources utilization [see table 10]. The main reason for the decline in natural resource utilization in these villages is due to the fact that these natural resources are no longer accessible, and is not necessarily due restrictive use as enforced through the conservation act.

Regarding wildlife, Communities reported lower levels of utilization. This probably confirms the fact that benefits from wildlife utilization have not yet addressed household concerns particularly poverty and lack of income at household levels. However, some villages such as seronga reported considerable [38.7% of the population of Seronga] levels of wildlife utilization. This seems to be more of an awareness issue on the possible benefits that could accrue to people from wildlife, than actual direct wildlife consumption. It should be noted that the community of Seronga is at the centre of the implementation of the Community Based Natural Resources Utilization programme through the Okavango

Community Trust. This may also have raised awareness to community members on the possible benefits to be accrued from community based natural resources utilization.

Table no. 10: Natural Resource Utilization by Village: Household Consumption and Sales

	Natural Resource								
	Birds	Papyrus	Wild fruits	River Reed	Wildlife	Soils	Fish	Palm tree	Grass
Village Name									
Gudigwa	11.5	17.9	39.3	48.4	2.4	56	45	27.8	67
Gunitsoga	8.8	6.9	48.7	62.7	5.8	59	39	36	69.1
Beetsha	5.7	6.9	35.8	61.2	2.2	65	58	36	78.9
Seronga	7.8	16.7	48	69.1	38.7	58	78	48	63
Ngarange	2.8	1.9	6.7	76.7	2.8	59	74.9	58.9	89
Xakao	1.9	2.3	8.9	56.8	5.8	68	65	38	58
Shakawe	3.4	5.5	6.8	78.3	3.8	58.9	73.7	57.8	58.2
Sepopa	3.7	3.7	3.3	69.5	6.5	86.1	69	58	78.6
Ikoga	4.6	7.9	4.1	59.7	4.6	87.6	88	58	88.7
Etsha 6	2.9	7.8	55.8	66.3	3.8	89.7	87.6	87	98.5
Jao	7.9	57.6	56	78.6	3.2	88.4	99.4	68	99.1
Gumare	1.8	14.4	43.8	78.7	2.4	64.8	78	63.7	67.1
Maun	0.9	9.8	36.8	61.3	1.2	76.5	60.2	58	62.3
Shorobe	1.2	6.8	39.5	60.1	2.3	87.9	39.5	59	94
Ditshiping	3.9	13.4	61.6	96	38.7	86	37	59	100
Xaxaba	7.2	61.1	59.6	92	6.7	89	65.6	65	100
Kwai	6.8	35.9	61.4	79	32.6	78.9	55.8	59	100
Chanoga	3.2	8.9	53.2	78	1.5	76.9	29.6	47	99.5
Motopi	2.1	4.5	32.3	59	1.2	67.9	13.8	48	69.8
Boro	4.9	4.6	49.4	89	1.8		15.8	57	78
Tsutsubega	3.9	3.2	54.1	67	2.3	87	38.9	63	86.6

3.5.2 Perceptions on the Status of Natural Resources

Apart from the increase in the elephant populations, communities generally hold the opinion that natural resources are in a state of decline both in quality and quantity.

Overall, 70.1% reported that the water lily had declined over the years, and 1.7% reported an increase, while the remaining 25% reported that the water lily was maintaining the same status of quality and availability. Riparian communities such as that of Jao were more likely to report an increase in water based natural resources. In Jao for example, the following natural resources were reported to be increasing, wildlife (50.8%); fish (49%); papyrus (35.7%); birds (62%). The findings on the status of natural resources are confirmed by the focus groups, where some views on the increase in some natural resources were presented. The view by communities that the wildlife population of the Okavango Region is declining is supported by expert information from a workshop jointly organized by the Kalahari Conservation Society and Chobe Wildlife Trust in 1995. The workshop report points out that wildlife is declining due to a number of reasons including the following, 1) fencing, which has potent impact on species that depend on long migratory routes, 2) Infrastructure development for the cattle industry. These includes farm fencing, and fences erected through out the country in order to facilitate easy control of the foot and mouth disease, and 3) development infrastructure, such as roads, settlements, etc. Elephants are also reported to be increasing in this report, but culling is not recommended for a number of reasons. According to the same report an appropriate culling number per year has to be determined by authorities and that has been found not to be so easy a thing to do. What may be considered an appropriate culling number per

year may be actually far too small a number to allow for regenerate, and in some cases the number may not accommodate natural checks and that could prove to be disastrous for the elephant population.

Fish was reported to be increasing because only the big fish was being caught and the small fish is thrown back into the water. The fishermen also use larger nets in order not to catch small fish. In general, communities consider themselves to be using appropriate methods of fishing. However, with particular reference to spot fishing, some communities hold a view that some tourists catch fish and let these fish die in the sun. The fishermen at Samichima, near Shakawe, complained that some safari owners use large engine boats in the Okavango River. Large engine boats, according to the fishermen, wash away the fish eggs and these could cause a decline of fish resources in future if not addressed. According to Meron 1990, some of the insecticides used to eradicate tsetse fly are toxic to fish, and these has had a negative impact in the distribution and population of certain species of fish in the Okavango River.

The results of the focus group also show that there is no difference on the perception that fish was increasing between riparian and non-riparian communities. However, non-riparian communities reported that fish as with other natural resources, was no longer accessible as it used to be in the past, due to the fact that the river has dried up. According to the headman of Chanoga for example.

“ Seemo sa ditsathlolego se ile kwa tlase. Noka ga e sa thole e nale metsi jaaka bogologolo, jaanong dilo tse di tshelang ka metsi di a swa”

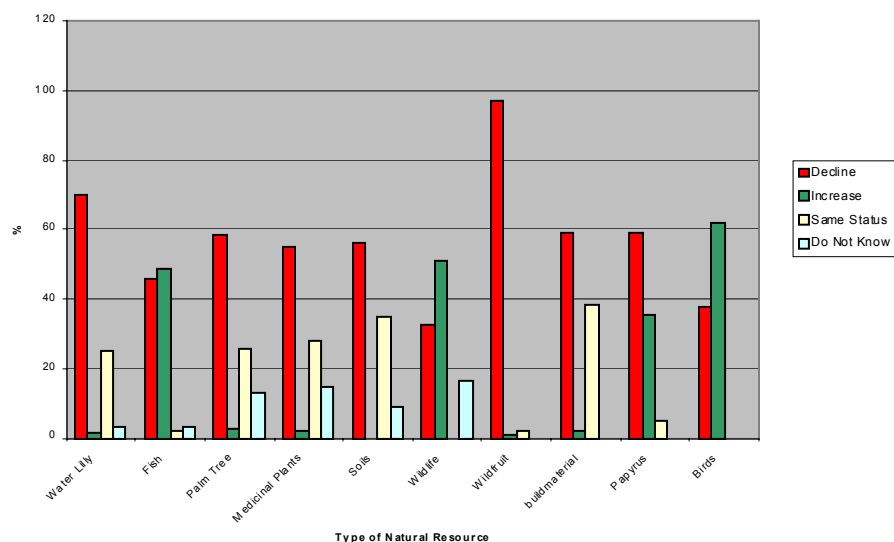
The above quotation translates to mean [the state of natural resources is declining. The Okavango River no longer has as much water as it used before, therefore all the natural resources that live on water have disappeared.

A considerable number of households reported that wildlife was increasing in numbers. The results of the focus group show that the increase is with particular reference to elephants, which destroy crops and the vegetation. There is no evidence to suggest that other wildlife species are increasing. In fact 32.5% of households reported that wildlife was declining both in numbers and accessibility. It can be safely concluded that besides elephants, wildlife is also in a general state of decline.

62% of households reported an increase in birds. Again the reasons for the increase in birds are similar to those explaining the increase in elephants. Some birds are protected through the conservation act, and one would have to get a license in order to kill those birds that do not fall within the category of endangered species. According to the results of the focus groups communities are not involved much in hunting of birds. This is due to the fact that law prohibits traditional methods of hunting. Some communities strongly felt that some safari owners were illegally trapping life birds for own use, and these is because there are no clear guidelines on the role of communities in enforcing the national conservation act. Communities certainly suggested the need to increase and strengthen their role in natural resources management and conservation.

Other naturally resources reported to be declining include palm tree (58.5%), Medicinal plants (55%), building material (59.1%), papyrus (59.3%).

Figure 9: Status Of Natural Resources Of The Okavango Region



3.5.3. Use Of Water Directly Collected From The Okavango River And Its Channels

Almost all communities surveyed collect water directly from the Okavango River and /or its channels. Direct water collection for domestic purpose highly depends on whether or not there is reticulated water in the village and the extent to which such reticulation has been done. Those villages with reticulated water were less likely to obtain large volumes of water in the Okavango River or any of its channels. Riparian communities (75%) were more likely to use for domestic purposes, water directly collected from the Okavango River, than their non-riparian counterparts (16.9%). Water collected from the River is used in a number of ways. 22% of those who collect water directly from the river reported using it for cooking, 45% reported using the water for washing, while the remaining 33% use the water for watering livestock. Riparian communities such as that of Jao and Xaxaba use water collected directly from the river for drinking purposes. However, the results of the focus groups suggest that communities did not think that drinking water directly collected from the river caused any diseases. Communities established an indirect link between the waters of the Okavango River and diseases such as malaria and Nagana. However, the results of the focus

group suggest that, these two insects are problematic to the health of people in the Okavango Region. Communities reported that large tracks of grass and other vegetation were a good habitat for mosquitoes and tsetse fly. These could explain the reason why some households have burnt grass that is around their homesteads.

Table 11: Collection and Use of Water Directly Collected from the River By village

Name of Village	Water					Volume
	<20 litres	20-40	41-61	62-82	>82	Use of Direct River Water
Gudigwa	8.6	6.7	6.5		1	77.2
Beetsha	13.3		13.3	13	26.7	33.7
Gunitsoga		20	33.3	6.7	33.3	6.7
Seronga	40	9.4	15.6	3.6	18.8	12.6
Ngarange	24.1	38.9	16.7	11.1	9.2	0
Xakao	12.6	16.4	29.4		41.6	0
Shakawe	10.7	21.4	12.5	15	18.6	21.8
Nxamasere	15.8	38.1	21	15.8	5.3	4
Sepopa	10.9	14.7	23.1	8.8	2.9	39.6
Ikoga	9.7	28	30.7	12.5	8	11.1
Etsha 6	10	20	17.2	3.3	4.5	45
Jao	23.1	38.5	23.4	12.4	1.8	0.8
Gumare	2.9	4	1	1.8	1.3	89
Maun	1.2	1.5	1.8	6.3	4.2	85
Shorobe	4	2	5	4	9	76
Ditshiping	12.9	7.9	8.9	3.3	67	0
Xaxaba	2.3	12.8	1	6	77.9	0
Khwai	15.4	14.2		53.8	1.6	15
Chanoga	2.3	1.8	0.9	1	6	88
Motopi	0.8	0	0	0	5.2	94
Boro	9.9	9.8	5.8	4.9	5.1	64.5
Tsutsubega	25.7	13.7	18.4	26.7	14	1.5

In concluding this section, it can be said that besides fish, elephants, and papyrus, communities generally view natural resources of the Okavango to be declining. They also think that different users harvest the natural resources differently to meet their own needs and there is no one to enforce the standards for resource harvesting. In fact, besides harvesting of wildlife and birds, there are no guidelines for natural resource harvesting that could be used by different natural resource users. In cases where guidelines for natural resource utilization are implied by law or conservation act, these are normally not observed.

3.6 COMMUNITY PRACTICES ON CONSERVATION OF NATURAL RESOURCES

Communities consider themselves to have some valuable information that could be useful for conserving the Okavango River and its natural resources. Some of the main forms of traditional knowledge and ways of conserving natural resources are rooted in culture and enforced by local leadership structures.

Following are some examples of ways in which communities conserve natural resources.

- Communities use fire to facilitate regeneration of grass, and water reed
- Papyrus is burnt in order to open the streams to allow easy flow of water along the natural channels.
- The chief or village headman used to have control and jurisdiction of whether or not people could hunt wildlife animals, and hunting would be done on particular seasons but not others, for different species of wildlife and medicinal plants.
- Some pieces of land, particularly those rich in wildlife and other natural resources would normally be reserved land for the chief, and this was done in order to conserve natural resources found in that piece of land.

- Utilization of grazing pastures was divided according to seasons
- Communities used to have their own community resources guards. This were people who belonged to the community and informed the community when community rules on resources use were violated.
- The use of a bores and arrows for hunting was considered conservatory in nature. Killing large amounts of wildlife was not possible within short spells of time through the use of bores and arrows.
- The chief and his uncles and advisors decided on new community rules for resource use on a continuous basis and the community would be informed at the Kgotla of these new ways of resources use. Such rules would be observed. Due to pressures caused by population growth, the problems of poverty lack of incomes, and unemployment traditional rules for natural resources utilizations are fading away.

Communities realize that some of the ways through which they conserved natural resources may not be applicable today. It is on that basis that communities would want to see a mix of their knowledge with modern scientific ways of conservation. The fact that there is no link between community ways of conservation and modern conservation methods constitute what can be referred to as “information and natural resource conservation gap”. This gap can be addressed through an integrated information and capacity building initiative for local communities. For example, according to communities, this gap is exacerbated by the fact that while government promulgates law that governs the use and the relationship between people, natural resources and other socio-economic options, local communities are normally not consulted on these issues before laws are promulgated. This has resulted in a situation where communities do not know and understand the contents of laws governing their relationship with natural resources around them. As a result, conflicts over the use of natural resources amongst different stakeholders and local level communities have been

created. These conflicts according to the results of the focus groups, the households' interviews and the village level key informant interviews have resulted in persistent lack of a shared understanding on the use and management of natural resources of the Okavango River Basin. Some of the conflicts arising between the Safari operators and local communities are a result of a lack of a shared understanding of the roles and obligations of different stakeholders over the use of natural resources of the Okavango River Basin. Communities however, are ready to share a platform with other users in order to reach a consensus and adopt a common vision for the management and utilization of the Okavango River and its resources. The main stakeholders suggested by local level communities are government both local and central, civil society organizations, the tourism industry, the land board and local traditional leadership. While communities are ready to define a common path towards the use of natural resources, sentiments expressed during some of the focus groups show clearly that communities are concerned that governments will allow do things their own way irrespective of the fact that communities may not be consulted or may share a different view on the management of natural resources. This is an issue that pressure groups such as the Kalahari Conservation Society would have to take up in order to make sure that local communities are included in the mainstream of decision making on natural resources around them.

3.7. CULTURAL AND RELIGIOUS ASPECTS OF THE NATURAL RESOURCES OF THE OKAVANGO RIVER BASIN

The questionnaire designed for the socio-ecological survey had specific attitudinal and perception questions on the cultural and religious relevance of the natural resources of the Okavango River to the lives of local communities. According to the results shown in the table 12, the majority of people in the Okavango Region rely heavily on the natural resources of the Okavango River Basin for religious and cultural purposes. It should be noted that the results of the focus group have demonstrated that there is a close link between culture and the ways through

which people make a living, suggesting that everything to do with the utilization of natural resources to make a living is cultural. For example, socio-economic options such as arable agriculture, wood carving, fishing, fall within what the communities consider to be the cultural relevance of the natural resources of the Okavango River basin. The use of fire to clear plowing fields, to facilitate regeneration of grass, are also some ways through which communities demonstrated the cultural importance of the natural resources of the Okavango River Basin. The river for example is an important means of transportation between villages.

Natural Resources of the Okavango River Basin also have some religious importance to the lives of people of the Okavango Region. Baptism is done in the river, while walking sticks are carved from trees.

Table 12: Cultural and Religious Importance of the Okavango River And Its Natural Resources

Statement [645]	% Frequency	Disagree/Agree
Some of the natural resources of the Okavango River are not of Religious importance to us.	92.4	Disagree
Natural resources of the Okavango River Basin have a cultural value to us.	96	Agree

The reliance on natural resources by the people in the Okavango region was confirmed in the focus group discussions and validated at the stakeholders' forum. A number of focus group members indicated that they either were baptized or baptized others in the Okavango River. About 96% of the households indicated that the natural resources of the Okavango River had some cultural relevance while 92.4% indicated that the natural resources had some religious importance. Of particular importance to note, is that the waters of the Okavango River have some religious importance while the wildlife and some veld products have some cultural importance.

3.8 PERCEPTION ON RIGHTS OF USE OF NATURAL RESOURCES BY RIPARIAN AND NON-REPARIAN COMMUNITIES

Table 13: Perception On Rights of Natural Resources Between Communities

Statement [645]	% Frequency	Disagree/Agree
Non-Riparian communities are responsible for the decline of the Okavango River and other Natural resources	90.4	Disagree
Riparian Communities are the only ones who should have rights over the use of the Okavango River and Its natural resources	73.8	Disagree
People down stream should have the same rights over use of the Okavango River water and other natural resources as those upstream	98.1	Agree
People living away from the Okavango River Basin have no rights on the use of natural resources around the Okavango River Basin	75.7	Disagree

Of the 645 households who responded to the two questions in the above table, 90.4 % disagreed with the statement that “Non-Riparian communities are responsible for the decline of the Okavango River and other natural resources’, while 73.8% of the households indicated that riparian communities were not the only ones who should have rights to the utilization of natural resources around the Okavango River. Further more,

these communities [98.1 % of the household interviewed] agreed to the statement “People down stream should have the same rights over the use of the Okavango River water and other natural resources as those upstream”. The willingness of communities to share the use of resources of the Okavango River Basin is also confirmed through the statement presented to the interviewees in the negative, when 75.7 % of the households interviewed disagreed with the statement that people living away from the Okavango River Basin have no rights on the use of the natural resources in and around the Okavango River.

It can be concluded on the basis of the results shown in table 13, that communities of the Okavango Region consider the resources of the Okavango River Basin as resources that would have to be shared and utilized sustainably to meet the needs of the present generation. The results of Table 13, further suggest that communities believe in the shared management and utilization of natural resources of the Okavango River Basin, which is consistent with the overall objective to facilitate a shared understanding and co-management of the Okavango River Basin.

CHAPTER FOUR

SUMMARY OF FOCUS GROUP DISCUSSIONS

4. PRESENTATION OF FOCUS GROUP SUMMARY RESULTS

Communities were asked through focus groups to present their views on the status of natural resources, resource use by gender, and to outline village institutions and their responsibilities, the strengths and weakness of local level institutions. Communities also expressed their views and opinions on rights over access and utilization of natural resources between Riparian, Non-riparian communities and other users. The results of the focus groups are presented in summary below.

Gudigwa

This focus group was attended by 21 men and 4 women, but ended up with 15 men. Gudigwa is a fairly new village that started in 1987.

Socio-Economic Options by Order of Importance

Drought relief and public works

Traditional beer brewing

Sale of Baskets
 Woodcarving
 Sale of Milk
 Employment in Safaris
 Sale of fencing poles, Grass
 Labour Based Temporary Employment
 CBNRM activities-Okavango Community Trust

Village Level Institutional Data

<i>Village Development committee:</i>	Responsible for village development and planning.
<i>Village Health Committee:</i>	Community health education and home based care for HIV/AIDS patients.
<i>Farmers Committee:</i>	Consultations between farmers and the Agricultural demonstrators regarding farming and agricultural issues in general.
<i>Village Trust Committee:</i>	For natural resources utilization and conservation
<i>Crime Prevention Community:</i>	Prevention of Crime and facilitates cooperation between the community, the police, the tribal administration and other local authorities.

Natural Resource Use by Gender

Men and Women

Fishing, collect river water, cut trees for domestic use and for firewood.

Men

Hunting of wildlife and birds

Women

Harvesting of water lily, grass, river reed, papyrus

Status and Problems Experienced with Natural Resources

The major problem according to the focus group in Gudigwa is restrictive use of natural resources by the law. The community is not involved in the formulation of laws governing restrictive use of natural resources. The focus group strongly felt that the communities needed to be involved in the formulation of laws that govern the relationship between communities and natural resources around them. Further, communities should have total control and decision-making powers on the management and utilization of natural resources around them.

Declining Resources

Wildlife: Wildlife resources are declining because of poaching and the prevalence of diseases. Also, those with hunting licenses often kill more than what is provided for in hunting licenses and this has caused a decline in wildlife numbers and species. The community of Gudigwa considers wildlife to be dangerous, therefore a threat to human life. Responding to a question probing for what needed to be done to harmonize the relationship between wildlife and people, the focus group concluded that people needed to be more careful with their movements.

Lack of Market: The focus group identified lack of a market for their products as a major limitation to small businesses in Gudigwa. Lack of public transport was also identified as a major obstacle to the advancement of the Gudigwa community.

Okavango River Water Volume: The community of Gudigwa reported a decline in water volume in the Okavango River. The decline is associated with perceived inadequate rainfall. While the decline is largely associated to inadequate rainfall, river blockage in

Namibia and Angola was also mentioned as a major cause to the decline of water volumes of the Okavango River. Some community members, it was reported, were also responsible for the declining water volumes, particularly by building walls in the river in order to trap fish. Wildlife movement is also considered to be responsible for the rise in the Riverbed. The focus group also indicated that papyrus, which was over growing in some parts of the river, was responsible for the river blockage, and sometimes diverts the natural flow of the river.

Grass and River Reed: Grass and river reed were also reported to be declining in both quality and quantity. This decline according to the focus group is also a result of inadequate rainfall, reduced water levels in the river, and the fact that grass is not being burnt to stimulate new growth. The focus group also reported that there are areas where papyrus and river reed are plenty, but these places are not accessible to the community because of distance and restriction because some of these areas are leased out. Veld fires were also mentioned as some of the causes of the decline in the availability of grass and river reed.

Increasing Resources:

Fish: Fish was reported to be reproducing very well. The problem though, is that fish has become inaccessible to the community of Gudigwa. The focus group held the opinion that fish was actually plenty in some areas of the river, such as along the Sepopa and Seronga areas. Overall, the focus group concluded that people were not harvesting fish as much as they did in the past.

Papyrus: As with fish, the community also holds an opinion that papyrus is increasing because it is not used much.

Benefits Community Should Be Receiving

Regarding the benefits that the community should be receiving, the focus group felt that they needed to have more access to wildlife, and that was not the case now. The problem

according to the focus group is that Government law has become over protective of the wildlife and only a few people are now benefiting from the wildlife. The community of Gudigwa expressed a desire to participate in community based natural resources management. The community of Gudigwa is supposed to be part of the Okavango Community Trust. However this community has not until now understood the objectives of the OCT and the benefits that can be accrued.

Gunitsoga

22 men and 4 women attended the focus group.

Socio-Economic Options By Order Of Importance

Drought relief and public works
Agriculture
Traditional beer
Fishing
Woodcarving and carpentry
Sale of river reed
Sales of baskets

Institutional Data at Village

<i>Village Development Committee:</i>	Responsible for village development and planning.
Parents Teachers Association:	Consultation between parents and teachers on education issues.
<i>Village Health Committee:</i>	Implements and coordinates community health education and home based care for HIV/AIDS patients.

<i>Farmers Committee:</i>	Consultations between farmers and the Agricultural demonstrators on farming methods and agricultural issues in general.
<i>Consumer Cooperative Committee:</i>	Protection of consumer rights
<i>Okavango Community Trust:</i>	Employment creation, and sustainable utilization of natural resources. Facilitates joint ventures with safari operators to generate income for community through the use of natural resources.
<i>Okavango Polers Trust:</i>	Employment creation, Community Safari operation, and income generation.
<i>Crime Prevention Community:</i>	Prevention of Crime and facilitates cooperation between the community, the police, the tribal administration and other authorities.

Natural Resource Use by gender

Men and Women

Harvesting of Water lilly, woodcarving, firewood collection, Fishing, veld products, collecting of river water.

Women

Harvesting of water lilly, papyrus, and river reed, cutting of grass.

Men

Woodcarving

Problems and the Status of Natural Resources

The focus group in Gunitsoga mentioned two main problems experienced by their community. The first of their problems is lack of access to natural resources as a result of

the buffalo fence. According to the community, the fence should be moved back to its original location so as to increase the area within which the community could harvest natural resources. The second problem experienced by the community of Gunitsoga is the drastic decline in the quality and quantity of natural resources. There are number of causes associated with the decline. However, the community singled out veld fires as the general cause of the decline in the status of natural resources. These fires are normally a result of bush clearing at the plowing fields. The community suggested that local people should be trained on the best manner in which they could clear their fields without causing veld fires.

Declining Resources

Veld Products: veld products are generally declining due to lack of good rainfall. Some are destroyed by veldfires and wildlife particularly elephants.

Okavango River Water Volume: Regarding the status of the Okavango River, the community reached a consensus that indeed the water volume was declining, and the main cause of the decline was inadequate rainfall.

Grass and River Reed: Grass and river reed were also reported to be declining and the main reasons was inadequate rainfall. Veld fires, according to the focus group veldfires were also responsible for the decline in the status of grass and river reed.

Water lilly: Water lily was also reported to be declining and the main reason posited was insufficient water volumes in the Okavango River for its growth.

Vegetation: The focus group also reported a noticeable decline in the quality and availability of some vegetation species. Again the community of Gunitsoga reported that inadequate rainfall was the main cause. Elephants and veld fires were also reported to be causing some considerable damage to the vegetation.

Increasing Resources

Fish: Fish is increasing because the fishermen only hunt for big fish. While the community of Gunitsoga reported that fish was not accessible to them, it is interesting to note that they hold an opinion that fish has not been declining over the years. The reason

for the increase in the status of fish is that the fishermen catch only the big fish. In the event the small fish are caught by mistake these are thrown back into the water. The presence of Fish according to the community of Gunitsoga is concentrated in areas where there is high water volume.

Beetsha

This focus group was composed of 7 men and 5 women. The village of Beetsha started in 1978. Each of the men who attended the focus group were involved in one or two local level community institutions.

Most Important Socio-Economic Options

Drought relief and public works
Employment in Safaris
Agricultural production
Woodcarving
Fishing
Traditional beer brewing
Veld products

Problems Experienced Regarding the Use of Natural Resources

Lack or no access to natural resources by Community: The law prohibits the communities to hunt wildlife, as they would wish. On further discussion of the issue of prohibition of use of natural resources by the law, it became evident that the community

viewed the law as prohibiting them to use natural resources as opposed to facilitating sustainable utilization and conservation. The view is probably caused by the fact that according to the focus group, the community based natural resources strategy has not succeeded yet, in addressing poverty and distribution of proceeds from natural resources up to household level.

No Water in the Okavango River: The main reason for lack of water in the Okavango River was insufficient rainfall. The community of Beetsha proposed a religious solution to the decline in the water volume of the Okavango River. According to the focus group, communities where the Okavango River runs along should pray for rain. Further, the focus group indicated that the Okavango River was blocked in Angola and Namibia, and that had drastically reduced the amount of water flowing into Botswana. The blocked areas needed to be re-opened to allow water to flow all the way along the River.

Destruction of Vegetation and Crops: The focus group in Beetsha reported that the elephant population was increasing, and that elephants were responsible for the destruction of vegetation and crops. The solution to this problem according to the community is to cull the elephant population.

Unequal Sharing of Resources: Some safari companies do not share the benefits of natural resources with communities according to lease agreements. The communities should be trained in safari operations so that they could be able to run safaris on their own. The training will also facilitate communities to make informed decisions about natural resources around them. The community for example, could stipulate and suggest to the safari owners how benefits from natural resources should be shared.

Safari Companies do not Employ Community Members and Batswana in General at Decision Making Levels. The focus group strongly felt that Safari companies should employ Batswana in general and community members in particular at decision-making levels. These would maximize benefits to locals and could facilitate a shared utilization and management of natural resources.

Declining Natural Resources

Wildlife: The focus group reported that wildlife, besides elephants, was dying because of the drought and being trapped by the Buffalo Fence.

Water Lilly and River Reed, Grass: The water lilly, river reed and grass were reported to be declining. The reasons for the decline are lack and/or shortage of rainfall, which in turn caused a tremendous decline in the water volume of the Okavango River. Upstream damming was also reported as causing the decline in both the quality and availability of the water lilly, river reed and grass. The focus group further reported that the decline in the status of grass was also caused by unsustainable harvesting methods. Communities and other relevant stakeholders needed to develop guidelines for harvesting of natural resources.

Vegetation: vegetation is dying because of shortage of rainfall

Veld products: The presence of veld products has also declined, and lack and/or shortage of rainfall were singled out as the main cause.

Okavango River Water: High temperatures and lack and/or shortage of rainfall were responsible for the decline in the water volume of the Okavango River. Further, river blockage up stream disturbs the natural water flow, hence the decline in water volume flowing down stream.

Increasing Natural Resources:

Fish: Fish is reproducing well, and is not harvested much as compared to the past. The suggestion here was that communities were involved in wider socio-economic options than in the past.

Benefits Community Should Be Receiving

The focus group suggested that the community should be benefiting more from fish and wildlife. Regarding the wildlife, the government would have to enforce appropriate resource sharing standards between communities and Safari Companies. In respect of the

community benefiting more from fish, the focus group suggested that the river needed to be unblocked in Namibia and Angola in order that more fish could come down stream.

Natural Resource Use by Gender

According to the results of the focus group, there is a gender dimension towards the use of natural resources.

Men and Women

Fishing, collection firewood, river water, and clay

Men

Hunting of Wildlife, cutting of trees for woodcarving, and building and fencing material.

Women

Harvesting of water lilly, cutting of grass, papyrus, river reed.

Institutional Data at Village

<i>Village Development Committee:</i>	Coordinates the work of other village communities, and responsible for development facilitation and planning.
<i>Parents Teachers Association:</i>	Consultation between parents and teachers on education issues.
<i>Village Health Committee:</i>	Village cleanliness and community health education.
<i>Farmers Committee:</i>	Consultations between farmers and the Agricultural Demonstrators on farming and other agricultural matters
<i>Independence Community:</i>	Preparations and coordination of independence celebrations

<i>Okavango Community Trust:</i>	Education on use and management, conservation of natural resources
<i>Youth Group:</i>	Advises other village communities on the needs of young people.

Sepopa

This focus group was composed of 20 men and 15 women. The focus group generally felt that every Motswana has the right to the utilization of resources in and around the Okavango River. They believed that those that are not citizens of Botswana should pay for the resources before they could use them. It was not clear from the focus group that who should receive the payment. The focus group believed that all the local institutions, including national organisations working at village level, were doing their work appropriately. The focus group singled out the following institutions as doing some commendable work at village level; the National Conservation Coordinating Agency, Consumer Group, Crime Prevention, Village Health Committee, Fisheries Association, Farmers Community, Land board, and Forestry Association of Botswana. The National Conservation Coordinating Agency and the Forestry Association of Botswana had conducted community education and awareness on conservation in Sepopa.

Regarding the strengths and weaknesses of local level institutions the focus group concluded that there was need to provide continuous training to local level institutions so that they could do their work even better. In particular, one member of the focus group suggested, “ *Dikomiti di tshwanetse tsa nonontshiwa go ikemela mo tshomarelong e e lolameng mo morafeng*”

Socio-economic Options By Order of Importance

Traditional beer brewing
Drought relief and public works
Agriculture
Fishing
Grass and water reed
Basket weaving
Tailors
Ironsmith
Traditional fencing poles, firewood
Veld products

Problems and the Status of Natural Resources

The major problem according to the focus group in Sepopa is that the Okavango River is drying up. Some small distributaries, which used to have water along the main Sepopa channel, had dried up altogether. The reasons for the decline according to the community of Sepopa are that; there is not enough rainfall to maintain a stable water flow in the Okavango River, and that there were more people using the water currently than in the past. Responding to a specific question on what should be done to normalize the situation, the focus group concluded that there was nothing much that could be done by the community. The focus group further reported that wildlife was dangerous to human beings, and that was viewed as problematic. Other natural resources reported to be decreasing by the focus group are wildlife, and River Grass. The wildlife is reported to be declining because of too much movement of vehicles and people. Upon further discussion of the reasons for the decline, it became clear that the community was actually referring to lack of access to wildlife by the community. This lack of access was a result of the fact that wildlife has moved further away, as opposed to actual decline in numbers of wildlife.

Declining Resources:

Okavango River Water Volume: The water volume of the Okavango River is constantly declining due to inadequate rainfall. In the past there used be lots of rain. Apart from that the use of water has increased with population increase.

Grass, Papyrus, and River Reed: These natural resources are declining because of inadequate rainfall, and low water levels in the Okavango River. Further, grass is not being burnt to stimulate new growth. The community of Sepopa as that of Gudigwa suggested that there are areas where papyrus and river reed are plenty, but these areas were leased out, and communities have lost direct natural resource utilization rights.

Benefits Community Should Be Receiving

Regarding the benefits that the community should be receiving, the focus group felt that they needed more access and decision-making powers on the utilization of natural resources. The community also felt that government should allocate a certain Quota of some wildlife species to be slaughtered during the Independence Day celebrations.

Natural Resource Use by Gender

Men and Women

Both men and women hunt for fish, collect water from the river, harvest the water lilly, papyrus, river reed, veld products, and in some cases snakes. Snake harvesting was primarily restricted to traditional healers. Both men and women also collect clay soils, and firewood, and hunt for insects.

Men

Men hunt for wildlife and birds. Harvesting of bees is considered too dangerous for women, hence is mostly done by men. Similarly, hunting of wildlife could be dangerous for women therefore its is normally done by men.

Institutional Data At Village

<i>Village Development Committee:</i>	Responsible for village development coordination and planning.
<i>Parents Teachers Association:</i>	Consultation between parents and teachers on educational issues.
<i>Village Health Committee:</i>	Community health education and home based care for HIV/AIDS patients.
<i>Farmers Committee:</i>	Consultations between farmers and the Agricultural Demonstrators regarding farming
<i>Independence Community:</i>	Preparations and coordination of the Independence Day celebrations
<i>Consumer Movement:</i>	Protection of consumer rights
<i>Crime Prevention Community:</i>	Prevention of crime and facilitates cooperation between the community, the police, the tribal administration and other local authorities.
<i>Bothale Jwa Phala Committee:</i>	Encourages young people to refrain from criminal activities to focus on productive options instead.
<i>Mabogodika:</i>	Education and training to people with disabilities on entrepreneurial skills
<i>Fisheries Committee:</i>	Sustainable harvesting of fish.
<i>Youth Committee:</i>	Participates in village development, education and awareness on productive options for young people
<i>Board of Governors:</i>	Provides policy guidance on the operations of the local Community Junior Secondary School.

Seronga

This focus group was composed of 28 men and 5 women. The village of Seronga started in 1943. As with other focus groups, the focus group in Seronga generally felt that every Motswana has the right to the utilization of natural resources in and around the Okavango River.

Socio-Economic Options By Order Of Importance

- Agriculture
- Employment and incomes from safari companies
- Fishing
- Drought Relief and Public works
- Food sales
- Traditional Beer sales
- River and Grass
- Veld products

Problems and the Status of Natural Resources

The major problem according to the focus group in Seronga is that the fishermen do not fish well because of crocodiles, which are a threat to their lives, and the hippos, which damage canoes. The crocodiles and the hippos disturb the community from obtaining

maximum benefits from the fish in the Okavango River. The communities view these as difficult issues that the focus group needed more time to discuss, and come up with possible solutions.

Declining Resources:

Veld products: Veld products were declining due to shortage of rainfall, destruction by veld fires and elephants.

Okavango River Water Volume: Water volume is declining as well and this is attributed to inadequate rainfall.

Grass, Water lilly, River Reed. These natural resources are declining because of lack of adequate rainfall, and low water levels in the Okavango River. The grass is declining because it is not burnt to stimulate new growth. As with the communities of Sepopa, Gudigwa and Gunitsoga, the focus group in Seronga felt that there are areas where papyrus and river reed are plenty but communities do not have access to these areas. Lack of access is a result of two reasons: either because the areas are reserved and not to be used at all or the areas are leased out to safari companies.

The people of Seronga had conflicting views on the role of fire in conservation. Some believe that fire is an important tool for conservation while others believe that fire destroys vegetation and grazing pastures.

Fish: The focus group in Seronga also considers fish to be declining. The reason for the decline is that the water volume of the Okavango River is also declining.

Vegetation: Vegetation was reported to be declining due to inadequate rainfall and damage by elephants.

Increasing Resources

Wildlife: Wildlife particularly elephants, are increasing in numbers. They sometimes move in large kraals and destroy vegetation in people's fields. The community suggested that elephants should be culled.

Papyrus: The focus group reported that papyrus was also increasing because it was not being burnt. The opinion by the community on the increase in papyrus is consistent with

their view of the relationship between water flow and papyrus. According to the focus group, papyrus is responsible for blocking the river channels. In some cases the papyrus diverts the water flow while in other cases the inflow is reduced.

Natural Resource Use by Gender

Men and Women

Both men and women cut grass, river reed, harvest veld products and the water lilly, and papyrus.

Men

Men in Seronga were more likely to cut trees and do wood carving than females. This is probably because both require a little more energy than most activities. Men were also more likely to hunt for fish than females. The reason cited, particularly for fishing by men was that the river was dangerous place to go, particularly with the presence of crocodiles and hippos, and women would be more vulnerable to such animals.

Women

Women in Seronga were more likely to collect veld products than men. The majority of veld products collected by females are used for basket making by females themselves and to create fishing nets by men.

Institutional data at village

<i>Village Development committee:</i>	Responsible for village development and planning. They also coordinate drought relief projects in the village
<i>Parents Teachers Association:</i>	Consultation between parents and teachers on education issues.
<i>Village Health Committee:</i>	Community health education and home base care for HIV/AIDS patients.

<i>Farmers Committee:</i>	Consultations between farmers and the Agricultural demonstrators regarding farming
<i>Okavango Community Trust:</i>	employment creation, and sustainable utilization of natural resources. Contracts safari operators to generate income for community through the use of natural resources
<i>Okavango Polers Trust:</i>	employment creation, Community Safari operation, and income generation.
<i>YWCA:</i>	Education and training on cookery, knitting, and sewing. Also responsible for running the day care centre
<i>Crime Prevention Community:</i>	Prevention of Crime and cooperation between community and the police, tribal administration and other authorities.
<i>4B:</i>	Encourages business and entrepreneurial survival skills for young people.
<i>Village Extension Team:</i>	Multi-Sectoral forum for all development workers in the community. Facilitates a coordinated response to community problems.

Xaxaba

The village started in 1983, and the first vehicles started to cross the river in 1985.

Socio-Economic Options By Order Of Importance

Fishing
Sale of grass
Woodcarving
Knitting
Drought Relief and Public works
Veld products
Employment and income from in safari companies

Problems and the Status of Natural Resources

The community of Xaxaba generally reported a decline in natural resources is problematic. The decline in the status of natural resources is largely attributed to the decline in rainfall and the water volume in the Okavango River. Besides that, the community also expressed the view that natural resources are declining because communities no longer have rights over the use of natural resources. Instead other users had complete rights on the use of natural resources and some of them do not have conservation of natural resources at heart.

Declining Resources:

Veld products: veld products were reported to be declining due to lack of rain destruction by veld fires and elephants. Regarding fire, the community agreed that some members lit fire to burn the grass in order to facilitate regeneration. The community also referred to the possibility of some criminal tendencies to lit fire by some members of the public. Community policing was suggested as one way through which indiscriminate burning of the veld could be stopped. The community however suggested that the community members carrying out the duty of community policing would have to be paid by government. If community members are paid for guarding against veld fires, this should allow considerable time shifting in favor of community policing than participation in other socio-economic options.

Okavango River Water Volume: As with the majority of the communities in the Okavango region, the community of Xaxaba reported a decline in the state of the Okavango river in general, and a decline in water volume in particular. They pointed out that the decline was a direct result of drought and was exacerbated by the fact that vehicles were now moving on areas that used to be water paths, thereby damaging the natural water flow area.

Grass, Water Lilly, and River Reed: These were declining because of inadequate rainfall and low water levels in the Okavango River. And the grass was not being burnt to stimulate new growth. The community of Xaxaba, which is the middle of the Delta, concurred with other communities visited during the present survey, that there are areas where papyrus and river reed are plentiful but these areas are not accessible to the community because of distance and restrictions on use as enforced through the Botswana conservation laws. And some of the areas where the grass and papyrus are available are leased to safari companies. The community feels that they should have the right to collect the grass and papyrus even in leased areas. These natural resources are important for domestic use particularly for making household shelter. The community also holds a view that people should be allowed to burn [controlled and supervised burning] the grass and river reed to encourage new growth.

Fish: Decreasing due to lowered water volume in the Okavango River

Vegetation: Decreasing due to inadequate rainfall and damage by elephants, in some cases by veld fires.

Wildlife: The community of Xaxaba reported that in general, all wildlife species but elephants were declining in numbers. This community largely attributes the decline of wildlife species and birds to safari company owners. Nobody supervises Safari Companies on resource harvesting and utilization, and this would have to be corrected by law.

Increasing Resources

Bees: The community of Xaxaba reported an increase in bees, and the main reason for the increase is that there is minimal harvesting of this resource. However, bees also have a very successful regeneration process, and the bees will always relocate to create a new beehive if the original beehive has been totally removed.

Natural Resource Use By Gender

Men and Women.

Both men and women cut grass, river reed, and collect veld products and river water. Both sexes also harvest the water lilly.

Men.

Men mostly hunt wildlife, birds and fish. They also do wood carving and harvest bees.

Institutional Data at Village

Village Development committee: Responsible for village development and planning.

Village Trust Committee: Provides education to community members on the conservation and utilization of natural resources. Xaxaba VTC is responsible for NG 32.

Xakao

The focus group was composed of 13 men and 2 women.

There Socio-economic Options By Order of importance

Agriculture
Fishing
Sale of grass, and river reed
Woodcarving
Drought Relief
Veld products
Wildlife

Institutional Data at Village

Village Development committee: Responsible for village development and planning.
Parents Teachers Association: Consultation between parents and teachers on educational issues.
Village Health Committee: Community health education and home base care for HIV/AIDS patients.

<i>Farmers Committee:</i>	Consultations between farmers and the Agricultural demonstrators regarding farming
<i>Independence Community:</i>	Preparations and coordination of independence celebrations
<i>Crime Prevention Community:</i>	Prevention of Crime and cooperation between community and the police, tribal administration and other authorities

The focus group in Xakao suggested that a community institution that will be responsible for education and awareness on the use of natural resources would have to be formed.

Natural Resource Use by gender

Men and Women.

Both sexes do fishing, collection of river water and firewood, cutting of river reed, and harvest veld products.

Men

Men hunt wildlife and birds.

Women

Women harvest water lilly.

Problems and the Status of Natural Resources

Overall the focus group in Xakao reported a general decrease in the status of most natural resources. The main reason posited for the decrease is the declining water volumes of the Okavango River and insufficient and inadequate rainfall during the most recent past. Natural resources particularly reported to be declining include the following:

- Veld products
- Okavango river Water volume:

- Grass
- Water lilly
- River reed
- Fish
- Papyrus
- Vegetation:
- Wildlife

Khwai

Socio-economic Options By Order of importance

Employment and income from in safari
companies/tourism
Sale of grass and River reed
Knitting
Hunting of wildlife
Agriculture
Veld products
Harvesting of Bees
Fishing
Sale of traditional beer and bread
Woodcarving

Institutional Data at Village

Village Development committee:	Responsible for village development and planning.
<i>Khwai Development Trust:</i>	Encourages natural resources management by community, facilitates joint ventures with tourist and safari companies and is generally considered by

the community to be very useful and doing a good job.

Traditional Songs Committee: Encourages preservation of culture.

Natural Resource Use by gender

Men and Women

Cutting of grass and river reed, fishing, harvesting of water lilly and veld products, and collection of river water and firewood.

Men

Men do wood carving and hunting of wildlife and birds.

Problems and the Status of Natural Resources

As with the focus group of Xaxaba, the focus group in Khwai reported a general decline in all types of natural resources apart from elephants. The focus group also holds a perception that the Department of Water Affairs has built some walls across the river, and this has caused a decline in the water flow. According to them, the river sometimes dries up altogether, and this has had a negative impact on other natural resources, particularly those that rely on water to survive. Grass, river reed, water lilly, papyrus were mentioned as the most affected.

Boro

The attendance was composed of 22 men and 4 women.

Socio-Economic Options By Order Of Importance

Agriculture
Tourism
Sale of Grass and River reed
Traditional beer and bread
Fishing
Veld products
Woodcarving
Drought relief and public works

Institutional Data at Village

<i>Village Development committee:</i>	Responsible for village development and planning.
<i>Village Trust Committee:</i>	Provides education to community members on the conservation and utilization of natural resources, coordinates safari and tourism activities in NG32 as well

Natural Resource Use by Gender

Men and Women

Cutting of grass, River reed, harvesting of water lilly, woodcarving, firewood collection, fishing, veld products and river water collection.

Men

Hunting of wildlife and birds

Problems Experienced with Natural Resources

Declining Resources:

Veld products: Veld products are reported to be declining due to lack of rain, veld fires, and destruction by elephants.

Okavango River Water Volume: Water volume was reported to be declining due to inadequate rainfall and that the riverbed was being tempered with by some development agencies, particularly government and safari companies. Government is reported to be sourcing water from the Boro River and this disturbs the natural water flow. It was also reported that Government facilitated the River project whose activities considerably interfered with the natural water flow, thereby causing serious decline in water flow down stream, particularly in Mopipi and Motopi areas.

Grass and River Reed. These species are also declining and have become inaccessible to the community of Boro. In the past, the community of Boro used to have plenty of River Grass, Reed and papyrus. The reason for the decline and inaccessibility of these natural resources is that the water volume has decreased, and in “worst scenarios such as in our village the river has dried up, and could dry up for ever”.

Water lilly. The water lilly is also no longer available because there is no water in the river. However, the year 2000/2001 there were some inflows, but not enough to support the development and regeneration of water lilies that are good enough for consumption.

Fish. Decreasing due to lowered water volume in the Okavango River.

Vegetation: Vegetation was also reported to be declining due to inadequate rainfall and damage by elephants and veld fires.

Wildlife: The community of Boro is one of those communities to mention the decline of wildlife, except elephants, which they say, are increasing in numbers. The community also holds a perception that hunting safari companies are responsible for the decline of wildlife. Safari companies, according to the Boro community, have the mechanisms⁶ to kill large numbers of wildlife beyond specified limits.

⁶ Mechanisms include guns, and vehicles, particularly large four-wheel drive haulage trucks.

Shorobe

The attendance was composed of 16 men and 7 women.

Socio-economic Options By Order of importance

Agriculture
Traditional beer
Sale of Grass and River reed
Sale of bread
Basket weaving
Harvesting of water lilly
Fishing
Drought relief and public works
Temporary employment
Veld products

Institutional Data at Village

Village Development committee: Responsible for village development and planning.

Village Trust Committee: Provides education to community members on the conservation and utilization of natural resources, coordinates safari and tourism activities in NG32

Natural Resource Use by gender

Men and Women

Cutting of grass, River reed, harvesting of water lilly, woodcarving, firewood collection, fishing, and veld products, collecting of river water.

Men

Hunting of wildlife and birds

Problems and the Status of Natural Resources

Declining Resources:

Veld products: veld products are declining and in some areas they have been degraded due to lack of rain, veld fires, and destruction by elephants.

Okavango River Water volume: Water volume in the Okavango River is declining and this is caused by inadequate rainfall.

Grass, River Reed and Papyrus: These natural resources were reported to be declining not only because of inadequate rainfall, but also because of veld fires. In many a case, veld fires are caused by some community members. Fire is normally lit for good intentions but sometimes goes out of control and no one claims responsibility because of fear of the law.

Water Lilly: The water lilly is declining because of insufficient water volumes for its growth

Fish: Fish are decreasing due to lowered water volumes in the Okavango River and use of unacceptable fishing methods, such as nets with tiny holes and traditional fishing baskets, which are not selective of size of fish.

Vegetation: Some vegetation, which does not need lots of water to grow, is also damaged by being trampled over by elephants, which are “roaming all over”. Veld fires are also responsible for the damage of vegetation.

Wildlife: Wildlife species are decreasing because they moved further into the game reserves. Community also holds a perception that hunting safari company owners are responsible for the decline in wildlife, due to the fact that no body seems to monitor the activities in their leased areas.

Ngarange

The focus group was composed of 13 men and 14 women.

Socio-economic Options By Order of importance

Agriculture
Sale of Grass and River reed
Fishing
Woodcarving
Sale of Bread
Sale of Traditional Beer
Harvesting and sale water lilly
Veld products
Sale of papyrus
Drought relief employment

Institutional Data at Village

Village Development committee: Responsible for village development and planning.

Parents Teachers Association.	Consultation between parents and teachers on education issues.
<i>Village Health Committee:</i>	Community health education and home base care for HIV/AIDS patients.
<i>Farmers Committee:</i>	Consultations between farmers and the Agricultural demonstrators regarding farming

Natural Resource Use by Gender

Men and Women

Harvesting of Water lilly, firewood collection, fishing, cutting trees for building and fencing material, collection of veld products and river water, and harvesting of papyrus.

Women

Harvesting of water lilly

Men

Hunting of wildlife and birds

Problems and the Status of Natural Resources

Declining Resources

Veld products: veld products are declining because of lack of rainfall, destruction caused by veld fires and elephants.

Okavango River Water Volume: Water volume is declining due to inadequate rainfall.

Grass and River Reed: Grass and river reed are damaged by veldfires along the river flood plain

Water lilly: Dies because of insufficient water volume for its growth and is probably extinct in areas where there is no longer any water flow.

Fish: Contrary to the views of the majority of communities consulted during the survey, the community in Ngarange reported a decline in fish. The one reason for the decline is reduced water volumes, while the other reason arises from the fact that some of the Delta distributaries have dried up, hence fish is no longer accessible.

Vegetation: Elephants, and veld fires mainly damage the vegetation and this decline is exacerbated by shortage of rainfall and decreased water volume in the Okavango River.

Wildlife: Decreasing except for elephants, which are increasing. Community also holds a perception that hunting safari company owners are responsible for the decline of wildlife. They harvest more than is provided for, law enforcement is weak in this area. In some cases the community guides connive with Safari owners, in return for money, to kill more wildlife than is provided for in a hunting permit.

Increasing Natural Resources

Wildlife: Elephants are increasing in numbers, and the community correctly attributes the increase to protection by the law, therefore only sustainable utilization occurs.

Birds: Reproduction is high, due to protection by the law. Most utilization is through photographic safaris and there is an insignificant number of people who kill for consumption.

Nxamasere

The focus group was composed of 13 men and 14 women.

Socio-economic Options By Order of importance

Agriculture
Fishing
Basket weaving
Woodcarving
Sale of Traditional Beer
Tailoring
Drought relief employment
Old age pension

Institutional Data at Village

<i>Village Development committee:</i>	Responsible for village development and planning.
<i>Parents Teachers Association:</i>	Consultation between parents and teachers on educational issues.

<i>Village Health Committee:</i>	Community health education and home base care for HIV/AIDS patients.
<i>Farmers Committee:</i>	Consultations between farmers and the Agricultural demonstrators regarding farming, Farmers community encourages people to do row planting, how to reduce land degradation, planting of trees in homes.
<i>Crime Prevention Community:</i>	Prevention of Crime and cooperation between community and the police, tribal administration and other authorities

Natural Resource Use by Gender

Men and Women

Harvesting of Water lilly, fishing, cutting of grass and river reed, harvesting of veld products, collecting river water and firewood, and harvesting of papyrus.

Men

Hunting of wildlife and birds

Problems and the Status of Natural Resources

According to the focus group conducted in Nxamasere the community is experiencing three main problems, and these are: Veld fires, digging of the riverbed, threat to human life by wildlife.

The veld fires destroy the natural resources in the flood plain of the Okavango River. The focus group suggested that local communities should have fire prevention committees. Digging of the riverbed changes water momentum thereby reducing the water flow. The community attributes the digging of the riverbed to safari operators and to building

contractors. In some cases digging of the riverbed changes the direction of river flow. Government would have to institute a law barring people from digging the riverbed. Members of the focus group also view wildlife as threat to human life, particularly crocodiles and elephants. Utilization of crocodiles under the community based natural resources management programme should be increased to reduce the crocodiles, while elephants should be culled or their quota to communities to be increased.

All natural resources according to the focus group conducted in Nxamasere are experiencing a serious state of decline. Elephants are the only species reported to be increasing. According to the community, this decline is attributed to over utilization by communities and safari operators. Communities depend more on natural resources than they used to in the past.

Tsutsubega

Socio-economic Options By Order of Importance

- Agriculture
- Sale of grass and river reed
- Sale of firewood and fencing poles
- Fishing and harvesting of water lilly
- Basket Weaving and Woodcarving
- Veld products
- Sale of Traditional Beer
- Hunting of wildlife
- Bee Harvesting

Institutional Data at Village

<i>Village Development Committee:</i>	Responsible for village development and planning.
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Village Trust Committee:

Provides education to community members on the conservation and utilization of natural resources, coordinates safari and tourism activities in NG32

Natural Resource Use by Gender

Men and Women

Harvesting of Water lilly, fishing, cutting of grass and River reed, veld products, collecting of river water, harvesting of papyrus, firewood.

Men

Hunting of wildlife and birds

Problems and the Status of Natural Resources

The community of Tsutsubega reported that all natural resources are in at state of decline, both in quality and quantity. They attribute the decline to lack of sufficient rainfall, blockage of the river up stream in Botswana and abroad. The elephants are considered the main culprit for vegetation damage. Elephants are also considered dangerous to people, to the extent that people normally restrict their movements for fear of being attacked.

Motopi

The focus group was attended by a total of 25 people.

Socio-economic Options By Order of importance

Agriculture
Drought relief employment
Veld products and wild fruits
Sale of Grass

Institutional Data at Village

<i>Village Development committee:</i>	Responsible for village development and planning.
<i>Parents Teachers Association.</i>	Consultation between parents and teachers on educational issues.
<i>Village Health Committee:</i>	Community health education and home base care for HIV/AIDS patients.

Farmers Committee:

Consultations between farmers and the Agricultural demonstrators regarding farming, Farmers community encourages people to do row planting, how to reduce land degradation, planting of trees in homes.

Natural Resource Use by Gender

Men and Women

Harvesting of Water lilly, fishing, cutting of grass and River reed, veld products and wild fruits, poles for building material and fencing, collect water.

Women

Harvest veld products particularly for basket weaving.

Problems and the Status of Natural Resources

The community of Motopi reported that their main problem was that the main natural resources, which used to be in the vicinity of their village, are no longer present. In fact, one member of the focus group reported that some natural resources have even become “extinct” due to lack of sufficient rain, and drying up of the Boteti River. The reason for the drying up of the Boteti River, according to members of the focus group is that the main channel has been blocked in Angola, particularly in the war zones. These people no longer have easy access to river water, and other resources such as river grass, the water reed, and fish. It is also no longer feasible and easy for most people in the community to harvest and sell to others, because these resources are no longer accessible. Natural resources are no longer as important a socio-economic option as they used to be in the past. In order for one to obtain these resources, they have to purchase, or travel a long distance to harvest these resources for themselves. Those without transport of their own hire private transport and pay exorbitant transport fees.

They also reported that community institutions were actually not doing enough to augment for their loss of income due to the decline of important natural resources such as papyrus, river reed, and grass. While the government was commended for providing drought relief work to communities, the members of the focus group felt that the government should actually do more to facilitate the creation of small businesses.

Ditshaping

Socio-economic Options By Order of importance

Employment in Safaris and Tourism
Sale of Grass and River reed
Agriculture
Basket weaving, woodcarving
Drought Relief

Institutional Data at Village

<i>Village Development Committee:</i>	Responsible for village development and planning. Consultation between parents and teachers on educational issues.
<i>Village Trust Committee:</i>	Provides education to community members on the conservation and utilization of natural resources, coordinates safari and tourism activities in NG32

Natural Resource Use by Gender

Men and Women

Harvesting of water lilly, fishing, cutting of grass and river reed, veld products and wild fruits, poles for building material and fencing, collect water.

Women

Women mainly harvest veld products particularly for basket weaving.

Problems and the Status of Natural Resources

Wildlife: There are too many elephants. These animals restrict the movement of people, and destroy the vegetation. Almost all natural resources were reported to be decreasing. The most affected resources are fish; water lilly, bees, wild fruits, papyrus, vegetation, and river grass, River reed, wildlife and water volumes for the Okavango River. Overall the decline in the status of these natural resources is attributed to the general decrease of the water volumes in the Okavango River and lack of sufficient rainfall to facilitate new growth and regeneration of the species.

Gumare

The focus was group was attended by 14 men and 4 women.

Socio-economic Options By Order of importance

- Agriculture
- Sale of grass and river reed
- Basket weaving,
- Sale of fish
- Woodcarving
- Sale of traditional beer and bread
- Sewing, sale of hides, welding
- Wild fruits
- Temporary employment in the construction industry
- Employment in Government offices
- Small businesses
- Drought relief

Institutional Data at Village

<i>Village Development committee:</i>	Responsible for village development and planning.
<i>Parents Teachers Association.</i>	Consultation between parents and teachers on educational issues.
<i>Village Health Committee:</i>	Community health education and home base care for HIV/AIDS patients.
<i>Farmers Committee:</i>	Consultations between farmers and the agricultural demonstrators regarding farming
<i>Independence Community:</i>	Preparations and coordination of independence celebrations
<i>YWCA</i>	education and training on knitting sewing, and cookery.
<i>Crime Prevention Community:</i>	Prevention of crime and cooperation between community and the police, tribal administration and other authorities.
<i>Botlhale Jwa Phala Committee:</i>	Encourages young people to refrain from criminal activities to focus on productive options instead.
<i>Ngwao Buswa:</i>	Preservation of cultural preservation
<i>BCW:</i>	Youth education and development.
<i>Hospital advisory Committee</i>	facilitates consultation between health hospital staff and the community on health issues and handling of patients.
<i>Maitseo Group:</i>	Facilitates good behavior on young people.
<i>Ipabalelo Tseleng:</i>	Education on road safety issues.
<i>Board of Governors:</i>	Provides policy guidance on the operations of the Community Junior secondary school.
<i>Kamanakao Association:</i>	Encourages revitalization and the use of Seyeyi language and culture.

Natural Resource Use by Gender

Men and Women

Harvesting of Water lilly, fishing, cutting of grass and River reed, veld products and wild fruits, poles for building material and fencing, collect water.

Men

Hunt wildlife and birds.

Problems and the Status of Natural Resources

Digging of the River. The community holds a view that construction companies dig the riverbank and bed to get sand for construction. The communities also blame its own members for digging the riverbank and bed as well.

The Problem of Dam Construction Upstream: The community holds a perception that dams have been constructed upstream and that has

affected the inflow into Botswana. They suggest that dams should not be built on the Okavango River at all; the river itself should be left in its natural state. It is only the natural resources around the river basin that should be harvested

“the river water volume has declined and actually some channels such as the one that passes by our village have dried up completely. The water is declining because there is not enough rainfall. The other resources are also dying due to inadequate water and rainfall”- Mr Matenenga

sustainably. The community also believes that water boats are responsible for the decline in fish. The boats wash away the fish eggs onto the riverbank. They suggested that boat engines and size should be restricted and law promulgated to facilitate enforcement.

Veldfires are also problematic from the point of view of the community in Gumare. Community members sometimes light veld fires in order to facilitate new growth of natural resources such as river reed, and grass. In some cases the fires are meant to destroy papyrus in order to open up water channels so that fish could reach villages whose water channels have been blocked. These fires sometimes go out of control and burn unintended areas. Communities together with government, other development institutions and safari tour operators would have to find solutions through which water inflow could be improved without damaging other natural resources unintentionally.

“Restrictive use of natural resource is important in that it recommends use according to the ability of the resources to regenerate”- Wildlife officer Gumare

Restrictive use could be useful in assisting our community to utilize natural resources in a sustainable manner. This is because the status of palm trees has declined, and we know because that is the resource that we use for making our baskets”- Basket weaver, Ngwao Buswa

IKoga

Socio-economic Options By Order of importance

Agriculture
Basket weaving
Fishing
Grass and River reed
Woodcarving
Sale of traditional beer
Sale of bread
Sale of traditional building and Fencing materials
Drought relief

Institutional Data at Village

Village Development committee: Responsible for village development and planning.

<i>Parents Teachers Association.</i>	Consultation between parents and teachers regarding educational issues.
<i>Village Health Committee:</i>	Community health education and home base care for HIV/AIDS patients.
<i>Farmers Committee:</i>	Consultations between farmers and the Agricultural demonstrators regarding farming
<i>Ikoga Fishing Project:</i>	Fishing cooperative. Sale of fish to generate income for the members.
<i>Crime Prevention Community:</i>	Prevention of Crime and cooperation between community and the police, tribal administration and other authorities.
<i>Consumer Committee:</i>	Protection of consumer rights
<i>Aids Committee:</i>	Education and awareness on prevention of HIV/Aids
<i>BCW:</i>	Youth education and development.

Natural Resource Use by Gender

Men and Women

Harvesting of Water lilly, fishing, cutting of grass and River reed, veld products and wild fruits, poles for building material and fencing, collect water.

Men

Hunting of wildlife and birds.

Problems and the Status of Natural Resources

AS with other communities of the Okavango, the community of Ikoga views the decline in water volumes in the Okavango River and lack of rainfall as major causes of the decline of other natural resources. Natural resources specifically affected are water reed, grass, and papyrus. The community of Ikoga also thinks that village level communities are not that effective, and that they would need training of conservation of the resources

in and around the Okavango river, management of community institutions, book keeping, process management and identification of community needs.

Declining Natural Resources

Wild fruits: Declining because of insufficient rainfall

Palm Tree: Destroyed by elephants. Some members of the community harvest the palm tree by uprooting the whole tree instead of cutting the needed parts of the trees. The perception by the community is that those who uproot the palm tree re-plant them for decoration at their establishments.

Okavango River Water Volume: Lack of Rain, and damming upstream blocks water flow. The community holds a perception that the Okavango River is blocked in Angola.

Grass: Shortage of rainfall and reduced water volume in the Okavango River, unsustainable harvesting methods were listed as some of the reasons for the decline in the quality and available of river grass.

Increasing Natural Resources:

Fish: Fish is reproducing well, and is not harvested much as compared to the past.

Wildlife: Restrictive use by law has contributed to reproduction and self-replacement of wildlife species. In addition, some communities are now participating in wildlife management and that has reduced the rate of poaching.

Water lilly: People harvest and put back the leaves and this has facilitated regeneration of the resource. It should be noted that Ikoga is very close to one of the main Delta channels.

Papyrus: The community reported that the resource was not being over-harvested by its users. Over-harvesting is not a problem probably because Ikoga is not a preferred harvesting point for papyrus. There is little evidence to support a deliberate effort against over harvesting and the available of resource check mechanisms beyond what is mentioned above.

Etsha 6

Socio-economic Options By Order of importance

Agriculture

Basket weaving

Woodcarving

Fishing

Traditional beer brewing

Sale of traditional building and Fencing materials

Welding and ironsmith

Sale of Homemade bread

Sale of wild fruits

Harvesting of water lilly

Institutional Data at Village

Village Development committee:

Responsible for village development and planning.

Summary of focus group with Wood Carvers

- Other important socio-economic options besides wood carving are both arable and pastoral farming.
- Some natural resources are declining in quality and quantity. The ones declining the most are river reed, grass, fish, wildlife, and wildfruits. This focus group particularly mentioned that they only hunt for wildlife only if they hold a hunting permit to hunt.
- They encourage other community members not to burn the veld.
- The group confirmed that their knowledge and understanding of how trees and vegetation should be conserved and/or used sustainably is weak. The groups would welcome external help in education and awareness on sustainable natural resources utilization
- The group suggested that both riparian and non-riparian communities have the right to use natural resources, but that should be done in a sustainable manner.
- The group suggested a need for some well-defined roles and responsibilities for communities in veld fire prevention.

<i>Parents Teachers Association.</i>	Consultation between parents and teachers on issues regarding education.
<i>Village Health Committee:</i>	Community health education and home base care for HIV/AIDS patients.
<i>Farmers Committee:</i>	Consultations between farmers and the Agricultural demonstrators regarding farming
<i>Village Trust Committee:</i>	Encourages conservation and sustainable utilization of natural resources.
<i>Crime Prevention Community:</i>	Prevention of Crime and cooperation between community and the police, tribal administration and other authorities.
<i>Consumer Committee:</i>	Protection of consumer rights. Forwards community problems and complaints to the management of the village cooperative shop.
<i>Board of Governors:</i>	Provide policy guidance on the management and administration of the community junior secondary school. Forum for discussion of education issues between parents and teachers.
<i>Village Extension Team:</i>	This is a multi-sectoral committee that discusses and plans for community development. Shares problems and possible ways in which community needs could be addressed

Natural Resource Use by Gender

Men and Women

Fishing, cutting of grass and river reed, veld products and wild fruits, poles for building material and fencing, collect water.

Women

Harvesting of water lilly

Men

Hunting of wildlife and birds.

Problems and the Status of Natural Resources

The community of Etsha is mostly engaged in basket weaving. This community would like to get more access to wider markets to increase sales for their products. The community of Etsha reported a decline of the palm tree, which is mostly used to make baskets. Regarding the strengths and weaknesses of their community institutions, the majority believed that there was not much consultation between the community institutions and the villagers. A considerable number of people did not know the main functions of their VDC and community cooperative. Those who knew something about the VDC could only mention that it facilitates drought relief projects and had constructed houses that are normally rented out to generate income.

Shakawe

30 women and 10 men attended the focus group.

Socio-economic Options By Order of importance

Agriculture
Sale of Grass and River reed
Woodcarving
Fishing
Wild fruits
Water lilly
Basket weaving
Drought Relief projects

Institutional Data at Village

Village Development committee: Responsible for village development and planning.

Parents Teachers Association. Consultation between parents and teachers on education matters.

Village Health Committee: Community health education and home base care for HIV/AIDS patients.

<i>Farmers Committee:</i>	Consultations between farmers and the Agricultural demonstrators regarding farming
<i>Village Planning Committee</i> ⁷ :	Responsible for planning and village development oversight.
<i>National Conservation Strategy Coordinating Agency</i> ⁸ :	Education and awareness on sustainable natural resources management and utilization. They emphasize that the current generation should use natural resources to improve their own living standards but not in a manner that will jeopardize the chances of future generations improving their living standards on the basis of the same natural resources.

Natural Resource Use by Gender

Men and Women

Fishing, cutting of grass and river reed, veld products and wild fruits, poles for building material and fencing, collect water.

Women

Harvesting of water lilly, papyrus, palm tree, and clay

Men

Collecting of clay, woodcarving, traditional building and fencing material, hunting of wildlife and birds.

⁷ The relationship between this committee and the village development committee was not clear at all. It seems, however, that the village planning committee does not implement development projects per se, but provides oversight on future development projects and advises the village development committee.

⁸ NCSCA conduct education and awareness on visits

Problems and the Status of Natural Resources

Declining Natural Resources

Wild fruits: Wild fruits were dying because of insufficient rainfall

Palm Tree: Palm tree is largely destroyed by elephants. In some cases community members harvest the palm tree by uprooting the whole tree instead of cutting only the needed parts of the tree. The perception by the community is that those who uproot the palm tree re-plant them for decoration at their establishments.

Okavango river water. Insufficient rainfall, and damming upstream. The community pointed out that the river inflow was not as satisfactory as it used to in the past. In the past the flood plain would be covered by water for a period ranging from three and four months before it could subside.

River reed and grass. The community pointed out that the demand for river reed and grass had increased, and this has resulted in the decline of the two natural resources, particularly in the vicinity of the village. The increase in the demand is caused by the population increase. River reed and grass are normally harvested for building purposes at the household level, and at times are sold to safari operators and business people. Life stock is also reported to have a contribution to the decline of grass and river reed.

Vegetation: Vegetation is also considered by the community of Shakawe to be in a considerable state of decline. While other communities have attributed the decline to damage by wildlife, the community of Shakawe attributes the damage to population increase, which they say, puts vegetation in pressure.

Increasing Natural Resources:

Fish: Fish is reproducing well, and is not harvested much as compared to the past; suggesting communities are engaged in other socio-economic options. While the fish is reproducing well the community is worried that some people use smaller nets, which are not selective. Such nets could cause the decline of fish species in the future.

Wildlife: Wildlife was also reported to be increasing. According to the community the main reason for the increase is restricted use by law. Restricted use has contributed to the decline in poaching. Some communities are getting wildlife quotas from government and these are sold and income and employment generated for the community. Further, government support through drought relief and intensive public works has contributed to the increase in wildlife. People are able to generate the needed income and employment without having to poach.

Jao

The focus group was attended by 9 women and 9 men. An additional 10 more people joined the focus group during the process.

Socio-economic Options By Order of importance

- Agriculture
- Fishing
- Sale of river reed and grass
- Harvesting water lilly
- Harvesting of wild fruits

Institutional Data at Village

Village Development committee: Responsible for village development and planning. The community reported lack of cooperation between the VDC and the community. The VDC does not meet regularly; they seem not to know procedures of running a village development committee. The focus group felt that the VDC has nothing to do since there are not drought relief efforts in their community.

Village Health Committee: This committee has since stopped operating. The reasons cited are apathy as a result of lack of incentives for participating in community work. People would rather seek employment with Safari companies than to work on voluntary basis for their village committees.

Natural Resource Use by Gender

Men and Women

Cut grass and river reed. Both sexes also harvest veld products, wild fruits, traditional fencing and building material and collect of River water.

Men

Fishing. Men mostly do fishing in Jao. This is probably because deep waters surround Jao, which is located in the middle of the Delta, and it is generally not safe for women to fish in the Delta waters.

Problems and the Status of Natural Resources

According to the results of the focus group, the community of Jao seems to have more problems than any other community visited during the survey. The community suspects that they will be moved from Jao. The community according to the focus group falls within a cattle free zone. This they cited, as the possible reason why the drought relief projects in their village have been stopped. The community seems to have resolved that they should not engage in long-term developments projects since they are going to be moved anywhere.

The natural resources in around and Delta are declining gradually. The reason cited for the decline is the decrease in the water volumes of the Delta channels. Most natural resources in and around the Okavango River are heavily depended on the water levels and volumes. It is for that reason that their decline or increase is directly related to the decline and increase of water levels and volumes. The natural resources identified to be declining are fish, wild fruits, River reed and Grass, vegetation, and the general water levels of the Delta channels.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5. INTRODUCTION

This chapter presents a summary of the main findings. Each of the main findings has a conclusion and some recommendations where necessary. As indicated in the introduction, the main objective of the “Every River Has Its People” project is “to promote the sustainable management of natural resources of the Okavango River with the full participation of local level communities. The full participation by local communities can only happen if communities have the necessary information and capacity to make decisions about natural resources and the environment around them. Therefore, information sharing and capacity building are important components towards achieving sustainable environmental management. A shared understanding of the problems and proposed activities that mitigate against the environmental problems experienced by stakeholders in the management and utilization of natural resources in the Okavango Region, both at national and trans-boundary levels, will also determine the extent to which natural resources utilization and management becomes sustainable. It is hoped that the conclusions and recommendations presented in this section will facilitate the development of appropriate information and capacity building initiatives towards co-management of the natural resources of the Okavango River Basin.

5.1. General Conclusions

- Communities of the Okavango Region in Botswana are generally aware of the area that is referred in the present report as the Okavango River Basin. Communities are also aware that the Okavango River Originates in Angola, and passes through Namibia into Botswana. It is precisely for that reason that some of the community responses on the decline of water volume in the Okavango River are based on perceptions that the Okavango River has been dammed upstream in Angola and Namibia.
- Communities heavily rely on the natural resources of the Okavango River Basin, and the continued existence of natural resources in this area is central to the sustenance of livelihoods options in the Okavango Region.
- Overall, communities are witnessing a decline in the quality and availability of natural resources of the Okavango River Basin. This decline is attributed to a number of reasons. One of the main and perhaps the most important reason for the present survey is that there are no guidelines for natural resource utilization and management. Further, the roles and responsibilities of communities towards conservation of natural resources of the Okavango River Basin, as with those of other stakeholders, have not been clearly defined.
- While communities view themselves as holding some knowledge in conservation of natural resources, they also think that there has not been a deliberate effort to balance traditional and modern and/or scientific methods of conservation of natural resources. The lack of balance between the two, constitute an information and capacity building gap.
- There is no shared understanding and vision on the management and utilization of natural resources of the Okavango River Basin. Every other stakeholder uses natural resources of the Okavango River Basin according

to their needs and aspirations, but not according to any set criteria of natural resources utilization.

- There is need to develop a clear organizational, communication and development link between local institutions, on the one hand, and district and national institutions, on the other hand. This is precisely because the link between local institutions, district and national level institutions is weak and would need to be strengthened as part of the information and capacity building initiatives of the overall project. The development of clear linkages between communities and other stakeholders could facilitate a recognition of the role played by communities in natural resources management.
- There exists a platform to facilitate a shared understanding and vision on the management of natural resources of the Okavango River Basin. The results of the stakeholders' forum indicate that communities, the government, the private sector and civil society institutions are ready to participate in this initiative.
- Currently, the role of communities in the utilization and management of natural resources of the Okavango River Basin is not sound and meaningful, even with the implementation of the Community Based Strategy for Natural Resources. Communities do not have full decision-making powers on resources around them, and the benefits of community Based Natural Resources have not yet reached the household level (particularly in respect of addressing poverty, low incomes and unemployment) in a manner that is satisfactory. This may be a result of the fact that private-individual enterprising in CBRNM has not been encouraged over the years.

5.2. Specific Conclusions and Recommendations

a) Community Institutions and their Roles and Responsibilities

There exist a number of community institutions in the Okavango region. These institutions vary in areas of focus and strengths. The most common institution is the village development community. The VDC's are generally responsible for community development planning and coordination, including facilitation of the implementation of drought relief projects.

Community Based Natural Resources Utilization institutions are also emerging as important institutions for community development. As discussed in the findings this is primarily because these institutions are associated with natural resources, and almost every family in the Okavango region has been involved in the utilization of natural resources, either through informal or formal employment, and in some cases through both mechanisms.

As with any other development institutions, community institutions in the Okavango region would need continuous capacity building in order to facilitate effective and sound community development.

It is recommended that an integrated information dissemination and capacity building programme for local communities be developed for the Okavango region. Different aspects of the proposed integrated capacity building programme should be implemented by a variety of stakeholders (government, civil society, local leadership structures, local communities Safari companies). Together, all the relevant stakeholders should identify a coordination agency for the implementation of the programme in order to reduce duplication of efforts and redundancy. The coordination agency does not have to be a formal network.

The integrated information dissemination and capacity building programme should include the following activities:

- Management and coordination of village development activities: The target group should be traditional leaders, village community members, and other local level community extension officers.
- Needs identification and assessment: Local development institutions communities would have to be trained on simple qualitative processes of identifying the needs of their communities and how to record the processes through which community needs have been identified.
- There has to be a clear link between village development institutions and the locally elected representatives. In fact, the present socio-ecological survey report endorses the recommendation of the Review of the Rural Development Policy that there has to be a direct link between village development committees and the district council debates on village development. It is therefore important that the role of politicians in VDC should be increased.
- Local level institutions also need basic training and awareness on record keeping and accounting. This will enhance the ability of local community institutions to account for community resources, particularly community funds.
- Community institutions also need capacity building on resource mapping and assessment in order to determine a decline and increase in both quality and quantity. This type of capacity building would also need to include collective community consensus building on the status of natural resources and ways in which different communities could determine community actions arising from conclusions on the status of natural resources.

- There is no need to form new community institutions at present in the Okavango region because there are already so many. As suggested earlier the existing institutions would have to be strengthened and their areas of focus sharpened in line with their different mandates. The clarification of the roles and responsibilities of different institutions, the obligations of members of community institutions would have to be clarified as part of the capacity building process. Clarification of the issues stated above will improve the effectiveness and efficiency of local level communities. It will also link the roles and responsibilities of different community institutions with the felt needs of the larger community.

- Community Mobilization: Community mobilization should be an important capacity building activity for the proposed programme. The strength and ability of community institutions to last into the future is highly dependent on the extent to which community members themselves participate in community initiatives. The level of community participation also determines whether or not community initiatives will be successful.

- Governance, Management, and Decision Making: Institutions are as strong or weak as their decision-making structures. Local institutions need capacity building training in governance and management in general, and community leadership and team building in particular. Effective leadership and governance of community institutions will certainly contribute to the ability of local institutions to address the felt needs of their communities.

b) The Relationship Between People And Their Environment, Particularly The Okavango River Basin

The majority of people of the Okavango region rely to a large extent on the resources around the Okavango river basin for their livelihood. It is important that

these resources are utilized sustainably in order that they could continue making a contribution to the livelihoods of the people of the Okavango region.

It is important that the extent to which natural resources contribute to sustaining rural livelihoods is enhanced, and the direct link between the existence of natural resources and the need for these resources to address the felt needs of the people of the Okavango region cultivated. It is on the basis of the extent to which natural resources address the needs of the communities of the Okavango region that communities can only effectively participate in the conservation and sustainable utilization of these natural resources, so that these resources could last into the future.

c) Commonly Used Natural Resources

The most commonly used natural resources are:

- Wildlife, fish, palm, veld products, river reed, grass, trees for wood carving, fuel wood, walking and religious sticks. Communities depend on these natural resources for consumption and income generating purposes. With the momentum to implement the Community Based Strategy for Rural Development increasing, and more decision making powers on the management and utilization of natural resources being devolved to local communities, it is important that community knowledge of the conservation of natural resources be strengthened.

It is recommended that conservation harvesting standards and guidelines for each of the natural resources of the Okavango region be developed as part of the second and third phases of the project.

The utilization of natural resources can be disaggregated by gender. For example, men were more likely to use large trees to do wood carving, while women were more likely to cut grass and harvest papyrus. Both men and women were likely to hunt for fish, collect firewood, and harvest veld products. The existence of gender based utilization of natural resources would normally require a gender matched information and capacity building programme.

It is further recommended that the information and capacity building programme should be sensitive of gender disparities on the utilization of natural resources, but it is not recommended that gender specific programmes be developed. Instead the programme should include gender sensitive activities. The development of such a programme will facilitate continued co-learning and the creation of a shared understanding, not only between different stakeholders but within households as well. The achievement of co-learning and a shared vision are some of the main objectives of the present socio-ecological survey.

d) Indigenous Knowledge On Conservation And Use Of Natural Resources

In general, communities of the Okavango region regard themselves as having some knowledge on conservation of natural resources. However, these communities realize that new methods of conservation “come and go”, and it is on that basis that communities would want to see a mix of the indigenous knowledge “that works”, with modern scientific ways of conservation. The weak link between indigenous knowledge “that works” and modern scientific ways of natural resources conservation is a serious information gap for local level communities. This information gap is further exacerbated by lack of documentation of indigenous knowledge systems.

It is recommended that as part of the information and capacity building programmes to be developed, a comprehensive inventory of indigenous knowledge systems of the Okavango region by type of natural resource be developed. This inventory should strengthen community participation and the link between indigenous knowledge systems and modern scientific ways of natural resources' conservation.

Communities are ready to share a platform with other users in order to reach a consensus and adopt a common vision on the best manner in which the Okavango River and its resources could be utilized sustainably.

f) Communities Heavily Rely On The Okavango River And Its Natural Resources And Do Not See 'Preservation' As An Option But Would Prefer Sustainable Use

Due to heavy reliance on natural resources by communities, communities do not view preservation as a preferred option for the sustenance of natural resources into the future. Instead, communities prefer sustainable utilization and management. There is a desirable link between community based natural resources utilization and management and the extent to which natural resources can be sustained into the future. This link is derived from the hypothesis that communities are more likely to participate in the conservation of resources that contribute to the improvement of their standards of living. As indicated in the conceptual framework for the present survey, the link between conservation and the need to address the felt needs of local communities is facilitated through sustainable natural resources utilization or community based natural resources management.

It is recommended that the role of communities in natural resources conservation be strengthened and increased beyond present levels through capacity building training on working methods of natural resources conservation. This will ensure that while communities are participating in the conservation of natural resources of the Okavango region, these natural resources are also making a contribution to community livelihoods, and these could enhance community participation. Once communities participate actively in the conservation and management of natural resources it becomes in their interest to conserve and sustain natural resources into the future so that they could continue making their contribution to rural livelihoods.

Communities also need to be assisted to find mechanisms through which increased benefits and incomes could be realized from natural resources without necessarily increasing harvesting volumes.

It is also recommended that a common pricing method for the sale of natural resources or natural resource based products be developed during the capacity building phase, with communities playing an active role. The role of consumers of community products, the government, the private sector and NGOs is important in this exercise.

It is further recommended that the group or trust based approach to CBNRM be reviewed in order to allow individual enterprising through the CBNRM.

g) Cultural And Religious Significance Of Natural Resources To The People Of The Okavango Region

Natural resources of the Okavango river basin have certain cultural and religious importance to the people of the Okavango region. Regarding the religious importance of the natural resources, some people indicated that they were

baptized in the waters of the Okavango River. Church leaders who reported baptizing their followers in the waters of the Okavango River also confirmed the religious relevance of natural resources. With particular reference to the vegetation, some trees are used for medicinal purposes while others are used to curve “church sticks”. These natural resources also have some cultural importance. It should be emphasized that there is a close link between the cultural aspects of the natural resources to the people of the Okavango River, and the use of natural resources by the people of the Okavango region for socio-economic purposes. It is for that reason, that the responses to the cultural importance of the natural resources were similar to those seeking to determine the uses of different types of natural resources. The link between cultural and the socio-economic options of the people of the Okavango River suggests that the two are inseparable according to the point of view of communities of the Okavango. This link confirms the relevance and importance of natural resources of the Okavango River to the day-to-day lives of the people in that region. Again, the relevance of natural resources to lives of the people of the Okavango region suggested that a platform for sustainable natural resources utilization and management by local communities exists.

It is recommended that the basis for the proposed information dissemination and capacity building programme should be to enhance the extent to which natural resources address the felt needs of the people of the Okavango Region by striking a balance between conservation and peoples needs especially the need to address the poverty situation, income problems, and unemployment. Due to the fact that the survey found out that there was a close link between socio-economic options people were engaged in, and the cultural value of natural resources, it is particularly important any programmes on natural resources utilization should be sensitive to the cultural and religious relevance of the natural resources to the people of the Okavango Region. The extent to which the programme is sensitive to the cultural and religious relevance of natural resources to the lives of people of the Okavango region will determine the extent of community participation.

h) Perceptions On The Rights Over Use Of Natural Resources Of The Okavango River Basin, Particularly Between Riparian Communities And Non-Riparian Communities

It is interesting to note that while riparian communities are closest to natural resources of the Okavango River, these communities certainly do not think that they should have exclusive rights over the use of natural resources. Regarding the causes of the decline in the status of various natural resources, it also interesting to note that, besides natural causes of the decline, the findings of the present survey indicated that residents feel that riparian and non-riparian communities were both responsible for the decline in the quality and quantity of natural resources. This view on the decline of the status of natural resources does not only demonstrate some level of responsibility on the part of both riparian and non-riparian communities, but provides a sound and effective platform for capacity building and information sharing amongst communities. It also provides a good basis from which a shared vision could be generated and sustained into the future.

It is recommended that consensus building and collective responsibility over the use of natural resources should also be included as a component of the proposed capacity building programme. Once consensus building and collective responsibilities over the utilization of natural resources is instilled in communities, this will improve the extent to which local communities will reach a shared understanding and consensus around the utilization and management of natural resources with other users.

i) Perceptions On The Status Of The Okavango River Basin And Its Natural Resources

Overall, communities mentioned a decline in the quality and quantity of natural resources of the Okavango River basin. Communities and other stakeholders who

support the view that the resources of the Okavango River are declining presented some reasons. Some of the causes for the decline are natural while others are a result of the activities of human beings. Natural causes include climate change, seismic activity, while the causes resulting from the activities of human beings are mostly associated with over harvesting of these resources.

One of the major conclusions that can be made from the results of the survey is lack of a shared vision for natural resources is a result of the fact that there are no guidelines for the use of natural resources. It is recommended that guidelines for natural resources utilization, prepared in a manner that can be useful to communities be developed. These guidelines should indicate resource type, appropriate harvest period, and manner or specifications for harvest. The guidelines would have to be enforced with the active participation of the communities themselves.

j) Existence Of A Shared Understanding On The Utilization And Management Of The Resources Of The Okavango Region

The successful implementation of any programme largely rests on the extent to which there exists a shared vision for it. Normally, this shared vision should be run across all the three most common phases of a programme, and these phases are: Policy Formulation, Implementation, and Monitoring and Evaluation. All the relevant stakeholders have to hold a shared vision for the programme. Lack of a shared vision will certainly cause collapse in the implementation of any programme.

There does not exist a shared vision on the utilization and management of natural resources of the Okavango River basin. Lack of a shared vision is exacerbated by the fact that roles and responsibilities of different stakeholders are largely not clarified and understood by all the stakeholders. For example, in many cases, communities feel that some safari companies do not use resources with

conservation at heart. Some community members feel that some safari companies undermine their integrity and knowledge on the use of Okavango River and its natural resources.

It is recommended that workshops whose main purpose is to facilitate a shared understanding and vision on the utilization and management of natural resources of the Okavango region be organized. The proposed guidelines for natural resources utilization and various information packages for communities should be used as resource documents for such as exercise.

- The main areas of focus for the proposed workshops should be the roles and responsibilities of different stakeholders on the use and management of natural resources of the Okavango river basin.
- Appropriate conservation and harvesting methods for various natural resources.
- The understanding of various sets of legislation governing natural resource utilization and conservation.
- Community understanding of activities of Safari companies and vice-versa, the contribution of Safari companies to the rural economy in general and to rural livelihoods in particular.

k) The Desired Future Status Of Natural Resources Of The Okavango River Basin

The majority of communities interviewed during the survey would like to continue making a living from the natural resources of the Okavango River. These communities do not want to jeopardize the chances of future generations making a living from the same natural resources. This sentiment suggests that communities would want to conserve and/or utilize natural resources in a sustainable manner. Again, such a view on the future status of wildlife provides a good basis for building a shared vision on the use of natural resources.

An inventory or a desired future state of each of the natural resources of the Okavango region would have to be developed. This inventory should map out the expected future benefits of each of the natural resources listed in it. It should also be included as an information package for the information and capacity building programme. The development of such an inventory should strengthen the extent to which the second and third phases of the present project will facilitate a shared vision on the use of natural resources of the Okavango region.

l) The Need to Develop a Comprehensive Technical Environmental Profile for the Okavango Region

It is recommended that a comprehensive technical environmental profile for the Okavango Region in Botswana be developed as part of the project. This profile should strengthen the contents of the information packages, capacity building programme and the proposed guidelines for natural resources utilization.

ANNEX ONE

Stakeholder Workshop Report

Motsamai Mpho Hall, Maun 26-27th
April 2001

Prepared by *Every River* project Team

EXECUTIVE SUMMARY

A stakeholder workshop for the *Every River Has Its People* project was held on the 26th and 27th April 2001. Participants at this workshop included representatives from communities residing along the Okavango River Basin, Government officials from various Departments, Non Governmental Organisations' representatives, and prominent members of the community. The aim of this workshop was to bring together all stakeholders of the Okavango River Basin into a forum where they could discuss issues that were raised during the socio-ecological surveys and hence validate the findings of the surveys. This was a way of initiating a process of developing a shared understanding of the issues, perceptions, sentiments, aspirations and problems relating to the natural resources of the Okavango River Basin. The forum was able to come up with suggestions of possible roles and responsibilities of different stakeholders, in a bid to promote the co-management of the Okavango delta and its natural resources. However, participants strongly felt that the duration of the workshop was too short to deliberate at length all the issues they would have liked to cover. They expressed how dear and sentimental the Okavango delta and its natural resources were to their livelihoods and so any forum, which called for the discussion of these, would receive their utmost participation. Members of the *Every River* project were applauded for bringing together the major stakeholders of the Okavango River Basin to discuss issues of sustainable use and conservation of natural resources. Participants too were thanked for actively taking part in the discussions and hence making the day a success.

1.0 PROJECT BACKGROUND

Kalahari Conservation Society and its partners are implementing a 2-year regional project named *Every River Has Its People* whose main goal is to promote sustainable management of natural resources in the Okavango River Basin. The project hopes to benefit the Okavango River Basin residents and states through promoting and facilitating effective participation of Basin stakeholders in decision-making and management of resources around the Okavango River particularly water-related resources.

This project commonly referred to as *Every River* is currently being implemented in Botswana and Namibia, and it hoped that Angola will come on board if the political situation there improves. Kalahari Conservation Society, as well as being the overall project manager, also manages the Botswana component while Namibia Nature Foundation manages project activities in Namibia. Project partners in the implementation of *Every River* include Kalahari Conservation Society, IUCN-Botswana, International Rivers Network, Namibia Nature Foundation, Integrated Rural Development and Nature Conservation, Desert Research Foundation of Namibia, and the Rossing Foundation.

The project is divided into three phases, which are

Phase 1: Socio-ecological surveys and information exchange.

Phase 2: Development and testing of educational materials.

Phase 3: Capacity building / training and participation mechanisms initiation.

The first phase surveys were recently completed. The objective of this phase of the *Every River* project was to exchange information and understanding between Okavango River Basin communities and project staff, i.e. co-learning. The main focus was towards obtaining information on community-resource relationships. This was achieved by establishing perceptions of communities on the status of the Okavango River Basin and its natural resources, perceptions of rights over the use of the Okavango River natural resources between riparian and non-riparian communities, and the desired future status of natural resources. Information on the existence of

village institutions, their roles and responsibilities, weaknesses and strengths was also obtained. Other major objectives of carrying out the socio-ecological surveys were to establish whether there was a shared understanding and vision over the use of the Okavango River Basin and its natural resources between the different stakeholders; and to identify information gaps in understanding of communities about the Okavango River Basin.

This information is essential for the development of educational materials phase, as it will determine the appropriate approach to education and capacity building of stakeholders. Information obtained from the socio-ecological surveys will further be used to establish ways of strengthening local institutions and supporting them to enable them to participate effectively in management and decision making processes affecting the Okavango River Basin. All in all, the success of the *Every River* project will mainly be determined by the success of the implementation of the first phase of this project, and the ability to capture information on critical issues pertaining to the utilisation of resources in the Okavango River Basin.

1.1 STAKEHOLDER WORKSHOP

During the surveys, communities revealed very interesting issues which emphasised a need to bring all the stakeholders together to discuss these issues, and wrap up the first phase. This led to the *Every River* project Stakeholder Workshop, which was held on the 26-27th April 2001 at Motsamai Mpho Hall, Maun. The workshop marked the end of the first phase of the *Every River* Project.

The main aim of this workshop was to consolidate on the common vision of resource utilisation in the Okavango River Basin, and determine roles and responsibilities of stakeholders, and devise a future action plan, on the basis of information obtained from the village forums. The goal was to bring all stakeholders together to discuss points that were raised during the surveys and to iron out misconceptions, if any, between the different stakeholders. If a shared vision regarding natural resource utilisation is attained for all stakeholders of the Okavango delta, the ease of

implementation of the capacity building phase of the *Every River* project would be enhanced.

The objectives of the Stakeholder Workshop were:

- To seek validation of the findings of the Botswana socio-ecological surveys.
- To initiate a process of developing a shared understanding of the findings and action items for the project *Every River Has Its People*.
- To define the possible roles and responsibilities of the different stakeholders in sustainable natural resource utilisation in the Okavango River Basin.

The workshop started on Thursday 26th April at 1400hrs. The first day was mainly briefing for community representatives. Registration was done and the purpose of the workshop was explained to them. The idea was to acquaint community representatives to the facilitators and set-up of the workshop, and make them comfortable. The delegates were made to understand their role in the workshop and were urged to participate actively.

2.0 PROJECT MANAGER'S REMARKS

A local participant, Mera Seabelo, opened the workshop with a prayer. The *Every River* project Manager, Mr Felix Monggae, introduced the project to the participants. In his remarks, he mentioned that the project was regional, involving Namibia, Botswana and Angola. The participants were informed that the project had not yet started in Angola due to the unstable political situation there and that Namibia had started although they were a bit behind Botswana.

Mr Monggae went on to explain the three project phases and that the project was funded by SIDA. He emphasised that it was highly important for all stakeholders to take an active participatory role in this workshop to ensure that the desired goals were

achieved by the end of the day. He concluded his remarks by urging the participants to maintain their highly appreciated support of the *Every River* project, and assured them that the consultations regarding the progress of the project would continue.

3.0 OFFICIAL OPENING REMARKS

The Deputy Speaker of the National Assembly and Member of Parliament for Maun/Chobe, Mr Bahiti Temane, officially opened the stakeholder workshop. In his remarks, he alluded that natural resources in the Okavango River Basin were declining. He therefore emphasised the need to have absolute participation in the workshop to achieve a clear and shared understanding, as well as reach a consensus on what members of the community and environmental practitioners see as real causes for the decline. This shared vision would give the authorities a clear indication of important areas of focus on issues surrounding the co-management of the delta.

Mr. Temane went on to inform participants about the mission being undertaken by National Conservation Strategy Agency towards an integrated management plan of the Okavango delta. He highlighted that the *Every River* project objectives were also geared towards a similar goal of co-management of the Okavango River Basin and its natural resources. He emphasised the need for all stakeholders, particularly the local communities, to be fully involved in order for the project to gain public support, and realise the set objectives. He commended the *Every River* project team for having shown their commitment to local communities by consulting them and involving them in the implementation of the project.

In his final remarks, Mr. Temane thanked KCS and former members of Okavango Liaison Group for initiating the *Every River Has Its People* project. Mr. Temane was confident that the project objectives would be met since all stakeholder countries were involved in implementing this project. He looked forward to a management plan for the entire Okavango River Basin, instituted by informed inhabitants, which would ensure the future of the Okavango delta. He finally wished the participants a successful and output oriented workshop that would benefit all stakeholders.

(See Annex C).

4.0 SUMMARY OF THE FINDINGS OF THE SOCIO-ECOLOGICAL SURVEYS

The *Every River* project Community Outreach Officer, Ms. Tracy Molefi, presented a summary of the findings of the socio-ecological surveys. First she explained the methodology used for data collection. The data was collected through a questionnaire in household interviews, in focus group interviews and key informant interviews. Focus groups were either heterogeneous, where all community members were present in a *kgotla*, or were homogenous, where only community members who use a particular natural resource were present e.g. fishermen or basket weavers or polers.

Ms. Molefi mentioned that communities raised a lot of interesting issues, some of which were misconceptions of what was actually happening. Communities heavily rely on the Okavango River and do not see ‘preservation’ as an option for the whole Okavango River and its natural resources but would prefer sustainable use. Communities are aware of the problems they are facing due to a decline in water levels of the Okavango River, and other natural resources related to water. They have pointed out the causes for this decline and have suggested solutions to some of the problems. Some problems they have stated, however, indicate lack of a shared understanding and vision on natural resource use amongst the different stakeholders.

Interestingly, riparian communities do not see themselves as having exclusive rights to the Okavango River and its natural resources. They however believe that while they too have contributed to the damage and decline of natural resources, non-riparian communities have caused the most damage. According to them, people upstream have played a significant part in the decline of water volumes flowing down stream. They

allege that countries upstream (Namibia and Angola) dredge the river and divert the water into dams and boreholes. This has resulted in the drying up of some river channels. Some Government Departments, particularly Water Affairs Department, too are blamed for the drop in water levels. Communities, in general, report a decline of the status of most natural resources, both in quality and quantity.

Although fire, particularly wild fires, is seen as a threat to the existence of natural resources by all, communities strongly believe that the use of fire as a management tool to control over growth is essential. This they have been doing successfully for many years. Communities blame the authorities for the drying up of the river since they are the ones who are constantly preventing them from using this conservation practice, which allows free movement of water in river channels. Generally, communities believe that they have quality information on conservation of the natural resources, and they have called for the integration of their traditional ways and modern methods of conservation.

Overall the communities would like to see the status of the Okavango River and its natural resources improved in quality and quantity. They see themselves as having an important role to play as with all other stakeholders in order to realise their vision. They have indicated a need for education in resource use and conservation as they lack the modern skills of proper conservation techniques.

5.0 STAKEHOLDER GROUP DISCUSSIONS

5.1 PROCEDURE

At registration, participants were randomly allocated groups. There were representatives from NGOs, Government Departments, communities and councillors. Each group had a representative from all these categories.

The groups were assigned different pages on the draft final report to discuss. Group 1 had pages 9-13, Group 2 pages 13-17, Group 3 pages 20-23 while Group 4 tackled pages 24-

25. All the groups were also asked to critically look at the introduction (pages 1-2) and summary (pages 27-28). The task for each stakeholder group was to:

- i) Review the section given to them, verify the information therein, make additions and/ or subtractions and/ or modifications to the statements as they found necessary, and finally reach a consensus on how the statement should read in the final report.
- ii) Define and list all stakeholders of the Okavango River Basin.
- iii) List possible roles and responsibilities of the different stakeholders.

Each stakeholder group was appointed a chairperson and a rapportuer and documented their presentation on the flip charts provided. The groups were given time to present the changes in sections of the report given to them. A discussion of these followed, and if other groups were in agreement with these, the amendments were passed. Some groups could not discuss all the tasks given to them due to time constraints.

5.2 GROUP PRESENTATIONS

5.2.1 GROUP 1: REVIEW OF PAGES 9-13 OF THE REPORT

Task 1: Section Review

- The consultant should explain possible reasons as to why the education level in the area is low. A comparison of education levels with other areas in the country would be valuable.
- The consultant recorded the main language used in most parts as Setswana (Table 3). There are, however, differences in languages and so the results presented in the report should reflect this.
- Pages 10-11 are okay.
- The word “remittance” is not explicit enough to indicate whether it includes Old Age Pension, or not. If it does not include that, the report should explain in which category the Old Age Pension falls.

- The report indicates that the level of participation in pastoral farming has dropped since the epidemic of cattle lung disease in early 1990s. At the same time farming has been noted as top of the socio-economic options in the area (Table 6). The report should therefore explain which form of farming practice (s) brings farming to the top of the list. If possible these different farming practices should be presented separately.

Comments: Pages 27-28

- To what extent are plants and wild animals used for traditional and religious practices? The report should indicate which type (s) particularly.
- The consultant did not look at the role of culture, norms and traditional values in relation to the use of natural resources.

5.2.2 GROUP 2: REVIEW OF PAGES 13-17 OF THE REPORT

Task 1: Section Review

- “Basket Weaving” as it appears in the report ranks higher in socio-economic importance than “Sale of grass”. But in the actual fact, sale of grass is more prominent amongst communities than basket weaving.
- Village Development Committee has not been noted as one of the three village institutions that are very active. But in most villages, the VDC is the most operative institution.
- In Table 7 under VHC, remove “Village cleanliness” as it is covered under “Environmental cleanliness”
- Under “Crime Prevention”, it should be added that the weakness of this institution is lack of quick response from the police as well as fear of ‘arresting’ wrong victims.
- “Maitseo Group” should be removed from the list as it falls under “Youth Group”.

Task 2: Stakeholders of the Okavango River Basin

- Riparian communities
- Government Departments
- Non-Governmental Organisations
- Traders

Task 3: Roles and Responsibilities of Stakeholders

- Everybody should be responsible for the conservation of the Okavango River Basin.
- We should guard each other against destruction of the natural resources.

Traders should:

- Comply with conservation legislation and proper harvesting methods.
- Create awareness amongst their employers and those in their vicinity about conservation.

NGOs should:

- Continue with consultations and surveys to get more information from the general public regarding natural resource utilisation and needs.
- Facilitate collaboration between communities in different countries of the Okavango River Basin.
- Support community efforts in development.

Government Departments should:

- Monitor the use of the river and its natural resources.
- Ensure that conservation laws and legislation are followed and implemented accordingly.
- Teach the general public about conservation.

5.2.3 GROUP 3: REVIEW OF PAGES 20-23 OF THE REPORT

Task 1: Section Review

- We agree that there are too many elephants and they are very destructive to the environment.
- Most natural resources are declining some are almost extinct.
- We do not know anything about “dams” mentioned in the report, which have been constructed in Angola and Namibia.
- We agree that boreholes disturb the underground water levels as well as surface water.
- We agree that there should be proper consultation on the use and conservation of natural resources.

Task 2: Stakeholders of the Okavango River Basin

- The Government
- Non-Governmental Organisations
- Communities
- Business Sector

Task 3: Roles and Responsibilities of Stakeholders

Government

- Makes laws for conservation.
- Consults relevant stakeholders and encourages participation in decision making relating to natural resources.
- Educates the public on conservation.

NGOs

- Generate and share ideas on conservation measures.
- Provide or assist with materials, equipment and financial support for conservation programmes.

Communities

- Share and practice traditional conservation measures of natural resources.
- Are responsible for conserving natural resources.

Business Sector

- Assists with money and job creation for communities to avoid total reliance on natural resources leading to over-utilisation.

Comments pages 1-2

We agree earnestly with the main areas of focus of the report.

Comments: pages 27-28

We agree earnestly with the major findings of the report.

5.2.4 GROUP 4: REVIEW OF PAGES 24-25 OF THE REPORT

Task 1: Section Review

- Agree with the report that some natural resources found in the Okavango River Basin are used for religious purposes. For example, water is used for baptising; mokola tree is used for making “walking sticks” for pastors, grass and trees used for building churches.
- Cultural uses of natural resources found in the Okavango River Basin include river reed for making a shelter, tswii and fish for human consumption, mokola for basket weaving, etc. We agree with the report that there are cultural uses of natural resources.
- We partly disagree with the report that non-riparian communities are not responsible for the decline of the Okavango River and its natural resources. Non-riparian communities have contributed significantly to the decline of natural resources. For example they dig channels of the river, use engine-powered boats, and they cultivate the riverbeds e.g. the Rice project. However, riparian communities have also played a notable role in the destruction of the Okavango River Basin and its natural resources.

- We agree with the report that we should all have rights over the use of natural resources in the Okavango River Basin, but we emphasise the notion of consultation when dealing with natural resources.
- We agree with the report that all communities should have rights to the Okavango River Basin and its resources. But the group strongly felt that there should be a consultation channel to be followed prior to harvesting resources.
- We agree with the report that all citizens of this country should be allowed to use the natural resources of the Okavango River Basin.

Task 2: Stakeholders of the Okavango River Basin

- Business Sector
- Village Organisations e.g VDC, VHC, etc.
- Communities
- Safari companies
- NGOs
- Government
- Land Board
- Parliamentarians
- Councillors

Comments: pages 1-2

- The river is very important because it gives us water and other natural resources.
- Natural resources are declining at an alarming rate.
- We all have rights over the use of natural resources around the Okavango River Basin but there should be consultation and understanding on how to use them.
- We wish the status of natural resources of the Okavango River Basin could improve. We can only achieve that by making and implementing conservation laws.
- Some community institutions include Kamanakao Association, which promotes the culture of Bayei tribe; Tshomarelo Tikologo promotes environmental conservation; Board of Governors of Schools helps in the running of some schools; Village Trust

Committee promotes tourism in villages; and Bokakwe Cultural Conservation Trust promotes culture and conservation around Gudigwa area.

5.3 PLENARY DISCUSSION FROM GROUP PRESENTATIONS

The participants reached a consensus on the corrections, additions and subtractions made by the groups. They further stressed on certain issues as well as made suggestions as listed below:

- Participants agreed that the workshop needed more days to allow in-depth discussions and input because they felt that issues relating to the Okavango River and its natural resources were dear to them hence they would like to give them a serious thought. They suggested that another forum be organised where they would discuss roles and responsibilities of stakeholders as there are problems facing the area particularly regarding conservation and protection of the Okavango River Basin. They appreciated the fact that the present forum was to mainly validate the findings of the socio-ecological surveys. They were grateful and found it appropriate for KCS to have organised the gathering.
- Participants further suggested that in future workshops, all villages along the Okavango River Basin should send a representative so that most stakeholder communities are present when issues pertaining to the use of natural resources are discussed.
- Elephants were listed as one of the major environment destroyer. There were varying opinions on what should be done. Some felt the elephant numbers should be reduced while others were against the idea. The issue was laid to rest after one participant reminded the house that they were not gathered there to discuss the ‘elephant issue’. They agreed that the topic would need a workshop of its own.
- The participants emphasised that traders should abide by rules and regulations for natural resource use set by the Government and the communities. They said conflicts and misuse sometimes arise from one group retaliating to the misconduct of the other.

- There was a division in opinion, as some participants did not agree with the report that the natural resources around the Okavango River Basin should benefit everybody. Some were of the idea that just like diamonds, water related natural resources should benefit all citizens, but others felt that communities living away from the Okavango River Basin have other socio-economic options and so should not interfere with revenue obtained from water related natural resources.

6.0 CLOSING REMARKS

In his closing remarks, Mr. Barati representing the Land Board Secretary, talked about the importance of water to all life forms. He mentioned that water as the major constituent of all living organisms, accounts for 95 % of the fresh weight. He encouraged participants to conserve water and use other natural resources sustainably for the benefit of our future generations. Mr. Barati went on to commend participants for the constructive deliberations they had participated in during the day and further urged them to go and share the information with other members of their communities. He assured community participants that there was a lot they would reap from this project, as one of the objectives was to equip them with skills and knowledge of modern conservation methods. This way we could all be assured of sustainable natural resource utilisation in the Okavango River Basin.

In his conclusion, Mr. Barati applauded the *Every River* team for the good work they do so tirelessly in the remote Okavango River Basin areas, despite the challenges they often face like language barrier, which could potentially discourage and derail them. He encouraged them not to lose focus when problems surfaced and should continue being committed, patient and diligent and keep up their good work. Mr. Barati summarised the zeal of the *Every River* project team with two Setswana proverbs: "*Mmatla kgomo kolomela o etse mhata sediba*" and "*Nko ya kgomo-mogala tshwara thata, esere gongwe o utlwa sebedu wa lesa / wa kgaoga*".

(See Annex D)

WORKSHOP ATTENDANCE LIST

<u>PARTICIPANT</u>	<u>ADDRESS</u>	<u>VILLAGE\DEPT</u>
1. Collen Tsima	Bag 111, Maun	Gudigwa
2. Ditshebo Tsima	Bag 111, Maun	Gudigwa
3. Mosadimotho Karudu	Bag 111, Maun	Beetsha
4. Ithobogeng Lekgoa	Bag 110, Maun	Gunitsoga
5. Benson Maeze	Bag 109, Maun	Seronga
6. Xhiywa Moguniywa	Box 58, Maun	Seronga
7. Witness Mokgabo	Bag 106, Maun	Xakao
8. Molaodi Kashekere	Box 160, Xakao	Xakao
9. Gakelelelwe Losiano	Bag 104, Maun	Nxamasere
10. Mahongo Chapi	Bag 104, Maun	Nxamasere
11. Motoloki Kaumbo	Box 62,	Etsha 6
12. Mabe Dodo	Box 20,	Etsha 6
13. Leganang Motanzi	Box 3, Gumare	Gumare
14. Maitshoko Semonka	Bag 401, Maun	Shorobe
15. P. Chaba	Bag 401, Maun	Shorobe
16. Oganeditse July	Box 657,	Khwai
17. K. Dinonyane	Box 20019,	Motopi
18. K. Opperman	Box 343, Maun	Chanoga
19. Mera Seabelo	Box 91, Maun.	Maun
20. M.C. Shamba	Box 94, Maun	Maun
21. Omponye Botumile	Box 20385, Maun	Maun
22. G.K. Chebane	Box 221, Gaborone	Curriculum Dept.
23. S. Tlotlego	Box 448, Maun	Conservation International
24. K. Motswana	Box448, Maun	Conservation International
25. G.J. Maposa	Box 16, Maun	Agric. Resources Board
26. Leonard Dikobe	Box 472, Shakawe	Kuru Development Trust

27. Thuso Jonas	Box 11, Maun	DWNP
28. Rose Opelokgale	Box 3, Maun	Tribal Admin
29. Motsamai K. Mpho	Box 3, Maun	Guest (Maun)
30. Gaerolwe M. Kwerepe	Box 92, Maun	Guest (Maun)
31. Kebalipile E. Nkwane	Box 20113, Maun	NWDC
32. D. Thapa	Bag 324, Maun	Education (Sec)
33. Moreetsi Bogosi	Bag 00114, Gaborone	Museum
34. J.W.B. Barati	Box 134, Maun	Tawana Land Board
35. Theresa S. Molefe	Box 16, Maun	Reg. Agric. Office
36. Cornelius Segwabe	Bag 148, Maun	Moeti C.J.S.S
37. Charlie Motshubi	Box 431, Gumare	ACORD
38. F.O. Gaebuse	Box14, Maun	Animal Health
39. O. Mokhawa	Box 138, Maun	BOPA
40. K.Tamocha	Box 138, Maun	BTV
41. J. Ketsitlile	Box 138, Maun	BTV
42. Felix Monggae	Box 859, Gaborone	KCS
43. Tracy Molefi	Bag B050, Maun	KCS
44. Boitumelo Sekhute-Batungamile	Bag B050, Maun	KCS

WORKSHOP PROGRAMME

EVERY RIVER HAS ITS PEOPLE PROJECT STAKEHOLDER WORKSHOP (BOTSWANA COMPONENT)

VENUE: Motsamai Mpho Hall (Maun Senior Secondary School)

DATE: 26-27th April 2001

DAY 1: Thursday 26 April 2001

Local Community Representatives Only

- | | |
|-----------|--|
| 2:30-4:00 | Registration |
| 4:00-4:20 | Tea |
| 4:20-5:30 | - Overview of Project |
| | - Objectives of the workshop |
| | - <u>Expectations</u> |
| | - <u>Group allocation</u> |
| | <u>(Consultant & <i>EveryRiver</i> Project Officers)</u> |

DAY 2: Friday 27 April 2001

7:30-8:00 **Arrival and Registration**

Session Chair: NCSA, Mr. E. Maloiso

8:00-8:05 **Prayer**

Community Rep: Mera Seabelo

8:05-8:15 **Welcome Remarks and Introduction of guests**

Every River Ref.Group Member (Kuru Dev.Trust): Mr L. Dikobe

8:15-8:45 **Briefing on the project**

CEO, Acting (KCS) Mr Felix Monggae

8:45-9:15 **Official Opening**

Deputy Speaker of National Assembly, Hon. B.K. Temane, MP

9:15-10:15 **Introduction, Objectives of the Workshop**

Group expectations and norms for the workshop

Summary of report and presentation of the major

Findings

{Processes and methodologies also discussed}

10:15-10:45 **TEA! TEA! TEA! TEA! TEA! TEA!**

10:45-1:00 **Group work on findings**

1:00-2:00 **LUNCH! LUNCH! LUNCH!**

2:00-3:00 **Group Presentations and validation of findings and
items for action**

4:00-4:15 **TEA! TEA! TEA! TEA!**

4:15-4:30 **Vote of thanks and closing remarks**

Tawana Land Board Secretary

Workshop Rapporteurs: Ms Molefi\ Ms Sekhute-Batungamile

Please note that the workshop will be conducted in Setswana with interjections in English.

OFFICIAL OPENING SPEECH

OFFICIAL OPENING OF STAKEHOLDERS WORKSHOP ON THE VALIDATION OF, AND CREATING SHARED UNDERSTANDING OF THE FINDINGS OF THE BOTSWANA SOCIO-ECOLOGICAL SURVEY FOR THE EVERY RIVER HAS ITS PEOPLE PROJECT

DEPUTY SPEAKER OF THE NATIONAL ASSEMBLY, HON. B.K.TEMANE, MP

Master Ceremonies

Land Board Secretary, Tawana land Board

Heads of Government Departments or their representatives

Representatives of Non-governmental Organisations

Traditional leaders, Ngamiland

Distinguished participants

Ladies and gentlemen

I have the pleasure to be invited to open this stakeholder workshop for “ *Every River Has Its People Project*” which is managed by Kalahari Conservation Society. As indicated earlier, *Every River Project* is composed of 3 phases and is to be completed in June 2002. These are;

- a) Socio-ecological surveys and information exchange
- b) Development and Testing of Educational material
- c) Capacity building

However, I am reliably informed that we are gathered here to partake in finalising the first phase of the project. Your focus will be to identify common vision around specific issues discussed with survey teams at your specific villages. Director of Ceremonies, I’m aware that I should not pre-empt the consultant’s report but it has been hinted to me that the surveys revealed issues that point mainly to the decline of natural resources around the Okavango River Basin. Therefore, I wish to emphasise that these issues need your

absolute participation in this workshop to achieve clear and shared understanding as well as reach a consensus on what members of the community and the environmental practitioners see as real causes of the decline.

I sincerely hope you will agree on the pertinent issues so as to give the authorities a clear indication of important areas of focus on issues surrounding the co-management of natural resources. This ladies and gentlemen will ensure the sustainable use of this valued Ramsar site and I'm confident that, that will be achieved as all stakeholders are represented here today.

Director of Ceremonies, the government attaches great importance to the good management and sustainable utilisation of the natural resources in Botswana. As you may be aware, the National Conservation Strategy Agency is undertaking a process on the formulation mission towards an integrated management plan for the Okavango delta. *Every River* project objectives are also geared towards a similar goal of co-management. It is indeed essential that all stakeholders, particularly the local communities, are involved in this mission, as its success will depend to a large extent on the degree of public support the plan receives.

I am confident that the socio-ecological survey results to be presented and discussed at this workshop by the consultant will articulate your views and vision as stakeholders on the sustainable use of resources around the Okavango River Basin. It is on the basis of a shared vision that an encompassing programme of action can emerge and roles and responsibilities with respect to anticipated actions could be defined and conflicts minimised. In other words ladies and gentlemen, the output of the EveryRiver Project would be of great importance to the design mission of the delta.

I would like to commend the EveryRiver Project team for fully involving the local communities in the implementation of this project and hope that this approach will continue in the subsequent phases.

Lastly Director of Ceremonies, as this is a regional project which is envisaged to build capacity in natural resources management for the communities in Botswana, Namibia and Angola, we should thank KCS and former members of the Okavango Liaison Group for this initiative. It is hoped that the involvement of the upstream countries in the project, the development of the management plan, pursuant of the Ramsar Convention and the Permanent Okavango River Basin Commission (OKACOM) process of developing a management plan for the entire basin will ensure the future of the delta. *Every River* Project will ultimately guarantee informed inhabitants of the area.

It is also worth mentioning that the government of Botswana supports the Rio Declaration and the Kyoto Protocol on issues relating to environment and appropriate programmes for implementation are in place.

On that note I would like to wish you a successful and output oriented workshop that will benefit all stakeholders including countries upstream. I thank all present today for coming and hope that your contributions will be of great benefit to the project. Director of Ceremonies, Ladies and Gentlemen, I'm delighted to declare this workshop officially open and have a good day.

PULA! PULA! PULA!

CLOSING REMARKS

KALAHARI CONSERVATION SOCIETY WORKSHOP
HELD AT MAUN SENIOR SECONDARY SCHOOL IN MOTSAMAI HALL
VOTE OF THANKS AND OFFICIAL CLOSING BY J.W.B.BARATI

- Mr. MC, I mark the earlier presence of The Deputy Speaker of the National Assembly Rre-Temane and the enlisted dignitaries accompanying him this morning
- The people of *Every River has its people* and KCS staff members who are here today
- Members of the technical advisory group who are here
- ladies and gentlemen

I have a pleasure to be invited to perform vote of thanks and closing remarks for this workshop this afternoon, on behalf of the Land Board secretary Mr. Andrew Pitse. Mr. MC, my task is to say this workshop is officially closed and end there, however, I have to make remarks regarding the progress of this workshop and comment on the concept of natural resource sustainability. Water as a natural resource, is “a fundamental constituent of all living material, it is a universal biological solvent, which is responsible for ninety-five percent of the fresh weight of all living organisms”.

For this reason, it is clear that water is the mother of the environment, which nurses all living things, including grass, trees, people, animals and crops that we grow. Ninety-five percent of everything’s fresh weight is water from our rivers, streams, ponds and rain water. If we take care of water, we will be taking care of our lives and the lives of all the resources we have within our environment. And the care taking of the resources should be continuous (sustainable) for further enjoyment by the future generation.

The word “Sustainability” is new in our vocabulary of the 21st century. Scientists, environmentalists and myself believe that sustainability of natural resources could be achieved when our Global communities are involved in the care taking of their local resources and materials.

“Public participation is essential to good policy and decision making about land, environment and resources. At a fundamental level, public participation gives value to democratic institutions and to the role of citizens. At pragmatic level, public participation is a valuable source of information that enhances the quality of decision making” See Maclauchlan H. Wade & McLaughlin John. D

The purpose of this workshop was to sensitise participants on the need for conservation of their local natural resources. The KCS resource people are like farmers, their seed is conservation of the environment and its natural resources, the participants can be likened to the soil. I hope that the seed they have planted in you will grow and bear fruit and that you when you get to your respective villages and institutions, you will share your experience of the events of today with your fellow people who asked you to represent them here today.

I would like to commend communities that have been working closely with the *Every River* project team for their support throughout the first phase of this project. I would like to encourage you to continue having this spirit of consultation and good working relationship in order to realise the intended goals of the *Every River* project. There is a lot that you will reap from this project, one of the objectives being to equip you with skills and knowledge of modern conservation methods. This way we can all be assured of sustainable natural resource utilisation.

And now to KCS and the *Every River* project team, I would like to applaud you for the good work that you carry out in rural communities so tirelessly and with so much commitment. I believe that some of the communities you work with are in very remote areas, and speak languages you do not understand and this could easily derail and

discourage you. But due to your commitment, patience, diligence and love for the environment, you continue to serve these communities and you see these differences as challenges, which will not deter you from achieving the objectives of *Every River* project. Do keep up the good work. In Setswana your determination and enthusiasm can be summarised with these two proverbs: "Mmatla kgomo kolomela o etse mhata sediba" and " Nko ya kgomo-mogala tshwara thata, esere gongwe o utlwa sebody wa lesa / wa kgaoga".

I would like to thank all participants for their teamwork spirit and willingness to exchange information in today's workshop. This work would have not been achieved without your active participation and keenness to work towards protecting our environment and its natural resources for the benefit of our future generations.

In his opening speech this morning, Rre Temane mentioned that God blessed this workshop by sending us rain today. So those who come from villages without a river will have an opportunity of visualising and enjoying the feel of having water around them. In short, since we were talking about rivers and water the whole day, the rain offers us a perfect visual aid for this subject.

With these words I declare this workshop officially closed and wish you a safe journey back to your villages.

ANNEX TWO

Questionnaire Number: _____

EVERY RIVER HAS ITS PEOPLE SOCIO-ECOLOGICAL SURVEY OKAVANGO RIVER BASIN

HOUSEHOLD QUESTIONNAIRE

Final

SURVEY AREA: OKAVANGO RIVER BASIN: NGAMILAND - BOTSWANA

Date of Interview:-----

Time of Interview:-----

Name of Interviewer:-----

Name of Village:-----

River Village: -----

Non-River Village:-----

Used to be non-River Basin Village:-----

Initials of supervisor:-----

INTRODUCTION

My name is ----- and I am working for the Okavango Liaison Group. You will recall that sometimes this year some members of staff for the Okavango Liaison Group notified your community of an upcoming study on the relationship between people, the Okavango River Basin and its Natural resources. This study is the beginning of a long process of working together with your community and with other similar organizations to promote a development path that protects your vital natural resources according to

your aspirations. As I have indicated I am particularly here to discuss with you issues that relate to your relationship with the Okavango River and its natural resources. Your household is one of the households scheduled for an interview and discussions. I have a set of questions with me and I would like to request for about 30-45 minutes of your time in order that I ask you some questions. Some of the questions I will be asking you are personal and I request you to be as free as possible in answering the questions. Your responses will not be shared with any body and your name will not be attached to your responses. Your responses and those of others will be presented as aggregate information.

N.B. *[Researcher: Confirm if purpose of your visit is understood before you begin with interview. Interview the head of household. If the Head of household is not present interview their spouse. If both of them are not present interview the most eldest person in the household present. Do not interview people of age of 20 and below unless they are the head of the household or the spouse. Remember that household is people eating from the same pot].*

<p>SECTION ONE : DEMOGRAPHIC DATA [Researcher explain that the first Section involves questions on their personal data and information].</p>

- | | | | |
|-----------|---|------------|-------|
| 1; | Record commonly used language in household | ----- | ----- |
| 1: | Age of respondent: | _____ | ----- |
| 2. | Gender of Respondent: | 1: Male | ----- |
| | | 2: female | ----- |
| 3. | Marital status of respondent: | 1: Married | ----- |
| | | 2: Single | ----- |
| 4. | Status of Household Head [<u>Male headed</u> refers to male <u>stayed</u> at home period of six months and over during the past 12 months including <u>permanent stay</u> at home, Female headed is when female is <u>stated</u> as head or <u>male not present</u> at home for a period of six months and more over a 12 months period over.] | | |
| | | 1: Female | ----- |
| | | 2: Male | ----- |
| 5. | Number of children in family [<i>Immediate family</i>] | | ----- |
| 6. | Number of other dependents if any | | ----- |
| 7. | Length of stay in village | | ----- |

8. Highest achieved education of Household Head

- | | | | |
|--------------------------------|-----|-------------------------|-----|
| 1: < PSLE | [] | 8: Diploma certificated | [] |
| 2: PSLE certification | [] | 9: Degree and > | [] |
| 3: < JC | [] | 10: no formal education | [] |
| 4: JC certification | [] | | |
| 5: < COSC | [] | | |
| 7: Still at Tertiary [specify] | | | |

9. Highest achieved education of respondent

- | | | | |
|--------------------------------|-----|-------------------------|-----|
| 1: < PSLE | [] | 8: Diploma certificated | [] |
| 2: PSLE certification | [] | 9: Degree and > | [] |
| 3: < JC | [] | 10: no formal education | [] |
| 4: JC certification | [] | | |
| 5: < COSC | [] | | |
| 7: Still at Tertiary [specify] | | | |

SECTION TWO: SOCIO-ECONOMIC DATA: [Researcher explain that the next set of questions relate to their household livelihood].

10: Ke kopa gore o mpolelele gore lo itshetsa ka eng mo lwapeng?
 Could you please mention all your household livelihood options
[Researcher please facilitate arrangement by order of importance with 1 [one] being the most important]?

- | | | | |
|-----------------------------|-----|-----------------------------------|-----|
| 1: Fishing | [] | 8: Arable agric | [] |
| 2: Basket weaving | [] | 9: Formal employment | [] |
| 3: Mokoro Safaris | [] | 10: Informal employment | [] |
| 4: Hunting | [] | 11: Remittance | [] |
| 5: Tannery {wildlife based} | [] | 12: Reeds | [] |
| 6: Wood Curving | [] | 13: CBNRM | [] |
| 7: Hunting Safari/ guides | [] | 14 : Beer brewing | [] |
| | | 15: Traditional healer | [] |
| | | 16: Traditional building material | [] |

- 11: Ditsela tse lo bonang madi ka tsone mo lwapeng ke dife?
 What are your sources of **household income**:
 [Researcher please facilitate arrangement by order of Importance with 1 [one] being the most important]?

A: Self-employed

- | | |
|--------------------------------|-----|
| 1: Sale of farm products | [] |
| 2: sale of Grass | [] |
| 3: sale of wildlife products | [] |
| 4: Sale of Baskets | [] |
| 5: Sale of veld products | [] |
| 6: sale of liquor at HH | [] |
| 7: business- shop etc | [] |
| 8: Fishing sales | [] |
| 9: Sale of reeds | [] |
| 10: Traditional healer | [] |
| 11: traditional buiding Mater. | [] |
| other specify----- | [] |

B: Formal employment

- | | |
|-------------------------------|-----|
| 1: farm products | [] |
| 2: Grass sales | [] |
| 3: wildlife products sales | [] |
| 4: Baskets sales | [] |
| 5: Veld products sales | [] |
| 6: drought relief | [] |
| 7: fishing | [] |
| 8: CBNRM [if ticked go Q11.1] | [] |
| 9: Safari Companies | [] |
| 10: white color employment | [] |
| 11: Business- shop etc. | [] |
| 12. Sale of reeds | [] |
| 12: Remittance | [] |

Other [specify]-----

- 11.1 [If CBNRM was ticked in question 9 and/or 10] Please indicate the types of benefits you have received from CBNRM: -----

11.2 [if remittance was registered in questions 10 or 11]

What are your sources of remittance?

- | | | | |
|--------------------|-----|----------------------------|-----|
| 1: Children | [] | 3: Post employment pension | [] |
| 2: Old age Pension | [] | _ other specify----- | |

12. Ka kakaretso madi a lo a bonang ka kgwedi ke bokae?
Could you please indicate your monthly household gross income?

- | | | | |
|---------------|-----|-----------------------|-----|
| 1: < 500 | [] | 8: 3056-3556 | [] |
| 2: 500- 1000 | [] | 9: 3557-3558 | [] |
| 3: 1001- 1051 | [] | 10: No income | [] |
| 4: 1052- 1552 | [] | | |
| 5: 1553-2053 | [] | _ other specify ----- | |
| 6: 2054- 2554 | [] | | |
| 7: 2555- 3055 | [] | | |

12:1 [if employment registered in question 10 and/or 11] Go na le batho bale kae ba ba berekang mo lwapeng la lona?

How many people are formally employed in your family?

- | | |
|-------------|-----|
| 1: 1-5 | [] |
| 2: 6-10 | [] |
| 3: 11-15 | [] |
| 4: 16 and > | [] |
| 5: None | [] |

13: Lo nale dikgomo di le kae mo lwapeng ka kakaretso?
How many cattle does your household have altogether?

- | | | | |
|-----------|-----|---------------|-----|
| 1: 1-10 | [] | 7: 62- 71 | [] |
| 2: 11- 21 | [] | 8: 72- 81 | [] |
| 3: 22- 31 | [] | 9: 82- 91 | [] |
| 4: 32-41 | [] | 10: 92-101 | [] |
| 5: 42-51 | [] | 11: 101 and > | [] |
| 6: 52-61 | [] | 12: None | [] |

14 Lo na le dihutsane di le kae?.
How many small stock do you have?

- | | | | |
|-----------|-----|-------------|-----|
| 1: 1-20 | [] | 10: 187-207 | [] |
| 2: 21- 41 | [] | 11: 208-228 | [] |
| 3: 42- 62 | [] | 12: 229-249 | [] |
| 4: 63-82 | [] | 13: 250-270 | [] |

5: 83-102	[]	14: 271-291	[]
6: 103-123	[]	15: 292-312	[]
7: 124- 144	[]	16: 313-333	[]
8: 145- 165	[]	17: 334-254	[]
9: 166- 186	[]	18: None	[]

SECTIONN THREE: USE AND PERCEIVED STATUS [DECLINE OR INCREASE] OF THE OKAVANGO RIVER WATER AND OTHER NATURAL RESOURCES:

[Researcher explain that the next set of questions deals with their relationship with the Okavango River and its natural resources].

- 15: Ikgakolole ka tiriso ya lona ya Noka ya Okavango le ditsa tlholego tsa yone, ke kopa gore o nankole ka bongwe ka bongwe mosola o lo o bonang mo nokeng e, le mo ditsatlhologo tsa yone?

Consider your relationship with the Okavango River or any of its channels. Could you please indicate all the natural resources you have obtained from the Okavango River and or any of its channels?

1: Tswii	[]	6: Medicinal Plants	[]
2: Water	[]	7: Grass	[]
3: Fish	[]	8: Fertile soils	[]
4: River Reed	[]	9: wildlife	[]
5: Mokola	[]		

other specify-----

16. Ka bongwe ka bonwe ke kopa gore o mpolelele gore ditsa tlholego tse o di balolotseng fa godimo a di a oketsega kgotsa di a fokotsega ka seemo
Consider all the natural resources you have indicated in **question 15**, for each one of them please indicate whether you think there is a decline or increase and the role of different stakeholders.

Natural Resource	Decline	Increase	Reasons [Probe for role of particular stakeholders]
Tswii			
Water			
Fish			
River Reed			
Mokola			
Medicinal Plants			
Grass			
Fertile soils			
Moxhoo			
Wildlife			

--	--	--	--

16.1 Do you see restriction to use as a possible manner in which resources could be conserved?

1: yes

[]

2: no

[]

3: do not know

[]

17. Consider all the natural resources you have mentioned in table 16, please indicate the names of areas where you harvest these resources and whether or not these areas are accessible but only terms of distance and the different seasons [wet and/or dry] of the year harvesting is done.

Natural Resource	Name <u>area</u> of Harvest	Distance [Perceived] Indicated Either of <u>Inaccessible or Accessible</u>	Season of harvest Indicated <u>dry</u> and or <u>wet</u>	Period of Harvest in Year Indicate <u>dry</u> and/ or <u>wet</u>
Tswii				
Water				
Fish				
River Reeds				
Mokola				
Medicinal Plants				
Grass				

Fertile soils				
Moxhoo				
Wildlife				

18. Metsi a lo a dirisang mo lwapeng lo a ga kae?
What is your source of Domestic Water?

- 1: Okavango River Direct [Go to Q 19] []
2: Okavango channel Direct [s] []
Specify ----- [go to Q19] []
3: Standpipe in yard []
4: Public stand pipe []
5: In-house []
6: Purchase from suppliers: specify supply -----

_ other sources: specify -----

19. Ikgakolole makgetlo a lo gileng metsi mo Nokeng ya Okavango. Ke kopa gore o mpoletlele gore lo ga metsi a selekanyo se se kana kang ka letsatsi?.
Consider the many times you have collected water from the Okavango River or any of its channels, how much water do you think you collect **directly** from the Okavango river and or its channels on a daily basis [*please ask to see container/s used for collecting water*].

- 1: < 20 liters []
2: 20- 40 liters []
3: 41- 61 liters []
4: 62-82 liters []
5: 83- 103 liters []
6: 104 and > liters []

- 20: Lo ate lo nwe metsi a lo a tsayang ka tlhamalalo mo nokeng ya Okavango?
Do you ever drink water that you have directly collected from the Okavango River or any of its channels?

- 1:yes- Okavango River [go to Q20.1] []
2:Yes- other channels [go to Q20.1] []
3: no []

20.1 [If yes to Q20] A lo kile lwa lemoga bodiphatsa bongwe jwa go nwa metsi a lo a gang mo nokeng ya Okavango ka tlhamalalo?
Have you ever detected or experienced any hazard arising from water that you have directly obtained from the river?

1: yes [go to 20.2] []

2: no []

20.2. [If yes to 20.1] Ke bofe bodiphatsa jo lo bo bonyeng mabapi le go nwa metsi a Okavango?.
Please mention the types of hazards you have detected from drinking water that you have obtained directly from a river:

1: water borne disease []

2: Drowning []

3: disease due to sewerage disposal []

Other specify: -----

Other Specify: -----

20.3. Metsi a noka ya Okavango lo a dirisa eng kontleng ga go a nwa?
What do you use the water for besides drinking

1: cooking []

2: washing clothes []

3: watering livestock []

4: construction []

5: Watering plants []

6: Bathing []

other specify -----

21: Ka tebo ya gago a metsi a noka ya Okavango a a oketsega kgotsa a a fokotsega?.
Consider the general state of the water volumes of the Okavango River or its channels during the period when you were growing up, would you say the volumes have declined or increased

1: decline [go to Q21.1] []

2: increase [go to Q21.2] []

3: no change [go to Q21.3] []

4: Do not know []

21:1 [If decline to Q21] Ke eng se o akanyang se dira gore metsi a noka ya Okavango a fokotsege?. What do you think is the cause of the decline of the water in the Okavango River [Researcher *please probe for role of different stakeholders*]

- | | |
|--|-----|
| 1: Damming upstream | [] |
| 2: Digging for sand | [] |
| 3: lack/shortage of rainfall | [] |
| 4: due to sewerage disposal | [] |
| 5: Direct reticulation /irrigation/dredging | [] |
| 6: Natural change of water flow | [] |
| 7: disturbance cause by frequent wildlife movment in delta | [] |

other specify -----

- 21:2 [If increase Q21] Ke kopa o mphe dikai tse di supang gore selekanyo sa metsi a noka ya Okavango a a oketsega? Please give us some examples including historical information to demonstrate that the water has been increasing over the years. -----

- 21:3 [if no change in Q21] Ke kopa o mphe dikae tse di supang gore metsi a noka ya Okavango a ntse a mo seemong sa one sa bogologolo? Please give historical examples to show that they has not been any change in the status of the **Okavango River water volumes**. -----

22. A go nale mafelo mangwe a o a itseng mo tikologong ya Okavango a a kileng a bo a nale metsi mme a kgadile ka yone nako e?. Are there some areas or places in and around the Okavango River that you know used to be covered by water but do not have any water today [probe for examples of specific areas].

- | | |
|--------------------|-----|
| 1: yes [go to 23] | [] |
| 2: No | [] |

23. A lo kile lwa nna mo kgaolong e e kileng ya bo e nale metsi abo a kgala?. Have you ever experienced such a situation yourself [s]?

- | | |
|--------------------|-----|
| 1: Yes [go to 24] | [] |
| 2: No | [] |

24. Ke kopa o balolole tsotlhe tse o di itseng di ne di le mosola ka nako e loneng lo nna go bapa le metsi.
What benefits did you use to obtain from living close to water sources.

- | | |
|---|-----|
| 1: watering of domestic animals at short distance | [] |
| 2: obtaining natural resources at short distance | [] |
| 3: Presence of water was pleasant feeling | [] |

other specify -----

25. [If yes to 23] Lo kgona jang go nna fa go senang metsi gompieno?.
How have you adjusted to not living and obtaining the benefits you use to get from living close to water sources. -----

SECTION FOUR: LAND OWNERSHIP [Researcher explain that the next set of questions will deal with land and land ownership].

26. A lo ate lo leme?
Do you ever plough?

1: yes []
2: no []

27. [If ever use fertilizers] Could you please list all the fertilizers you have ever used -----

28. A lo nale tshimo e e leng ya lona mo lwapeng?.
Do you own a piece of arable land?

1: yes [if yes to 28.1] []
2: lease based ploughing []
3: No []

- 28.1 [if yes to 28] Is your land holding in a flood plain

1: in flood plain []
2: not in flood plain []

- 28.2: [if yes in 28] Tshimo ya lona e selekanyo se kae?
What is the size of your arable holding?

1: < 1 hac []
2: 1 - 3 hac []
3: 4- 8 hac []
4: 9-11 hac []
5: 12 and > []

29. [if yes to 26] Lo ne la roba dikgetsi tse kae fa lo akaretsa Mmidi, Mabele, Lebele, le mefuta yotlhe ya mabele e lo e lemileng?
What was your yield during the harvesting period ending 2000 [include maize and all cereals].

- | | |
|----------------------|-----|
| 1: Nothing harvested | [] |
| 2: < 5 bags | [] |
| 3: 5- 10 bags | [] |
| 4: 11- 20 bags | [] |
| 5: 21- 30 bags | [] |
| 6: 31-50 bags | [] |
| 7: 51- 80 bags | [] |
| 8: 81- 100 bags | [] |
| 9: 101 and > bags | [] |

29.1. [if ploughed but nothing harvested in Q29] Fa lo ne lo lemile mathata ke eng lo sa roba sepe?

What was the cause?

- | | |
|-----------------------|-----|
| 1: Pests | [] |
| 2: No rainfall | [] |
| 3: Damage by wildlife | [] |
| 4: River bed dried up | [] |
| 5: Over crops flooded | [] |

other specify -----

30: [if yes to 26] Lo ne la roba dikgetsi tsa dinawa be ditlhoo di le kae?

What was your yield of beans and [ditlhoo] during the harvesting period ending 1999 [include maize and all cereals].

- | | |
|----------------------|-----|
| 1: Nothing harvested | [] |
| 2: < 5 bags | [] |
| 3: 5- 10 bags | [] |
| 4: 11- 20 bags | [] |
| 5: 21- 30 bags | [] |
| 6: 31-50 bags | [] |
| 7: 51- 80 bags | [] |
| 8: 81- 100 bags | [] |
| 9: 101 and > bags | [] |

30.1 [if ploughed but nothing harvested in Q30] Fa lo ne lo lemile mathata ke eng lo sa roba sepe?

What was the cause?

- | | |
|-----------------------|-----|
| 1: Pests | [] |
| 2: No rainfall | [] |
| 3: Damage by wildlife | [] |
| 4: River bed dried up | [] |
| 5: Crops flooded | [] |

other specify -----

31. Ke kopa o mpoletse gore o eletsa seemo sa sengwe le sengwe sa ditsa tlholego tse re bueleng ka tsonne se ka nna jang mo ngwageng tse di tlang.

Consider the state of the many resources you have mentioned during your discussions, could you please indicate how you would like each one of them to be in the future.-----

32. Ko kopa o mpolelele mathata a le mane a matona mabapi le tiriso ya lona ya noka ya Okavango le ditsa tlholego tsa yone.
What do you consider to be the four most biggest problems regarding your association with the Okavango river and its natural resources.

- 1: []
- 2: []
- 3: []
- 4: []

SECTION TWO

INTRODUCTION: Ke tla a go balela diele tse di latelang. Mme ke tla a kopa gore ka sengwe le sengwe sa diele tse ke tla di go balelang o ompolelele gore a o a **dumela, kgotsa o dumela thata, ga o dumele, kgotsa ga o dumele thata.** I am now going to read a set of statements with each statement read to you at a time. For each of the questions that I am going to read to you please indicate if you agree, strongly agree, disagree, strongly disagree, or do not know.

[Researcher] Please note that: 1 = agree, 2 = strongly agree, 3 = disagree, 4 = strongly disagree, 5 = do not know.

	STATEMENT	1	2	3	4	5
1	Dingwe tsa ditsa tlholego tsa noka ya Okavango di nale mosola wa tumelo ya sekereke mo Bathong Some of the natural resources found in the Okavango River Basin are of religious importance to us					
2	Seemo sa ditsa tlholego tsa noka ya Okavango se ya ko tlase kgotsa se a fokotsega The state of some of the natural resources around the Okavango River Basin is declining					
3	Ditsa tlholego tse di mo nokeng ya Okavango ga di na mosola mo ngwaong ya rona?					

	Natural resources found in the Okavango River Basin do not have some cultural value to us.					
4	Batho ba ba tswang kgakala ba ba sa nneng ko thoko ga noka ya Okavango ke bone ba ba dirang gore seemo sa noka ya Okavango le ditsa tlholego tsa yone se e ko tlase Non-riparian communities are responsible for the decline of the Okavango River water and other natural resources.					
5	Batho ba ba agileng fa thoko ga noka ya Okavango ke bone fela ba nang le ditshwanelo tsa go dirisa noka ya Okavango le ditsa tlholego tsa yone. Riparian communities are the only ones who should have rights over the use of the Okavango river water and its natural resources					
		1	2	3	4	5
6	Batho ba ba nnang ko noka ya Okavango e felelang teng ba tshwanetse go nna le ditshwanelo tsa tiriso ya noka ya Okavango le ditsatlholego tsa yone fela jaaka ba ba nnang ko noka e simologang teng? People down stream should have the same rights over use of the Okavango River Water and other natural resources as those up stream					
7	Batho ba ba sa nnang ga tlase ga noka ga ba na ditshwanelo tsa tiriso ya noka ya Okavango le ditsa tlholego tsa yone. People living away from the Okavango River Basin have no rights on the use of natural resources around the Okavango River basin					
8	Ke dumela fa lenao la CBNRM le re hikeetsa go dirisa ditsa tlholego dingwe tse do mosola mo matshilong a rona. I believe that the introduction of [CBNRM] and exclusive rights has limited our access to important natural resources					
9	I dumela fa tirisi ya diphologolo mo lenaneong la CBNRM le thusa go somarela diphologolo ke batho ba ga rona I believe that the use of wildlife by communities through the community based natural resources management programme has contributed to reducing poaching					
10	Ke dumela gore noka ya Okavango le ditsatlholego tsa yone di tshwanetse tsa dirisiwa go tliholola matshelo a rona. I believe that the Okavango and its natural resource should be used to develop our lives.					
11	Noka ya Okavango le ditsatlholego tsa yone di tshwanetse tsa tlogelwa fela jaaka di dirilwe ke modimo di sa dirisiwe? The Okavango river <u>should be</u> kept unused.					
12	Kitso ya rona ya tlholego ya go somarela ditsa tlholego e botlhokwa thata ebile e tshwanetse ya akarediwa mo mananeong a segompiono a tshomarelo noka ya Okavango le ditsa- tlholego tsa yone? Traditional knowledge is an important aspect of managing the resources of the Okavango River Basin and should be incorporated in future management strategies for the Okavango River Basin					
13	Go wela tlase ga dipalo kgotsa seemo sa ditlhapi le ditsa tlholego tse dingwe, se dirwa ke gore go na le batho ba le					

	bantsi ba ba dirisang ditsa tholego go fela dingwagwa tsa maloba, kgotsa dingwaga di ka nna 10-20tse di fitileng. The decline of fish and other natural resources is directly related to the fact that there are more people using natural resources than there were 10-20 years ago.					
14	Batho ba ba nnang fa thoko ga noka ga bana kitso ya go somarela noka ya Okavango le ditsa tlholego tsa yone? Riparian communities do not have the adequate knowledge to conserve the natural resources of the Okavango River Basin					
15	Noka ya Okavango ke lone lefelo fela kwa bangwe batho ba ba nnang fa thoko ga noka ba ka bonang metsi teng? The Okavango river is the only direct source of water for some riparian communities					
		1	2	3	4	5
16	Noka ya Okavango le ditsa tlholego tsa yone di mosola mo matshelong a rona go feta leruo? The Okavango River and its natural resources are more important to our lives than livestock.					
17	Ke dumela gore go tshwanetse ga bopiwa mekgatho e mesha go tsamaisa tiriso ya ditsa tlholego gona le go dirisa mekgatho e e leng teng gale? I believe that new institutions would have to be formed in order to facilitate community based natural resources management by local communities instead of using existing ones.					
18	Batho ba magae ba tswanetse ba nna le seabe mo ditogamaano le tshomarelo ya ditsa tlholego Communities should be involved in the planning and managing of the Okavango River Basin and its natural resources					

COMMENTS: -----

LEVEL OF COOPERATION:

High []
Medium []
Low []

ANNEX THREE

EVERY RIVER HAS ITS PEOPLE SOCIO-ECOLOGICAL SURVEY
OKAVANGO RIVER BASIN

SURVEY AREA: OKAVANGO RIVER BASIN: NGAMILAND - BOTSWANA

FOCUS GROUP DISCUSSION INSTRUMENT

FINAL

NAME OF VILLAGE: _____

NAME OF FACILITATOR: _____

DATE OF FOCUS GROUP _____

START TIME _____

FINISH TIME _____

A. INFORMATION GIVING AND FEEDBACK

My name is ----- and I am working for the Okavango Liaison Group. You will recall that sometimes this year some members of staff for the Okavango Liaison Group notified your community of an upcoming study on the relationship between people, the Okavango River Basin and its Natural resources. This study is the first step towards of long process of working with your community with other similar organizations to promote a development path that protects your vital natural resources according to your aspirations. The study has now begun, and as I have indicated from the beginning I am here to discuss with you issues that relate to your relationship with the Okavango River and its natural resources. Your village is one of the many villages chosen for discussions through forums such as this one. As we discuss I will be recording the outcome of our discussions and I will provide you with feedback on what we have discussed through out the meeting until the end. The discussions of your community are going to be included in a report that has recordings of

N.B. [*Researcher: Confirm if purpose of your visit is understood before you begin with interview.* Minimum Time 30 minutes

N.B. AS SOON AS THE PURPOSE OF YOUR VISIT IS UNDERSTOOD PLEASE DETERMINE THE FOLLOWING:

- Establish disparities on the basis of gender, [accessibility to] power and wealth, major disparities in age, socio-economic options related to natural resources. If you have distinct groups by socio-economic option make sure that each group is interviewed separately. If groups are really small by socio-economic option then use age and gender to divide groups. If the group is small and it's not possible to divide then interview them as one group. The status/theme of each group shall be recorded appropriately to provide an accurate framework for data analysis. Dividing groups were possible will allow for free and fair discussions on the basis of homogeneity of issues.

[GROUPS ARE DIVIDED IF NECESSARY AT THIS STAGE AND EXPLAIN WHY].

B. INFORMATION GATHERING AND CONSENSUS BUILDING

SECTION ONE: TIME-RELATED DATA [THE MAJOR THEMES FOR EACH SECTION MUST BE EXPLAINED TO THE GROUP AT BEGINNING OF EACH SESSION]

- 1.1. Ke kopa lo nankole ditiragalo tsa motse wa lona tse di diragatseng go simologa nako ya fa motsi wa lona o simologile.

Please mention all the key events that have happened in your village beginning the formation of your village[village formation] as far back as you may recall [chronological- *year and events, probe for drought, increase or decline of types of natural resources, floods, villages development initiatives, leadership crisis, from the beginning of the village, etc*], 1hr.

- 1.2 Ke kopa gape lo nankole ditiro tse lo itshetsang ka tsone go ya ka botlhokwa jwa tsone mo matshelong a lona.

[if groups had been divided] Work with larger group to arrange the socio-economic options by order of importance. The most important socio-economic option is the one people feel makes more contribution to the livelihoods of the community more than others].

SECTION TWO: INSTITUTIONAL DATA

- 2.1 Ke kopa maina a makgotlana otlhe a a mo motseng wa lona.

Ask the group to list all the institutions, which they know are doing work/ or are present in their village and the responsibilities of each.

- N.B [probe for institutions particularly engaged in the utilization and management of natural resources around the Okavango River Basin and determine present role of community]

SECTION THREE: OKAVANGO RIVER BASIN AND ITS NATURAL RESOURCES

- N.B. [there has to be a shared understanding of issues by all stakeholders in the group, both at mini-groups and large group]

- 3.1 A lo ka tlhalosa lefelo/mafelo a le itseng e le one Okavango River Basin.

Ask group to describe the area that they consider to be the Okavango River Basin [Brain Storming- two way discussions facilitators and participants- start by giving one or two examples yourself until common understanding is reached]. 50min.

- 3.2 Ke kopa lo balolole ditsa tlholego tse lo itseng di ka bonala kgotsa di le teng mo kgaolong ya noka ya Okavango

Could you please list all the natural resources around the Okavango River Basin that you know?

- 3.3 Mo go tse lo di balolotseng ke dife tse lo kileng lwa di dirisa mo matshelong a lona.

For each of the natural resources mentioned above, kindly indicate the ones that you have utilized or benefited from over the years. For each one of the natural resources stated, including the water resources, indicate or determine with the group if particular use could be termed: cultural, religious, or other specific social significance, etc. 50min.

- 3.4. Mo ditsa tlholego tse lo setseng lo di balolotse go nale ditro tse di kgaogantsweng ka bong, ke kopa lokgaoganyane ditiro tsa go nna jalo ka Bong le ka dipaka tsa ngwaga.

For each of the natural resources mentioned above determine the following with group/s:

- 3.4.1. General responsibilities by gender
- 3.4.2. Particular periods certain things happen [wet and/or dry season or years] certain things happen
- 3.5. Mosola o lo tshwanetse lo ka o bo lo o bona mo nokeng ya Okavango mme lo sa o bone ke ofe, ebile se lo bonang se ka kgontsha gore lo o bone ke eng.
Kindly indicate all the benefits you should be obtaining from the Okavango River Basin but for some reason you haven't [determine what would enable community members to benefit from specific resources around the Okavango River Basin, and probe to find out if CBNRM is considered limiting the use of other natural resources]. 45min.
- 3.6. Ko ntle ga lona, ke bafe kgotsa ke bomang gape ba ba dirisang ditsa tlholego tsa noka ya Okavango. Beside yourselves [community members] who do you think uses the resources of the Okavango River Basin.
- 3.7. [Researcher] Ke kopa lo nankole bomosola le bodiphatsa kgotsa bomaswe jwa go dirisa noka ya Okavango le ditsa tlholego tsa yane.
Please draw up a list of negative aspects and positive aspects of using certain types of natural resources including the water from the Okavango River Basin.
- 3.8. Fa o lebeletse seemo sa ditsa tlholego tsa noka ya Okavango a o bona se oketsega kgotsa se a ko tlase.
What can you say about the status of the natural resources around the Okavango River [*probe for decline or increase of specific natural resources including the total water volume for the main and minor streams, probe for cause of decline, and/or cause of increase, and the role of community*]. 45min.
- 3.9. Mathata a matona a lo a bonang mabapi le noka ya Okavango le ditsa tlholego tsa yone ke afe?
What do you consider to be the major problems surrounding/around the Okavango River Basin, and how can these problems be solved. [**First list the problems and then for each problem determine cause and possible solutions, then rank with community by order of importance**] 1hr.
- 3.10. Seabe sa makgotla a a amegang mo tshomarelong ya noka ya Okavango le ditsa tlholego tsa yone ke sefe.
What has been the role/ perceived role of other development stakeholders in the management of the Okavango River Basin and its Natural Resources [**Give examples of NGOs, government, local institutions, private sector and tourists**] 45min.
- 3.11. A mme makgotlana a, a dira se se tshwanetseng go se dira? Supa ka dikai?
What should be the role of other development stakeholders in the management of the Okavango River Basin and its Natural Resources- hypothetical [NGOs, government, local institutions, private sector and tourists] 45min.
- 3.12. A o bona noka ya Okavango e tshwanetse ya dirisiwa go tlabolola matshelo a batho?.
Do you think that the Okavango River Basin and its resources should be used to develop your lives or not.
- 3.13. Ke kopa o mpolelele ditshwanelo tsa mefuta e e latelang ya batho ba ke tla go ba balaleng?
Consider the rights of the different users of the Okavango river, what do you see to be the rights of the following groups:
- Riparian communities
 - Up stream Communities
 - Down stream communities
 - Non-riparian communities
- 3.14. Noka ya Okavango le ditsa tlholego tsa yone di ka go solofela molemo jang mo ngwageng tse di tlang.

How can the Okavango River Basin and its resources best address your needs in the future? [Probe for their possible role and that of other stakeholders, also particularly probe for how they want the state for their resources to be in future and ask for specific examples].

3.16. Ke kopa gore o ikgakolole jaaka makgotlana a lona a motse a berekang ka teng, mathata kgotsa bomolemo jwa makgotlana ke keng.

Think about the manner in which your community institutions work with you, what do you consider being their strengths and/or weaknesses. Would think new institutions would have to be formed or the existing ones need to be strengthened.

C: CONCLUSIONS AND SUMMARY OF OUTCOMES OF MEETINGS

[After a small break if possible]

- 4.1 Summarize the overall discussions emphasizing the views and perceptions of the community.
- 4.2 Election of community members to participate in the overall Botswana Component of the Okavango Regional Socio-ecological survey workshop in Maun.
- 4.3 Thank the participants and assure them that their responses have been recorded appropriately and that an overall final report for the Botswana side of the Okavango Delta, including their contribution will be produced and shared with them by the OLG. 5 min.