COMMUNITY BASED NATURAL RESOURCE MANAGEMENT: A COMPARATIVE ANALYSIS OF THE PERFORMANCE OF TWO GROUPS OF COMMUNITY TRUSTS IN THE OKAVANGO DELTA, BOTSWANA

By

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DECLARATION

I Dimpho Segwabe certify herein that this research dissertation was carried out while I was a student at the University of Botswana between August 2012 and June 2016. I declare that this dissertation is entirely my own original work and that it has not been submitted to nor published at any other University or institution of higher learning for the award of any Degree programme and that the work of other researchers and scholars are fully acknowledged with the standard referencing practices of American Psychological Association (APA) 6^{TH} edition style.

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APPROVAL

This research dissertation has been examined and approved as meeting the requirements for the partial fulfillment of the Degree of Master's in Development Practice.

Professor O.D. Kolawole

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ABSTRACT

Community based natural resource management (CBNRM) is a strategy devised to promote biodiversity conservation and rural livelihoods. Community Trusts (CTs) serve as the framework for implementing CBNRM projects, and by that means enhance poverty alleviation and natural resources conservation in the Okavango Delta, Botswana. The concepts of social equity, economic efficiency, sustainable tourism, environmental sustainability, poverty and CBNRM are central to the study. The paper analyses factors influencing the performance of the community trusts in the implementation of CBNRM projects in the study areas. The article specifically makes a comparative analysis of two groups of community trusts (CTs), the first being those that were effective in project implementation and the second, those that were ineffective. A multi-stage sampling procedure was used in selecting the study population. While two effective and two non-effective CTs were purposively selected, all members of the committee of each of the Trusts were selected. Based on the available census figures, 13% of the community members (aged 18 years and above) who are members of the selected 4 CTs (constituting 120 respondents) were also interviewed using interview schedules. Qualitative data were obtained through focus group discussion (FGD) sessions and key informant interview. Student-'t' test was used to compare the performance of the two groups of CTs in rural development project implementation at both the committee and community levels. At the committee membership level, frequency of meetings ($t = -2.132$; $p \leq 0.05$), members' participation in meetings ($t = -3.143$; $p \leq 0.01$), number of youths in CTs ($t = -2.530$; $p \leq 0.05$), committee membership strength (i.e. number) ($t = -28.000$; $p \leq 0.000$), and number of projects implemented ($t = 7.897$; $p \leq 0.000$) were significantly different at the committee membership level between the two groups. At community membership level, only the number of project implemented ($t = 18.07$; $p \leq 0.000$) was significantly different between two CTs. While there are numerous reasons for the discrepancies

between both groups of CTs, their characteristics are the most influential factors influencing their effectiveness or lack of it. Overall where CTs programs are well implemented, they drive the CBNRM policy in the enhancement of socio-economic and environmental benefits accruing to rural community members.

ACRONYMS AND ABBREVIATIONS

CBNRM	Community Based Natural Resource Management
SDGs	Sustainable Development Goals
ICSU	International Council for Science
ISSC	International Social Science Council
UN	United Nations
CAMPFIRE	Communal Areas Management Programme for Indigenous Resources
LIRDP	Luangwa Integrated Rural Development Project
ADMADE	Administrative Design for Game Management Areas
LIFE	Living in Finite Environment
USAID	United States Agency for International Development
NGOs	Non Governmental Organisations
CTOs	Community Trust Organisations
CBOs	Community Based Organisations
CHA	Controlled Hunting Areas
CTs	Community Trusts
NRM	Natural Resource Management

WWF	World Wide Fund for Nature
FSC	Forest Stewardship Council
SADC	Southern African Development Community
SARPO	Southern African Regional Programme Office
LHWP	Lesotho Highlands Water Project
LHDA	Lesotho Highlands Development Authority
TCTA	Trans Caledon Tunnel Authority
UNFPA	United Nations Population Fund
IMF	International Monetary Fund
SSA	Sub Saharan Africa
UNDP	United Nations Development Plan
MEWT	Ministry of Environment, Wildlife and Tourism
STMT	Sankuyo Tshwaragano Management Trust
MZCDT	Mababe Zokotsama Community Development Trust
JVPs	Joint Venture Partnerships
SD	Sustainable Development
IUCN	International Union for the Conservation of Nature

UNEP	United Nations Environmental Programme
WTO	World Trade Organisations
STD	Sustainable Tourism Development
UNCED	United Nations Conference on Environment and Development
CSO	Central Statistics Offices

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background information

The primary aims of the community-based natural resource management (CBNRM) projects are to encourage biodiversity conservation, and by that means provide employment opportunities and income creation with the ultimate goal of reducing poverty rates in rural communities. CBNRM has the potential to contribute to the 17 Sustainable Development Goals which include poverty alleviation and environmental sustainability (ICSU, ISSC, 2015). This implies that CBNRM aims at achieving MDGs of poverty alleviation and environmental sustainability. It has been observed that the largest population increase with the most fragile environmental conditions is found in poor countries due to lack of political, economic and social resources to mitigate those challenge (Jones, 1999). This is in itself a barrier to sustainable development and a cause of deterioration in the living standards of the people. Jones further argues that there has been a rapid growth on social, economic and environmental research specifically on natural resources which has led to the establishment of the CBNRM programme. Global challenges to sustainable use of resources and conservation of biodiversity have shown that natural resources, population and development are not mutually exclusive.

Several studies have therefore been conducted to show the relationship between community participation and use of natural resources as well as environmental sustainability. This is vividly captured in the CBNRM framework which emphasises community participation in the sustainable use of natural resources and environmental management. Arntzen *et al*., (2003) argue that in Africa the CBNRM developed to address wildlife management methods which were seen

as being inadequate. In southern and eastern Africa, CBNRM concept has been initiated in response to the threats of extinction of natural resources which are suppose to continue existing to benefit the future generations. In southern Africa, the concept is emphatic about the conservation of the natural environment as a tool for achieving sustainability as well as addressing poverty. During the first half of the 1990s, Zimbabwe is one of the countries that experienced an alarming increase in poverty rates as a result of the decline in returns to human assets (The World Bank, 2009). The country eventually strengthened its community involvement in natural resource conservation and environmental management through the communal areas management programme for indigenous resources (CAMPFIRE), which was established in the 1980s. Literature suggests that different researchers worked to enhance the participation of rural people in the management of their environment. This is with a view of conserving natural resources and protecting their environment (Arntzen *et al*., 2007). To achieve these objectives in other places the Luangwa Integrated Rural Development Project (LIRDP) and Administrative Design for Game Management Areas (ADMADE) in Zambia, Living in Finite Environment (LIFE) in Namibia were also established (Bapedi, 2006). This is to suggest that the notion of CBNRM is found in most areas and it has been given different names but still considering community involvement as a driving force to the attainment of sustainable development.

Botswana, just like any other countries, experiences the global challenge of poverty especially in rural areas. Ironically these areas are mostly rich in both wildlife and natural resources. Nonetheless the decline in wildlife population is one of the critical issues faced by the country. In response to these challenges, the CBNRM was first introduced in Botswana in 1990 through the United States Agency for International Development (USAID) which assisted the government to fund natural resource management projects (Mbaiwa, 2011). The assumption here

is that involving rural communities in the management of their resources will economically benefit them and at the same time instill a culture of ownership amongst those communities.

As pointed out by Mbaiwa (2011), the decline in wildlife species and other natural resources as well as the feeling towards the centralisation of natural resources policies and laws contributed immensely to the establishment of CBNRM programme. In Botswana, many CBNRM projects have been implemented where the first CBNRM introduced was in 1990 through the United States Agency for International Development (USAID) that funded the natural resource management project in conjunction with the Botswana Government (Ngwira *et al*., 2013). Community based tourism is one of the CBNRM projects and it is carried out in the controlled hunting areas (CHAs) of the country, and the project has been successful in creating jobs for rural people. The wages from these jobs are used to buy food, clothes, build houses and generally to pay for the important expenses such as providing for the children's education (Mbaiwa and Kolawole, 2013). Thus, CBOs and CTs have been put in place to enable the communities to participate in the tourism industry and earn some benefits from it (Mbaiwa, 2011). In the Okavango Delta of Botswana, CBNRM is practiced because of the abundance of wildlife populations and natural resources in the area. CBNRM in the area has been acknowledged for the positive impacts of improving rural livelihoods, the utilisation of natural resources and wildlife management practices (Ngwira *et al*., 2013).

A number of Non Governmental Organisations (NGOs) institutions, Community Based Organisations (CBOs) or Community Trust Organisations (CTOs) and the private sector have emerged to support the CBNRM objectives. The CBNRM thrust is based on three conceptual foundations. These include (1.) economic value of natural resources; (2.) devolution of power; and (3.) collective proprietorship. First, economic value addresses the valuation of natural

resources such as wildlife, which are assigned monetary values that can be recognised by the community which conserves such natural resources. Here the assumption is that the cost of conservation must be minimised to enable people benefit from it. Second, devolution of power emphasises the need to redistribute power over the governance of natural resources (Mbaiwa and Darkor, 2006) from the central government to the local communities living next to the resource. This has been further supported by Mbaiwa (2011) by referring to the process as a "- shift from the so called top- down approach to a bottom up- approach in natural resource management". This was primarily put in place because citizens in different areas (where the government land laws were imposed) felt alienated from their environment were denied access to the natural resources. This often resulted in conflicts between the state and the affected people. Third, collective proprietorship addresses joint ownership and user rights over resources.

In Ngamiland District of Botswana, the CBNRM programme was introduced in 1995 to organise and involve the communities such as Seronga, Sankuyo, Ditshiping and others in natural resource conservation and environmental sustainability. CBOs are registered trusts that have been put in place to support the CBNRM programmes (Mbaiwa, 2011). The organisations must therefore have a land management plan and a constitution to allow them to operate as a trust and have some benefits of being a trust such as the entitlement to apply for a lease over a controlled hunting area (CHA) (Mogotsi, 2008). The CBNRM programme allows communities involved to carry tourism activities in their respective community hunting areas (Kgathi *et al*., 2011).

Although assumptions made depict the concept of CBNRM as significant in improving rural livelihoods, there are areas where CBNRM is viewed as a threat to sustainable livelihoods. The programme has been criticized for benefiting the elites than the intended beneficiaries (Mogotsi, 2008), arguments have been raised that the country is still far from accomplishing the goal of

eradicating absolute poverty by 2016. Besides all the critics, CBNRM can still be complimented for bringing improvements in most rural livelihoods.

Okavango area, situated in Ngamiland District of Botswana is one of the areas composed mainly of rural livelihoods. The area is made up of different plants and animal species (Ngwira *et al*., 2013). People in the area depend on natural resources (Kgathi *et al*., 2011) of which the uses are governed by legislations. Written evidence have it that these laws led to the marginalisation of some ethnic groups such as the Basarwa of Gudigwa village (Darkor and Mbaiwa, 2005). But even so, some CBNRM projects have proven to be beneficial to the dwellers of different communities.

Community trusts (CTs) concept, which is used interchangeably with CBOs by most authors have been put in place by the people and for the people. The trusts work through the CBRM programmes to encourage communities in rural areas to participate in natural resources management (Mongadi, 2004) especially tourism management (Mbaiwa, 2011). This is a top down approach that was triggered by the alarming rates at which wildlife was getting depleted in spite of the government's strategies to address the problem. Giving people in wildlife based areas powers over natural resources was considered essential, hence the establishment of these trusts.

1.2 Statement of the problem

Jones (1999) argues that the last two decades have experienced more researches that aligned themselves with the natural resources management (NRM) which called for the establishment of community based natural resource management. This community based approach is promoted by a wide range of spectrum of global organizations such as the World Bank, non-governmental organizations and the United Nations (UN) (Mbaiwa and Kolawole, 2013). Twyman (1991)

argues that the community based approaches are a solution to the problems associated with natural resource management. Through the community based approaches, local people are expected to participate in natural resource conservation to gain economic benefits but at the same time achieving sustainability (Ngwira *et al*., 2013). International organizations have also valued utilising biodiversity through the collaborations that were driven by the principles of sustainable development, international conservation and development projects (Ngwira *et al*., 2013) and the strategy has been described as win-win approach meaning that it has significant consequences of conserving natural resources, creating employment for local people, hence leading to the achievement of economic development.

Researches on biodiversity have shown that majority of the world's biodiversity is located in Africa south of Sahara (Mbaiwa and Kolawole, 2013) though the decline in biodiversity is also widespread in these areas. People in south Sahara are mostly the poor and their livelihoods revolves around the available natural resources hence human negative impacts on resources are intense (Mbaiwa and Kolawole, 2013). The assumption is that it is perhaps as a result of the wrong procedures followed in the implementation of the CBNRM projects in those areas (Mbaiwa and Kolawole, 2013) though the introduction of CBNRM in southern Africa was primarily introduced to amend problems of the decline in wildlife species and land use conflicts. Mbaiwa (2011) opines that many African countries especially those in southern Africa now have to deal with the decline in natural resources and high poverty rates which have been counter attacked by the introduction of CBNRM in rural areas. Given this as the case, biodiversity decline is still seen as prevalent in developing countries like Botswana, Zambia, Kenya, Peru and Nepal (Mbaiwa and Kolawole, 2013).

Having discussed the above, biodiversity in developing countries is still blamed on the malfunctioning or failure of some CBNRM approaches to address the problem of the reduction in natural resources (Mbaiwa and Kolawole, 2013). The effectiveness of some CBNRM approaches has been criticized by some scholars such as Coria and Calfucura (2012) who argue that tourism has never accomplished the intended goals to the community because of factors such as land insecurity, lack of capital and lack of strategies for an equal distribution of ecotourism resources. There are many cases of ineffective performance in driving the CBNRM policy of poverty alleviation amongst many of those which are still existing (Mbaiwa, 2011). Possible assumptions of the factors leading to the failure of the trusts and CBOs include lack of entrepreneurial skills, death of policies which incorporate CBNRM policies into the national development plans, mismanagement of funds and land use conflicts. While all these assumptions have been documented, available studies have not investigated the factors that contribute to CBOs' effectiveness or lack of it in relation to the mandate spelt out by the CBNRM policy. This study, therefore, makes a comparative analysis of the performance of two groups of community trusts in the process of driving CBNRM policies in rural areas.

1.3 Research Questions

The following questions shall be addressed in the study:

1. What are the existing CBNRM projects being implemented by the CTs in the study area?
2. What are the characteristics of the CTs and CTs members that influence their performance in the implementation of CBNRM projects?
3. What are the institutional factors influencing the performance of CTs in CBNRM project implementation?

4. What are the differences between the CTs that are doing well in terms of CBNRM project implementation and those that are not?

1.4 Objectives of the study

Main objective

Generally, the study systematically assesses the factors that influence the performance of the community trusts in the implementation of CBNRM projects in the study area.

The specific objectives are to:

1. identify the existing CBNRM projects being implemented by the CTs in the study area;
2. analyse the characteristics of the CTs and CTs' members that influence their performance in CBNRM project implementation;
3. analyse the institutional factors influencing the performance of CTs in CBNRM project implementation; and
4. determine the difference existing between CTs that are performing well in CBNRM project implementation and those that are not.

1.5 Hypotheses of the study

The hypotheses of the study are stated in the null form viz:

1. Ho_1: There is no significant relationship between the characteristics of community trusts and CTs' members and their performance in CBNRM project implementation.

2. Ho_3: There is no significant relationship between institutional factors and the performance of community trusts in the implementation CBNRM projects

3. Ho_4: There is no significant difference between community trusts that are effectively implementing CBNRM projects and those that are not.

1.6 Significance of the study

The study is significant because the findings of the research will serve as a data bank for researchers and students. It will also provide information for policy makers to make informed decisions on CBNRM and community development program implementation.

1.7 Limitations of the study

The research faced the following challenges:

1. Time constraint

Little time allocated to the study made it impossible to dig as much information as the researcher would have expected. However, the researcher worked tirelessly to collect all the information that was necessary for the completion of the study.

2. Issue of sensitivity of some data.

It was not an easy task to collect some of the data that was perceived sensitive to some people, such as the financial status or income. The respondents were made aware that their identity would be treated anonymously and that their responses would be treated with uttermost confidentiality.

3. Language barrier

This was due to some people being unable to communicate in Setswana but only in their local dialects. Some of these groups include the Basarwa ethnic group and Bayei speaking community. The researcher engaged the service of interpreters (residing within the studied settlements) to interpret both the research questions and the answers provided during interviews in each study village. These were the people conversant with speaking both Setswana and their mother tongue.

CHAPTER TWO

2.0 LITERATURE REVIEW

This chapter explores the literature upon which the study is derived and built. The chapter presents the concept of CBNRM through the use of conceptual framework based on reasoned action of sustainable tourism and environmental sustainability. The study model draws from responsible tourism management guided by the concept of economic efficiency, social equity and environmental sustainability.

2.1 The concept of community based natural resource management (CBNRM)

2.1.1 Global view of CBNRM.

Global issues of mismanagement of natural resources and over dependence on natural resources have led to the establishment of strategies that aim at mitigating those problems. There are key places in the world, which have important species that needs to be protected, especially in rural communities (WWF, 2012). The need then arises to develop programmes on natural resource conservation or support those that already exist and at the same time provide possible solutions to eliminating rural poverty. Global initiatives have been implemented to help enhance sustainable management of natural resources and by that means improve the condition of people who rely on them (WWF, 2012).

CBNRM is a globally recognized concept. Nonetheless, it is explained in many different ways, different approaches within different socio-economic and historical contexts.

The definition of CBNRM as provided by (WWF, 2012) is:

> "…an approach to conservation and development that recognizes the rights of local people to manage and benefit from the management and use of natural resources. It entails transferring back to communities' access and user rights, empowering them with legislation and devolved management responsibility, building their capacity and creating partnerships with the public and private sector actors to develop programmes for sustainable use of a variety of natural resources."

The emphasis is on the participation of the community in conserving natural resources to achieve sustainability in the natural resources conservation and poverty reduction. (Mbaiwa, 2011) argues that an essential aspect of CBNRM is the support of local people. Further argument is that these people need to be the ones to define their objectives and their own boundaries. Through partnership with local communities, governments and aid agencies, Forest Stewardship Council (FSC), certified forestry and forest management has been able to promote sustainable freshwater fisheries and conserve the Amazon basin (WWF, 2012). The efforts of WWF are to protect Amazon species and offer continued support of food and income to sustain people and economies locally. Here, CBNRM is practiced in a different context but with the same notion of community involvement.

2.1.2 CBNRM in southern Africa

Historically, before the colonial Africa, populations were smaller, the environment and natural resources were managed by communities in an efficient and sustainable manner to meet their needs at household levels (SADC Report, 2002). Population increase resulted on pressure on the land and on natural resources in most rural communities hence the need to find ways of mitigating such challenges.

Since the 1980s, developing countries have been linked with the CBNRM projects (Mbaiwa, 2011) mainly because these countries are facing a decline in natural resources and other wildlife populations. In response to these, the regional CBNRM capacity building and training project was initiated by the WWF Southern Africa Regional Programme Office (WWF SARPO) and WWF Norway to address capacity needs at community, governmental and non- governmental (NGOs) levels (WWF, 2012). The aim is to improve the rural livelihoods at household level which can be attained through sustainable management of natural resources by communities in southern Africa. Regional Strategic Action Plan for Integrated Water Resources Development and Management in Southern African Development Community (SADC) countries has included amongst its plans the promotion of public participation through the establishment of community-based water management groups (SADC Report, 2002). The assumption is that making the communities aware of the nature of the water resources endowed in their respective places and how limited the water resource is, they will use the water in an equitable and sustainable manner. The community based natural water management in north-eastern Tanzania is a successful water resources management practice. Community involvement in the management of water is improving the resource use.

The Lesotho Highlands Water Project (LHWP) began after a feasibility study which was conducted between August 1983 and August 1986 (European Investment Bank Report, 2002). The report states that the project is being implemented in several phases by two institutions of Lesotho Highlands Development Authority (LHDA) in Lesotho and the Trans Caledon Tunnel Authority (TCTA) in South Africa, both dedicated public sector bodies. Though the project brought improvement for many villages in the mountainous interior and driving the CBNRM policy, it has been criticized for the corruption that surrounded it and for the resettlement of

some communities when the project was started. The Parliamentary Commission of Zimbabwe introduced land holder community dominance over natural resources use on private land as reaction to public concern over environmental degradation (Rihoy and Maguranyanga, 2007). Stakeholders also responded to the economic and political upheavals by coming up with new types of relationships to sustain wildlife production on communal areas. Around 1990s safari hunting activities commenced and the wildlife population quadrupled within fifteen years in the country because the management of wildlife became more effective due to the perceived gains there from (Rihoy and Maguranyanga, 2007). The CAMPFIRE in Zimbabwe generated $20 million for local communities and districts governments from 1989 to 2001 and also resulted in over forty thousand square kilometers of land being managed for wildlife production (Roe *et al*., 2009).

The Zambian Wildlife Act of 1998 was enacted to allow the rights of local communities to use and manage natural resources in game management areas and open areas which were exercised through community resource boards. These boards are divided into smaller village action groups of fisheries. There was also the forestry legislation making provision for Joint Forest Management communities' agreements and the government. In Namibia, communal land conservancies had multiplied to cover more than 14% of the country, involving over 200, 000 people and earning US$2.5 million per year. In essence, key wildlife resources are now protected and illegal use of wildlife has fallen since the introduction of CBNRM in the area (Rihoy and Maguranyanga, 2007). In the Mudumu North Complex in Caprivi region of Namibia, neighbouring communal conservancies, protected areas and community forests initiatives have combined to care for wildlife and other resources. The activities carried out through this partnership include joint game monitoring, joint anti-poaching patrols, joint fire management

(Turner, 2004). They take measures to control and maintain wildlife movement between the communal land and protected areas across international boundaries (USAID Report, 2013). The development of community level wildlife-based tourism structures on private and communal land is making a mass contribution to the national conservation estate of Kenya (Roe *et al*., 2009). The demarcation of two hundred thousand hectares of forest under the Community Resource Management Area Policy of 2000 has given the communities in Ghana full authority to control access and harvesting of resources within their management areas (Roe *et al*., 2009). With this type of management came the reduction of the illegal activities including poaching and exploitation of natural resources.

In Tanzania, more than 3 600 000 hectares of forests and woodland are now managed as Village Land Forest Reserves (under the control of locally elected village governments) or are co-managed forests between villages and either local or central government. CBNRM in Malawi is substantiated by organic initiatives based on traditional beliefs and systems that proved to lead to its success (USAID Report, 2013). However, inorganic CBNRM requires a high quality capacity building component and a sound strategy with a clever leadership at community, local, and central government levels to attain the set goals.

2.1.3 CBNRM in the Okavango Delta, Botswana

The Okavango Delta in the Ngamiland District is an oasis of water but also one of the peculiar ecological environments having a high density of flora and fauna with more than seventy-one fish species, thousands of invertebrates and more than four hundred bird species (Mendelsohn *et al*., 2010). The beauty of this Delta has served to provide income for Batswana especially those in rural areas through tourism activities carried out in the area. For the country and rural

communities to continue benefiting from the revenue provided by the Delta, there is need to secure its future. A number of approaches and activities need to be employed if the Okavango Delta is to continue to serve the people (Mendelsohn *et al*., 2010).

Rozemeir (2003) has indicated the coverage of CBNRM communities in Ngamiland District to be 6.1% of the national population. This is a large number when compared to other districts. The need to come up with the strategies to conserve natural resources arose because most of the livelihoods in the area depend directly or indirectly on the natural resource species provided by the land for survival (Mbaiwa, 2011). The assumption is that the communities exert pressure on the existing natural resources and the environment when they rely on them for survival. This can be viewed as an attempt by rural people to address their social and economic status of poverty.

2.2 Environment and natural resource management

The global sustainability ethics and principles have been put in place to address environmental challenges. It can be argued that these ethics and principles are not much older than CBNRM programme. Further argument is that the CBNRM concept was implemented to complement and fill in the gaps that were left by the existing strategies. The principal aim of the CBNRM as already discussed by several scholars was to involve rural people in sustainable development of their livelihoods (Mbaiwa, 2011). Most rural livelihoods are faced with the challenge of poverty.

The National Settlement Policy of Botswana places emphasis on the promotion of sustainable use of resources to benefit even the future generations (Segosebe, 2011). But contrary to this the country still experiences environmental problems such as the depletion of some wildlife species. To add on this the Ministry of Environment, Wildlife and Tourism (MEWT) has banned wildlife hunting in all controlled hunting areas (CHAs) at the beginning of the year 2014 as a way of

mitigating the threat on wildlife species (Press Release, 2014). The assumption is that besides the policies and plans to conserve the wildlife species, the animals are still being killed at alarming rates. Available literature reveals the policy on natural resources conservation and development, which advocates for the participation of the society at large in conserving the immediate environment in which they live in (Kgathi *et al*., 2011). Despite the policy implementation on this, environmental degradation is still conspicuous in most parts of the country.

Van Der Jagt *et al*., (2000) provide the objectives of the CBNRM programme as the improvement of the natural resource management through societal empowerment. The experience of the programme in Botswana is perceived as a development effort full of good intentions but with bad end results (Segosebe, 2011). Even though this is the case, the communities in rural areas have established CTs through which they are able to manage natural resources to benefit them socially and economically (Mbaiwa, 2011).

2.2.1 Community trusts projects

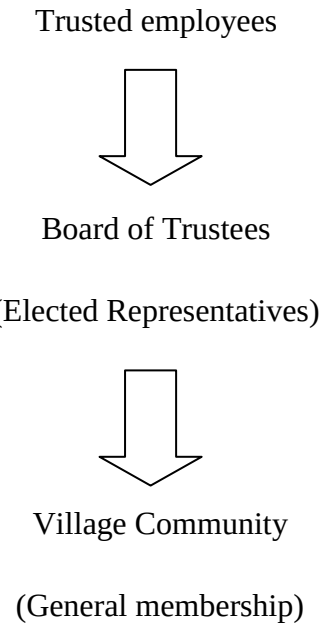

Figure 1: Structure of the community trust (Mbaiwa, 2011)

Magole *et al*. (2008) explain that Board of Trustees is the elected members of the communities and they manage the activities of the trust on behalf of the community. The assumption is that the bond between community trusts and CBNRM has made it possible for communities to be involved in the sustainable use of natural resources to improve their economic and sustainable lives. Despite the well defined structure above, some trusts in the area are still not able to support their communities in poverty alleviation hence the study making a comparative analysis of the community trusts in the Okavango Region. It analyses the factors that could be contributing to the failure of such trusts compared to those that are effective.

More than twenty trusts are found in the Okavango area but only four trusts are investigated in the study. Sankuyo Tshwaragano Management Trust (STMT) established in 1995, has proven to

be one of the effective CBNRM projects (Arntzen *et al*., 2003). The trust is based in Sankuyo village in Ngamiland District. At its registration the trust was allocated approximately 860 square kilometer of land area (Mongadi, 2004). The land was mainly allocated for tourism activities. The area has a total population of 372 people (Mbaiwa, 2011). These people were given the responsibility of managing the natural resources in the area. The other trust that is succeeding in sustaining CBNRM projects is the Mababe Zokotsama Community Development trust in Mababe village. The village is located in the eastern side of the Okavango Delta (Magole *et al*., 2008). The people residing in the area are the Basarwa. The area has a total population of one hundred people whose livelihoods revolve around the natural resources found in the area.

These trusts are currently doing well and are engaged in photographic and safari hunting tourism (Mbaiwa, 2011). These activities are the source of income as well as employment opportunities for community people (Arntzen *et al*., 2003). Revenue earned in tourism activities is used to support community projects such as funerals, sports activities and scholarships. The Sankuyo trust project offered financial assistance for the provision of water to 73% of the total households in the area. The water project at Mababe funded 56% of the households. The projects are showing a positive move towards poverty alleviation. Given this scenario, however, Kgathi and Ngwenya (2005) argue that the direct benefits to the households are generally too low to sustain their lives. Other arguments are that the collective benefits to the community are not distributed to the individuals, creating no sense of ownership (Jones, 2000).

On the other hand, some CTs are failing to support the community based natural resources projects. The Matlapana community trust, established in 2006, aims at conserving natural resources through the development of the management of campsite and fish farming (SGP publications, 2010). Available materials have shown the trust to be one of the ineffective trusts in

the region. Though the trust has clear and well defined goals of achieving sustainability, it had not sustained the livelihoods of its community. Shorobe community development trust was established in 2007 with the goal of managing the campsites. It has also not offered sustainable developments in the Shorobe and Satellite settlements. Failure of some community trusts has been discussed by Mbaiwa (2011) and other researchers but a systematic study into the factors have not been carried out.

Mbaiwa (2011) argues that CBNRM projects have collapsed or failed to support some projects. The factors leading to their failure include: "lack of entrepreneurial skills with the CBOs; lack of equitable distribution of benefits from CBOs; lack of re-investment and mismanagement of funds; and lack of true joint venture partnerships (JVPs) between CBOs and safari companies" (Mbaiwa, 2004, p. 48)

The above assumptions are general and applicable to the ineffective CTs. Available literatures on the CBNRM projects in rural areas and their failures do not provide information on some critical factors that may be contributing to these inadequacies.

2.3Conceptual Framework

The CBNRM framework was implemented to respond to the unsustainable local practices that lead to the natural resource degradation including wildlife (USAID, 2009). The assumption is that the existing legal, social and economic policies, exclusion of local people from decision making, lack of the funds and resources hinder the attainment of sustainability (Mbaiwa and Kolawole, 2013). Twyman (2000) argues that the community will only manage the natural resources sustainably if they are given full responsibility or ownership over them but Ostroom (1990) comments that environment and natural resources present common pool resources

outcomes such as exploitation by one user which reduces the chances of others benefiting from the same natural resources.

2.3.1 Sustainability

The evolvement of the concept of sustainability was traced to four international conferences (Keitumetse, 2011). The UN conference on the human environment held in Stockholm, Sweden in 1972 formulated initial rights, principles and responsibilities of sustainability. A more focused approach on sustainable development (SD) programme was adopted in 1987 where the report on Common Future was produced to guide SD programme. The Earth Summit of 1992 culminated in the proclamation of Agenda 21 principles which currently provide guidelines on the implementation of SD programme. In support of the origin of the concept, Keitumetse (2011) observe that SD was first introduced in the World Conservation Strategy in 1980. The concern of USAID for sustainability emerged from the experience of rural development projects that left the communities out of their management. The assumption is that people and their communities have a vital role in the management of natural resources to achieve their sustainable use.

The study draws from the concept of sustainability based on the framework of sustainable tourism, which is an outcome of the debate on SD that was officially mooted in 1972 at the UN conference on global issues (Mbaiwa, 2004). Sustainable tourism framework is important for the study because where CBNRM is in practice in most countries, tourism activities play a significant role in driving the CBNRM policies. For example in Botswana two key policies laid the foundation of CBNRM projects, being the Wildlife Conservation Policy of 1986 and the tourism policy of 1990 (Mbaiwa, 2004). The policies call for the increased opportunities for local communities to benefit from wildlife and natural resources through tourism development.

2.3.2 Definitions of sustainability

The concept of sustainability was first defined to mean the sustainable use of natural resources (Keitumetse, 2011). Robinson (1993) in Keitumetse (2011) argues that sustainability can be achieved when production and consumption factors are being monitored. The aim of the concept highlighted the achievement of basic needs to everyone for a better life using natural resources. Carter (1991) points out that the concept of sustainable development is thus significant to tourism development since the destruction of tourism resources for a short time will deny the benefits to be gained from mobilization of these resources in the future. Morse (2004) defines the concept as a measure of how maintenance, expansion or deterioration of resources affects a population's ability to sustain itself. SD should create lasting solutions with significant independence and managing the already existing resources in given communities so that they do not get depleted. The sustainability component of the SD paradigm implies that whatever is carried out now does not harm the future generations (Morse, 2004).

2.3.3 Definition of sustainable tourism

The significance of the concept of sustainable tourism, especially environmental conservation gave rise to international groups like International Union for the Conservation of Nature (IUCN), United Nations Environmental Programme (UNEP) and World Wide Fund for Nature (WWF). These international organizations are responsible for sponsoring and supporting scientific studies, and coordinating conservation activities. WTO standard definition of sustainable tourism development (STD) is tourism which leads to the possible management of all resources in such a way that economic, social and beauty needs can be accomplished while still supporting other ecological and biological lives (WTO, 2004). It calls for the development of all other areas

in a manner that it remains viable for a long period of time. The resources are expected to continue their support even in the future.

2.3.4 Sustainability and CBNRM in the Okavango Delta, Botswana

Just like in the eastern and southern Africa where CBNRM approaches have been adopted to achieve sustainable natural resource use, CBNRM in the Okavango Delta is based on the concept of sustainable development (Mbaiwa, 2004). The framework of sustainability is based on three broad concerns of economic efficiency, ecological sustainability and social equity. Economic efficiency implies an economic state in which resources are optimally allocated to each person in the best way to minimize waste (Mbaiwa, 2004). Vucentic *et al.* (2012) defines efficiency as the society's ability to make optimal use of scarce resources to satisfy needs and wants. Mbaiwa (2004) supports the notion by also arguing that economic efficiency aims at optimal use of resources. The concept still holds strongly while looking at the tourism sector in the Okavango Delta because it is the main activity that constitutes even the majority of CBNRM projects. Mbaiwa and Darkor (2006) suggest that tourism and wildlife management are the main socio-economic activities in the Okavango Delta.

2.3.5 Sustainable Tourism Model

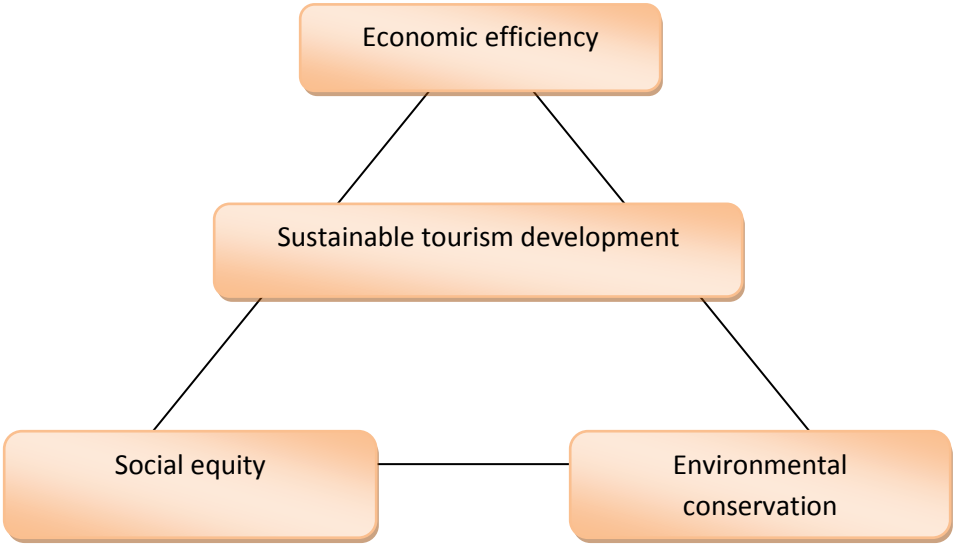

Figure 2: sustainable tourism model, (Mbaiwa, 2009)

2.3.5.1 Economic efficiency

Vucentich *et al.* (2012) argues about a society making the best use of resources to satisfy needs and wants. This implies the maximum production of goods and services within the given capital resources in order to achieve high standards of living (Markanndya, 1993). Sustainable tourism must ensure long term economic benefits to the society without any impact on natural resources. The concept should continue supporting the socio-economic benefits of the society to alleviate poverty as well as to ensure the sustainability of natural resources (WTO, 2004). The community that is hosting the tourism activity is expected to get the same profits as the other stakeholders . CBNRM programme has been criticised for benefiting major stakeholders other than the community members, hence the model is relevant in addressing the critique raised in relation to the implementation of the programme.

2.3.5.2 Social equity

The model considers the equitable distribution of resources amongst the people. Social equity advocates for fairness and equal access to resources by all those in the resource area (Ehrenhalt, 1995). Furthermore, the concept is aimed at ensuring equity in the costs, decision making and management of natural resources which in practice will eradicate poverty (UNCED, 1992). The concept of social equity in CBNRM is based on the notion that communities in natural resource areas should have equal access in the decision making concerning them, equal access to their use and benefits (Mbaiwa, 2004). Sustainable tourism should not be based on the natural resources alone, the critical aspect should be on the people's attitude towards the resource use and their management. In the case of the CBNRM in the Okavango Delta, social equity refers to a situation whereby community members are provided with equal opportunities to be actively involved in, benefit from, make decisions about resources and to manage them. The sustainability of CBNRM is based on the notion of equity within communities (Mbaiwa, 2004).

2.3.5.3 Environmental sustainabiity

Sustainable tourism should make optimal use of environmental resources that contribute significantly to tourism development, maintaining essential ecological processes and helping to conserve natural heritage and biodiversity (WTO, 2004). Tourism as one of the activities of CBNRM should be sustainable so that it goes on to support the communities in areas where the wildlife resources are found and also remains for a long time to sustain future livelihoods. According to the World Bank (2001) the sub-Saharan African (SSA) population is growing at a rate of 2.5% compared with1.2% of Latin America and Asia. The rapid population growth has put pressure on resources and wildlife species. The assumption is that the resources are at a risk

of being misused to the extent of being depleted (Ngwira *et al*., 2013). Wildlife resources as well as other natural resources are the mostly consumed, hence informing the need to implement CBNRM projects in different parts of the world to address that challenge of resource degradation.

CHAPTER THREE

3.0 METHODOLOGY

3.1 Study area

The study focuses on the communities at the periphery of the Okavango Delta which is located in the north-western Botswana. The villages are Sankuyo which is located in the eastern part of the Delta, Mababe in the north east side, Shorobe in the lowest periphery, and Matlapana in the eastern side, too. These areas were chosen because they are found around the Delta which houses many categories of wildlife species and natural resources. CBNRM is also practiced in these selected areas. The areas have CTs that take part in CBNRM projects such as tourism and fishing activities. The village of Sankuyo was chosen as it was the first village to have CBNRM projects and it was allocated land for photographic and hunting purposes (Mbaiwa, 2002). Mababe area was chosen because it is one of the areas that encountered resource use conflicts (Mbaiwa, 1999). The areas of Matlapana and Shorobe were chosen on the basis of CBNRM activities of campsites management. These areas are vital for the study to provide a comparative analysis on the effectiveness and ineffectiveness of CBNRM projects implementation in the areas.

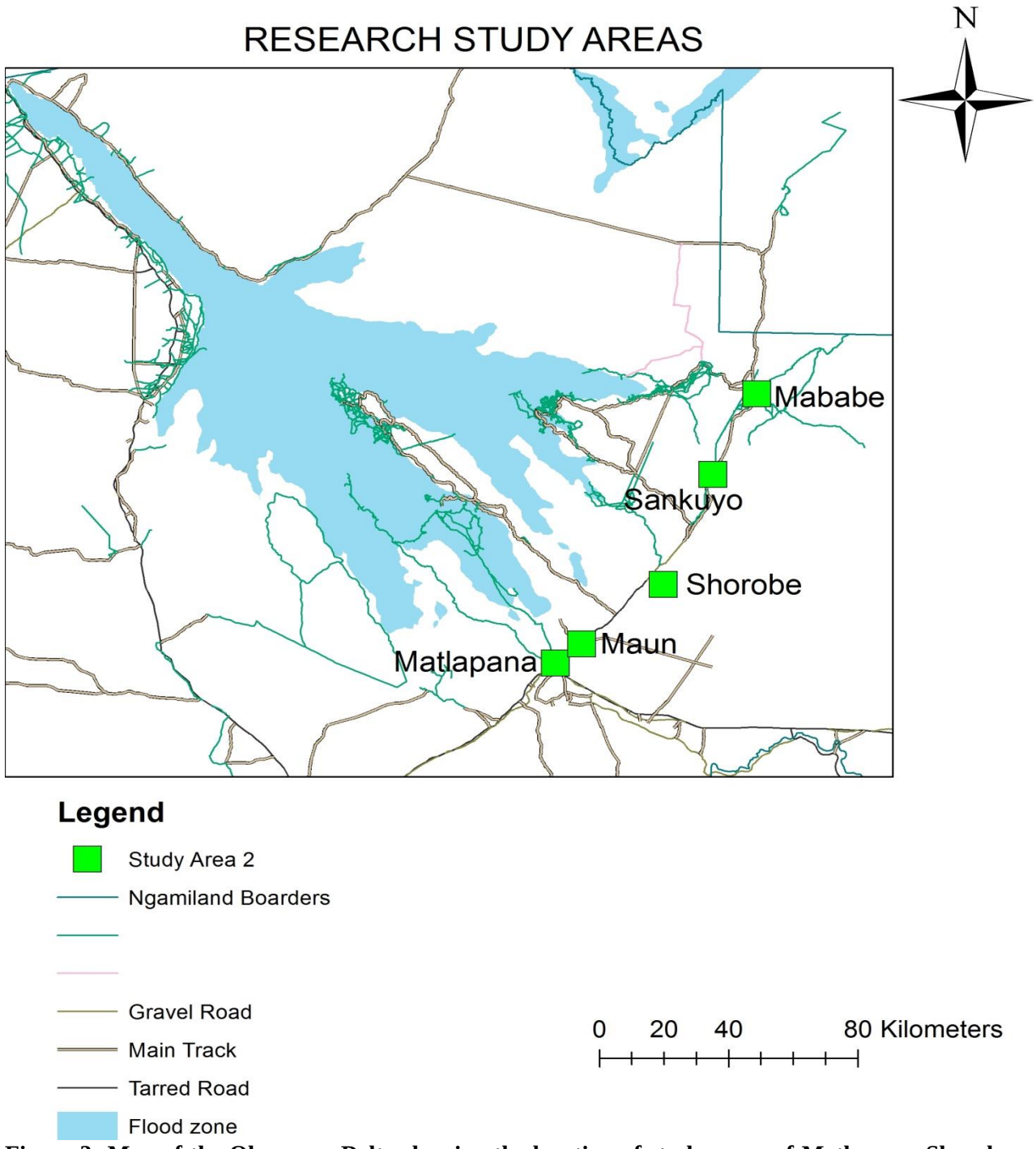

Figure 3: Map of the Okavango Delta showing the location of study areas of Matlapana, Shorobe, Sankuyo and Mababe (Credit: GIS Laboratory, Okavango Research Institute, Maun, Botswana)

3.2 Research design

The research approach that guided the study was driven by the nature of the research questions that systematically assessed a comparison of the performance of the two groups of community trusts in terms of projects implementation. In other words, the research employed a comparative and analytical approach to achieve its objectives. The study, therefore, employed a descriptive research design that used a mixture of qualitative and quantitative data collection methods. Qualitative data were obtained from focus group discussion (FGD) sessions and key informants interviews. Quantitative data collection and analysis focused mainly on generating descriptive and inferential statistics to quantify and support the qualitative material.

3.3 The population

The population comprises people from different ethnic groups. Mababe has an ethnic group of BaSarwa and has a population of about two hundred and thirty people, (CSO, 2011). Sankuyo is made up of four hundred and ten people (CSO: 2011). The ethnic groups in the area are mainly BaSarwa, BaYei and Basubiya. Shorobe village, found in the lower part of the Okavango Delta, is also selected for the study and its livelihoods are based on fish farming and campsite management. The village has a total population of one thousand and thirty one people. Matlapana is also found along the peripheral area of the Delta and the source of survival includes fish farming. The area has population of one thousand, four hundred and forty nine people who include BaYei and BaTawana (CSO: 2011). The areas have established their CTs in order to conserve the natural resources in their area.

3.4 Sample and sample size

The current data on the population of the different ethnic groups were obtained from the Central Statistics Office (CSO) and were used as the sampling framework. A total of thirty households were randomly sampled in each village making a total of 120 households in all the study sites. This represents 17.9% of all households in the four villages (See Table 1 below). Both men and women populations were used in the information collection processes. Mbaiwa (2011) argued that the members of the villages who are older than eighteen years are practically members of the community trusts. And based on the argument, adult population was used in the study. The households interviewed were selected through simple random sampling technique.

Table 3.4a: Households sampled in the study area

Villages	Household Sample	Total Households	Total Village Population
Mababe	30	71	230
Matlapana	30	287	1449
Sankuyo	30	77	410
Shorobe	30	234	1031
Totals	**120**	**669**	**3120**

Source: Central Statistics Office (2011). www.cso.gov.bw/images/ngami_east.pdf/

3.5 Interview instruments

Questionnaire was administered to both the CTs members and the members of the community who were able to read and write. Interview schedule was used to sample opinions from members who are non-literate. Face to face interviews with household heads was conducted using both open ended and closed ended questions so that more information on the trusts could be collected. FGDs were used to collect vital information on CBNRM projects from the trust members and certain key informants like the chiefs. The FGDs generally comprised 9 adult populations depending on the available members of the community trusts at the time of data collection in the selected villages. The discussions in focus groups were unstructured in nature. This was to allow for richer and more valid data on respondents' perceptions, opinions and believe regarded essential for addressing the research objectives. A question guide was used in interrogating the respondents and their responses were captured using a tape recorder for accuracy.

3.6 Measurement of variables

CTs' characteristics such as 'age' were measured based on the number of years they have been established. CT 'membership composition' was measured based on male-female ratio. Their 'financial statuses or 'capital outlay' was measured by the amount they presently had in their accounts. 'Leadership composition' was measured by male-female ratio as well. 'Frequency of meetings' measured by the number of times the trust held its meetings either weekly, monthly, quarterly, one in one year or annually, as the case may be. Contact with other CBOs was measured by the number of such CBOs which the CT interacts with. Dependent variable, CTs projects was measured by the number of such projects which had been successfully implemented.

3.7 Reliability and validity of instruments

To ensure that the instruments measure what they were intended for, they were subjected to experts review in the Okavango Research Institute before the commencement of the field work. The instruments were also subjected to reliability test to ensure that they were adjudged for consistency on the basis of respondents' interpretation of the questions and how they assigned meaning to the question items. This pre-test exercise was carried out by field testing a few numbers of the instruments in a near-by village, which is outside the study locations, before the actual field work. Specifically, the instrument was piloted using a sample of ten subjects similar to those targeted by the study. This pre-test exercise was carried out by field testing these instruments in the local community trust of Okavango Kopano Mokoro, which was not among the targeted CBOs. Secondly the CBO is registered with the Registrar of Deeds with a view to executing CBNRM projects in its jurisdiction. Both the questionnaires and interview schedules were administered the same way it would be administered in the main study. The subjects were asked for feedback and the time taken to administer the instruments was recorded so as to test if administering the research instrument was realistic and workable within the expected time. The responses obtained were then assessed for consistency/reliability and validity in terms of how respondent understood the questions and how the instruments effectively measured the phenomena under investigation, respectively. Any discrepancies identified in the course of the exercise were corrected before heading for the actual field work.

3.8 Data collection

Both primary and secondary data were used to analyze the study. Published and unpublished reports on previous studies that were based on the same areas were used. These include

government records, Central Statistics Records, financial reports, articles from the internet on CBNRM, poverty alleviation and community trusts. These are the secondary sources of data. The primary sources of data included those derived from both structured and unstructured interviews administered in the communities.

3.9 Data analysis

The data obtained were summarised using descriptive statistics such as frequency, percentages and bar graphs. Also, inferential statistics such t-test and Chi-square were used to test the relationship between dependent variable (performance in CBNRM project implementation, in this case) and the explanatory/independent variables like CT characteristics, members' socio-economic/demographic characteristics, institutional factors, etc. in order to make deductions from the findings.

CHAPTER FOUR

4.0 INTRODUCTION

4.1 Data analysis and discussion

The chapter looks into the factors that are crucial in influencing the implementation of CBNRM projects via the community trusts in different areas of the Okavango Delta. It focuses on two categories of CTs: those that are effective in CBNRM projects implementation and those that are not. The chapter engages in a comparative analysis of these groups of CTs but considering the three main factors which are demographic, socio-economic and institutional factors that influence the implementation of projects that aim at reducing the rates of poverty in the respective communities with the CTs. Both the community members and the CTs committee members were interviewed with a view to coming up with a viable analysis that can provide the solutions to the existing problems on the running of the CTs.

4.2 Demographic information

The demographic information is significant in any study focusing on people because for example a sample population should include representatives from different age groups as well as ensuring that both males and female population are included to avoid skewness. Other factors such as age, household sizes also play a vital role in the study. As such, the following section covers the demographic information of the CTs committee members and community members obtained from the data collected and analysed.

4.2.1 Sampled villages

Figure 4 shows the sampled villages in which a total of eighteen CTs committee members were interviewed, each group of CTs with nine members interviewed (both the effective and ineffective CTs in projects implementation). Some 33.3 percent of the population were interviewed in Mababe, 16.7 percent of the population were interviewed at Sankuyo. These two areas constitute of the CTs that are effective in projects implementation. On the other hand, 27.8 percent of the respondents in the ineffective CTs were selected from Shorobe while 22.2 percent of the population was from Matlapana.

From the same villages, a total of one hundred and twenty (120) members were interviewed. In Mababe, a total of thirty (30) community members were interviewed and the same number was used as the base line for all other areas.

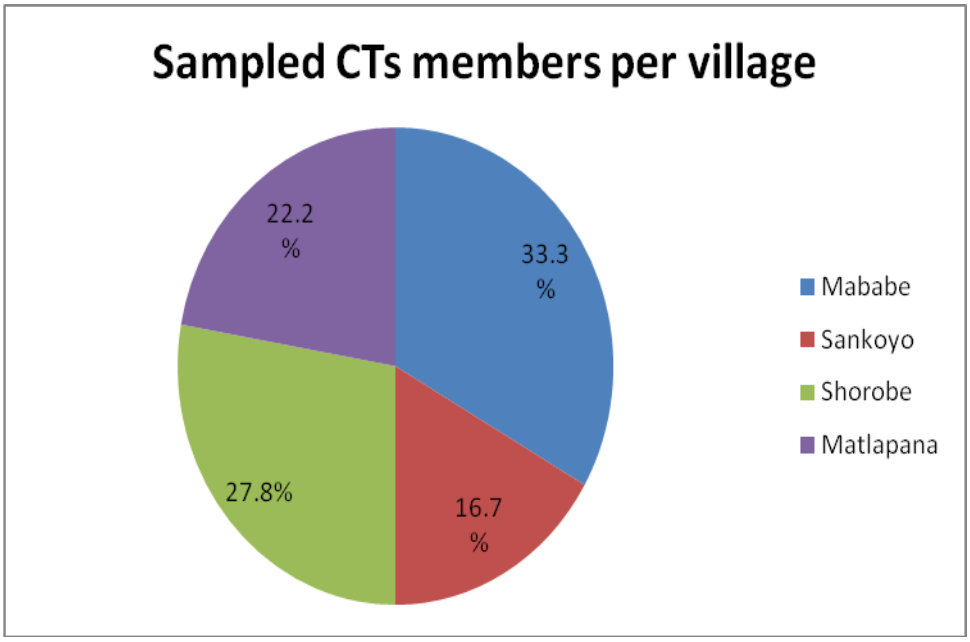

Figure 4: A pie chart showing the percentages of CTs committee members sampled per village.

4.2.2 Gender

It is momentous to avoid gender bias in order to give a valid definition of the study sample (McHugh *et al.,* 1986). The choice of gender/biological sex defines the population sample of any research study (Rundbland, 2015). As already indicated in the introduction, gender (whether male or female) is critical in determining fair decision-making in any institutional, economic or social structures that need to achieve fair goals on a given role. Both males and females are allowed equal access to the opportunities meant to empower women and make their voices heard. The field study also included both males and females to unearth useful information regarding the CTs. Table 4.2a shows the distribution of CTs committee members with their demographic and socio-economic characteristics. The table reveals that the male population constituted 77.8 percent of the total respondents of the effective CTs while 22.2 percent constituted the female CTs member-respondents. However, 55.6 percent of the ineffective CTs committee member-respondents (in Shorobe and Matlapana) were males while 44.4 percent constituted the females. The analysis shows that male membership dominated the effective CTs while there is a minimal gap between the male and female membership in the ineffective CTs. As they continue to find their ground in leadership roles/positions, women are still not performing like men at the community level. . Thus the CTs headed mostly by men are doing well in projects implementation (as observed in Mababe and Sankuyo).

Data from table 4.2b shows that in terms of community membership, 46.7 percent constituted the male population while 53.3 percent comprised the female respondents in locations where CTs projects were successfully implemented. On the other hand, 51.7 and 48.3 percents of the populations in the communities where CTs were unsuccessful constituted males and females, respectively.

4.2.3 Marital status and age

A constructive sample criterion would involve all the usual social, geographic and linguistic factors such as marital status and age (Rundbland, 2015). In addition, Mbaiwa (2004) discusses that the benefits derived from CBNRM should be the same across all the citizens irrespective of their ethnic background, marital status, age or gender. Data in table 4.2a reveals that majority of the CTs committee members from the effective trusts were single (66.7%), followed by those who were married (11.1%). Members who cohabited accounted for 22.2 percent of the respondents. Also, 88.9 percent of the respondents who were single and 11.1 percent of those who were married constituted the membership of the ineffective CTs. The high number of the CTs members who were single may not have had any relationship with the ineffectiveness CTs.

The average age of committee members of the CTs was 40 years with a standard deviation (SD) of 15.23. While the effective CTs committee member respondents aged between 30-35 years constituted 66.7 percent, 11.1 percent comprised those who belonged to the age bracket of 24-29 years. Also, while those between 54-59 years constituted 11.1 percent, those aged from 60 and above years comprised 11.1 percent of the population. Comparatively, while the ineffective CTs also had majority of the trust members as single (88.9%), only 11.1 percent of them were married. While majority (33.3%) of these respondents aged between 42-47 years, those who aged between 30-35 years accounted for 22.2 percent. While 22.2 percent of them aged between 36-41 years, 11.1 percent aged between 24-29 years. Contrary to what the results show, the expectation is that the population within the age bracket of 42-47 years would still be active and should be able bodied people who could positively influence projects implementation. However, the data do not suggest this, meaning that members may not have fully committed themselves to bringing positive change in their CTs.

Seventy percent (70%) of the effective CTs community members were single. While those cohabiting constituted 11.7 percent, those that were married comprised 10 percent and those widowed were 8.3 percent of the population. While those who were single in the ineffective CTs constituted 55 percent, those cohabiting constituted 21.7 percent. Also those who were married comprised 15 percent of the respondents while 6.7 percent of them were widowed. Only 1.7 percent of the effective CTs members were divorced. The average age of community members of the CTs was 40 years with a SD of 15.71. The age of the respondents (from effective CTs) who aged between 24-29 years comprised 18.3 percent of the population, those who aged between 36-41 years constituted 18.3 percent of the population. Those between 30-35 years comprised 16.7 percent and those aged between 54-59 years accounted for 6.7 percent. While 60 years and above accounted for 16.7 percent, those within the age brackets of 42-47 years and 48-53 years accounted for 5 percent apiece. For the CTs that are not successful in project implementation, members' age ranges from 24-29 years (18.3%), 36-41 years (18.3%), 30-35 (16.7%), 48-53 years (15%), 60 years and above (13.3%), 18-23 years (11.7%), 42-47 years (5%) and up to 54-59 years which accounted for 1.7 percent of the respondents.

4.2.4 Education level

Table 4.2a shows that majority of the CTs committee members from the effective trusts attained tertiary education (44.4%) while 33.3 percent attained secondary education and at least 22.2 percent had never been to school. Data from the same table reveal that 66.7 percent of the respondents from the trusts that were not successful in project implementation attained secondary education (66.7%) and secondary education (33.3%). Majority of CTs members in the unsuccessful CTs have attained the essential literacy skills that could have placed them in a better position to successfully implement development projects but this is not the case as

revealed in the findings of the ineffective CTs. The findings imply that education plays a vital role in the successful implementation of the projects. The literacy level of CBO members is one of the factors that might positively influence the pace at which communities are able to push for effective conservation of natural resources as far as CBNRM framework is concerned (Thakadu, 2005). CTs that had not implemented any CBNRM projects constituted mostly of the members with the low level of education which contradicts the initial mandate of the CBNRM management structures that had an intention of appointing the management responsibilities to the qualified members of the village (Mbaiwa, 2002). However, these communities often already have the skills and ability to engage in the CBNRM projects, they only need to be capacitated and to be given full responsibility on the natural resource management in their areas.

Table 4.2a Demographic information of sampled CTs committee members

¤ Variable	Effective CTs		Ineffective CTs	
Gender	Frequency	Percent	Frequency	Percent
(i) Male	7	77.8	5	56.5
(ii) Female	2	22.2	4	44.4
Marital Status				
(i) Single	6	66.7	8	88.9
(ii) Married	1	11.1	1	11.1
(iii) Cohabiting	2	22.2	-	-
Age				
(i) Between 24-29	1	11.1	1	11.1
(ii) Between 30-35	6	66.7	2	22.2
(iii) Between 36-41	-	-	2	22.2
(iv) Between 42-47	-	-	3	33.3
(v) Between 54-59	1	11.1	-	-
(vi) 60 years and above	1	11.1	1	11.1
CTs committee members' Mean = 40.17 SD = 1.037				
Education				
(i) Never been to school	2	22.2	-	-
(ii) Primary education	-	-	3	33.3
(iii) Secondary education	3	33.3	6	66.7
(iv) Tertiary education	4	44.4	-	-
Employment				
(i) Employed	1	11.1	-	-
(ii) Unemployed	8	88.9	9	100

Source: Field Survey 2014

Table 4.2b shows that 46.7 percent of the respondents from the effective CTs went to school up to secondary level, 25 percent had never been to school, 16.7 percent attained primary education, 10 percent had tertiary education while 1.7 percent attained non-formal education. The ineffective CTs accounted for 40 percent of the respondents with secondary education. While 28.3 percent of them had primary education, 18.3 percent had never been to school. While only 3.3 percent of the sampled population had non-formal education, some 10 percent had tertiary education. Data reveal that the majority of the sampled population attained the basic numeracy skills which may not have been adequate in the running of the projects requiring professional skills such as entrepreneurial skills.

Table 4.2b Demographic information of sampled community members

¤ Variable	Effective CTs		Ineffective CTs	
Gender	Frequency	Percent	Frequency	Percent
(i) Male	28	46.2	31	51.7
(ii) Female	32	53.3	29	48.3
Marital Status				
(i) Single	42	70	33	55
(ii) Married	6	10	9	15
(iii) Widowed	5	8.3	4	6.7
(iv) Divorced	-	-	1	1.7
(v) Cohabiting	7	11.7	13	21.7
Age				
(i) Between 18-23	8	13.3	7	11.7
(ii) Between 24-29	11	18.3	11	18.3
(iii) Between 30-35	10	16.7	10	16.7
(iv) Between 36-41	11	18.3	11	18.3
(v) Between 42-47	3	5	3	5
(vi) Between 48-53	3	5	9	15
(vii)Between 54-59	4	6.7	1	1.7
(viii) 60 years and above	10	16.7	8	13.3
CTs community members' Mean = 39.89 SD = 15.770 (for both effective and ineffective CTs)				
Education				
(i) Never been to school	15	25	11	18.3
(ii) Non formal education	1	1.7	2	3.3
(iii) Primary education	10	16.7	17	28.3
(iv) Secondary education	28	46.7	24	40
(v) Tertiary education	6	10	6	10
Employment				
(i) Employed	41	68.3	45	75
(ii) Unemployed	19	31.7	15	25

Source: Field Survey 2014

4.2.5 Means of livelihoods

Adams (2004) contends that the degree to which CBNRM and its related activities can affect livelihoods depends partly on the circumstances surrounding household such as employment status. Table 4.2a shows that majority of CTs committee members were not employed (88.9%) while only 11.1 percent were employed in the communities where CTs were effective in project implementation. Data show that the members of the ineffective CTs did not have any concrete job (100%). For these reasons they had several means of livelihoods. Table 4.2c shows several means of livelihoods for the committee members in the effective CTs which included board allowance sittings accounting (44.4%), farming constituting (22.2%), and menial jobs (11.1%). Other livelihoods constituted 22.2 percent, and these include relatives' support, tuck-shop running, basket weaving and ipelegeng. The same table (4.2c) reveal that the committee members in the ineffective CTs depended mostly on fishing for survival (44.4%), followed by dependence on farming and other livelihoods such as ipelegeng, tuck-shop running, basket weaving and relatives' support, each constituting 22.2 percent of the respondents while menial work accounted for 11.1 percent of the respondents' livelihoods. Naturally, it was assumed that high rates of unemployment of the members could have engendered more time committed to project implementation especially in the ineffective CTs where all the sampled members were not working (100%). But in reality, this was not the case.

Data in Table 4.2b reveal that 68.3 percent of the effective CTs community members were employed while 31.7 percent were not employed. On the other hand, 75 percent of the population in communities with ineffective CTs was employed and 25 percent was unemployed. Table 4.2d shows the different livelihood strategies of community members where the effective CTs existed. About 28.3 percent of them depended on farming, 13.3 percent on other livelihoods which

included the selling of snacks, selling of firewood, bank dividends and interests, and menial jobs accounted for 13.3 percent of the respondents' other means of livelihoods. While 10 percent relied on relative's support, the members who did not have other means of livelihoods accounted for 35 percent. Nonetheless, data on ineffective CTs reveal that 38.3 percent of the respondents had no means of livelihoods. Other respondents (26.7%) showed that they had other means of survival such as farming. Respondents who had other means of livelihoods (which included renting out houses, renting out cars, selling of traditional foods) constituted 20 percent of the sampled CTs members, followed by those engaged in menial jobs (11.7%) and those who depended on relatives' support (3.3%).

4.2.6 Household size

The benefits of sustainable livelihoods provided through diverse CBNRM activities affect households' sizes differently with factors such as the family sizes and literacy level being key (Suich, 2010). Most households in Botswana derive their livelihoods from a wide range of agricultural and non agricultural sources (Jones, 2002).Country wide, agricultural activities have long been relied upon to sustain the households. Although collection and sale of natural resources has been ranked only as the ninth source of livelihoods (Jones, 2002), the use of natural resource for tourism activities has proven beneficial to some households in CBNRM zones. For the effective CTs, household size plays an important role in the successful execution of the projects. The average household size of committee members of the CTs was 2 people with a SD of 1.03. Figure 6 shows that majority of the trust committee members in the effective trusts had a household members of 2-5 people (44.4%) followed by those who lived alone and households with more than 9 people, each constituting 22.2 percent of the respondents. Household with 6-7 people accounted for 11.1 percent of the sampled CTs members. The

assumption is that these members should be able to take a leading role in project implementation because they had few family members that they were taking care of. For the ineffective CTs it is not the case because although the trusts members had small household/family sizes, they still could not implement the projects in their CTs. Figure 6 indicates that while majority of CTs members had a household size of 2-5 members (44.4%), those with 6-7 people accounted for 22.2 percent of the respondents and those with more than 9 family members accounted for 33.3 percent of the population.

The average household size of community members of the CTs was 2 people with a SD of 1.07.Figure 5 reveals that majority (50%) of community members from the effective CTs had household size of 2-5 members while 20 percent of the sampled population lived with more than 9 people. Only 15 percent went apiece to those who lived alone and those with 6-7 household members. It could then be deduced that the fewer the members in a household, the more the chances of the community members devoting their time in advising and assisting in projects implementation. However, Mbaiwa and Kolawole (2013) argue that although natural resources and tourism currently generate the highest financial benefit compared to other natural resources, the benefits to households are very low and the cost implications of managing the natural resources remains very high while community right of possession over natural resources remains feeble. Data on the ineffective CTs shows that 45 percent of the community members lived in a household of 2-5 people, followed by those with 6-7 members constituting 23.3 percent of the population. Those with more than 9 people constituted 16.7 percent while those who lived alone constituted 15 percent of the total population. In this case the lower number of the implemented projects does not show that the families with smaller population sizes took a leading role in helping to implement projects.

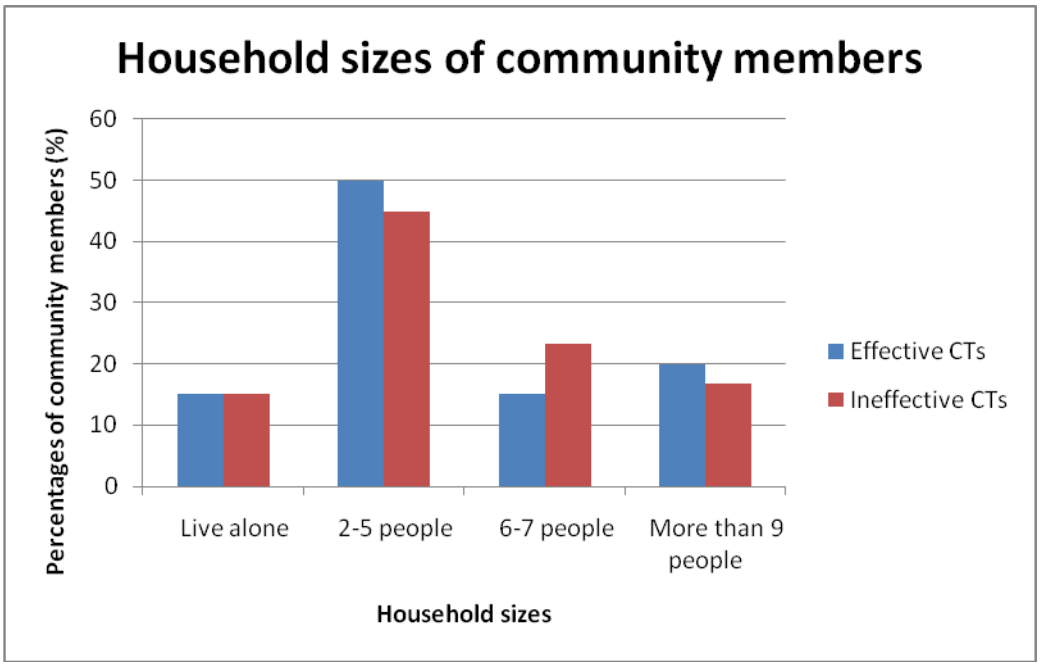

Figure 5: A bar chart showing the percentages of household sizes for community members

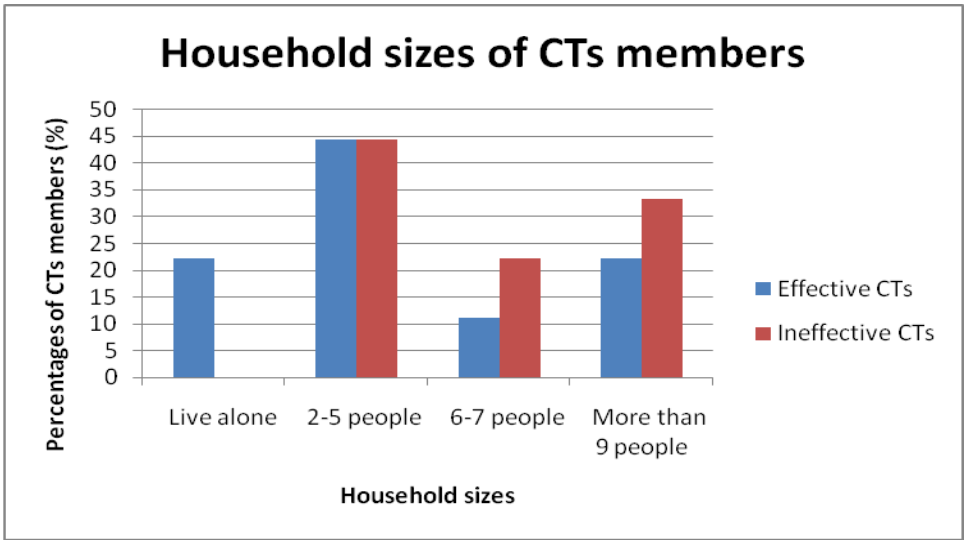

Figure 6: A bar chart showing the percentages of household sizes for CTs committee members

4.2.7 Religion and ethnicity

Table 4.2c shows that while most (88.9%) of the CTs committee members practised African Traditional religion (ATR), others were Christians (11.1%). The villages with successful CTs in project implementation were mainly the Basarwa (66.7%) people and other ethnic groups which included Bayei (33.3%). The Basarwa are the first inhabitants of the country and they believed mostly in ancestors who they worshiped through the African Traditional religion which now gives meaning to the highest number of ATR followers. The people practicing this religion are also more into the preservation of their culture and for the Basarwa it went to the extent of using natural resources wisely as they depended on them. Now that CBNRM programme through CTs aims at involving people in the management of natural resources in their areas, the Basarwa seemed to be ahead in terms of environmental conservation, which is the reason why the CTs in their areas are doing well. Thakadu (2005) substantiated this further by highlighting that the more homogenous a community is in its attributes, the easier it is for that community to pursue common interests than the ones which are heterogeneous. The ineffective CTs constituted of a mixture of tribes (see table 4.2c). The table reveals that majority of the trusts members from the ineffective CTs were Christians (77.8%) while 22.2 percent were followers of the African Traditional religion. These areas with ineffective CTs are populated with people from different ethnic groups: Basubiya (22.2%), Batawana (22.2%), Bahambukushu (11.1%), Basarwa (11.1 %), Bakgalagadi (11.1%) and other ethnic groups (22.2%). The various ethnic groups could be influencing the failure of projects implementation due to ethnic affiliations, conflicts and rivalry. The above implies that religion and ethnicity may have played a crucial role in projects implementation.

Table 4.2c: Demographic information of sampled CTs committee members

Income category	Frequency	Percent	Frequency	Percent
(i) No income	8	88.9	9	100
(ii) Above 749	1	11.1	-	-
CTs committee members' Mean = 94.44 SD = 400.69 (for both effective and ineffective CTs)				
Means of livelihoods				
(i) Board allowance sittings	4	44.4	-	-
(ii) Farming	2	22.2	2	22.2
(iii) Menial jobs	1	11.1	1	11.1
(iv) Fishing	-	-	4	44.4
(v) Other livelihoods	2	22.2	2	22.2
Religion				
(i) African Traditional Religion	8	88.9	2	22.2
(ii) Christianity	1	11.1	7	77.8
Ethnicity				
(i) Basubiya	6	66.7	2	22.2
(ii) Bahambukushu	-	-	1	11.1
(iii) Batawana	-	-	2	22.2
(iv) Basarwa	-	-	1	11.1
(v) Bakgalagadi	-	-	1	11.1
(vi) Other ethnic groups	3	33.3	2	22.2

Source: Field Survey, 2014

Table 4.2d Demographic information of sampled community members

Income category	Frequency	Percent	Frequency	Percent
(i) Between 300-499	1	1.7	1	1.7
(ii) Between 450-599	22	36.7	25	41.7
(iii) Between 600-749	16	26.7	-	-
(iv) Above 749	1	1.7	19	31.7
(v) No income	20	33.3	15	25
CTs community members Mean = 2390.02 SD =3352.197 (for both effective and ineffective CTs)				
Means of livelihoods				
(i) No means of livelihoods	21	35	23	38.3
(ii) Farming	17	28.3	16	26.7
(iii) Menial-work	8	13.3	7	11.7
(iv) Relative's support	6	10	2	3.3
(v) Other livelihoods	8	13.3	12	20
Religion				
(i) African Traditional Religion	11	18.3	8	13.3
(ii) Christianity	41	68.3	38	63.3
(iii) Islam	-	-	1	1.7
(iv) Other religions	8	13.3	13	21.7
Ethnicity				
(i) Basubiya	7	11.7	2	3.3
(ii) Bahambukushu	3	5	4	6.7
(iii) Baherero	-	-	5	8.3
(iv) Batawana	4	6.7	6	10
(v) Basarwa	22	36.7	4	6.7
(vi) Bakgalagadi	-	-	2	3.3
(vii) Baxhereku	-	-	1	1.7
(viii) Other ethnic groups	24	40	36	60

Source: Field Survey, 2014

4.3 Identification of the existing CBNRM projects being implemented by the CTs

The chapter discusses the characteristics of CBNRM projects implemented by CTs, the types of projects that have been implemented by the CTs and their performances, the contribution and involvement of both the community members and the trust members in the implementation of such projects, the problems faced by the CTs in the implementation of the identified projects, the main source of funding for CTs projects and their benefits to the community members.

4.3.1 Types of CBNRM projects implemented by the CTs

There are numerous CBNRM projects implemented by the CTs. These projects were outlined by trust members to include house construction (38.9%), installing taps (38.9%), fencing of yards (33.3%), campsites (27.8%), business grants (27.8%), benches (22.2%), litter bins (16.7%), toilets construction (16.7%) and other projects (16.7%) such as sponsoring recreational facilities, cultural village construction and CTs offices (Table 4.3a). These projects are said to be selected based on the basic needs of the society and the need for shelter called for the construction of houses. The chief of Sankuyo pointed out that

> *"…since the registration of CT in 1995, there have been several projects undertaken which include the construction of toilets purposefully meant to protect people against animals which used to attack people when they used the bush, funeral assistance of P5000.00 for the bereaved's family, free transport to the deceased's family, the construction of campsites which in turn created employment for the locals and other small projects which also added value to the livelihoods of the people".*

Despite the raised arguments that the CT of Mababe was the last to implement CBNRM projects (Mbaiwa, 2002), the results from the focused group discussions, household

interviews and unstructured interviews with the key informants in the village, have proven the CT to be effective in implementing CBNRM projects.

One of the MZDT executive members discussed the numerous projects that the trust has implemented to include

> "*…offering business grants to the villagers so that they start their own businesses with the hope that the experience they get from those small enterprises will help them operate the larger tourism enterprises like the campsites; installation of taps which helped even in reducing the diarrhoea cases that were common when people relied mostly on river water; scholarships to the locals for short courses; and other projects to improve livelihoods and improve local people's security such as the fencing of yards".*

Table 4.3a shows that the ineffective CTs had not implemented any projects (100%). The community members also indicated some projects that were implemented by the CTs in their areas. Table 4.3b reveals that projects such as house construction (23.8%), tap installation (21.7 %) , toilet construction (17.5%), campsites (16.7%), fencing of yards (14.2%), financial care for the aged (11.7%), funeral services (10.8 %), financial care for the orphans (5%), household allowances (7.5%), litter bins (2.5%), lodge construction (2.5%) and fire management projects (2.5%) were the projects implemented. The implication is that the need for shelter was a serious issue, hence the need to give priority to house construction. Fifty percent of the respondents indicated that there were no successfully implemented projects and the reasons for this are discussed in sub-section 4.3.3. An old man in Shorobe village had this to say:

> "*My daughter, we do not know why they still give the allusions that there is a trust in this village. Our village leaders have let the foreigners play on our minds and exploited the resources that the Trust was to manage and benefit from. There is not*

even a single project that we can point out to say that the trust has successfully implemented besides the two children who got scholarships from the same trust."

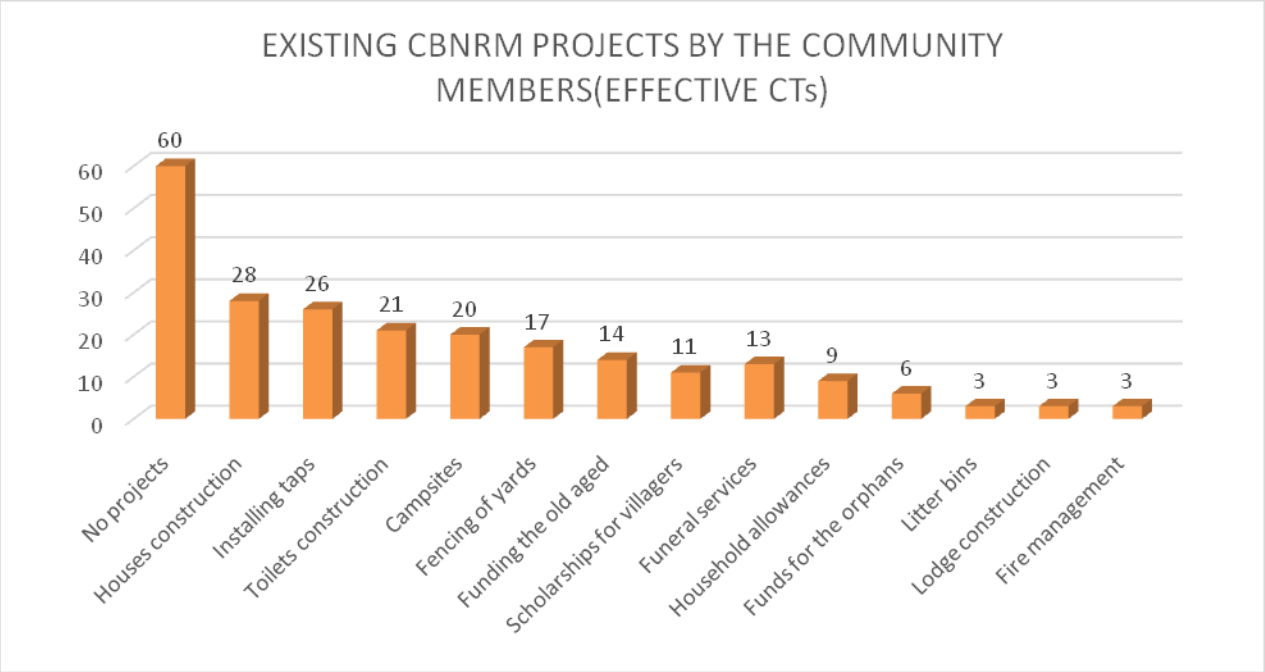

Figure 7: A bar chart showing the frequency of effective CTs community members and the existing CBNRM projects in their area.

Table 4.3a: Identified projects implemented by CTs according to trusts committee members

Variable	Effective CTs (committee members' responses)		Ineffective CTs (committee members' responses)	
Projects	Frequency	Percent*	Frequency	Percent
House construction	7	38.9	-	-
Installing taps	7	38.9	-	-
Fencing yards	6	33.3	-	-
Campsites	5	27.8	-	-
Business grants	5	27.8	-	-
Benches	4	22.2	-	-
Litter bins	3	16.7	-	-
Toilets construction	3	16.7	-	-
Other projects	3	16.7	-	-
No projects			9	100
Types of CBNRM projects successfully implemented				
Projects				
Campsites	6	66.7	-	-
Business grants	5	55.6	-	-
Other successful projects	2	22.2	-	-
No projects	-	-	9	100

Source: Field Survey 2014

*Multipleresponses

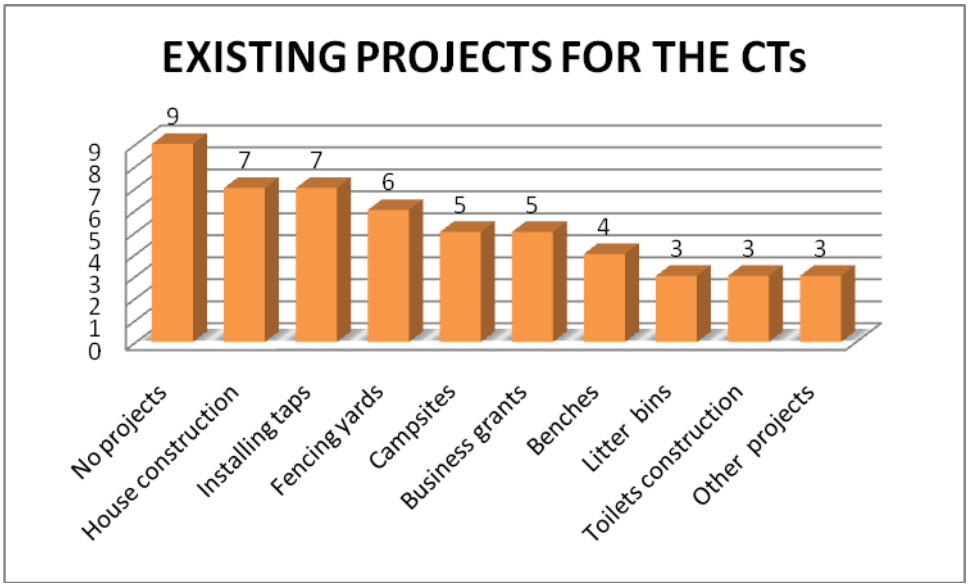

Figure 8: A bar chart showing the frequency of effective CTs' members and the existing CBNRM projects in their communities

4.3b: Identified projects implemented by CTs according to community members

Variable	Effective CTs		Ineffective CTs	
Projects	Frequency	Percent*	Frequency	Percent
House construction	28	23.3	-	-
Installing taps	26	21.7	-	-
Toilets construction	21	17.5	-	-
Campsites	20	16.7	-	-
Fencing of yards	17	14.2	-	-
Funding the old aged	14	11.7	-	-
Funding the orphans	6	5	-	-
Scholarships for villagers	11	9.2	-	-
Funeral services	13	10.8	-	-
Household allowances	9	7.5	-	-
Litter bins	3	2.5	-	-
Lodge construction	3	2.5	-	-
Fire management	3	2.5	-	-
Other implemented projects	7	5.8	-	-
No implemented projects	-	-	60	100

Source: Field Survey, 2014
*Multiple responses

4.3.2 Types of projects successfully implemented by CTs

The mandate of the CBNRM projects that are implemented by the CTs is to address the needs of the community and address the main challenge of poverty in the communities. Amongst the several implemented CBNRM projects in the communities with effective CTs, some projects have not been successful because they had a short life span. Table 4.3a shows that the profitable projects were those that were successfully implemented by the Trust members because of their ability to generate profits for the sustenance of the CTs. Such projects were campsites (66.7%) and business grants (55.6 %). One of the trust executive members in Mababe opined that *"only campsites have proven to be economically sustainable and beneficial to us. We have then taken it upon ourselves to keep investing on them*." Baland and Plattea (1996) buttress this point by emphasising that communities show dedication to the conservation of natural resources if it contributes to their income and livelihoods in a positive way on a long term basis. The discussion of the concept of economic efficiency from sustainable tourism becomes relevant as it picks on the long term economic benefits of natural resources by the users while at the same time providing socio-economic benefits to all stakeholders. The interviews with the CT members at Mababe pointed to one thing: that the projects that had been successfully implemented in the village were business grants which funded new businesses of community members. These businesses were expected to return part of the fund as soon as they began to generate profits. This model is emphasised to ensure that other community members eventually received the same assistance. In addition, campsites offer employment opportunities to most of the community members as well as generate more income to sustain the CT and the community. Other projects included car renting. This is a service accessed by the community members who in turn would pay a charge of P600-00 for each trip to and from Maun. The success of these projects is entirely

on the community's ability to invest and generate some profits from them. This agrees with the sustainable tourism concept which advocates for derivation of benefits from natural resources that exceed the perceived costs of managing the resources. The advocated benefits from the use of natural resources is predicated on the community's ability to provide the relevant market that can generate worthwhile profits from these natural resources. The CTs members who had not implemented development projects outlined some challenges that constituted impediments to their success in implementing such projects.

4.3.3 Problems faced by the CTs in the implementation of the identified projects.

The CTs were faced with multifaceted problems in relation to the implementation of projects. Mbaiwa (2002) attributed some of the impediments to the successful implementation of CBNRM projects to the mistrust between the general membership of the CTs, board of trustees (BoT) and the community members as there is often an accusation of the latter enriching themselves with the CTs funds while the rest do not benefit from them. The supposed BoT members' financial impropriety contradicts the concept of social equity as enunciated in the sustainable tourism model. In many incidences the CTs committee members with the assistance of the community members were able to come up with best projects that improved the standards of living of the community members but the main stumbling block was lack of funds as shown in Tables 4.3c and 4.3d. The CTs committee members indicated that lack of funds hindered the existence and progress of development projects. House construction was mostly affected by lack of funds (27.8 %), lack of technical skills (5.6%), other challenges which included low team spirits between the CTs members and the community, delay in projects implementation constituted the problems identified by 11.1 percent of the trusts' members in the effective CTs. Tap installation project faced challenges including lack of funds (27.8%). Some 5.6 percent of the respondents identified

other challenges including use of quantity instead of quality materials in tap installation, the delays and lack of monitoring to those awarded the tenders to install the taps, constituting impediments to project implementation. Fencing of yards was faced with the problems of lack of funds (16.7%) and other challenges (16.7%). The campsites projects encountered the challenges of lack of funds (22.2%) and lack of technical skills (5.6%) which made it difficult to manage the campsites profitably. The project that offered financial assistance to the community members also faced problems of lack of funds (16.7%) and other challenges including lack of commitment by those given the grants to finance their businesses. The projects of designing benches were also faced with the problems of lack of funds (16.7%) and other challenges (5.6%). The CTs committee members indicated that they also encountered the problem of lack of finances during the installation of litter bins (11.1%). Lack of technical skills (5.6%) and lack of funds was a major problem during toilets construction (11.1%). In carrying out other projects such as supporting recreational facilities, cultural village construction and lodge construction, problems of funds (5.6%) and lack of technical skills (11.1%) were also experienced.

The community members revealed that there were a number of challenges facing the implementation of the projects. Table 4.3d reveals the problems encountered in the sampled, top six implemented projects. The projects were selected based on their highest frequency of mention by the community members who highlighted them as the major problems. House construction project faced the challenges of lack of funds (7.5%) which hinder the progress of the project, banning of hunting (1.7%), lack of technical skills (2.5%), embezzlement of funds (3.3%) and other challenges (4.2%). Challenges including lack of funds during installation of taps, (8.3%), banning of hunting (4.2%), lack of technical skills (1.7%), embezzlement of funds (1.7%) and poor project implementation (1.7%) were discussed. Lack of funds was an

impediment to providing financial support to the old people (2.5%). Others include banning of hunting (2.5%), lack of technical skills (1.7%), embezzlement of funds (0.8%), poor management (0.8%) and other challenges (4.2%).

The chief of Sankuyo argued on the regulations imposed by the government on them concerning the governance of the CTs in their village to be the main hindrance to the successful implementation of the projects in the area. He had remarked that

> *"…the banning of hunting imposed by the government on communities is a punishment to my people.* He exclaimed: *"how are we expected to survive under this severe punishment that has made us susceptible to poverty that we are trying to escape from?*

Similarly at Mababe, the chief could not discuss any other challenges that have existed before the banning of hunting but *argued that the government's action has been firm on them and left them powerless in managing the trust because they relied on the revenue generated from hunting quotas.* The MZDT executive members opined that

> "*…the embezzlement of funds is the main problem and the solutions to that problem are not easily achieved because of nepotism as most of the executive members are closely related and they will not want to expose their relatives as victims".*

Plate 1: Mababe Zokotsama Development Trust Offices (one of the CBNRM projects at Mababe village)

Plate 2: Sankuyo Tshwaragano Management Trust offices (one of the CBNRM projects at Sankuyo village)

4.3c: Problems encountered by CTs committee members in the implementation of projects

Variable	Frequency	Percentage*
Challenges encountered in house construction projects		
Lack of funds	5	27.8
Lack of technical skills	1	5.6
Other challenges	2	11.1
Challenges encountered in tap installation projects		
Lack of funds	5	27.8
Other challenges	1	5.6
Challenges encountered by fencing of yards projects		
Lack of funds	3	16.7
Other challenges	3	16.7
Challenges encountered in campsites projects		
Lack of funds	4	22.2
Lack of technical skills	1	5.6
Challenges encountered in business grants projects		
Lack of funds	3	16.7
Other challenges	2	11.1
Challenges encountered in benches projects		
Lack of funds	3	16.7
Other challenges	1	5.6
Challenges encountered in installing litter bins		
Lack of funds	2	11.1
Other challenges	1	5.6
Challenges encountered in toilets construction		
Lack of funds	2	11.1
Lack of technical skills	1	5.6
Challenges encountered in carrying out other projects		
Lack of funds	1	5.6
Lack of technical skills	2	11.1

Source: Field Survey, 2014
*Multiple responses

Table 4.3d: Problems encountered by CTs community members in the implementation of projects.

Variable	Frequency	Percentage*
Challenges encountered in the house construction project		
Lack of funds	9	7.5
Banning of hunting	2	1.7
Lack of technical skills	3	2.5
Embezzlement of funds	4	3.3
Other challenges	5	4.2
Challenges encountered in tap installation project		
Lack of funds	10	8.3
Banning of hunting	5	4.2
Lack of technical skills	2	1.7
Embezzlement of funds	2	1.7
Poor project implementation	2	1.7
Other challenges	5	4.2
Challenges encountered in toilet construction project		
Lack of funds	6	5
Banning of hunting	4	3.3
Lack of technical skills	3	2.5
Poor project implementation	3	2.5
Other challenges	3	2.5
Challenges encountered in campsites projects		
Lack of funds	4	3.3
Banning of hunting	6	5
Lack of technical skills	1	0.8
Embezzlement of funds	4	3.3
Poor management	1	0.8
Other challenges	2	1.7
Challenges encountered in fencing of yards project		
Lack of funds	3	2.5
Banning of hunting	3	2.5
Lack of technical skills	2	1.7
Embezzlement of funds	1	0.8
Poor management	1	0.8
Other challenges	5	4.2

Challenges encountered in funding the old aged project		
No challenges	2	1.7
Lack of funds	5	4.2
Banning of hunting	3	2.5
Lack of technical skills	1	0.8
Embezzlement of funds	2	1.7
No responses to the challenges	1	0.8
Other challenges	1	0.8
Challenges encountered in the funeral services project		
Lack of funds	4	3.3
Banning of hunting	3	2.5
Embezzlement of funds	3	2.5
Poor management	1	8
Other challenges	2	1.7

Source: Field Survey 2014
*Multiple responses

4.3.4 Main sources of funding for CTs projects

Ghimire and Pimbert (1997) argue that the conservation of natural resources through the different community conservation programmes rely partly on the economic factors. Table 4.3e reveals that 33.3 percent of the CTs projects were supported by income from the quotas leasing where the community members leased a portion of their managed controlled hunting areas to the private organisations for a certain contracted period and such organisations will pay for hunting in and using the area. Other sources of funds included funds from the external organisations such as those from the Japanese Embassy and Canada funds. About 11.1 percent of the CTs committee members indicated that as part of other income measures, they generated money through Safari hunting where the community sells the commercially valuable species such as elephant, zebra, lion and leopard to the private-sector partner. These species have no subsistence use for local people but they were discussed to be generating more income when utilised through safari hunting. Also, 27.8 percent of the respondents claimed that joint venture partnership also generated money for the projects. The implication is that the effective CTs (as shown in table 4.3e) generated more money from quota selling and through joint venture partnerships. The joint venture partnership was also acknowledged to have a positive influence on the decisions made to improve the CTs. Suich (2010) supports the discussion by depicting the relevance of sustainable tourism model to the CBNRM funding by pointing out that tourism is the dominant revenue generator amongst all the CBNRM projects. Government funding was not given any special prominence by the trust committee members as they pointed out that economic recession had jeopardised it. As indicated in Table 4.3e, the ineffective CTs committee members indicated that they had no applicable sources of funding (100%).

Table 4.3e Identified CBNRM projects undertaken by CTs according to committee members

Variable	Effective CTs (Committee members)		Ineffective CTs (Committee members)	
Contribution of CTs members to Project implementation	Frequency	Percent*	Frequency	Percent
(i) Monetary contribution	1	11.1	-	-
(ii) Moral support	5	55.6	-	-
(iii) Advisory service	6	66.7	-	-
(iv) No applicable contributions	-	-	9	100
Community benefits from CTs Projects				
(i) Employment	6	66.7	-	-
(ii) House construction	3	33.3	-	-
(iii) Other benefits	4	44.4	-	-
(iv) No applicable benefits	-	-	9	100
Main source of funding for CTs				
(i) Quota income	6	66.7	-	-
(ii) Joint venture partnership	5	55.6	-	-
(iii) Other funds sources	4	44.4	-	-
(iv) No applicable sources of Funding	-	-	9	100

Source: Field Survey, 2014

*Multiple responses

4.3.5 Benefits of the CTs projects to the community

Suich (2010) discussed that it is through the CTs that the community based natural resource management programmes achieve improved rural livelihoods by providing incentives that sustain the rural people. Several benefits were derived by community members whose CTs are effective in implementing projects. This proves that CBNRM projects are beneficial to the community members if they are well established and well organised. Table 4.3e shows that the CTs committee members acknowledged employment for community members (66.7%) and other benefits (44.4%) which included scholarships for villagers, farming, funeral services, financial assistance for the aged and financial assistance for the orphans. The community members also indicated that they tremendously benefited from the effective CTs. The benefits are indicated in table (4.3f) and they include employment (18.3%), funeral services (20%), tap installation (10%), toilet construction (11.6%), household allowances (8.3%), fencing of yards (6.7%), scholarships for villagers (8.3%), old aged funds (1.7%), farming benefits (3.3%) and other benefits which include the construction of the CTs' offices (3.3%), (see plates 1 and 2), all these are material benefits while non material include capacity building, empowerment of the communities , creation of new institutions and organizations (Mvimi, 2000) However, 36.6 percent of the community members indicated that they did not benefit from the projects as they benefit the chosen and favoured few members of the community. There are no applicable benefits (100%) for the community members in the ineffective CTs since there are no established projects. Buttressing the above arguments, the focus group discussion conducted amongst the Trust members and the elders of the Mababe and Sankuyo villages came up the following remarks:

> *"We have experienced tremendous changes in the livelihoods of the community members because of the benefits they get from the MZDT projects. The villagers have been able to bury their relatives peacefully without any fights which were common before the CT's funeral financial assistance. They now worry less about transport and other funeral activities covered by the Trust".* (MZDT executive member)

> *"STMT projects have reduced over-reliance of the community members on other government schemes because as the locals learn ways of taking care of the natural resources around them, they are better placed to benefit from and manage them*." (STMT executive member)

Mbaiwa (2002) buttresses the above discussion with a view that before the introduction of CBNRM in Sankuyo, the livelihoods were very poor with no local employment opportunities. In addition CBNRM projects have widened the local livelihoods options by developing local tourism (Mbaiwa, 2002).

Table 4.3f Identified CBNRM projects undertaken by CTs according to community members

Variable	Effective CTs (community members)		Ineffective CTs (community members)	
Contribution of the community members to projects	Frequency	Percent*	Frequency	Percent
(i) Moral support	32	53.3	-	-
(ii) Physical support manual Construction	5	8.3	-	-
(iii) Decision making only	21	35	-	-
(iv) Both financial and moral support only	2	3.3	-	-
(v) All the contributions above	1	1.7	-	-
(vi) No applicable contributions	-	-	60	100
Community members benefits from CTs projects				
(i) Employment	11	18.3	-	-
(ii) Toilet construction	7	11.6	-	-
(iii) Funeral services	12	20	-	-
(iv) Tap installation	6	10	-	-
(v) Household allowances	5	8.3	-	-
(vi) Fencing of yards	4	6.7	-	-
(vii) Villagers' scholarships	5	8.3	-	-
(ix) Funding the old aged	1	1.7	-	-
(x) Farming	2	3.3	-	-
(xi) Other benefits	2	3.3	-	-
(xii)No benefits	22	36.7	-	-
(xiii) No applicable benefits	-	-	60	100

Source: Field Survey, 2014
*Multiple responses

4.4 Characteristics of CTs in CBNRM project implementation

The focus of this chapter is to discuss the characteristics of CTs that influence their ability to implement CBNRM projects. The male-female ratio in the CTs, the financial status, training of CTs committee members, CTs members' meetings, project progress report to the community members and the effectiveness of the CTs in projects implementation are discussed in relation to projects implementation.

4.4.1 CTs financial status

Although the majority of the CBNRM projects are supported by the tourism sector, the tourism potential varies considerably in their ability to generate financial benefits from various CBNRM activities (Suich, 2010). For every business to operate effectively and efficiently, funding is crucial in order to sustain the running of its activities. And for CBNRM projects to be implemented and operated smoothly there is need for cash to support them. Lack of finance to implement and run the projects can lead to poor project implementation hence the projects being of less value to the alleviation of poverty amongst community members. The results from focus group discussions with the CTs executive members of Mababe and Sankuyo showed that the financial status of their CTs had a range of average to good finances (see table 4.4a).While 44.4 percent of CTs had average financial capital outlay, 22.2 percent had good finances which imply that they were making profits from the successfully implemented projects. These finances were generated from quota leasing. Other funds were from the external organisations including the Japanese Embassy and the Canada funds. The results imply that the effective CTs of Mababe and Sankuyo (as shown in table 4.3e) generated more money from quota selling and through joint venture partnerships (JVPs). The joint venture partnership (JVP) was also acknowledged to have a positive influence on the decisions made to improve the CTs. Government funding was not

given any special prominence by the trust committee members as they pointed out that economic recession had jeopardised it. However it was a different ball game with the ineffective CTs or CBOs. The CTs of Shorobe and Matlapana which indicated that they had no applicable sources of funding (as shown in table 4.3 e), were not been able to implement any CBNRM project in their area. This shows the significance of a good financial position for the efficient and effective performance of any CTs. Table 4.4a shows that ineffective CTs had no applicable finances due to the problems that have already been discussed.

4.4.2 Training of CTs committee members

As highlighted in table 4.4a, the results from focus group discussions reveal that 66.7 percent of the CTs committee members were fairly trained which then explains the lower number of the successfully implemented projects in the effective CTs. Some 33.3 percent of the members did not train. Trained CTs members will naturally posses appropriate skills and expertise that will aid the communities to diversify their projects and develop other appropriate local/indigenous businesses. Capacity building is one of the major issues that affect CBNRM because CBNRM projects fail where it lacks (Mbaiwa, 2004).The expectation is that the stakeholders should put in place capacity building initiatives amongst the committee members with a view to providing them with the entrepreneurial skills for running the projects. Table 4.4a shows that the ineffective CTs' committee members did not engage in training (77.8%), some 11.1 percent was regularly trained and 11.1 percent were fairly trained. The implication is that the members who did not train had not received proper management skills, which may have adversely affected the implementation of profitable projects. Those members who were fairly trained received training in the form of workshops and seminars which appeared not adequate because they offered short-term trainings. To show the significance of training acquisition, Jones and Erdmann (2013) opine

that CBNRM initiatives collapsed where capacity building was weak. The CTs committee members also opined *that the government should support them and that the community members should also cooperate with them to develop their projects*.

One old man in Shorobe village advised that

> *"…CTs membership should be based on qualifications and that management skills should be the first priority…the obvious factor that contributed to our CTs failure is the lack of management skills by the people running the CTs"*.

Mbaiwa (2002) buttress this observation when he argues that unavailability of dedicated human resources to mobilise CBNRM denies the communities a chance to facilitate a holistic resource use and management, hence the failure of the CBNRM framework which is built on the philosophy that the locals are better placed to conserve natural resources in their own areas.

4.4.3 CTs meetings

The success factors of CTs include amongst others the frequent meetings that are held to discuss the CTs projects' progress and the way forward, transparent communication between the CTs members and the general public (Mbaiwa, 2004).Data in Table 4.4a indicate that the CTs committee members from the effective CTs conducted meetings on a regular basis (66.7%), 22.2 percent conducted meetings fairly regularly while 11.1 percent conducted meetings very regularly. The ineffective CTs conducted meetings fairly regularly (33.3%) and regularly (16.7%). The highest frequency of meetings apparently did not correlate with the number of the implemented projects for both the effective and ineffective CTs. This implies that the meetings might usually not have been constructive enough as more time may have been spent on irrelevant issues in relation to proper project implementation.

4.4.4 Reporting project progress to the community and its effectiveness

Haider (2009) contends that the successes of community based projects are depended on transparency, provision of information that enhances the local communities' participation in the development of their projects. The assumption is that the communities tend to feel that they are resourceful and that they have a responsibility to manage their natural resources wisely. The provision of the project progress report enables its monitoring and evaluation for its success (Belassi and Tukel, 1996). All the CTs committee members indicated that they provided progress reports to community members in the effective CTs (100%) while the members of the ineffective CTs pointed out that they did not have any applicable progress reports (100%) because there were no projects implemented. Almost all the community members (91.2%) interviewed acknowledged the progress reports made available to them showing that they got the reports from the CTs committee members while 8.3% percent indicated that they did not get any reports. The 8.3 percent who showed that they did not get progress reports on implemented projects had varied reasons for being unable to receive such reports. Amongst others, they indicated they never attended the kgotla meetings where the reports were given due to work commitments. The responses from the community members in the ineffective CTs were that they did not have any reports on projects' progress as no projects were implemented in the first place.

The effective CTs committee members indicated that they provided progress reports for community members after every three months (88.9%) while other members indicated that they gave the reports on an annual basis (11.1%). Also, all the CTs members (100%) in the ineffective CTs pointed that they did not have any reports to provide to community members. This was buttressed by the community members from the same CTs while the community members from the effective CTs indicated different time intervals at which they received the reports being monthly (3.3%), after every three months (43.3%), after every six months (6.7%), annually

(38.3%) and never reporting (8.3%). The provision of the reports to community members and the acknowledgement that they received them shows a good working relationship between the community members and the trust committee members making it easy to implement the projects. Nevertheless, much still need to be done to ensure that the projects are successful in alleviating poverty amongst the community members.

Table 4.4a Characteristics of CTs according to committee members

Variable	Effective CTs		Ineffective CTs	
	(CTs members)		(CTs members)	
Male-Female ratio of CTs members	Frequency	Percent	Frequency	Percent
(i) 6 : 1	8	88.9	-	-
(ii) 5 : 1	1	11.1	-	-
(iii) 6 : 4	-	-	9	100
Financial status of CTs in pula				
(i) Poor finances	3	33.3	-	-
(ii) Average finances	4	44.4	-	-
(iii) Good finances	2	22.2	-	-
(iv) No applicable finances	-	-	9	100
Frequency of Training of CTs members on projects Implementation				
(i) Fairly regularly	6	66.7	1	11.1
(ii) Does not train	3	33.3	7	77.8
(iii) Regularly	-	-	1	11.1
Frequency of CTs committee members Meetings				
(i) Very regularly	1	11.1	-	-
(ii) Regularly	6	66.7	3	33.3
(iii) Fairly regularly	2	22.2	6	66.7
Project progress reporting to the community members				
(i) Reporting	9	100	-	-
(ii) Not reporting	-	-	9	100
Intervals for reporting projects Progress				
(i) After every three months	8	88.9	-	-
(ii) Annually	1	11.1	-	-
(iv) No applicable reports	-	-	9	100

Effectiveness of CTs in projects implementation				
(i) Slow	3	33.3	-	-
(ii) Very effective	5	55.6	-	-
(iii) No guarantee	1	11.1	-	-
(iv) No applicable efforts	-	-	9	100

Source: Filed Survey, 2014

4.4b Characteristics of CTs according to community members.

Variable	Effective CTs (community members)		Ineffective CTs (community members)	
Projects progress reporting to the Community	Frequency	Percent	Frequency	Percent
(i) Reporting	55	91.2	-	-
(ii) Not reporting	5	8.3	-	-
(iii) No applicable reports	-	-	60	100
Intervals for reporting projects Progress				
(i) Monthly	2	3.3	-	-
(ii) After every three months	26	43.3	-	-
(iii) After every six months	4	6.7	-	-
(iv) Annually	23	38.3	-	-
(v) Never reports	5	8.3	-	-
(vi) Not applicable	-	-	60	100

Source: Field Survey, 2014

4.5 Institutional factors affecting the implementation of projects

This sub-section analyses the role of the government, national and international organisations in the implementation of CBNRM projects. It discusses the policies meant to guide the operation of the CBNRM programmes and looks into the role of government in improving the implementation of the CTs projects.

4.5.1 The role of institutional support in CBNRM projects

Community Based Organisations (CBOs) are an example of community level institutions that are a representative of the community and they support the CBNRM initiatives (Haider, 2009). It is through the CBOs that the CTs initiatives are adopted to foster and institutionalise good governance (Zakhilwal and Thomas, 2005). The government of Botswana plays a significant role in the development of CBNRM through offering financial support as well as training (Mvimi, 2000). Table 4.5 shows that 11.1 percent of the CTs received funding from the Government of Botswana. The government also provides other support in the form of an enabling environment that could enhance the performance of CTs in project implementation (66.7%), regulatory role that guides the operation of the CTs (77.8%), monitory role (33.3%) and technical support (33.3%). Government support benefited the effective CTs while 100 percent of the ineffective CTs do not get any support from the government. The national and international organisations also provided support for the CTs in CBNRM projects implementation. The national organisations offered technical support (66.7%), monitory role (5.6%) and advisory role (44.4%). The local and international donors also assisted the CTs financially (Mbaiwa, 2002). Botswana Community- Based Organisation Network (BOCOBONET) has been discussed to have provided training to the CTs members of STMT (Jones, 2002).Nonetheless, the committee members of the ineffective CTs indicated that they did not get any support from the government (50%). The

implication is that they did not have any implemented projects to be supported in the first place. International organisations like the Japanese embassy and European funds supported the CTs in the forms of funding (38.9%), technical support (22.2%), and advisory role (88.9%). The institutional organisation offered advice on the projects to be implemented and the running of the CTs. Members of the ineffective CTs could not affirm any roles played by international organisations. The reasons may be that the CTs members in the ineffective CTs did not create any networks for themselves or they did not project their CTs to both the national and international organisations. Other reasons advanced through the focus group discussions included lack of management skills, lack of commitment by the CTs members in their trust and lack of entrepreneurial skills. One adviser to the chief of Sankuyo criticised the government's advisory support that *it is at times irrelevant to their locality and their CTs.* Buttressing this further the chief of Sankuyo village lamented that *they do not take every advice from the government because such advises at times do not fit their CT. He further argued that the institutional factors are negatively affecting the implementation of the CBNRM projects.* Haider (2009) substantiate this further with an opinion that the involvement of the government is risky when the CTs projects build on the existing state structures where they end up part of government bureaucracy than on an innovative and participatory community approach that is emphasised by the sustainable tourism model.

4.5.2 Policies that guide the operations of CTs

Community based policies in CBNRM brings together the different stakeholders in land, range and natural resource management. These include the law enforcers, policy makers and local communities who jointly take responsibility for natural resources and environmental management, livelihoods and employment generation through the CTs or cooperatives

(Paffenholz, 2009). Policies that guide the operations of the CTs are designed to foster social capital by providing safe spaces for communication and joint decision making on natural resources and the environment (Maher and Basanth, 2006). The National Settlement Policy of Botswana emphasises the promotion of sustainable use of resources to benefit the local communities and the future generations (Segosebe, 2009). Policies that are in place to conserve the natural resources emphasise sustainability in a similar manner that the sustainable tourism model does. Figure 9 shows that the CTs committee members were aware of policies that guided the operations of the CTs. All committee members of the ineffective CTs (100%) indicated that they did not have any applicable policies that guided their CTs because they did not implement any project while the respondents from the effective CTs committee members indicated that they were guided by the CBNRM policy (77.8%), CTs policy (44.4%) and government regulations (55.6%). The government regulations mostly advise on how to improve the CTs for the benefits of the community members.

Table 4.5 Institutional factors affecting the implementation of projects.

Variable	Effective CTs		Ineffective CTs	
	(CTs committee members)		(CTs committee members)	
Role of government in establishing CBNRM projects	Frequency	Percent*	Frequency	Percent
(i) Funding	1	11.1	-	-
(ii) Providing enabling Environment	6	66.7	-	-
(iii) Regulatory role	7	77.8	-	-
(iv) Monitory role	3	33.3	-	-
(v) Technical support	3	33.3	-	-
(vi) No applicable roles	-	-	9	100
Role of national organizations in helping the CTs implement the Projects				
(i) Technical support	6	66.7	-	-
(ii) Monitory role	2	22.2	-	-
(iii) Advisory role	8	88.9	-	-
(iv) No applicable role	-	-	9	100
Role of international organizations in helping CTs to implement Projects				
(i) Funding	7	77.8	-	-
(ii) Technical support	4	44.4	-	-
(iii) Monitory role	1	11.1	-	-
(iv) Advisory role	4	44.4	-	-
(v) No applicable role responses	-	-	9	100

Source: Field Survey, 2014
*Multiple Responses

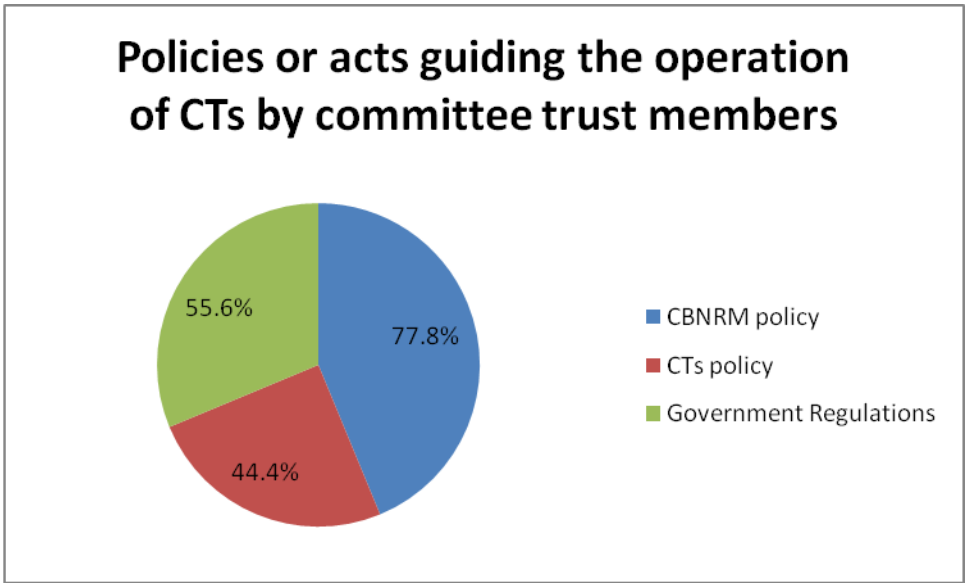

Figure 9: A pie chart showing the frequency of effective CTs committee members and the policies or acts that guide them

4.5.3 Differences between the explanatory variables of CTs committee members who successfully implemented CBNRM projects and those who did not

The t-test analysis in Table 4.6a was used to compare the differences in mean of explanatory variables in the effective and ineffective CTs. This was to determine their influence on the successful implementation of the projects. Data reveal that at $p \leq 0.05$, there was a significant difference in the frequency of meetings ($t = 2.132$) among the ineffective and effective CTs. This implies that the performance of CTs is influenced by the frequency of meetings they hold. There is also a significant difference in members' participation in meetings ($t = -3.143$) at $p \leq 0.006$ level of significance. The number of youths in CTs ($t= -2.530$; $p \leq 0.022$) had negative but significant difference between the two groups of CTs. Nonetheless, membership strength ($t= -28.000$; $p \leq 0.000$) and the number of CBNRM projects implemented by the community Trust (CT) in the village ($t= 7.897$; $p \leq 0.000$) both had positive and significant difference between the two groups of CTs. This implies that the Trusts with more committee members and number of projects implemented contributed significantly to their effectiveness.

Table 4.6a: Differences between the explanatory variables of CTs committee members who successfully implemented CBNRM projects and those who did not

Variable	Mean Difference	T-value	P-value	Decision
Length of stay in community by Trust Committee (TC) member	3.667	0.438	0.668	Not Significant
Age of TC member	0.111	.015	0.988	Not Significant
Level of education of TC member	3.921	1.473	0.163	Not significant
Committee meeting frequency	-0.556	-2.132*	0.049	Significant
TC membership participation in meetings	-1.222	-3.143**	0.006	Significant
Frequency of trainings on projects implementation for TC members	0.000	0.000	1.000	Not significant
Number of males in CT	-0.111	-1.000	0.332	Not Significant
Number of youth in CT	-1.333	-2.530*	0.022	Significant
CT membership strength (Number)	-3.111	-28.000**	0.000	Significant
Number of CBNRM projects implemented by the community Trust (CT) in the village	5.444	7.897**	0.000	Significant

Source: Field survey, 2014
*T-value is significant at $p \leq 0.05$
**T-value is significant at $p \leq 0.01$

4.5.4 Differences between the explanatory variables of community members who successfully implemented CBNRM projects and those who did not.

Table 4.6b shows the results of t-test carried out, implying the differences in the demographic and socio-economic characteristics of community members who operated effective and ineffective CTs. At $p \leq 0.000$ level of significance, there was significant difference in the number of projects implemented in the village ($t = 18.070$) between the effective CTs and the ineffective ones. This implies that community members, who belong to CTs that implemented projects, are better off than those who did not.

Table 4.6b: Differences between the explanatory variables of community members who successfully implemented CBNRM projects and those who did not

Variable	Mean difference	T-value	P-value	Decision
i Length of stay in the community by community members	5.683	1.472	0.144	Not significant
ii Age of community members	0.617	0.213	0.831	Not significant
iii Level of education of community members	-0.05	-0.209	0.835	Not significant
iv Employment status of community members	-0.017	-0.168	0.867	Not significant
v Household size of community members	-0.083	-0.423	0.673	Not significant
vi Number of CBNRM projects implemented by the CT in the village	3.050	18.070*	0.000	Significant

Source: Field survey, 2014
*T-value is significant at $p \leq 0.000$

Chi-square analysis showing the associations of Trust committee members and community members' attributes and CBNRM project implementation

Data in Table 4.7a shows the Chi-square analysis used to measure the associations between the number of successfully implemented projects and, CT committee members and community members' demographic and socio-economic variables. The data in Table 4.7a showing CTs committee members indicate that gender (X^2=5.73; $p \leq 0.10$) and CTs members' participation in meetings (X^2=11.05; $p \leq 0.10$) both had a significant association with the number of successfully implemented projects at 90 per cent level of confidence. However, marital status (X^2=12.08; $p \leq 0.05$) had a significant association with the number of projects successfully implemented at 95 percent level of confidence.

Table 4.7a: Chi-square results showing the associations of Trust committee members' attributes and CBNRM project implementation

	Variable	X^2-value	P-value
i.	Gender	5.73*	0.10
ii.	Marital status	12.08**	0.05
iii.	Membership participation in meetings	11.05*	0.10

Source: Field survey, 2014
* X^2-value significant at $P \leq 0.10$
** X^2-value significant $P \leq 0.05$

Table 4.7b that shows association of community members attributes and CBNRM projects implemented reveal numerous characteristics that have a great influence on the implementation of the projects. At a confidence level of $p \leq 0.01$, the length of stay of community members (X^2=399.76), gender (X^2=28.68), ethnicity (X^2=69.88), reporting of the projects progress by CTs board members (X^2=130.42) all had a significant association with the number of successfully implemented projects. Also, at $p \leq 0.05$ level of confidence, income (X^2=250.56) had a strong and positive association with the successful implementation of the projects.

Table 4.7b: Chi-square results showing the associations of community members' attributes and CBNRM project implementation

	Variable	X^2-value	P-value
i.	Length of stay in the community	399.76**	0.01
ii.	Gender	28.68**	0.00
iii.	Income	250.56*	0.05
iv.	Ethnicity	69.88**	0.00
v.	Reporting of the progress of projects by CT Board members	130.42**	0.00

* X^2-value significant at $P \leq 0.05$
** X^2-value significant $P \leq 0.01$

CHAPTER FIVE

5.1 Summary

The purpose of this study was to compare the characteristics of two groups of CTs to determine the factors which contributed to the successful implementation of the CBNRM projects or otherwise. Thus it established the relationship between the characteristics of the CTs and their performance in CBNRM projects implementation, the relationship between the socio-economic status of CTs committee members and community members and the performance of CBNRM project implementation. The study also investigated the influence of institutional factors on the performance of the CTs in the implementation of CBNRM projects. More importantly, the research analysed the differences between the CTs that effectively implemented CBNRM projects in their localities and those which did not.

Two groups of the trusts (those which were effective and those which were ineffective) were studied. Community members and CTs committee members were interviewed in the two groups. The findings on the effective CTs (those of Mababe and Sankuyo) - through their committee members and community members - revealed that a number of CBNRM projects were implemented in the villages. Such projects included taps installation, toilets, and scholarships for villagers, construction of benches, house construction, campsites constructions, and business grants. Conversely, the ineffective CTs members and community members indicated that no projects were implemented at the time when the study was conducted.

The reasons for the variance in the number of projects implemented were diverse and included, amongst others, the characteristics of the CTs. Gender also had an influence on the number of the projects implemented. The study proved that where the CTs are male dominated, a number of

projects had been successful but where the male to female ratio is equal or had a minimal variance; CBNRM projects had not been successfully implemented. This may have been due to possible attritions associated with sexism and certain unknown factors. Marital status and age had an influence as well on the projects implemented. The CTs of Mababe and Sankuyo consisted mostly of youth population and members who were single. Perhaps for these reasons, they somehow excelled in terms of implementing development projects. Ethnicity also had significant contributions to the successful implementation of projects. The CTs were doing well in areas that comprised mostly of the Basarwa ethnic group most probably due to the fact that natural resources preservation is naturally a part of the people's cultural practices.

The characteristics of CTs also had an influence on the number of projects implemented. The effective CTs of Mababe and Sankuyo in comparison with the CTs of Shorobe and Matlapana areas had succeeded in project implementation because they met frequently to discuss and review the progress of their trusts. In a focus group discussion (FGD) session with Mababe CTs committee members, one member commented that the trust is making progress because of the meetings they usually hold. He further affirmed that they were guided strictly by the agenda of meetings and that they never spent time on the issues that were outside the agenda. The frequency of the reporting of the projects also contributed immensely to the projects implementation. This variable had a positive association with the frequency of the meetings because after every meeting the community members were given reports of the issues discussed and they were given the opportunity to advice, accordingly.

Institutional factors also played a momentous role in CBNRM projects implementation. Findings showed that government's support leveraged the implementation of the projects. Through the provision of land, regulations and technical support, the Mababe Zokotshama Development Trust

(MZDT) and Sankuyo Tshwaragano Management Trust (STMT) CTs were able to successfully implement development projects. International and national organisations support the development of the projects by offering business advice to the CTs members, providing technical and monitory roles, which enabled the actualisation of CBNRM strategies. Ineffective CTs of Shorobe and Matlapana ran short of the support experienced by the effective CTs, and this probably contributed to their failures.

The study revealed that there were discrepancies between the effective CTs and the ineffective CTs. Those differences have been depicted through certain demographic information variables such as gender, ethnicity, household size and age. These differences also reflected in the characteristics of CTs (being the frequency of the meetings and the frequency at which the trust members report projects progress to the community members), and lastly in the institutional factors that assisted in the running of the CTs. The linking of the effective CTs with both the national and international organisations contributed positively to their success in the projects implemented unlike those of the ineffective CTs that did not get any assistance from any organisations.

Based on the findings of the study, the MZDT and STMT had more male members than female members. This perhaps contributed to their successes. Nonetheless, Shorobe and Matlapana CTs had a minimal difference between the number of male and female members and this impacted on their failures to implement relevant development projects. Unlike the CTs that were constituted of people from different ethnic groups, the CTs dominated by the Basarwa ethnic group successfully implemented CBNRM projects. The reason may have been closely associated with the cultural conflicts which do attract more attention than the development of the CTs. The CTs committee members of MZDT and STMT indicated that they held meetings frequently as

members and also with the community members and that had proven to be an effective measure that assisted them to share ideas that were vital for projects developments while those of the Shorobe and Matlapana indicated that they held meetings less frequently as they did not have relevant projects that they could discuss and review. The effective CTs also affirmed that they got support from both national and international institutions. In a FGD session, they highlighted institutional support to be one of the motivational factors that helped them to succeed as such supports came in different forms including regulations that helped them run their CTs, monetary and technical support, and the provision of an enabling environment. Other motivational factors outlined by the effective CTs members of MZDT and STMT included support from the community members and their desire to address the needs of the community. On the other hand, CTs members of Shorobe and Matlapana opined that they were demoralized by a number of factors including lack of institutional support by both the government, international and national organizations which bred other demoralizing factors such as lack of funds, lack of community support, lack of constructive ideas that could help them effect successful implementation of CBNRM projects.

From the discussion raised in the study, the effective CTs are mostly successful in the CBNRM projects implementation because of their inclusion in the hunting areas that enabled them to benefit a lot from the wildlife in their areas. Although they share the past of tribal links with Sankuyo, the Shorobe community once questioned why it was excluded from the same hunting area with Sankuyo village (Thakadu, 2005). Indeed, the Shorobe CT is disadvantaged by its natural location, which prevents it from benefiting directly from the natural resources in the area. The same condition applies to the trust in Matlapana. Although trophy hunting has been

banned altogether by the government, other benefits from photographic tourism are still without the reach of the SCT and MCT.

5.2 Conclusion

The characteristics of both the CTs that did well in projects implementation and those that did not proved that there is a significant associations and relationships between the characteristics of the CTs and their performance in CBNRM projects implementation. CTs failed to do well where trusts members never met and where the communities were never provided progress reports on their CTs.

The socio demographic information of both the community members and the CTs members also had some influence on the successful implementation of the projects. The community members and the CTs members who were not committed to any other permanent jobs were able to implement projects in their areas, hence the success of some of these projects. Also the small household sizes had made it possible for both the CTs members and community members to devote most of their time in projects implementation.

5.3 Recommendations

Based on the findings of this research, the following recommendations are suggested:

1. **Training**: It is necessary for CBNRM stakeholders to focus on training in order to improve the participation of both the CTs committee members and the community members in the implementation of development projects.

2. **Diversification of resources**: Both the effective and ineffective CTs would need to diversify their projects and reduce overdependence on the tourism based projects. This is with a view to ensuring the resilience of the CTs.

3. **Networking**: The ineffective CTs need to engage in proper networking and market their CTs so that they could attract foreign investors who will help them with opinions on how best to run their trusts in a profitable manner. There is also a need for them to benchmark from the effective CTs so that they could adopt any relevant strategy that would help them improve their CTs. Innovative strategies must be adopted by these CTs so that they could apply relevant skills to the implementation of the CBNRM projects.

4. **Government non-interference:** Government needs to ensure that it interferes less in the activities of CTs to the CTs committee members and community members gain confidence and by that means identify with CBNRM projects as their own. It also important to allow community trusts to play on a level playing field to justify any objective comparison in performance in project implementation.

5. **Recruitment criteria**: In order to ensure that CTs are effectively run and sustained, those who are appointed as committee members of the trusts need to have acquired certain degrees of educational trainings. Doing so will enhance better performance in CBNRM project implementation.

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7.0 APPENDIX 1

QUESTIONNAIRE FOR COMMUNITY TRUST EXECUTIVE MEMBERS

Questionnaire #:
Date of interview:
Interviewer's name:

Dear Respondent,

Thank you for sparing time to meet me today in support of the on-going study that will benefit us all at the end.

I am Dimpho Segwabe, a student at Okavango Research Institute in Maun. I am undertaking a study titled CBNRM and poverty alleviation: a comparative analysis of the performance of two groups of community trusts in the Okavango delta, Botswana.

The information gathered will be very useful as it will provide information for policy makers to make informed decisions on CBNRM and community development program implementation. Having explained that, I kindly request to ask you some questions on the subject matter as indicated. It should not take longer than 20 minutes of your time. Your response is of great value to the study and will be treated with utmost confidentiality and will ensure that all responses remain anonymous.

Thank you in advance for your cooperation and understanding.

Research proponent

Section A: Demographic Information

1. **District**: Ngamiland
2. **Village**: (*Motse)*_____
   i. How long have you lived in this village? (*Ke lobaka le le kae o nna mo go one?)*
   _____
3. **Gender:** (Bong). (Tick the right option after observation) M [ ] F [ ]
4. **Marital status:** (*A o nyetse kana o nyetswe?)*

Single	Married	Widowed	Divorced	Cohabitating

5. What is your position in the CT? *(Maemo a gago mo CT ke afe?)*

Chairperson	
Vice Chairperson	
Secretary	
Vice Secretary	
Treasurer	
Member	
Ex-officio	

6. **Age**: How old are you? (*O dingwaga di kae*? *Di kwale ka botlalo mo tselaneng e latelang o bo o tshwaa setlhopha sa dingwaga tsa gago).* (record the exact age and tick the appropriate group below) _____

Between 18-23 years	
Between 24-29 years	
Between 30-35 years	
Between 36-41 years	
Between 42-47 years	
Between 48-53 years	
Between 54-59 years	
60 years and above	

7. **Educational Background**
   a) How many years did you spend in formal education? (*O tsene sekolo dingwaga di le kae ka botlalo?)* Exact number of years_____

Never been to school	
Non-Formal education	
Primary Education	
Secondary Education	
Tertiary Education	

8. Income level

(i) .Are you employed currently?(*A o thapilwe mo nakong eno*?) Yes [ ] No [ ]

(ii) If [Yes] how much do you earn in Botswana Pula?_____

Below 299	
Between 300-449	
Between 450-599	
Between 600-749	
Above 749	

(iii).What are other means of livelihoods? (*Letseno le lengwe ke eng?)*

_____

_____

_____

_____

9. Religion: What religion do you practice? (*Tumelo ya gago ke efe?)*

African Traditional religion	
Christianity	
Islam	
Trado-Chris-lam	
Others	

10. Household size: How many people including you, live in your compound for whose welfare you are responsible for? *(Ke batho ba le kae le wena o le mo teng, ba ba nnang le wena ebile ba tlhokomelwa ke wena?)*

Live alone	
2-5	
6-7	
More than 9	

11. Ethnicity (*Letso)*

Basubiya	
Hambukushu	
Baherero	
Tawana	
Sarwa	
Kgalagadi	
Xhereku	
Other ethnic group (specify)	

Objective 1. Identify the existing CBNRM projects being implemented by the CTs.

12. How many CBNRM projects have been implemented by the CT in the village? Please name them as well . (*Ke diproject di le kae tsa CBNRM tse CT e kgonneng go di simolodisa mo motseng? Di nankole.*

_____
_____
_____
_____
_____
_____
_____
_____

13. How many community projects has your CT successfully implemented and from which the entire community has generated profits or financial gains? (*Ke diproject di le kae tse CT e atlegileng mo go di simolodiseng gape e le tse sechaba se kgonnemg go di akola mo go itireleng madi ka tsone?)* Please name them as well

_____
_____
_____
_____
_____
_____
_____
_____

14. How are they performing? (*Di dira jang?Kwala project, malebang le yone baa letshwao X fa karabong e e supang seemo sa yone sa bodiragatsi).* Match each project with the level of its performance by marking it with 'X' (Please note that you can only have one option for each of the project

__

SN	Project	Has generated little profits/gains	Has generated average profits/gains	Has generated above average profits/gains	Has generated huge profits/gains
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					

15. How are CT projects selected? (*Diproject tsa CT di tlhomamisiwa jang?)*_____
_____
_____
_____
_____

16. What is your contribution to the implementation of the projects? (*Seabe sa gago ke eng mo go simolodisweng ga diproject?)* Tick the right option and if applicable provide any other appropriate comments:
Monetary contribution [ ]; Moral support [ ] ; Advisory service [ ] ; All the above [ ] None of the above[ ] ;
_____
_____
_____
_____
_____
_____
_____
_____

17. What are the problems encountered by CT in the implementation of the identified projects?(*Ke dikgwetlho dife tse CT e kopanang le tsone mo go simolodiseng diprojects tsa yone?Kwala project malebang le dikgwetlho tsa yone).* (Match each project with its challenges)
_____
_____
_____
_____
_____
_____
_____
_____

18. What was the main source of funding/capital for the projects? (*Thotloetso ya madi go diragatsa diprojects le e bona go tswa kae?)*

19. How are the income generated from CT projects used? (*CT ya lona e dira madi jang?)*

20. How are you marketing your projects? (*Lo rekisa jang diproject tsa lona?)*

21. How do you manage your projects? *(Lo tsamaisa jang diproject tsa lona?*)

22. How does the community benefit from CT projects? *(Sechaba se akola jang diproject tsa CT?)*

Objective 2. Analyse the characteristics of the CTs that influence their performance in the CBNRM project implementation.

23. Age of CT: When was the CT established and how old is your CT? (*CT e simolodisitswe leng, e dingwaga di kae e ntse e le teng?)*

_____
_____
_____

24. When were the current CT members elected? (*Maloko a le teng a CT a CT a tlhophilwe leng?)*_____
_____

25. Male-female ratio: How many males and females are there in your trust? (Bomme le borre ba kae mo trust ya lona?)

_____
_____
_____

26. How many youth are there in your trust? (*Banana ba kae mo trust ya lona?)*
_____

27. Membership size: How many members are currently there in your trust? (*Maloko a kae mo trust ya lona?)*_____

28. If there are less than ten members what happened to missing members? (*Fa maloko a le ko tlase ga lesome, maloko a mangwe a kae?)*

_____
_____
_____
_____
_____

29. Capital outlay of CT: What is the financial status of your CT in Pula? (*Seemo sa lona (CT) sa madi ke sefe mo dipuleng (pula)?)*

_____
_____
_____
_____

30. What are the problems encountered by CTs in financial management? If any? (*K e dikgwetlho dife tse CT e kopanang le tsone mo tirisong ya madi?)*

_____
_____
_____
_____
_____

_____
_____

31. Name external organisations (i.e. NGOs and other development agencies like UNDP, UNEP, etc.) that you have worked with in the past and are working with currently? (*Nankola makgotla a a tswang kwa ntle a lo kile lwa bereka nao, le a le santseng le bereka nao?)*_____
_____
_____
_____
_____

32. What projects is your CT implementing based on the support of external organisations? (*Ke diprojects dife tse CT e di simolodisitseng ka thotloetso ya makgotla a a tswang kwa ntle?)*

_____
_____
_____
_____
_____
_____
_____

33. Training frequency: How regularly are CT members trained on projects implementation? (*Maloko a CT a rutintshiwa go le kae mo go simolodisweng ga diprojects?)*

Very regularly	Regularly	Fairly regularly	Does not train

34. Meeting frequency: How regularly do you meet as a committee? (*Le kopana makgetho a le kae le le khuduthamaga?)*

Very regularly	Regularly	Fairly regularly	Never have a meeting meet

35. Members' participation in meeting: How many members participate in the meetings? (*Ke maloko a le kae a a tsayang karolo mo bokopanong?)*

All members	Most members	Some members	Few members

36. Are you able to work well with other members? (*A o kgona go dirisana le maloko a mangwe sentle?)*Yes [ ] No [ ]

37. If [No] why? (*Fa o sa kgone, faa mabaka kana lebaka la seo?)*

_____
_____
_____
_____
_____
_____

38. Are you involved in all decision making process in the CT? (*A o bangwe ba ba tsayang ditshwetso mo CT?)* (Yes [ ] No [ ]

39. If [No] why are you not involved in some decisions? (*Fa go se jalo, lebaka ke eng?)*_____
_____
_____
_____
_____

40. Progress report: Do you give report about project progress to the community? (*A le fa sechaba pego ka kgatelopele ya diproject?)* Yes [ ] No [ ]
a. If [Yes] how often? (*Fa go le jalo makgetho a le kae?)*

Monthly	After every 3 months	After every 6 months	Annually	Never

41. How effective is the CT in the implementation of Projects? (*CT e tlhaga go le kae mo go simolodiseng diproject?)*

_____
_____
_____
_____
_____
_____

Objective 4: analyse the institutional factors influencing the performance of CTs in CBNRM project implementation

42. What is the role of government in establishing CBNRM projects? (*Seabe sa puso tshimolodisong ya project sa CBNRM ke sefe?)* (i) Funding [ ]; (ii) Providing enabling environment [ ]; (iii) Regulatory role [ ]; (iv) Monitoring [ ]; Technical support [ ]; and for more information state other roles?_____

_____

_____

_____

_____

_____

43. What is the role of national organisations in helping CTs to implement projects? *Seabe sa mananeo a sechaba mo go thuseng CTs go simolosa diproject ke eng?)*(i) Funding [ ]; Technical support [ ]; Monitoring [ ]; Advisory [ ]; and for more information state other roles?

_____

_____

_____

_____

_____

_____

44. What is the role of international Organisations in helping CT to implement projects? (*Seabe sa makgotla a bodichaba-chaba mo go thuseng go simolodisiwa ga diproject ke eng?)* (i) Funding [ ]; Technical support [ ]; Monitoring [ ]; Advisory [ ]; and for more information state other roles?

_____

_____

_____

_____

_____

45. What kind of advice do you get when implementing projects and from who? *(O tsaa dikgakololo dife go diragatsa diproject, le di tsaa mo go mang?*

_____

_____

_____

_____

_____

_____

46. How is government helping CTs in the implementation of projects? (*Puso e thusa jang CTs go simolola diproject?)*

_____

_____

_____

_____
_____
_____

47. What are the Policies or Acts that guide the operation of CTs? (*Ke melawana efe e e kaelang go diragatswa ga CTs?)*_____
_____
_____
_____
_____

48. What should government do to improve CTs? (*Puso e dire jang go tokafatsa CTs?)*_____
_____
_____
_____

THANK YOU.

7.1a APPENDIX 2

FOCUS GROUP DISCUSSION

Interview guide for CT members (Group 1)

Village_____ Date_____
Names of respondents

NAME	SEX	ADDRESS/TELEPHONE

QUESTIONS

1. What are CT development projects that you currently have, including the ones you have completed and those whose implementations are on-going?
2. How were the projects selected?
3. How is the performance of these projects?
4. What are the problems encountered by your CT in the implementation of the projects?
5. How often does the CT members give report to the community about development projects?
6. Do you think the projects benefited the community members significantly?

7. Do you think it is still worthwhile to implement CBNRM projects in your community? If yes, why?
8. What motivates you to implement the projects?

THANK YOU.

7.1b APPENDIX 3

FOCUS GROUP DISCUSSION

Interview guide for CT members (Group 2)

Village_____ Date_____
Names of respondents

NAME	SEX	ADDRESS/TELEPHONE

QUESTIONS

1. What are CT development projects that you currently have, including the ones you have completed and those whose implementations are on-going?
2. How were the projects selected?
3. How is the performance of these projects?
4. What are the problems encountered by your CT in the implementation of the projects?
5. How often does the CT members give report to the community about development projects?
6. Do you think the projects benefited the community members significantly?
7. Do you think it is still worthwhile to implement CBNRM projects in your community? If yes, why?
8. What are the demoralizing factors in implementing the projects?

THANK YOU.

7.3a APPENDIX 4

QUESTIONNAIRE- COMMUNITY MEMBERS (GROUP 1)

Questionnaire #:
Date of interview:
Interviewer's name:

Dear Respondent,

Thank you for sparing time to meet me today in support of the on-going study that will benefit us all at the end.

I am Dimpho Segwabe, a student at the Okavango Research Institute in Maun. I am undertaking a study titled CBNRM and poverty alleviation: a comparative analysis of the performance of two groups of community trusts in the Okavango Delta, Botswana.

The information gathered will be very useful as it will provide information for policy makers to make informed decisions on CBNRM and community development program implementation. Having said that, I kindly request to ask you some questions on the subject matter as indicated. It should not take longer than 20 minutes of your time. Your response is of great value to the study and will be treated with utmost confidentiality. I will ensure that all responses remain anonymous.

Thank you in advance for your cooperation and understanding.

Research proponent

INTERVEW SCHEDULE FOR COMMUNITY MEMBERS

Section A: Socio-economic and demographic information

Community members who are 18 years and above.

1. **District**: Ngamiland

2. **Village**: (*Motse)*_____
   i. How long have you lived in this village? (*O lobaka lo lo kae o ntse o nna mo motseng o?*_____

3. **Gender**: (Bong) . (Tick the right option after observation)

   Male [ ] Female [ ]

4. **Marital Status: (***A o nyetse kana o nyetswe?)*

Single	Married	Widowed	Divorced	Cohabitating

5. **Age**: How old are you? (*O dingwaga di kae? Di kwale ka botlalo mo tselaneng e e latelang o bo o tshwaa setlhopha sa dingwaga tsa gago.*(record the exact age and tick the appropriate age group below) _____

   i. 18-23 years [ ] ii. 24-29 years [ ] iii. 30-35 years [ ]
   iv.. 36-41 years [ ] v. 42-47 years [ ] vi.. 48-53 years [ ]
   vii. 54-59 years [ ] viii. 60 years and above [ ]

6. **.** What is your educational background? (*O tsene sekolo go fitlha fa kae?)*

Never been to school	Non formal education	Primary education	Secondary education	Tertiary education

7. **Income level**
   ii. Are you employed currently? (*A o thapilwe mo nakong eno?* Yes [ ] No [ ]
   iii. If [Yes] how much do you earn in Botswana Pula? (*Fa o thapilwe, o amogela bokae mo dipuleng?)*_____

Below 299	
Between 300-449	
Between 450-599	

Between 600-749	
Above 749	

iv. What are other means of livelihoods? (*Letseno le lengwe ke eng?)*

_____
_____
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8. Religion: What religion do you practice? (*Tumelo ya gago ke efe?)*

African Traditional religion	
Christianity	
Islam	
Trado-Chris-lam	
Others	

9. Ethnicity ***(****Letso)*

Basubiya	
Hambukushu	
Baherero	
Tawana	
Sarwa	
Kgalagadi	
Xhereku	
Other ethnic group (specify)	

10. Household size: How many people including you, live in your compound for whose welfare you are responsible for? (*Ke batho ba le kae, le wena o le mo teng ba ba nnang le wena ba ba ka fa tlase ga tlhokomelo ya gago?)*

Live alone	
2-5	
6-7	
More than 9	

Objective 1. identifying the existing CBNRM projects being implemented by the CTs in the study area

11. How many CBNRM projects have been implemented by the community trust in your community? Name the projects as well. ((*Ke diproject di le kae tsa CBNRM tse CT e kgonneng go di simolodisa mo motseng? Di nankole.*

_____
_____
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12. .How are projects performing? (*Diproject di diragatsa jang?)* Tick the appropriate box and provide any other comments: Poor [ ]; Average [ ]; Above average [ ]; Excellent [ ]

13. (i) Were you involved when any of them were implemented? *(A o ne o rerisitswe fa di diragatswa?)* Yes [ ] No [ ]

(ii) If 'yes' in what way were you involved in any of the project? *(Fa go le jalo, seabe sa ago e ne e le eng?)*

a. Moral support only [ ]
b. Financial contribution only [ ]
c. Brawn/physical support in manual construction work only [ ]
d. Decision making only [ ]
e. Both financial and moral support [ ]
f. All the contributions above [ ]

14. What are the problems encountered by CT in the implementation of the identified projects? (Match each project with its challenges). (*Ke dikgwetlho dife tse CT e kopanang le tsone mo go simolodiseng diprojects tsa yone?Kwala project malebang le dikgwetlho tsa yone).*

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15. Does the community trust give report about project progress to you? (*A CT e le fa pego ka kgatelopele ya diproject tsa yone?)* Yes [ ] No [ ]

a. If [Yes] how often? (Fa karabo e dumalana, pego e tla makgetho a le kae?).

Monthly	After every 3 months	After every 6 months	Annually	Never

16. Were you actively consulted when they were implemented? (*A o ne o rerisitswe ka botlalo fa diproject di simolodisiwa?)*Yes [ ] No [ ]

17. If no, why were you not consulted? (*Fa o ne o sa rerisiwa, lobaka ke eng?)*

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18. How do you benefit from the CT projects? (*O akola jang diproject tsa CT?)*

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19. How should community trust improve on project implementation? (*CT e ka tokafatsa jang go simolodisa diproject?)*

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7.3b APPENDIX 5

QUESTIONNAIRE- COMMUNITY MEMBERS (GROUP 2)

Questionnaire #:
Date of interview:
Interviewer's name:

Dear Respondent,

Thank you for sparing time to meet me today in support of the on-going study that will benefit us all at the end.

I am Dimpho Segwabe, a student at the Okavango Research Institute in Maun. I am undertaking a study titled CBNRM and poverty alleviation: a comparative analysis of the performance of two groups of community trusts in the Okavango Delta, Botswana.

The information gathered will be very useful as it will provide information for policy makers to make informed decisions on CBNRM and community development program implementation. Having said that, I kindly request to ask you some questions on the subject matter as indicated. It should not take longer than 20 minutes of your time. Your response is of great value to the study and will be treated with utmost confidentiality. I will ensure that all responses remain anonymous.

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Research proponent

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   Male [ ] Female [ ]

4. **Marital Status: (***A o nyetse kana o nyetswe?)*

Single	Married	Widowed	Divorced	Cohabitating

5. **Age**: How old are you? (*O dingwaga di kae? Di kwale ka botlalo mo tselaneng e e latelang o bo o tshwaa setlhopha sa dingwaga tsa gago.*(record the exact age and tick the appropriate age group below) _____

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   vii. 54-59 years [ ] viii. 60 years and above [ ]

6. **.** What is your educational background? (*O tsene sekolo go fitlha fa kae?)*

Never been to school	Non formal education	Primary education	Secondary education	Tertiary education

7. **Income level**
   i.Are you employed currently? (*A o thapilwe mo nakong eno?* Yes [ ] No [ ]
   ii.If [Yes] how much do you earn in Botswana Pula? (*Fa o thapilwe, o amogela bokae mo dipuleng?)*_____

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Between 300-449	
Between 450-599	

Between 600-749	
Above 749	

iii.What are other means of livelihoods? (*Letseno le lengwe ke eng?)*

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8. Religion: What religion do you practice? (*Tumelo ya gago ke efe?)*

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Christianity	
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Others	

9. Household size: How many people including you, live in your compound for whose welfare you are responsible for? (*Ke batho ba le kae, le wena o le mo teng ba ba nnang le wena ba ba ka fa tlase ga tlhokomelo ya gago?)*

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2-5	
6-7	
More than 9	

10. Ethnicity (*Letso)*

Basubiya	
Hambukushu	
Baherero	
Tawana	
Sarwa	
Kgalagadi	
Xhereku	
Other ethnic group (specify)	

Objective 1. identifying the existing CBNRM projects being implemented by the CTs in the study area

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13. (i) Were you involved when any of them were implemented? *(A o ne o rerisitswe fa di diragatswa?)* Yes [ ] No [ ]

(ii) If 'yes' in what way were you involved in any of the project? *(Fa go le jalo, seabe sa ago e ne e le eng?)*

g. Moral support only [ ]
h. Financial contribution only [ ]
i. Brawn/physical support in manual construction work only [ ]
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a. If [Yes] how often? (Fa karabo e dumalana, pego e tla makgetho a le kae?).

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19. How should community trust improve on project implementation? (*CT e ka tokafatsa jang go simolodisa diproject?)*

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