ASSESSING THE ROLE OF OLOISUKUT COMMUNITY CONSERVANCY IN THE MANAGEMENT OF WILDLIFE RESOURCES IN NAROK COUNTY, KENYA

BY

DOREEN IVY ODECK
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DECLARATION

This Thesis is my original work and has not been presented for a degree in any other university.

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Name Date

This Thesis has been submitted with our approval as University supervisors.

_____ _____

Dr. Jones Fairfax Agwata Date

_____ _____

Dr. Stephen Obiero Anyango Date

Centre for Advanced Studies in Environmental Law and Policy
University of Nairobi
P.O.BOX 30197, 00100
Nairobi

DEDICATION

This work is dedicated to my family for believing in my abilities more than I do.

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ABSTRACT

Communities living around the Maasai Mara National Reserve disposal areas are setting aside their land for conservation purposes and for the locals to benefit from tourism. Oloisukut Conservancy is one such initiative, a newly established conservancy in the Mara ecosystem and currently the only one in TransMara area. The main objective of the study was to assess the role of Oloisukut community conservancy in the management of wildlife resources. Specific objectives were to determine the socio economic characteristics of the conservancy members; determine the attitudes and perceptions of the local community towards the conservancy; determine the benefits accrued and challenges faced by the community from the establishment of the conservancy and assess the level of awareness of local community on existing wildlife policies and legislation as they relate to the conservancy. The study utilized descriptive research design to examine the current situation in Oloisukut Conservancy. Data was obtained through using both primary and secondary sources. Primary data collection was done through a household questionnaire survey, focus group discussions and key informant interviews. Data was analyzed using Statistical Package for Social Scientists (SPSS) version 20 where frequencies were calculated. Results indicated that Oloisukut conservancy is owned by individuals, most of whom are not literate with a large percentage being unemployed. Livestock keeping, farming and charcoal burning were the main means of livelihood in the area. The community had positive attitudes and perception towards the establishment of the conservancy and conservation as a whole. However, the community had negative attitudes and perceptions towards the management of the conservancy. The study also established that benefits accrued by the local communities were minimal, they had not benefited from indirect benefits such as health centres, education bursaries, construction of roads within the conservancy as well as the provision of clean water all of which were still a challenge to the local community. The study further established that the conservancy had positive impacts on the natural resources. It was also established that the local community had some level of awareness of policy and legislation governing natural resources but they were not aware of their provisions. They were also not aware of community institutions

such as Community Forest Associations (CFAs). Subsequently, the study found that the policies and legislation influencing conservancies in Kenya are fragmented and found in various sectors and though they tend to promote community participation in Natural Resource Management, they are subject to different interpretations by the different institutions, while some have conflicting mandates and lack proper benefit sharing mechanisms. It is recommended that the Country needs to develop a Community Based Natural Resource Management policy that provides a clear direction and national strategy with a common definition of its principals and characteristics, sensitization of the local community on the Wildlife Policy and the provision of the Wildlife Conservation and Management Act 2013 and other Policies and legislation pertaining to conservation, proper cost and benefit sharing policy and legislation should be developed and strengthened relationships between the County Government of Narok, conservation organizations and the private sector be enhanced. Regarding management issues, the study proposed capacity building to be undertaken by the local community and their leaders in financial management and dispute resolution. The study further proposes the development of a management plan for the area to control encroachment into conservation areas and guide development and a benefit distribution plan to be embedded in the management plan. It is also recommended that studies be done on the impact of Oloisukut conservancy on land use and land cover changes in the area, equitable sharing of conservation benefits, a wildlife census to have an inventory of what exists in the area and studies on how livestock numbers can be reduced so as to achieve a balance between sustainable wildlife conservation and local community livelihoods.

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LIST OF ACRONYMS AND ABBREVIATIONS

AMADE	Administrative Management and Design for game management areas
CAMPFIRE	Communal Areas Programme for Indigenous Resources
CBRNM	Community Based Natural Resource Management
CBC	Community Based Conservation
CITES	Convention on International Trade of Endangered Species
CCP	Communal Conservancy Programme
GIS	Geographical Information System
GoK	Government of Kenya
ICDPs	Integrated Conservation and Development Projects
KWCA	Kenya Wildlife Conservancies Association
KWS	Kenya Wildlife Service
MEA	Multilateral Environmental Agreements
MMNR	Maasai Mara National Reserve
NRM	Natural Resource Management
NRB	Natural Resource Base
NEAP	National Environmental Action Plan
PA	Protected Area
PAO	Protected Area Outreach
TM	Transmara
SPSS	Statistical Package for the Social Sciences
UNEP	United Nations Environment Program
WCMA	Wildlife Conservation and Management Act 2013
WTR	World Trade Report
WWF-KCO	World Wide Fund for Nature – Kenya Country office

CHAPTER ONE: INTRODUCTION

1.1 Background of the study

The earth provides natural resources which are essential to the needs of human being; they are therefore crucial fundamental assets and foundations of survival in most people's livelihood strategies. They have a dominant position in many national economies as they contribute significantly to development and offer tremendous economic opportunities valued at trillions of dollars (WTR, 2010). According to (UNEP, 2010), proper utilization of biodiversity and its ecosystems is paramount if sustainable development is to be achieved as these biological products and processes make just about 40% of the global economy.

Sub Saharan Africa has an array of biodiversity forming the foundation of continents natural wealth on which it's social and economic systems placed (UNEP, 2007). Yet the 'paradox of plenty' or the 'resource curse' greatly manifests itself through high poverty levels, dilapidation of the natural environment, land degradation and contamination, loss of biodiversity, water problems and climate change (Ochola *et al*, 2010). The rate at which biodiversity has come under threat has had negative impacts on the quality and sustainability of the environmental resource base impairing the wellbeing of the human population and diminish prospects of the future generation (Ochola *et al*, 2010).

However, concern about the importance of biodiversity and the state of different ecosystems is not new, it dates back to George Marsh, who in 1864 pointed out the dangers of over exploitation of nature (Grana, 2006) leading to global awareness on the need to conserve natural resources and resulting to the creation of various protected areas (PA) around the world. In Africa, conservation strategies were characterized by the restriction of any human interaction and use of the resources; a concept known as fortress conservation (Roe *et al*, 2009). This exclusionary approach not only alienated important resources to local populations but it also undermined the ability of local traditional institutions to manage natural resources (wildlife, forests, water, fisheries, land) hence the threat of overexploitation and unsustainable use

continued to act upon a decreasing resource base (Chidakel, 2011). The failures of protectionist approaches to conservation led to a philosophical shift from a centralized Natural Resource Management system to devolved models known as Community Based Natural Resource Management (CBNRM) or Community Based Conservation (CBC) which encouraged participation of local communities in conservation (Roe *et al*, 2009).

CBC became manifest in Southern Africa through decentralized wildlife management programmes (Adam and Hulme, 2001) starting with a Communal Areas Programme for Indigenous Resources (CAMPFIRE) in Zimbabwe after which similar programs were experimented with and became fully instituted in other countries which include; Communal Conservancy Programme (CCP) in Namibia, Administrative Management and Design for game management areas (AMADE) in Zambia, amongst others.

Community Based Conservation in Kenya was first adopted in 1970 in the Amboseli ecosystem whereby a total of six Maasai group ranches were identified and included in the governments benefit sharing scheme where they were offered water services and part of the parks income. (WWF KCO, 2012). Subsequently, important lessons were learned crystallizing the idea of community conservation and effecting the establishment of various conservancies countrywide within various ecosystems including *Koiyaki- Lemek*, *Mara conservancy*, *Olerai* conservancy, *Nobisho* conservancy, and *Kuruwitu* marine conservancy, amongst others.

According to the Constitution of Kenya 2010, local communities should access and derive benefits from natural resources through sustainable utilisation and equitable distribution of benefits (GoK, 2010). As a result, all the natural resources sector laws are being revised and harmonised with the new constitution. The Wildlife Conservation and Management Act has considered these, and recognises community conservancies as basic units of conservation at a grass root level (GoK, 2013), and further devolves wildlife management rights and tourism benefits to the rural communities that form a conservancy; empowering members to decide for themselves how to use the income they earn. The question to be asked therefore was; how

effective are these community conservancies in achieving their goals of rural development? This study contributes to the policy discussion on the effectiveness of community conservancies by assessing the impact of community based conservation and its contribution towards environmental conservation and improved livelihoods in Oloisukut conservancy in Transmara Sub- County.

1.2 Statement of the problem

Transmara forms part of the Maasai Mara ecosystem that supports an outstanding and unique variety of wildlife in the world. The community lands are important habitats for both resident and migratory wildlife with 28% of the total land area covered by the only tropical forest in the Mara ecosystem which is rich in biodiversity and is recognised as an important bird area and wildlife breeding ground (GoK, 2012). However, the area having undergone changes in land use and tenure due to division of from group ranches to individual holdings coupled with population increase has led to pressure depletion of natural resources through activities such as charcoal burning, logging, forest clearing to create grazing grounds and unplanned cultivation (Sitati *et al*, 2003). These activities have resulted to increased Human wildlife conflicts threatening the sustainability of wildlife resources in the area.

To control this, Oloisukut Conservancy was formed by the local people with minimal support from the World Wide Fund for Nature - Kenya Country Office (WWF) whereby members set aside their land in order to promote conservation and sustainable management of resources and at the same time derive benefits from wildlife based tourism through the few tourist facilities available in the area. However, the impact of the community conservancy towards environmental conservation and improved livelihoods has not been evaluated. There is need to know how the community benefits from the conservancy, challenges faced in its management, the attitude of the local people towards the conservancy and the policies and legal frameworks governing its management. Little is also known about whether the conservancy has led to any indirect benefits on areas outside the conservancy.

1.3 Research questions

The study was guided by the following questions:

a) Which are the socioeconomic characteristics of the local community?
b) What is the attitude and perception of the local community towards the conservancy and its management?
c) How have the local people benefited from the establishment of the conservancy and what challenges does the local community face?
d) What is the level of awareness of the local community on existing wildlife policies and legislation as they relate to the conservancy?

1.4 Objectives of the study

The broad objective of the study was to investigate the effectiveness of community based conservation by assessing the impacts of the community conservancy and its contribution to environmental conservation and improved livelihoods. The specific objectives of the study were to:

a) Determine the socio economic characteristics of the local community,
b) Determine the attitudes and perceptions of the local community towards the establishment of the conservancy and its management,
c) Determine the benefits accrued and challenges faced by the local community from the establishment of the conservancy, and
d) Asses the level of awareness of local community on policies and legislation on conservancies they relate to conservation

1.5 Justification and significance of the study

The future of Kenya's wildlife rests in the hands of our communities. Approximately 70 percent of all of Kenya's wildlife live on community or private land outside parks and the remaining 30 percent that do reside in parks often spend much of their time outside the parks often dependent on the pastures and tolerance of the community and private landowners for survival . It is important to recognise that wildlife needs space outside the park as well as inside hence putting in place adequate policy and structures for its planned sustainability. This space can only be secured as a result of land

owners' willingness to accommodate wildlife in their properties. Such accommodation would arise from appropriate policies that would encourage land owners to integrate wildlife conservation with other forms of land use thus enabling them to enjoy diversified benefits such as tourism (WWF, 2012).

Oloisukut conservancy is rich in biodiversity both in the forest, savannah ecosystem and the river line. It supports both resident and migratory wildlife population, being a dispersal area for the famous Maasai Mara Natural Reserve (MMNR). However, the future survival the MMNR is dependent on the wildlife dispersing outside the protected areas to the adjacent community lands, equally the future of the wildlife in the community conservancies is dependent on the form of land use and benefits derived from the natural resource conservation, attitudes of the community members towards conservation as well as adequate policy structures for its planned sustainability. Tourism, which relies heavily on the community lands/conservancies earns the country over Ksh 100 billion and contributes over 12% to the GDP, hence if the resources are not conserved it will naturally affect tourism in Kenya and in the Mara which is a prime tourist destination. This will also affect the livelihoods of the communities threatening the economy through unsustainable utilization of resources.

Community conservancies are therefore crucial to conservation as they are considered a management strategy aiming to reduce poverty and promote good governance of natural resources. The Mara ecosystem has seen an increase in these conservancies although information regarding attitudes, benefits and acceptability by the local communities is lacking as there is limited research on the same. It is against this background that this study was conceived to evaluate the effectiveness of community based conservation in Oloisukut conservancy firstly due to the fact that it is the only conservancy in Transmara hence the findings may greatly inform other upcoming conservancies in the area and country wide.

Secondly the findings of the study regarding perceptions and attitudes of the conservancy members towards the conservancy and its management, benefits accrued from the conservancy, challenges faced in the management of the conservancy and

other subject relevant to conservation which will be compared with information obtained from the demographic and socio economic attributes of the households. This information is necessary in the development of the conservancy management plan which is currently lacking. The findings will also be useful in establishing the best way to manage the conservancy and the challenges in policy and practice before they get out of hand so as to plan for more effective programs in future. Equally, it will be useful for future monitoring and evaluation to determine the impact of the project activities.

1.6 Scope and limitations of the study

The study was carried out in Oloisukut conservancy which was part of the former Kimintet group ranch and forms part of the larger Mara – Serengeti ecosystem. The main purpose of the study was to assess the impact of Oloisukut conservancy towards environmental conservation and improved livelihoods of the local communities. There are many land owners in the former Kimintet group ranch who are not members of the conservancy hence the study determined the socio economic characteristics of the members and further established if the adjacent non members are willing to join Oloisukut conservancy or form their own conservancy. Attitudes and perceptions of the conservancy members towards conservation, and the conservancy's management style were also determined.

It was expected that communication could be a challenge due to the fact that the community under study are predominantly Maa speaking. The language medium in which the questionnaire was designed was of concern as it was done in English. During the fieldwork however, translators where used to guide the respondents during the study. The study was limited to the Kenya Wildlife Service as the key Government entity responsible for wildlife management, as some of the key institutional stakeholders were non responsive and could not be easily accessed. The study was also limited to the Wildlife Policy and Act, Forest Policy and Act, National Environment Policy, and the Constitution of Kenya, however the study also looked at the National Land Policy and its implications to community based conservation.

1.7 Operational definition of terms

Community Conservancy: Area of land set aside by a group of land owners for the purpose of wildlife conservation.

Attitude: A way of thinking about something

Management: To control and or make decisions about something

Conservancy member: An individual or individuals who have set aside part of their land for conservation purposes

Non member: An individual or individuals who have not set aside their land for conservation purposes

Wildlife: Any animal, plant or bird that is not domesticated.

Livelihood: Means of survival/ getting income

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter reviews relevant literature and previously related studies focusing on three major identified issues as key in determining the role of community conservancies in the management of wildlife resources. First, a review has been carried out on the concept on Community Based Natural Resource Management, its approaches, principals and the trends of community conservancies in Kenya. Secondly the attitudes and perceptions of communities have been examined in general to see how it affects conservation. Thirdly benefits and challenges of Community Based Conservation have been interrogated and lastly a review of the Policy and legal frameworks in wildlife management was done.

2.2 The concept of Community Based Natural Resource Management

The faliure of the harsh protectionist approach towards conservation which sidelined local involvement and participation and brought about negtative attitudes and a general lack of adherance to conservation legislation, was what brought about the shift to and emergence of Community Based Conservation (De Kock, 2010). It has its origins in Southern Africa in the 1980's, and was viewd as an alternative method of Natural Resource Management as opposed to the segregated approaches being practiced with limited community participation. Robbins *et al*, 2006 also noted that the segregation of the local communities from participating in conservation activities led to conflcits with the authorities. Therefore, an approach which recognized the need for community involvement and which was supported by various policies and legislation both at the local and global levels was deemed necessary and crucial in enhancing the livelihhoods of the locals especially in the third world Countries (Ancrenaz *et al*, 2007).

Child and Lyman (2011), define Community Based Natural Resource Management (CBNRM) as the process by which land owners gain access and use of rights to, or ownership of natural resources; collaboratively (in partnership with other legitimate stakeholders) and actively plan and participate in the management of the said

resources for benefits such as financial gain. The essence of CBNRM therefore is to stimulate a feeling of ownership, inclusiveness, participation and responsibility to communities to certain given natural resources addressing environmental conservation, good governance and poverty alleviation thus contributing to sustainable development.

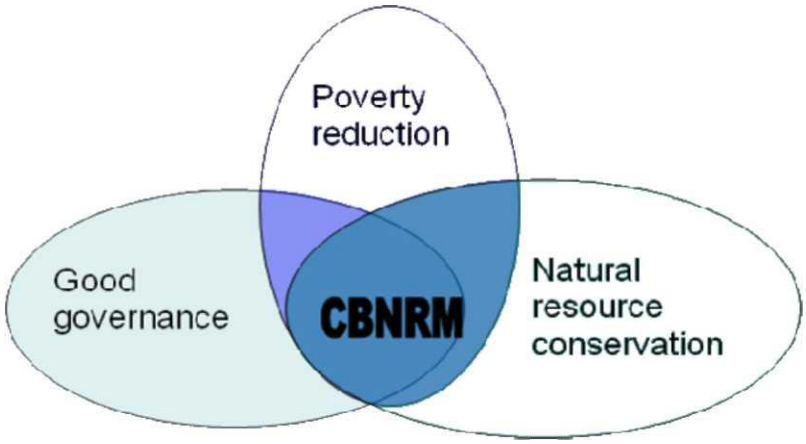

Figure 2.1: Community Based Natural Resource Management and its linkages (Odendo *et al,* 2011)

CBRNM has grown significantly in Africa, traditionally it was focused on the protection and management of wildlife but today, it fosters sustainable management of forests, watersheds, fishing and coastal resources and rangelands (USAID, 2009). It is now a main conservation and commercially progressive strategy for most governmental projects and donor organization. Projects such as CAMPFIRE in Zimbabwe, AMADE in Zambia and LIFE in Namibia are key examples which have led to the development of other programmes and several other initiatives in Botswana, Malawi and several East African countries; however they have varying degrees of success depending on the social, political and bio physical contexts of the host country (Roe *et al*, 2009).

2.2.1 Approaches and principles of Community Based Natural Resource Management

One of the challenges in understanding the meaning of CBNRM is that it takes different forms and is interpreted differently depending on how different actors

perceive it. Jones (2004b), referred to the term as an approach where complete delegation of power has been achieved from the state to local groups and communities on communal land and although that is among the major aims of CBNRM, he did not take into account the various levels of community involvement in Natural Resource Management which varies greatly between regions.

Roe *et al* (2009) on the other hand argues that CBRNM is regarded on the various local perceptions of CBRNM in different regions. He further argues that as much as the emphasis is on sustainable NRM through community involvement, operationally it may refer to a broad variety of conditions with varied levels of local involvement; from the total state control to full community control and sharing of benefits to full control of community over benefits by communities (Nightingale, 2011). Depending on the source it can be associated with a variety of names given to approaches such as Integrated Conservation and Development Projects (ICDPs), Community Based Conservation (CBC), Collaborative management, Protected Area Outreach (PAO), Community Centred Conservation and sustainable development.

Nonetheless, the approaches mentioned above need to address the broad scope of socio cultural aspects of how communities residing in the rural areas intract with the given environments, as they to a great extent rely on natural resources as a means of livelihood and have formulated cognitive content to regulate the use of the same resources. Hence, not including them in decisive dialouge that will determine how the resources are managed is a great threat to their means of sustenance and way of life and eventually hampers conservation. Further, indigenous people rarely reside in the least bio diverse locations of the world and therefore need particularized approaches that give regard to their way of life, social practices and environment.Thus it is envisioned that, community conservation will create a state of equilibrium between the environment and the local communites by building their capactities and enabling them to lessen poverty and improve their livelihoods and fortify their positions as crucial environmental decision makers (IISTE, 2013).

Despite the several definitions and varying community approaches, research conducted has shown there is broad consensus on key elements. Overtime, a set of principals, which lay the foundation of successful and sustainable CBNRM, has emerged from analysis and performance of best practices of CBNRM programs and initiatives in Zimbabwe, Botswana, and Namibia. Most of the principals in use today are adopted from the infamous 'CAMPFIRE Principals' developed by Professor Marshal Murphee during his several decades of work on CBNRM in Southern Africa (USAID, 2011). However, not all the principals are applicable to all communities because their adaptation depends on the variations in legal, social, cultural, political and economic context.

Child and Lyman (2005) point to the lessons from these past decades which greatly inform the creation of the CBNRM initiatives to date; they further stress the importance to heed to the lessons guaranteed on the principle that natural resources will only be managed sustainably if the local communities are given full ownership of those resources (WWF, 2012). Benefits of managing a resource outweighs costs and are distributed equally, and communities' accommodating the resources should get more benefits than those who are not. The decision making authority regarding management and control of resources is maintained at the community level. It encourages partnerships from the private sector and encourages local capacity building (USAID, 2011).

2.3 Community Based Natural Resource Management in Kenya

Kenya is endowed with a variety of natural resources and rich biodiversity areas which are among the country's most valuable assets as they significantly add to socio economic advancements. In the past however Natural Resource Management practices adopted a strictly protectionist approach which failed to appreciate local peoples reliance on the natural resources for their livelihood and sustenance as excluding the locals led them to engage in illegal activities hence putting pressure on protected areas through unsustainable exploitation of resources (Jaeger, 2011& WWF, 2012). This concept was challenged in the 1960s whereby early initiatives towards CBNRM were initialized in an attempt to address conflict between local communities and administrative bodies of protected areas.

Kenya's first formal initiative towards community based conservation was in the Amboseli ecosystem in the 1970s (Barrow *et al*, 2001) resulting to the formation of the Amboseli national park whereby a variety of benefit sharing channels were established by the government with the surrounding Maasai group ranches (Western, 1994). However the success of the initiative was short lived due poor institutional frameworks which saw the communal benefits of conservation mostly exploited by the elites, weak legislation and low technical expertise and a general lack of education of the indigenous communities. The Kimana trust in South Kajiado was the first communally managed conservancy which paved way for several other initiatives, to date several conservancies have been established country wide in various ecosystems.

2.3.1 Community Conservancies as a form of Land use

The formation of community conservancies has its origin from Namibia which formally recognized CBNRM in 1992, through passing legislation that granted delegation in the management of wildlife resources by the local communities as long as they registered as conservancies.

The Namibian conservancy programme is a government project which is sustained by a variety of Non Governmental Organizations and empowers local communities dwelling in community lands to utilize nature based tourism ventures as additional sources of generating income as long as they have registered as a community conservancy. The law further provides that individuals living on communal land may register to have an area of the land sanctified as a conservancy. The conservancies are further affirmed as multi use areas meaning community members carry on their with their day to day activities such as livestock keeping and agriculture coupled with the management of wildlife, in accordance to a management plan which includes demarcated regions for the various uses (Chishakwe *et al*, 2012 & De Kock, 2010).

16.1% of the land in Namibia is characterized by community conservancies while the protected area networks which are under the government's stewardship covers a total of 16.5% of the Country. Community members who profit and are absorbed in the conservancy programme are said to be much more than 230,000. Community Based Natural Resource Management in Namibia has greatly increased from just about

N$600,000 in 1998 whereby the country had a total of only four conservancies to a whooping N$ 35M in 2009 with a total of 59 conservancies (De Kock, 2010). Conservancies are therefore strong representative institutions which serve as excellent entry points to establish community based projects dedicated to the management wildlife and other natural resources and benefits generated from them (IRDNC 2011). Chishakwe *et al* (2012) further points out that conservancies are formed mainly in areas with large numbers and a wide variety of wildlife resources whereby income generated from tourism based enterprises can be sufficient to substitute other previous land use alternatives such as agriculture.

Kenya has adopted the conservancy approach to CBNRM where community members collectively manage their own land with business partners (SACF, 2010). This approach to NRM has been adopted not only in the Maasai Mara but in other ecosystems around the country such as the Amboseli, Mt. Kenya, Mau, Coastal zones amongst others. It is seen as an alternative form of land use whereby local land owners have set aside part of their land or leased out parcels of their land to tour operators in order to form wildlife conservancies and in the process avoid further erosion of natural resources. The land surrounding the Maasai Mara National Reserve is a large wildlife dispersal area hence setting up of the conservancies ensures that wildlife within the larger Mara ecosystem is preserved for future generations. The conservancy approach to CBNRM has caused improvements in livelihoods and conservation of resources by enhancing local capacity and interest to deal with the problems of communal natural resource access, management and benefit sharing issues, inappropriate land use and increased populations and high poverty levels in conjunction with business partners/ investors (SACF, 2010).

2.3.2 Role of Public Private Partnerships in Community Based Natural Resource Management

Community Based Natural Resource Management (CBNRM) communities do not function in a void as the judgement made by any community based on Natural Resource Management either has a negative or positive impact on different stakeholders (Ochola *et al*, 2010) who are largely influenced by land tenure systems,

original objectives of establishing the conservancy and who the drivers of the conservation process are, the drivers in this case are either the local communities, tour operators or NGOs (WWF, 2012). There is therefore a need to recognize and appreciate that the knowledge on stewardship of natural resources is different within the different ecosystems and therefore different approaches to CBNRM implementation would apply to different eco-systems (Nightingale, 2008).

The private sector, community associations and Non-Governmental Organizations (NGOs) are significant in the conservation and management of natural resources. The public and private donor support to conservation exceeds $25 million per annum with an equivalent amount invested in associated local development projects the major setback being inadequate institutional arrangements for effective management (KAWSCO, 2012).

Despite these challenges, tremendous progress has been achieved to develop a grassroots conservancy movement in Kenya. The Wildlife Conservation and Management Act 2013, coupled with a series of macro-level enabling developments including: The draft National Land Policy (2012); The Constitution 2010, national economic growth strategy (Vision 2030) and the Tourism Act (2011), have stimulated the development of demand-driven "conservancies" and the emergence of regional conservation forums and trusts such as the Laikipia Wildlife Forum, Maasai Mara Group Ranches, Siana Group Ranches, Amboseli Ecosystem Trust (AET), Taita Taveta Ranches Association (TTRA) and the Northern Rangelands Trust (NRT) have emerged as important organizations that are growing the conservation agenda in their regions (WWF, 2012).

These organizations have supported a region-wide conservation and development process that involved over 100,000 residents in over 50 registered community conservancies byt he end of 2011 covering over 150,000 km^2 of communal/private land and generated income and benefits totaling over $4 million in the past five years (KAWSCO, 2012). Hence conservation associations have all pointed towards the need for convergence and coordination in the sector- with the possibility of growing a

conservation industry in Kenya as it is among the key principlas of sucessful CBNRM initiative.

2.4. Defining attitudes and perceptions

The defination is drawn from Ajzen and Fishbein's Theory of Reasoned Action (Ajzen & Fishbein 1980). Attitude is defined as "a human psychological tendency that is expressed by evaluating a particular entity, called an attitude object, with some degree of favor or disfavor." Attitudes are made up of perceptions which are "the associations that people establish between the attitude object and various attributes."

2.4.1 Attitudes and perceptions of communities in Community Based Conservation.

The assessment of people's attitudes and perceptions towards conservation is an important aspect in Natural Resources conservation. The success of wildlife conservation depends on the attitudes and perceptions of the local population, similarly understanding the factors which influence these attitudes is also important to be able to enable conservation managers to implement approaches that attract the support of all stakeholders involved (Newmark et.al, 1993, Ebua *et al*., 2011). Guthiga (2008) noted that getting to know a communities attitude towards the conservation of forests and the reasons that influence their attitudes and perceptions was significant in coming up with management legislation that were symbolic of the communities desires.

Allendorf (2006) noted in the study of residents attitudes and perceptions towards protected areas in South Western Nepal that positive attitudes were due to conservation benefits that the local communities were able to access from the protected area. Negative attitudes on the other hand owed to negative interaction with the park guards and the general belief that most benefits were enjoyed by the government and park management. Elsewhere in Bakosi Area, South West Cameroon, a study indicated that denying people benefits and access to Natural Resources made then develop negative attitudes and engage in activites that were detrimental to conservation hence bringing about uncertainty on the future of wildlife especially the larger Mammals (Ebua *et al*, 2011). Ormsby and Kaplin (2005) associated negative

attitudes with low level of awareness regarding conservation issues and protected area management practises.

Many communities in wildlife areas do not receive benefits yet they bear the cost of living with wildlife and as a result they develop negative attitudes towards conservation (Kiss 1990). However despite the cost of living with wildlife, some communities have retained a positive attitude towards conservation (Newmark *et al*., De Boer and Baquete, 1998). Gadd (2005) noted that pastoralists in Laikipia with non monetary benefits articulated positive attitudes towards elephant's conservation due to the beauty and cosmetic value while pastoralists who received monetary benefits was due to tourism based activities but also expressed the beauty and sensuous values of living with wildlife. Enjoyment from viewing wildlife, hunting opportunities and the importance of wildlife including the attractions to tourists are the reasons cited for positive attitudes towards protected areas in Ethiopia nonetheless, a few community members had negative attitudes owing to the fact that the sanctuary led them to lose prime grazing land and that the sanctuary staff were harsh (Mekab *et al*, 2003).

Negative attitudes towards wildlife conservation in Kenya have also been documented vastly. Sitati (2003) argues that negative attitudes of community towards elephant conservation in Transmara were due to denying people benefits from the resource hence they engage in activities that are unfavorable to conservation. Kaelo (2008) noted that local communities develop negative attitudes towards elephants especially due to human elephant conflicts and if no benefits were derived from the wildlife resource on the other hand local community members who received substantial benefits from tourism had positive attitudes towards elephant conservation and were willing to coexist with them.

Mwamfupe (1998) established that when local people do not benefit from conservation, they lack the commitment to conservation objectives, therefore understanding factors influencing attitudes and perceptions are crucial to allow wildlife authorities to adopt approaches that are popular with all stakeholders (Syallow, 2013) and also enable the establishment of proper management strategies

that would be able to enhance a communities positive attitudes and lessen their negative.

2.5 Benefits and Challenges of Conservancy establishment

Community participation in wildlife management leads to a plethora of benefits both to the communities and to the wildlife species being managed, thereby translating into great socioeconomic benefits to the country. With proper incentives given to communities living with wildlife, community participation in wildlife management can be greatly enhanced (Wamukoya, 2013). Ming dong (2002) also noted that the benefits on any CBNRM should not by pass the local communities that live close to the natural resource, if they community does not benefit then they will not participate.

Various scholars have looked at the benefits of CBNRM. Mbaiwa (2004) in his study of the success and sustainability of CBNRM in the Okavango delta in Botswana noted that the local community benefited from financial benefits and employment creation and other intangible benefits. He further noted that CBNRM also increased the value of cultural resources especially the production of traditional crafts such as baskets and wood carvings and traditional singing and dancing for the tourists. These findings are mirrored by Syallow (2013) who found that the establishment of the Enonkishu conservancy in the Mara led to improved livelihoods and strong social setups. Jones *et, al* 2004 also noted that vulnerable groups such as women usually get direct benefits. One of the benefits of community participation in wildlife management is that communities benefit economically from wildlife. Wildlife management has become increasingly preferred as a form of land use, thereby hedging out land use practices that are incompatible with wildlife conservation to other appropriate areas (NASCO, 2011). However, the economic and social benefits of wildlife management need to substantially outweigh the costs associated with conservation such as living with potentially destructive wildlife and be competitive with other forms of land use, thereby making it economically attractive to set aside land for wildlife management (NASCO, 2011).

The most direct benefit to conservancy members is employment in positions that have been created for purposes of managing the conservancy. Jobs are created for the local youth as conservancy mangers, community rangers and workers in tourist facilities (Wamukoya, 2013). Another benefit of community participation in wildlife management is diversification of sources of livelihoods revenue and other and benefits, from tourism investments accrue directly to the local communities. In areas where community conservancies have been established, communities are investing the proceeds from conservation and tourism in education, health and other key social amenities, thus improving their quality of life but that is not always the case (Wamukoya, 2013).

Long (2004), however indicates that CBNRM is not always an alternative source of livelihood, his study which was conducted in Namibia shows that CBNRM is rarely an alternative for agriculture or employment as the direct dividends to households are small and only benefit a small portion of the community, hence quite often the revenues collected are too modest to become a major livelihood source. A survey done among conservancies in Namibia (Arntzen *et al*, 2007) described that established conservancies achieve higher welfare levels than those in their infancy meaning that both material and non material benefits are important and improve the lives of the members.

2.6 Enabling environment

All natural resources in Kenya are vested in the state. The state therefore has the responsibility to provide an enabling environment that would ensure all resources are effectively managed. Sustainable natural resource management depends on an enabling environmental that provides a wider spectrum for different stakeholders to participate (Ludeki, 2008) The "Enabling Environment" for Community Based Conservation consist of a set of conditions that are necessary for its successful implementation. These conditions need to be monitored to assess the extent to which a favourable environment for successful Community Based Conservation implementation exists and the extent to which it is changing over time. They include but are not limited to: favourable policy and institutional framework, democratic

governance, strong and stable economy, safety and security amongst others (WWF, 2011).

2.6.1 The history of Wildlife legislation in Kenya

Wildlife legislation in Kenya stems from the colonial era with the arrival of the British in 1895. The colonialists arrived in the country and found wild animals wandering freely within the lands and the locals utilizing them as they needed in accordance with the African customary values and practises (Sifuna, 2009). The game ordinance of 1898 was the first legislation on wildlife in the country. It provided for game reserves and introduced hunting. It further led the creation to the game department in 1908 whose task was to manage the county's wildlife and enforce hunting regulations. It was also charged with protecting the settler farmer communities' crops and livestock from wildlife with a main approach of killing the problem animal .This was the beginning of wildlife damage control programmes due to the fact that most of the Europeans had settled in wildlife prone areas therefore greatly reducing wildlife habitat and increasing chances of human wildlife conflicts (Sifuna, 2009).

In 1945, there were policy changes which focused on the protection of wildlife through the through the protected areas approach, introducing the national park system of wildlife management and consequently led to the establishment of the Nairobi National Park in 1946, Tsavo National Park in 1948 and others which followed subsequently (UNEP, 1999). In 1975 the post independence government came up with the first wildlife policy that would guide future wildlife programmes and manage the dwindling wildlife resources. The policy was incorporated in the Sessional paper No 3 of 1975 and published by the government. The policy was a radical exodus from preservationist policies preceding it and recognized that wildlife needed space outside protected areas (Wamukoya, 2013).

The Wildlife Conservation and Management Act was enacted in 1976 to give effect to the policy embodied in the Sessional paper no 3 by establishing legal provisions for implementing the policies (GoK,1975). However, due to a plethora of challenges experienced in its implementation, it was once again amended in 1989 which then saw

the establishment of the Kenya Wildlife Service which manages wild life on behalf of the state. The Key objectives of the WCMA are the conservation and preservation of wildlife (Okidi *et al*, 2008).

2.6.2 The Constitution of Kenya 2010

The constitution is the supreme law of Kenya that gives guidelines on any activity including the management of wildlife resources. Previously enacted laws by the colonialists, many of which are still in force today achieved total state control over wildlife resources. However this independence constitution did not specifically provide for the management of wildlife resources, hence this led to uncertainty of community rights of control and access of the resources (Wamukoya, 2013).

In the Constitution of Kenya 2010, Kenyans now have a constitutional direction on environmental issues that directly affect wildlife management. The preamble to the constitution highlights the environment as part of the country's heritage further the achievement of sustainable development, a concept that drives all conservation efforts is included in article 10 as a national value and principal of governance (Odote *et al*, 2015). Article 69(1)(a) the constitution indicates that the state shall ensure "ensure sustainable exploitation, utilization, management and conservation of the environment and natural resources, and ensure the equitable sharing of accruing benefits."The constitution further embraces the new governance concept by providing for participatory and decentralization arrangements to better conserve Natural Resources including wildlife. Article 69(1)(d) emphasises this by indicating that the state shall "encourage public participation in the management, protection and conservation of the environment." Public participation is a key aspect of wildlife management because it allows communities to express their views of key governmental policies and laws which not only helps the public appreciate what the authorities are doing, but it is also useful in facilitating social acceptance of community projects thus promoting peace and development. It cannot therefore be over emphasised that public participation must be part of Natural Resource Management at all levels (Muigua, 2014).

It can, therefore, be concluded that the constitution gives support to community participation in the management of natural resources and is conducive to the principals of Community Based Natural Resource Management. Community conservancies can therefore be seen within the overall constitutional provisions of public participation, conservation of natural resources and equitable sharing of the benefits that derive from natural resources.

2.6.3 Wildlife (Management and Conservation) Act (CAP 376)

Kenya's wildlife policy is embodied in the Sessional Paper No.3 of 1975 titled "Statement of Future Wildlife Management Policy in Kenya." The policy was a radical departure from the previous approach to wildlife conservation which gave emphasis on protected areas. According to this policy, the fundamental goal of the Government with respect to wildlife was to "optimize the returns from the resource, taking into account all other forms of land use." The policy further recognized proper wildlife management as one aspect of land use planning and management designed to maximize returns from the land (WWF, 2012).

The Wildlife (Conservation and Management) Act of 1976 subsequently established the legal provisions for the implementation of the policy. The Act amalgamated the then game department of the Kenya National Parks to form a single agency, the Wildlife Conservation and Management department to manage wildlife and later through an amendment of the act in 1989, the Kenya Wildlife Service was formed to replace the Wildlife Conservation and Management Department (Ngure, 2013).

The main goal of the Wildlife (Conservation and Management) Act was the protection of wildlife resources in the country for maximum economic returns. All wildlife is vested in the state and is held in trust of the Kenyan people. While all wildlife is vested in the state, the act leaned more towards the management of wildlife in national parks and reserves. (WWF, 2012). In section 3 of the Act, the Kenya Wildlife service was mandated to manage wildlife in wildlife protected areas on behalf of the government, it also had the powers to prohibit any activities that would jeopardize wildlife conservation even outside protected areas, hence the act therefore did not provide for community participation in the management of natural resources; though

it is seen to have largely moved away from the preservationist approach to wildlife (Wamkuoya, 2013). This is further stipulated by the fact that the directors of the Kenya Wildlife Service as well as the chairman to the board were to be appointed by the president without parliamentary approval; this indicated the control that the Government had over wildlife management in Kenya.

Section 5b of the Act provided for the establishment of Wildlife Advisory Councils (WACs) in areas where national parks and national reserves were situated in an attempt to involve communities in wildlife management. The function of the WACs was to notify the board of trustees on problems and matters relating to wildlife conservation and management. This provision would have enhanced community participation but section 5b further noted that the members of the council would be appointed by the KWS board of trustees. This therefore did not give the local communities an opportunity to make decisions on who among them would be members of the council thus the act is seen to once again to limit participation.

In conclusion, the WMCA is an old piece of legislation which attained success at the first stages of its inception but later failed to attain the objectives for which it was set to achieve. It failed to provide for community participation in wildlife management, failed to reduce conflict between people and wildlife and most importantly failed to put in place a regulatory framework for wildlife utilization and mechanisms to ensure implementation of policy and law (Ngure, 2013). Its focus was more on a centralized approach rather than actually devolving wildlife management to the communities.

2.6.4 The Wildlife Conservation and Management Act, 2013

This is the law governing wildlife management in Kenya and it aims to create good relationships between the people and wildlife by ensuring that there are opportunities for people to benefit from the wildlife without threatening ecosystems and habitats. It defines roles, offenses and various penalties for violation (Kahumbu *et al*, 2015).

The Wildlife Conservation and Management Act, 2013 is an Act of Parliament to provide for the protection, conservation, sustainable use and management of wildlife in Kenya. This Act applies to all wildlife resources on public, community and private

land. The implementation of the Act is to be guided by general principles which include, *inter alia;* wildlife conservation and management to be devolved, wherever possible and appropriate to those owners and managers of land where wildlife occurs; and conservation and management of wildlife to entail effective public participation (GoK, 2013).

In the institutional framework, the Act provides for a Board of Trustees to manage KWS. Subsection (2) thereof outlines the membership to the Board of Trustees which includes seven members from national government bodies, one member from the tourism sector, one member from NGO's, one member from community managed wildlife areas and one member from privately managed wildlife areas (GoK, 2013).

The Act provides for communities, landowners, groups of landowners and existing representative organizations to establish a community wildlife association and register under the appropriate law or in the case of an individual owner, be registered as a recognized wildlife manager by the County Wildlife Conservation and Compensation Committee (CWCC), with the purpose of facilitating conflict resolution and cooperative management of wildlife within a specified geographic region or sub-region. The CWCC is a ten man committee consisting of a chair person who is appointed by the Cabinet Secretary, representative of the County government, County Agricultural officer, County land use planning officer, County livestock officer, County service officer who will be the secretary, four elected persons who are not public officers, County medical officer, County police officer and a County environmental officer. This is a positive move away from the previous act which did not even provide for community conservation areas. The act further provides that communities may establish Community Wildlife Associations (CWAs) which are intended to advance community participation in wildlife management (Wamukoya, 2013).

Regarding management of protected areas including wildlife conservancies and sanctuaries, the Act requires that in preparing and adopting a management plan, the Kenya Wildlife Service (KWS) is to consult with the county wildlife conservation

committee; in the case of protected areas, the formulation and implementation of management plans are involve the participation of neighbouring communities. The act further provides that no person shall undertake any wildlife user activity including wildlife based tourism, educational purposes and commercial photography and filming otherwise than under and in accordance to the terms and conditions of a license or permit issued by KWS. It requires persons wishing to undertake non-consumptive wildlife utilization to register with the CWCC and then obtain a permit from KWS (GoK, 2013).

The Act further provides that the Cabinet Secretary may, on recommendation of the Service, make rules and regulations for *inter alia:* granting of wildlife user rights; prescribing measures that enhance community participation in the conservation and management of wildlife; and prescribing the manner of nomination of representatives of communities and other stakeholders to the Board, Trustees and the regional wildlife conservation area committees.

Therefore in conclusion, the Wildlife Coordination and Management Act is seen to enhance public participation, which the act describes to mean active involvement by the citizenry in decision making processes through inter alia use of media, relevant consultative mechanisms and public hearings, through the creation of various institutions and committees (Muigua, 2014). However, according to Wamukoya 2013, the act does not seem to devolve wildlife management rights to the community but rather creates institutions and bureaucracies that extend state control and inhibits devolution of wildlife management to the local levels.

2.6.5 National Land Policy

This policy seeks to address the problems pertaining to land in Kenya such as the existence of many land laws some of which are incompatible. The policy was formulated to provide an overall framework to address critical issues of land administration, access to land, land use planning, environmental degradation and unplanned settlement (WWF, 2012). The policy's overall objective is to secure rights over land and provide for sustainable growth, investment and the reduction of property. This is to be achieved through a legal and policy framework that focuses

on establishing and maintaining a system of land administration and management that ensures that: All citizens have opportunity to access and beneficially use land; allocation and use of land is done in an economically viable, socially equitable and environmental sustainable manner; land markets operate efficiently, effectively and economically; land and land based resources are used efficiently and effectively and mechanisms for resolving land disputes are efficient and transparent (GoK, 2009).

Land tenure systems operative in Kenya are characterised as public land tenure, private land tenure or community/ customary land tenure and community conservancies are to a great extent influenced by these tenure systems. The policy further gives recognition to protection of customary rights to land, protects private land rights. Community land is defined as land fully held, managed and used by a given community (WWF, 2012).

Over the years there has been a rise in private tenure regimes with the reasoning that individuals with private rights to land would enhance proper and sustainable management, however despite this the local communities in Kenya continue to manage land in accordance with other customary practices side by side with owning land privately (Odote, 2010). This is especially so for communities in the Mara ecosystem whose land regime is characterized by group ranches which are increasingly being subdivided into individual holdings majorly due to internal governance problems of the group ranches such as group ranch committees allocating land and other key resources for themselves without accounting to the group ranch members (Nelson, 2012).

The provisions of the policy are therefore seen to lay emphasis on key tenets on Community Based Natural Resource Management such as providing all Kenyans with the opportunity to access and beneficiary occupy and use land, economic viability, social equity and sustainable allocation of land. The policy further emphasis the need for secure tenure to rights over land based resources for the economic and social empowerment of all (WWF, 2012).

In conclusion, it is widely recognized that where opportunity for public participation in wildlife management are increased, the communities are likely to be more willing to conserve wildlife as a land use option (Wamukoya, 2013). The provisions in the Constitution of Kenya and the Wildlife Management and Coordination act recognize and provide for the need of public participation in the management of natural resources and at the same time communities benefiting from the same resource, hence mirroring the tenets of Community Based Natural Resources Management. It would therefore only be fair then that the communities are given legal empowerment to manage and make decisions over wildlife on their land.

2.6.6 Kenya's Forest Policy

Sessional paper No. 9 of 2005 on forest policy seeks to increase the forest and tree cover in the country in order to ensure an increased supply of forest products and services for meeting the needs of the present and future generations. The policy further appreciates the linkages between rural communities with forest resources in addressing for provisions of various goods and services. It therefore seeks to increase opportunities for women and youth in forest training and education as well as to facilitate their greater involvement in forest management (WWF, 2012).

Forest Act (2005)

This act provides for public consultation and broader community participation in the formulation of forest management plans. It further recognizes the potential contribution of sustainable forests to fundamental environmental services and poverty reduction.

In section 13 of the Act, provisions are made for the formation of Forest conservancies and Forest conservancy committee. Section 13(1) and 13(2) provides for the establishment of forest conservancy areas and Forest conservation committees and section 3(3) provides the functions of these committees including informing the forest board and taking into account the ideas, desires and opinions of the local people within the forest conservancy area.

Section 46 of the Act is explicit about the establishment of Community Forest Associations (CFA) and allows a member of the forest community together with other persons resident in the same area; register a community forest association under the societies Act. Furthermore, Section 46(2) provides than an association duly registered under 46(1) may apply for permission to participate in conservation and management of the forest under the jurisdiction of the state or local authority. The functions of the CFA are broad and involve the protection, management and conservation of the forest conservancy including helping the service in curbing illegal activities. User rights for the communities to utilize the forests should be embedded in the management agreement signed between the Kenya Forest Service and the CFA.

This Act evidently, provides for institutional and regulatory frameworks necessary for forest management, however challenges in this approach is the overlapping mandates between the Kenya Forest Service and Kenya Wildlife Service as they work in the same area but have different policy approaches. Furthermore this legislation does not provide for benefit sharing mechanisms between the CFAs and KFS where they jointly have co-managed responsibilities (GoK, 2005).

2.7 Research Gaps

A number of research gaps were identified from review of literature which the study delved into. Studies on community conservation initiatives mainly looked at the general efforts being directed towards conservation of the natural resources; however specific issues that warrant such initiative had not been comprehensively investigated. Moreover, studies on the benefits and challenges were mainly focused on Community Based Natural Resource Management as a whole and not upcoming community conservancies and the challenges that the conservancy members face, which have not been addressed. Regarding attitudes and perceptions a lot had been covered in protected areas and the associated efforts, tourism activities and conservation of specific animal species. However analysis of attitudes and perception towards community conservation initiatives and their management systems had not been investigated especially in TransMara.

2.8 Theoretical Framework

The Capability Theory provided by Amartya Sen (1980) is used as a framework to guide this study. The theory gives an emphasis on the degree in which freedom and independence are important in promoting human capabilities, capability herein defined as the 'ability to do or be'. The theory further elucidates that the mere possession of a commodity does not provide the praxis of contentment but rather what the person actually succeeds in doing with the commodity given its characteristics, his/her own characteristics and prevailing external circumstances (Saith, 2001). It is, therefore ,seen an approach to human development focusing on social arrangements, policies, institutions and programs that remove restrictions on human freedoms and seek to expand human capabilities (Ogbaharya, 2006).

Community Based Natural Resource Management (CBNRM) therefore can be treated as a capability approach because it aims to expand the capacities of local communities to be able to; improve and manage their Natural Resources through community driven resource management, reduce poverty and diversify economic opportunities for their members through the diversification of enterprises and improve local capacity for self governance. It focuses on communities being empowered to manage natural resources while benefiting from their sustainable management. It shifts focus from the failure of the protectionist approach to management through inclusive and participatory endeavours. The principal behind CBNRM is that the local communities will take part in preservation of the natural resources and utilize them sustainably as long as they benefit in the end (Syallow, 2013). The main benefits accruing from this approach can be categorized as direct and indirect; direct to include investments in rural development through community based projects, financial dividends from business co-partnership's and employment opportunities. Indirect benefits include maintainace of the natural resource stocks and capacity building.

However, policy and legal environment is the most significant determinant for the success of Community Based Natural Resource Management (Sifuna, 2010 & Rihoy and Maguranyanga, 2007). The government plays a major role by establishing legal, policy and social frameworks and conditions needed for local management to

succeed; it ensures that the community are backed by appropriate legal framework on rights, benefits and monetary incentives to be able to foster sustainable resource utilization. The conceptual linkages are illustrated in Figure below.

2.9 Conceptual framework of the study

The conceptual framework of the study is as illustrated in Figure 2.1 which shows relationships among different aspects that contribute to sustainable management of Wildlife Resources.

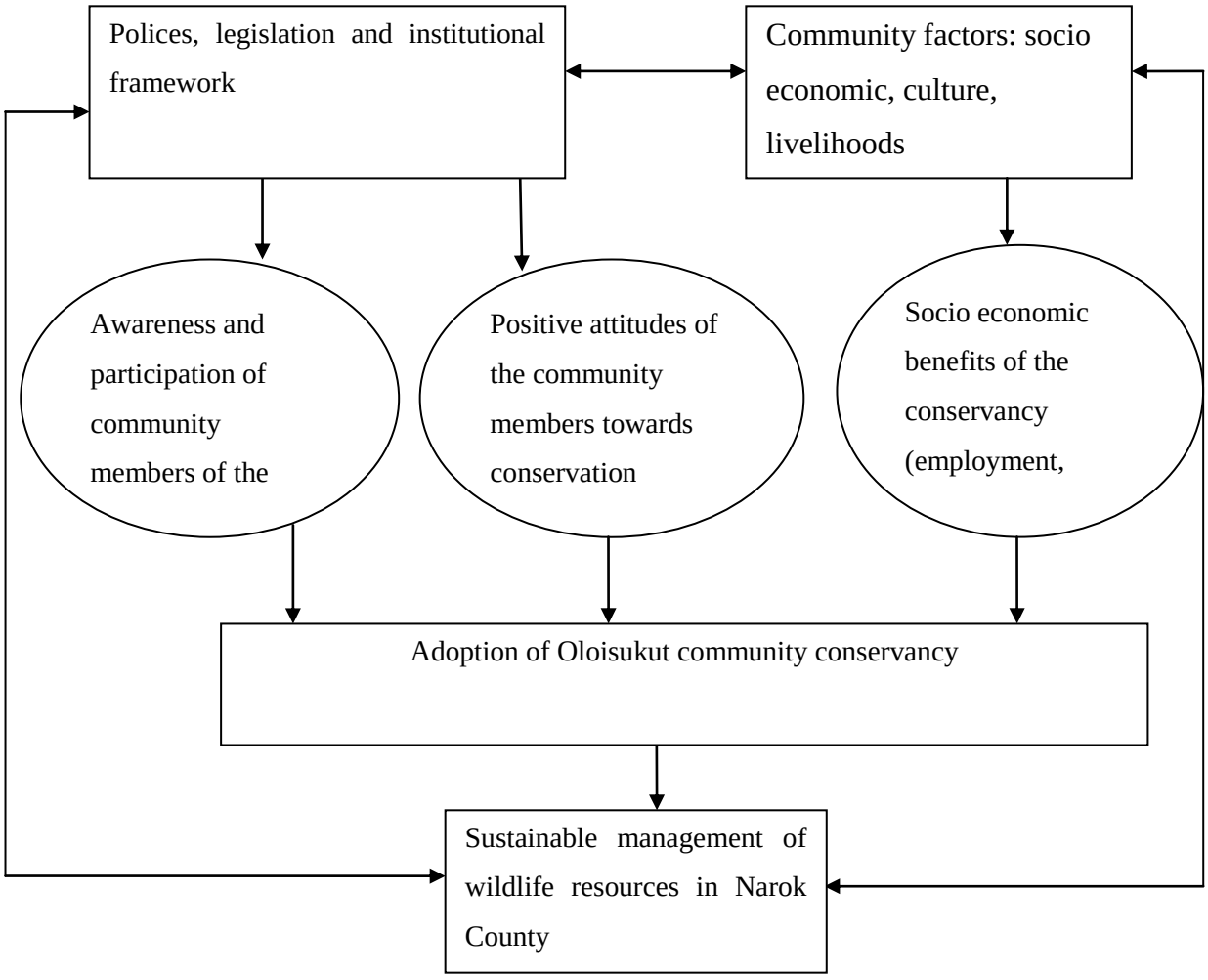

Figure 2.2: Relationships of factors contributing to Oloisukut conservancy's role in the management of Wildlife Resources in Narok County.

Source: Adapted from Odendo *et al,* 2011

Natural resources face a lot of threats such as unsustainable use, poaching, deforestation and encroachment, all resulting to disastrous effects on the environment. Most damage to the environment is due to negative perceptions and attitudes by locals. However if proper management strategies and implementation of polices and legislation are realized, there will be sustainable resource use, participation by community members and benefits derived by the communities. The benefits in this case can be both direct and indirect; direct including rural infrastructure, cash dividends and employment opportunities while indirect to include growth in the natural resource base therefore leading to adoption of community conservancies and consequently changing attitudes leading to overall sustainable use. However the policy and legal framework and community factors are the underlying determinants to its success.

CHAPTER THREE: STUDY DESIGN AND METHODOLOGY

3.1 Introduction

This chapter gives details of the study area specifying its location, land use patterns, geology and soils of the area, wildlife resources, livelihood systems and conservancy framework.

3.2 Study Site

Transmara covers 2901 km² and lies on the South Western part of Kenya, bordering Tanzania. It is on the western part of the Maasai Mara National Reserve and on the north-western edge of Serengeti-Mara ecosystem. Approximately 2200 Km^2 consists of unprotected areas inhibited by various communities separated by a steep escarpment from the protected Maasai Mara National Reserve (Sitati, 2008).

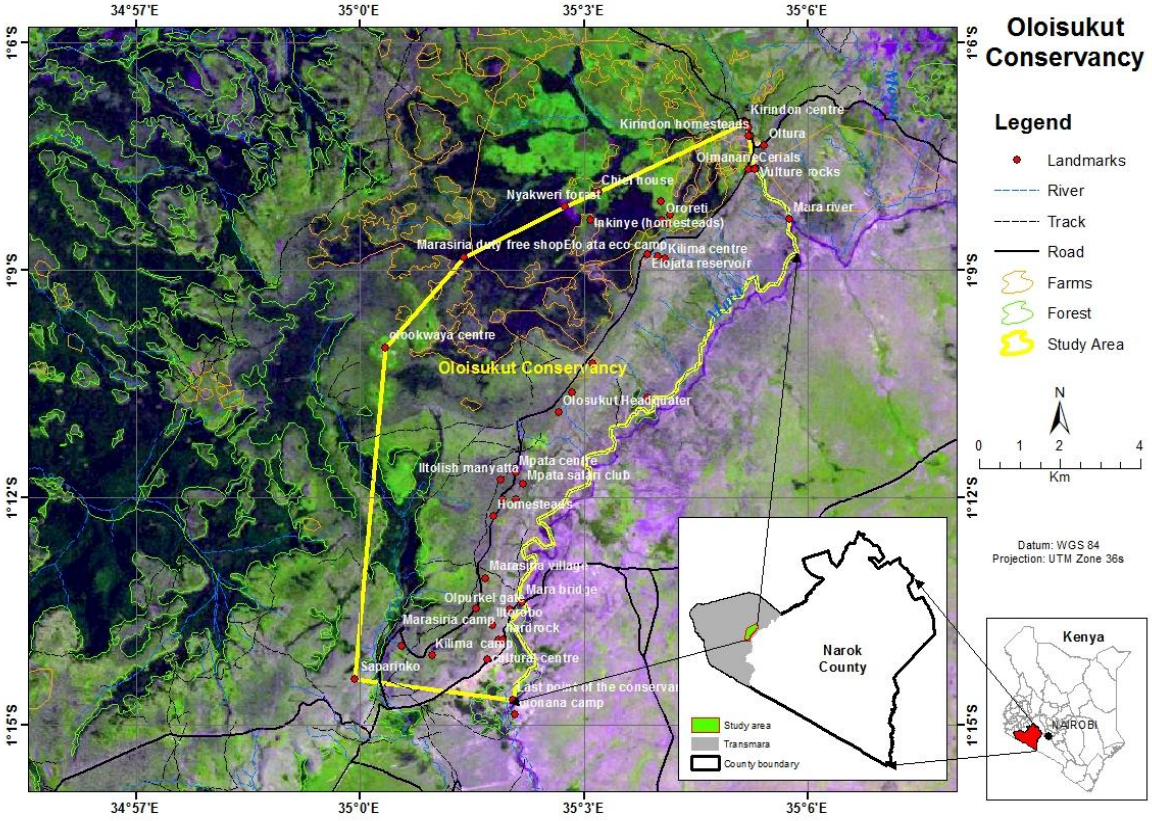

Figure 3.1: Map showing the location of Oloisukut Conservancy in Transmara Sub-County

Source: Author, 2013

3.2.1 Location

The study focused on Oloisukut conservancy, a community conservation initiative which is located in the Oloolollo sub location, Kimintet location, Kirindon Division, Transmara, forming part of the greater Mara – Serengeti ecosystem with an eastern boundary of the Mara River and a Western boundary of the Muyan River, which is a tributary of the Mara River. It was initially part of the Kimintet Group Ranch (Mpario, 2011).

3.2.2 Topography

TransMara Subcounty has the highlands lying between 2200 and 2500m above sea level. The sub county also has the plateau rising between 1500 and 2200m above sea level as its two major topographical categories. The soils in most parts of the district are deposits of alluvial soils eroded from the steep hills and consecrated on the valley bottoms, with the eastern part having a characteristic of sandy and clay soils. The area has permanent and seasonal rivers with the two most prominent being the Mara and the Morgor rivers which form important habitats for both the wildlife and indigenous communities (Sitati *et al*, 2012).

3.2.3 Climate and Vegetation

Annual temperature ranges from 14.8ºC to 20.3ºC with the highest temperature occurring during the months of January to March and the lowest during the months of June to August (10.5ºC to 15.5ºC). The sub county receives bimodal type of rainfall pattern which in normal years is well distributed throughout the year with peaks in April during the long rains and December during short rains. The area receives an average of 1500mm of rainfall annually with the highest being 2300mm and the lowest being 700mm (Sitati, 2008). Hailstones are occasionally reported in the west and in the highlands in the north of the sub county. The total rainfall amounts received has been on decline over the recent years and it is attributed to indiscriminate felling of natural vegetation for crop growing and wood fuel for building materials (Sitati, 2008).

Generally, the forests are closed and consist of several trees and a shrub layer, whereas the woodland and savannah woodlands are more open and less structured. The forests fall under three categories: communal or group ranch; County Council; and, individual (Sitati *et al*, 2012). The unprotected indigenous forest in the district covers 28% of the land area.

3.2.4 Land tenure Patterns

Land ownership has gradually changed from trust land to group ranches and finally it has reverted to individual holdings .This community conservancy sits on a 33,000 acre piece of land comprising of 51 individually and registered parcels of land and has a membership of 109 heads of households hence a total of approximately 800 members (Sitati 1997& Thompson, 2002).

The study area brings about a new conservation concept on land use. Before the conservancy was established, the entire land was being used as a grazing area on a free range basis but this has since undergone change. The land is now divided into three major zones in which conservation, preservation and utilization practices are being carried out.

3.2.5 Flora and Fauna

The study area supports a high density and diversity of resident and migratory wildlife dispersing from the Maasai Mara National Reserve. There are over 500 different bird species, the big five with the exception of the Rhino and boasts of having the highest concentration of leopards second to the leopards gorge in the Mara area. Some of the resident animals found within the conservancy include the Maasai Giraffe, Antelopes, Burshchell zebra, Klipspringer, Oribi, Jackson's hartebeest, waterbuck and the bushbuck (Ariya, 2007).

3.2.6 Economic activities

In Trans Mara, the main economic activites are livestock rearing and agriculture, however other prevailing activities include beef livestock rearing, apiculture, growing of cash crops such as maize and quarrying. The Maasai Mara National Reserve is an

important income generating resource from which the TransMara county council obtains a lot of revenue (Ariya, 2007).

Due to the abundance and diversity of the wildlife species, Oloisukut provides a serene area for nature based tourism which forms the immediate revenue generator for the conservancy. It hosts three tourist facilities fully owned by the conservancy namely Elojata Camp,Mara Timbo and ballon camp. Some of the activities that the conservancy offers are cultural safaris, walking safaris, day and night game drives, camping, game walks, forest trekking safaris, bird watching and balloon safaris (Mpairo, 2011).

3.2.7 Conservancy framework

The Conservancy was formed in 2006 but started operations in 2010 upon registration as self-help conservation initiative by the Department of Social Services and later registered by the Registrar of Societies. The main goal of the conservancy is to improve the livelihoods of the members through conservation based enterprise while safeguarding the integrity of the larger Mara Serengeti Ecosystem for current and future generations. The conservancy operations are in line with the four main pillars of conservation namely environmental integrity, wildlife conservation, people's rights and income generation and profits. Oloisukut is an important rangeland for wildlife dispersal and more so the African elephant. It's the only community conservancy in the Transmara landscape and contains diverse wildlife habitats like forests, grasslands, woodlands and riparian lands (WWF, 2016).

In terms of ownership Oloisukut conservancy is made up of 51 Maasai owned parcels of land covering an area of 33,000 acres. These land owners in turn provide for the 800 members living within the conservancy. For one to be a member, the land owner must have contributed part of their parcels of land to conservation by committing their respective title deeds whereas an investor with a business premise within the conservancy is also considered a member. Land owners who have not made any commitment are referred to as non members; this category also encompasses non Maasai who live within and without the conservancy.

The conservancy has a lean administrative and management structure to spearhead the achievement of its objectives headed by the Board of Directors and a Chief Executive Director responsible for the daily operations. The conservancy is still undergoing planning and zoning into core conservation area, buffer and settlement zones all of which are still in progress.

3.3 Data needs, types and sources

Descriptive research was found appropriate for the study since the research focused on gathering opinions on the effectiveness of the community conservancy in environmental conservation and community livelihoods. The study followed a multi data approach; this involved using various methods of data collection to provide different sets of information which were mutually enriching. It involved literature search, household questionnaire survey, interview schedule and a pre-test to refine the instrument before it is administered.

Secondary data

The secondary data was obtained from journals, published and unpublished books and project report, magazines, workshop and conference proceeding. Other relevant materials in the library as well as Internet also formed part of the secondary data. Previous research done in the Mara on the effectiveness of community conservancies also formed a major part of the secondary data. Unpublished reports and minutes from Oloisukut conservancy were also used. Oloisukut conservancy was delineated from the general area by use of its boundary coordinated which was taken by the researcher.

Primary data

Primary data collection was done through a household questionnaire survey and interviews with key informants. The study used two sets of the same questionnaires, equal in number for conservancy members and adjacent non members so as to carry out an elaborate comparative analysis.

Questionnaire survey

Pre coded questionnaires were used to gather information from the Oloisukut conservancy members. The questionnaire included both open and closed - ended questions and three point likert scale questions. Previous studies have shown that questionnaire surveys can be used in determining local community attitudes and perceptions towards conservation (Ariya, 2007).

Each interview began with the collection of demographic information (including age, sex, livelihood strategy, education level). The questionnaire was further divided into four sub sections each addressing a specific theme to provide insights on a) attitudes and perceptions of the sample population towards the conservancy and its management b) benefits accrued by the community and challenges faced by the conservancy c) level of awareness on the Wildlife policies as they relate to Community Based Natural Resource Management.

Pilot testing of the questionnaire was done on a sample of 15 respondents to gauge their understanding; this led to some of the questions being rewritten before final administration of the questionnaires. Four field assistants assisted administering the questionnaire after they were trained prior on the content of the questionnaire. The respondents were left to provide answers but for those who were illiterate or semi illiterate, the field assistants/researcher aided in filling the questionnaire. The respondents were encouraged to elaborate on points of interest and relevance and some sections in the questionnaire also relied on indigenous knowledge of the local community.

Key informant interviews

Key informant interviews were conducted using interview schedule that had open ended questions. Three categories of key informants were selected namely Officials of the conservancy (i.e Executive Chair and the Conservancy Manager) Kenya Wildlife Service personnel (i.e, Community Warden) and managers of the three lodges within the conservancy. The main information that they key informants provided was the

contribution of the conservancy towards wildlife conservation and improved livelihoods and the benefits and challenges faced.

The use of an open interview schedule enabled better exposure for the interviewees' personal perspective, in depth thoughts, emotions and desires. This enabled the interview to be more of a chat than official proceedings with programmed responses. The interview schedule was administered on a face to face basis.

Focus Group Discussions

Focus Groups Discussions (FGD) is a form of "qualitative research in which a group of people are asked about opinions, beliefs, attitude and perceptions towards an idea" (Ariya, 2008). FGD was used as it was a good way of gathering respondents of similar settings to discuss issues related to the conservancy. The FGD targeted women, youth and men within the conservancy. Three different discussions were held, one session comprising purely of women from the Iltolish women group, rangers and game scouts serving the conservancy while the other comprised of the youth and men from the Olonana manyatta. Each had a total of 7 participants. FGD generated more information on the attitudes and perceptions of the community towards the conservancy and its management, contribution to community livelihood and the challenges and benefits faced.

3.3.1 Sampling procedures and data collection

The Maasai pastoralists are the dominant community occupying the study area. They live in dome-shaped mud houses situated within a circular enclosure (*enkang*). Within one *enkang* several families (*Olmarei*, pl. *Ilmareita*) live together each having a separate gate for the livestock. *Olmarei* was chosen as the sampling unit because families within one *enkang* were economically independent of each other (Kaelo, 2008).

The household head (the husband) was the main reference point in this study, which is the husband. The culture of the Maasai does not allow females to freely address issues concerning the Maasai livelihood (Sitati, 1997; 2003) and in case of two males in the

family, the eldest male member who is above the age of 18 years was considered as the household head therefore, from each household, one person was identified and interviewed. For each household visited, the main objective of the research study was clearly stated and the interviews were conducted on site. A household (*Olmarei)* among the Maasai, is a collection of individuals who live together within the same homestead often managing their livestock together (Kaelo, 2008).

Due to lack of an accurate or recent map showing human occupation dictates the need to find other means of household selection. Therefore a list containing all heads of households in the conservancy was obtained from the local area chief with the help of the help of community representatives and field assistants. The list was then entered in Ms Excel spread sheet and a random list representing an adequate sampling size generated.

Sampling size was derived using the Morris (n.d.) method of sampling for small populations that are less than 10,000.

$$n = \frac{Z^2 pq}{E^2} \quad (1)$$

Where *n* is the required sample size

p and q are the population proportions each set at 0.5

Z is the level of confidence set at 95% or 1.96

E is the accuracy of the sample proportion which was set at 0.07

$$\text{Therefore sample size, n} = \frac{(1.96)^2 (0.5) (0.5)}{(0.07)^2}$$

$$= 196$$

The sample size was 196 households; however four households were added to make the sample size a complete set of 200.

3.4 Data Analysis

The research was both quantitative and qualitative in nature. Once the data was compiled it was examined for completeness ready for analysis. The data was then first coded and themes according to the study were generated.

Analysis was done with aid of the Statistical Package for the Social Sciences (SPSS) package Version 20 which generated percentages, frequencies which were then laid out in form of Tables and Figures. Qualitative data from open questions in the interview guides was categorised and analysed using a logical matrix which compared responses to the same questions by different respondents then conclusions were drawn.

CHAPTER FOUR: RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the findings of the study as set out in the research methodology. The data was gathered through questionnaires as the primary research tool. Focus group discussions and key informant interviews were also used to get more qualitative data. The findings are appropriately discussed as they are presented.

4.2 Demographic Characteristics

The demographic characteristics of the sampled households analyzed in this section are age, gender, marital status, level of education and household size

4.2.1 Age and gender of the respondents

It was determined from the study that majority of the respondents (32.5%) were in the 40-50 year age bracket followed by respondents aged 51 years and above 30.5%, and those aged between 29-39 years 23.0% respectively. This shows that the population of the conservancy is made up of middle aged individuals between the ages of 40 – 50 years, most being male 67% while only 33% were female (Figure 4.1 and 4.2). In the Maasai culture however, women are seldom given the opportunity to speak in public more so in the presence of men. This fact is further reinforced by personal observations by the researcher during the administration of the household questionnaire, whereby the women were seen to go about their domestic chores as the men responded to the survey questions. The few women who were interviewed were due to the fact that they were either widowed, residents of the cultural villages or the head of the household was unavailable.

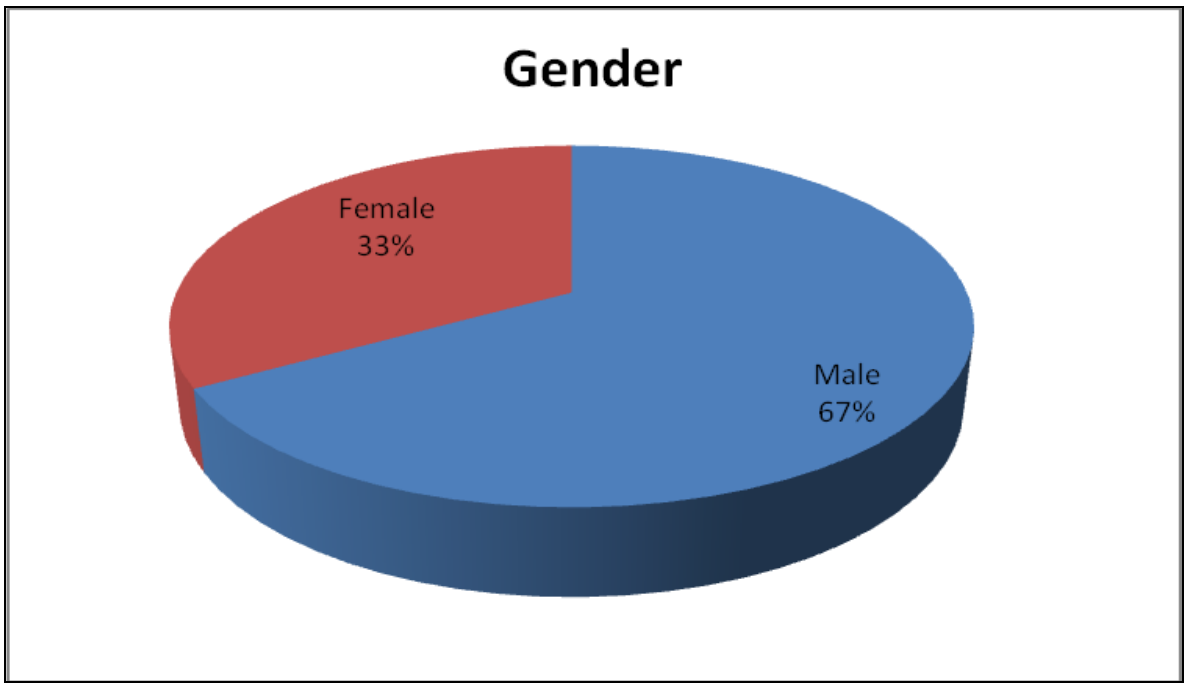

Figure 4.1: Gender of the respondents

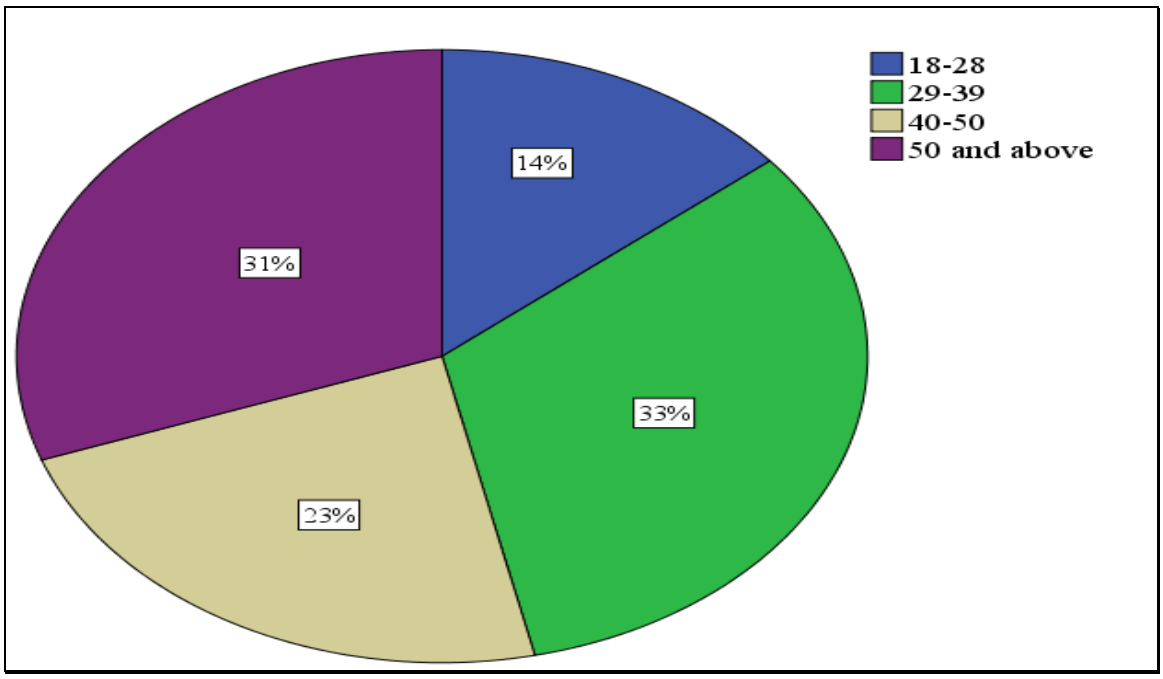

Figure 4.2: Age of the respondents

4.2.2 Education level of the respondents

From the overall sample of 200 households, 37% of the respondents had attended school to up to the primary level; 3% managed to get to the secondary level of education; majority of the respondents 48% did not attend school at all thus had no formal education while only 12% of the sampled households had studied up to the tertiary level. This clearly implies that a greater percentage of the population within the conservancy are illiterate having no formal education.

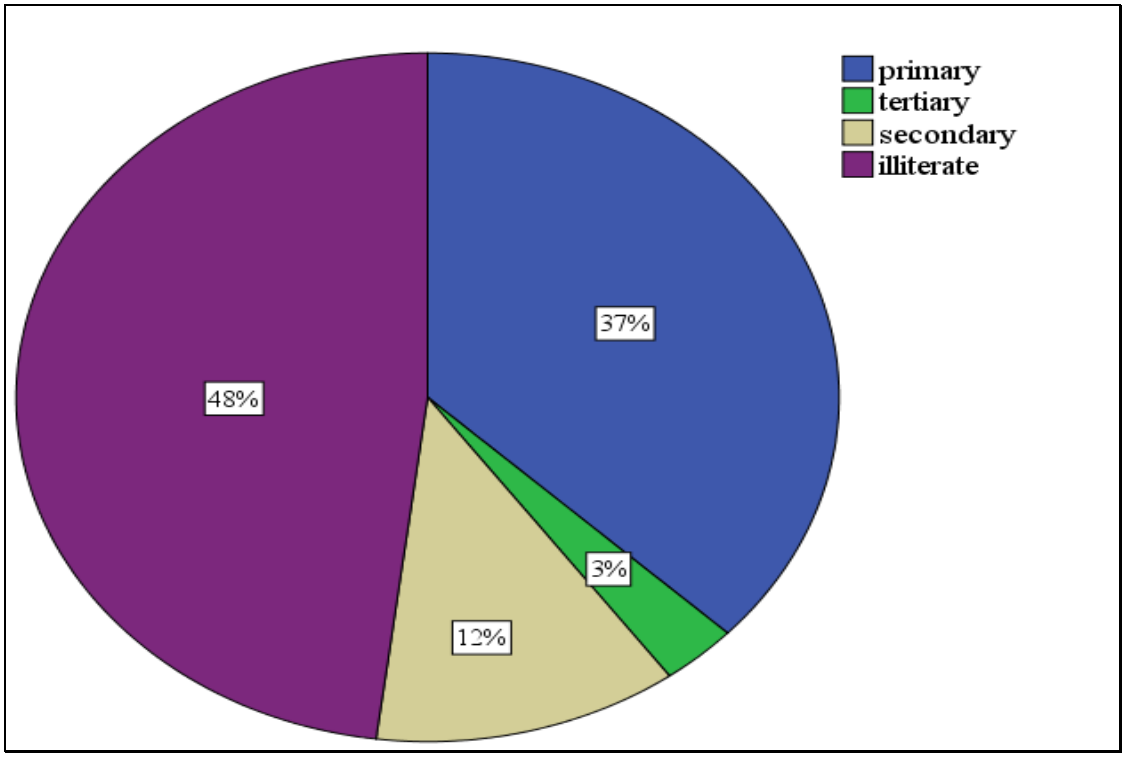

Figure 4.3: Level of education of the respondents

4.2.3 Socio Economic Status

a) Occupation and household income

The study established that from the sampled households, 20.5% of the respondents are employed, 36.5% are self-employed, and 43.0% are not employed. Of those employed, majority has jobs connected to the MMNR and the conservancy, employed either by the tourist tented camps, lodges and eco lodges as tour guides, hotels stewards, security men and rangers. Those who were self employed were asked to state the nature of business they were engaged in; results indicated 30 were engaged

in farming, 24 said they were engaged in sale of livestock and 19 said they were into other small business such as sale of handcrafts as shown on Table 4.1.

Table 4.1: Occupation and monthly income

Characteristic	Description	Frequency	Percentage response
Occupation/ **N=200**	Employed	41	20.5
	Self Employed	73	36.5
	Not Employed	86	43
Nature of business if self employed **N=73**	Farming	30	46
	Livestock keeping	24	27
	Business person/trader	19	27
Level of monthly income of respondents **N=114**	Less than Ksh 10,000	32	31
	Between Ksh11000-30000	68	55
	Above Ksh 31000	14	14

4.2.4 Residency and Land Tenure

Figure 4.4 shows the duration of time that the respondents have lived in the study area. From the findings we can deduce that 82.5% who are the majority have lived in the area for more than 10 years. Regarding tenure status, Oloisukut conservancy was formerly part of the larger Kimintet Group Ranch the conservancy comprises of 51 individually owned

and registered parcels of land. 87% said they own the land acquired through inheritance and 9% had leased and 6% said that they had purchased the land. This shows that indigenous Maasai are the traditional owners of the lands others having leased or sold the land. Land in the conservancy is privately owned with title deeds.

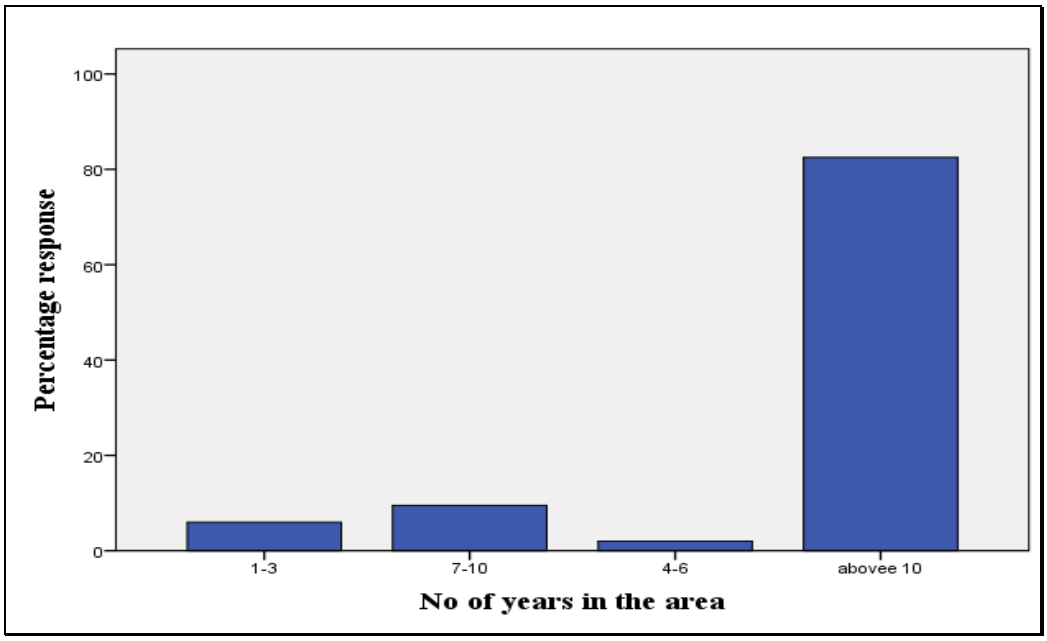

Figure 4.4: Respondents' residency

4.2.5 Land Use and size of land

The respondents were also asked what the size of their land in acres was. From the Figure 4.5, majority (55%) of the conservancy members said their land was less than 99 acres, 18.0% do not know what size their land was all of whom were women. 16% said their land was between 100-199 acres, 7.0% said their land was 300 acres and above and 5% said their land was between 200-299 acres.

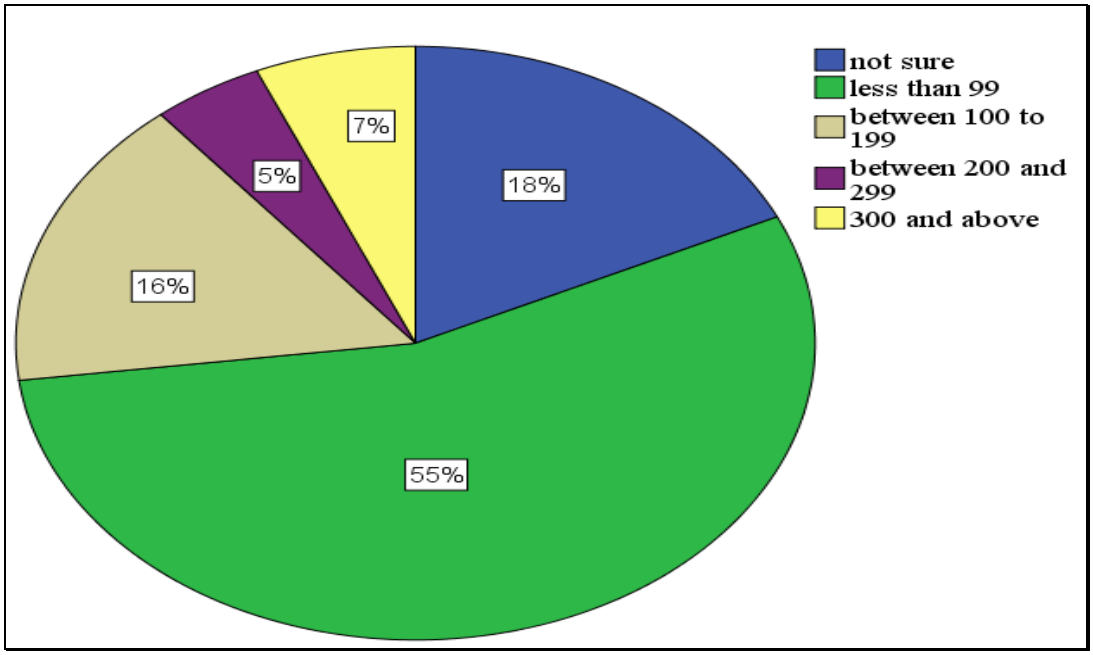

Figure 4.5: Size of land owned by respondents

The socio economic characteristics of the conservancy members is very crucial as this will help project the amount of land that the conservancy will have for conservation purposes. This data will also be helpful during the development of the management plan of the conservancy which is currently lacking. According to Bond *et al*, 2006 a socio economic and ecological inventory is of great importance as it will give an opportunity for all relevant stakeholders to steer clear of impractical prospects by addressing the disputes and the possibilities that the conservancy might face so as to make certain that the community based organization has the necessary organizational structures in place. He further states that it is a good indication of the conservancy's potential from a socio economic prospective and from there it will be clear what efforts should be focused on and also ensure adequate benefit sharing that are not 'hijacked' by a few. A study done by Lekalkuli (2011) on the factors influencing the emergence of community conservancies further found that socio economic characteristics of the conservancy members influenced the emergence of community wildlife conservancies.

a) Farming and livestock keeping

Farming is regarded by many locals as a quick way of generating income; it is therefore virtually a universal livelihood in the study area. From the results of the study 46% of the respondents engaged in farming activities with majority (47%) farming for both subsistence and commercial purposes, followed closely by those who farmed purely for home consumption 46%. Only 6% farmed solely for commercial purposes. In terms of economic view the two most important cash crops in the study area are maize and beans; however they can also be seen as staples together with vegetables which are only sold on condition of surplus but sometimes may be sold out of necessity of income. The respondents who said they did not grow crops were asked to state why they did not. The findings indicate that most (57%) of the Conservancy members who do not grow crops attribute it to wildlife problems, 25% said it's because they want to conserve wildlife, 14% said it's because they lack the knowhow of growing crops, 3% attributed it soil fertility problems and only 1% attributed it to insufficient rains. This shows that HWC and specifically crop depredation is a major challenge in the area but the respondents also understand and value the wildlife on

their land by not farming at all to reduce conflict and increasing the range and habitat for wildlife especially elephants.

However, the Maasai are gradually embracing farming as an alternative means of livelihood and as a quick way of generating income; this, detrimental to the forest cover which has drastically reduced over the last 20 years. Sitati (2003) found that Human Elephant Conflicts in TransMara began in the 1920s with the coming and settling of non Maasai immigrants to the region who then pioneered cultivation of the fertile soils. This coupled with the high rainfall in the region brought about increased food security and increased cases of crop raiding which then became a recurrent problem since 1990s to date (Ariya, 2007).

Regarding livestock keeping, all the sampled households kept one or more species of livestock, commonly kept species were cattle, goats and sheep while rarer species included chicken and donkeys mostly used for labour. Varied means alternative to farming and livestock keeping, of earning an income also exist. Income generating activities defined as activities engaged independently are also pursued chief among them being bee keeping and charcoal burning.

Plate 4.1: Deforestation within the conservancy

Source Author, 2013

Plate 4.2: Charcoal burning practised as an income generating activity

Source: Author, 2013

4.2.6 Human Wildlife Conflicts

The study sought to determine whether the members of the conservancy had suffered from human wildlife conflicts. In light of this, majority (73.5%) of the conservancy members agreed that they had suffered from wildlife predation and 26.5% said they had not as shown in Figure 4.6. According to existing literature, as discussed in the previous chapter's wildlife associated costs can potentially impact the positive attitudes of the local people towards conservation. The most problematic predator identified was the hyena followed by cheater and baboons who mostly feed on sheep and goats. There were some cases of lions killing cattle but the responses to this query were minimal. These findings were similar to Sitati (2003) and Syallow (2013) who documented comprehensive Human Wildlife Conflicts in the Mara ecosystem. Regarding the type of human wildlife conflict, livestock predation seemed to be the most common problem followed by crop depredation. Wild attacks on human beings and poaching were least experienced in Oloisukut Conservancy.

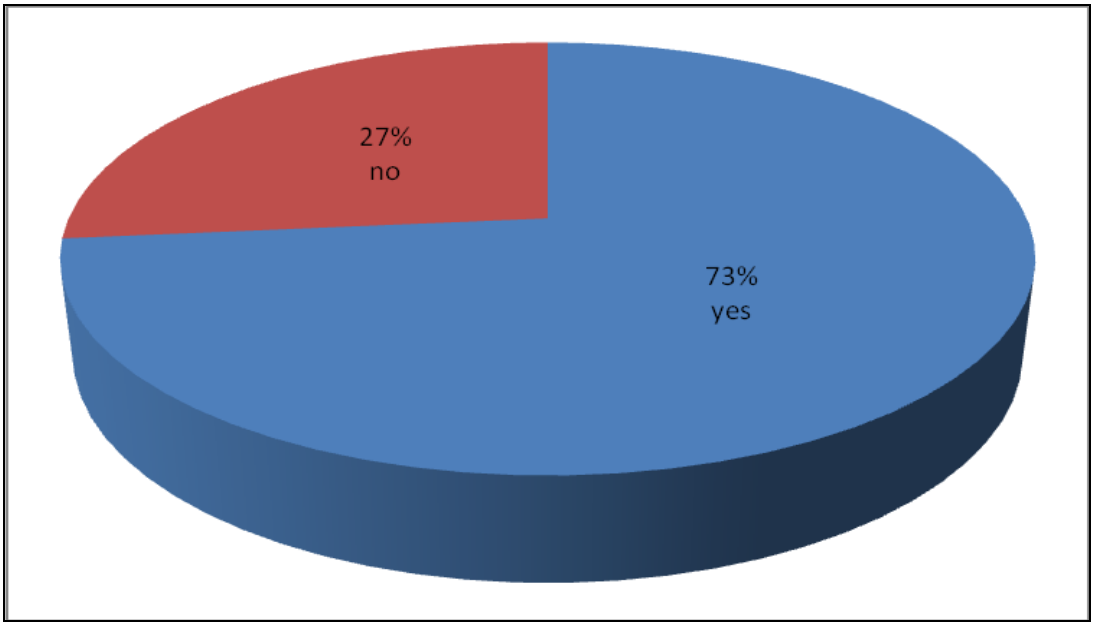

Figure 4.6: Wildlife predation

The respondents who revealed that they had suffered from wildlife predation were asked to describe the action they took, consequently, majority (69%) conservancy members said they scared the predators away, 3% said they killed the predators and 2% said KWS captured the predator. This implies that the respondents when faced by the challenge of predation, majority resorted to scaring the predators away and only a small percentage resorted to killing the animal.

Asked whether they had suffered crop damage from wildlife, most (90%) of the conservancy members said they had while 10% said they had not. This findings mirror Sitati (2003) who indicated that over the years, the major challenges of HWC facing the mara ecosystem were habitat loss and land fragmentation due to increased cultivation as farming is viewed by many local people as a quick way of generating income. Elephants and to a lesser degree Zebras, Antelopes, Gazelles, Baboons and Hippopotamus garner among the local farming population significant and negative attention due to crop raiding and damage. Rodents such as porcupines, forest hog and the honey badger for those who were practising apiculture were also reported to have caused some damage by some respondents. Elephants are said by some of the respondents to come every other week to eat their maize and other vegetables. Local means of deterrence are limited and potentially dangerous which mostly involve

making noise by shouting and hitting against objects which may result to serious injury or death though no deaths had been reported during the time of the study.

Attempts by the locals to relay concerns over elephants and other animals and mitigate damage were haphazard. Communication of policies regarding crop damage compensation and for loss of life or injury was also poor and inconsistent as a majority did not know the proper channels or procedures to follow. They claimed that it took time for the Kenya Wildlife Service to follow up or even visit their farms hence compensation claims went unresolved. Solutions to Human Wildlife Conflicts such as crop damage and predation are now clearly outlined in the Wildlife Conservation and Management Act (2013) whereby it outlines preventive measures one can take which some of the conservancy members have adopted such as use of lion lights to scare predators such as lions, hyenas and leopards as seen in the Plate 4.3 below. However some respondents claimed that some of the techniques were expensive to install hence needed some financial support.

Plate 4.3: Use of lion lights by respondents to scare away predators

Source: Author, 2013

4.3 Benefits of Community Conservancy

The study established various benefits accrued from the establishment of the conservancy as indicated below.

4.3.1 Benefits accrued from tourism

Conservancy activites have several benefits which conservancy members could harvest. Benefits in this study are defined as monetary and non monetary. Regarding whether the Oloisukut community has benefited from social amenities such as construction of health centres, 92% of the respondents said the community did not benefit. 83% said they did not benefit from school construction with only 11% of the respondents agreeing with the statement and a further 6.0% were not sure. 83% of the respondents further disagreed that the community had benefited from the construction of proper and passable roads, another 5% were not sure with only 11% agreeing to the statement. On the other hand, 93% agreed that conservancy members were employed in the various tourist facilities (lodges, eco lodges and tented camps) and a further 92% said that they were able to sell handcrafts thus giving them some little income.

Table 4.2: Benefits accrued from tourism within the conservancy.

	% Response		
Benefit	**Agree**	**Disagree**	**Not sure**
Sale of handcrafts	92.0	4.5	3.5
Employment	93.0	6.0	1.0
Health centre construction	2.0	92.0	6.0
School construction	11.0	83.0	6.0
Water provision	11.0	74.0	15.0
Construction of roads	11.0	84.0	5.0
Bursary	2.0	88.5	9.5

The data above implies that members of the Oloisukut conservancy have not benefited from any ecotourism development projects in the area despite having tented camps and tourist lodges that have been operation since before the conservancy was formed. The only benefit accrued is employment of a very small percentage of the members and the sale of handcrafts to tourists. The women complained that they had to cover great distances to go to the health centres and this was escalated with the bad state of the roads which were almost in accessible during the rainy season. Access to clean

water was also a challenge especially during drought. However this is contradiction to what the tourism facilities within the conservancy claim. An interview with the managers of three tented camps located within the conservancy brought out that they support the locals through various projects including provision of solar units/ batteries, support the employment of primary school teachers and the construction of class rooms in Iltolish, donations of books and writing materials in Ilokwaya amongst others. This indicates that although high potential exists for the development of wildlife based tourism enterprises within the area for the realisation of socio economic development, the actual benefits trickling down to the land owners and conservancy members as a whole is very minimal**.**

Plate 4.4: Dilapidated roads within the conservancy

Source: Author, 2013

4.3.2 Natural Resources benefits

The study sought to examine the impact of the conservancy towards natural resources since its inception; results indicate that; 100% of the population had a view that wildlife population has increased since the formation of the conservancy, hence the reason why a large percentage of the community recorded incidents of Human Wildlife Conflicts. 83.5% respondents said that the forest cover had increased and only 13.5% were of the view that charcoal burning was still prevalent within the conservancy. This indicates that since the formation of the conservancy, members have been educated on the benefits of wildlife hence view it as an asset rather that a

liability in a bid to promote peaceful co-existence, Oloisukut conservancy still remains an important elephant sanctuary, most lactating mothers and their calves prefer staying in the conservancy until their calves are strong enough to venture into the grassland savannah. Cases of forest logging and charcoal burning had also decreased this may also be attributed to the presence of the conservancy rangers and scouts who patrol the conservancy and report any illegal activities to Kenya Forest Service. Nonetheless illegal logging and charcoal burning were still being practised as an alternative means of getting income. Glew *et al* (2010) noted that local communities accessed a number of benefits from the conservancies, these included; medical care and education bursaries, provision of water, improved security in the area as well as transport facilities, she further went on to state that majority of the benefits impacting community livelihoods were not financial in nature.

Table 4.3: Conservancy impact on Natural Resources

		% Response		
Description	**Sample size**	**Increased**	**Decreased**	**Not sure**
Wildlife population	200	100	0	0
Forest Cover	200	68	30	2
Charcoal burning	200	13.5	77.5	9.0

4.3.3 Benefits related to participation in conservation

Respondents were asked if they or members of their family were currently gainfully employed within the conservancy. Results indicate on 33% were employed while 68% were not. Of those employed, included working in either by the tourist tented camps, lodges and eco lodges as tour guides, hotels stewards, waiters/waitresses, security men and rangers/scouts. Hence it can therefore be concluded that only a small percentage of the conservancy members are gainfully benefiting through employment. According to Murphee and Hulme 2001, communities will not have any motive to conserve wildlife resources if it does not contribute to their means of sustenance.

Direct benefits from conservation are a crucial factor for any community conservation venture to succeed. Smith (2013) argues that it is vital to demonstrate to communities that they will benefit from wildlife management efforts otherwise they will not be interested. Benefit sharing is also included as a key objective in the Wildlife Conservation and Management Act, 2013. However it can be argued that the conservancy is still at its infant stages hence proper benefit sharing mechanisms need to be put in place to ensure the community is benefiting from conservation. Beledian (2010) further noted that the conservancy model offers individuals an opportunity to gain financial benefits from land leases; however this is yet to be realised by the conservancy as it has not yet started paying land leases to its members.

Benefits can also be examined in terms of social aspects. Arising due to the formation of the conservancy were strong community networks as observed by the researcher and evidenced by existing groups such as women groups, youth groups and community scouts. These groups shared common activities such as bead work, bee keeping for sale and entertaining tourists through song and dance, cited by the women and youth groups while community scouts were involved in patrols and monitoring activities within the conservancy. These findings agree with Besser *et al* (2006) who noted that the conservancy model provides social support system and a general feeling of acceptance contributing to the positive understanding of destitution in that given locality. Syallow, (2013) also indicated that the establishment of the Enoonkishu conservancy in the mara ecosystem brought about social benefits. Ashley (2000) further noted that the shared positive communal results are attributed to Community Based Natural Resource Management as a whole and not only the benefits associated with wildlife tourism; however the need to grow tourism provides for a broad course of action.

Plate 5.1: Women and youth groups in the conservancy

Source: Author, 2013

Respondents were then asked to state what could be done to ensure that they adequately derive benefits from conservation. This information is of great importance especially to the conservancy management.

a) Improve management of the conservancy i.e proper policies put in place (conservancy management plan) which is currently lacking
b) Employ more members especially the youth/ women
c) Increase number of tourist faculties/ bring more investors on board
d) Awareness creation of both members and non members on the benefits conservation
e) Unify land owners as there is alot of suspicion between them
f) Market the conservancy to bring more tourists

4.4 Challenges faced by the conservancy members

The study sought to find out the main challenges faced by the community members since the establishment of the conservancy. Views on this were captured through the household survey and focus group discussions that were conducted with various groups within and without the conservancy. 85% of the respondents indicated that there was a general lack of benefits from the tourism facilities that were located in the conservancy as the benefits were not trickling down to all the members, poor distribution of funds due to weak management was blamed for this. This challenge is similar to a study done by WWF, (2012) on the situation analysis of Community

Based Natural Resource Management in Kenya which noted that weak incentives such as erratic or a general lack of tangible benefits to local communities was a major challenge faced in the mara ecosystem. This is due to the lack or of a cost and benefit sharing guidelines.

Other challenges noted included: lack of payments of dividends, inadequate grazing land, crop destruction due to human wildlife conflicts especially in the Nkinye area where elephants are the main problem animal, insecurity due to increased wildlife numbers especially during the migration season which even hindered children from going to school. The major challenge noted by the women groups was a lack of adequate market for their handcrafts this was because most of the tourists facilities had in built shops where crafts were sold hence the tourists were not buying from the women groups and alternatively they were not getting orders to supply these shops with craft materials.

4.5 Conservation Attitudes

The study sought to examine the attitudes and perceptions of the local community towards the establishment of the conservancy and its management.

4.5.1 Attitudes statements

The attitudes of the conservancy members towards the conservancy model, its management and benefits accrued were explored using a set of attitude statements and personal observation. Responses to the ten attitudinal statements were scored on a three point likert scale. The resulting percentage of agreement and disagreement to the statements are shown in Table 4.4.

Table 4.4: Attitudinal statements

	% Response		
Statement	**Agree**	**Disagree**	**Not sure**
Conservancy is a good approach towards NR conservation (CA)	98.0	2.0	0.0
Living conditions improved due to the conservancy (LC)	30.0	63.5	6.5
Maasai Mara national reserve is important to you (MI)	73.0	20.0	7.0
Management of the conservancy is doing a good job (MJ)	28	42	30
Revenue from tourism has helped develop the area (RD)	21.0	57.5	21.5
Non members to become members (NJ)	62.0	25.5	12.5
Tourism facilities should be put up (TF)	79.4	17.6	3.0
The forest should be cleared for farming (FC)	14.0	81.0	5.0
Poachers should be severely punished (PP)	96.0	4.0	0.0
Benefits derived from the conservancy are adequate	20	64.5	15.5

4.5.2 Attitudes towards the establishment of the conservancy

Of the repondents 98% agreed to the fact that the establishment of conservancy was a good approach towards natural resource conservation. 73% indicated that the Maasai Mara National Reserve was important to the members and that the formation of the conservancy would enbale planned development in th area. The findings mirror those of Syallow (2013) who found that members of the Enoonkishu Conservancy had positive attitudes towards the formation of the conservancy and the role it would play in wildife conservation and improvement of community livelihoods.This is an indication that the community has a positive attitude towards the formation of the conservancy and that they also understand the connections of oloisukut as a single unit to the larger Mara ecosystem. Positive attitudes of the community towards establishment of the conservancy is also similar to what was documented by Ariya (2007) who noted that communities attitude and perceptions towards elephants conservation has changed following the establishment of Human Elephant project.

4.5.3 Attitude towards management

Overall, there was a negative attitude towards the management of the conservancy with 40% of the respondents stating that the management was not doing a good job, only 28%

agreed to the statement while 30% were not sure. Most of the respondents while asked about challenges facing them indicated that the leadership was poor weak and not transparent. Poor governance of community conservancies is a major in Community Based Natural Resource Management. Studies have shown that stable communties coupled with strong local leadership and a sense of ownership of the natural resources is key if Community Based Natural Resource Management activites are to suceed (WWF, 2012) having strong individuals to lead a group gives them direction and focus.

4.5.4 Contribution of the conservancy to community livelihoods

On weather the formation of conservancy had enabled planned development of the area especially from toursim based revenue, 57.5% indicated it was minimal with only 21% agreeing. On weather the living conditions of the members houesholds had improved, only 30% agreed with a majority 63.5% disagreed meaning that the conservancy members had negative attiutde towards the conservancy's contribution to community livlihoods. Similarly only 20% inidicated that the benefits derived from the conservancy were adequate while 64.5% disagreed meaning that the benefits accrued were not suffieicent. Sitati (2003) also documented negative attitude towards elephant conservation in TransMara Sub County due to lack of benfits accruing from the community bearing the costs of living with them.

4.6 Policy and Legislation

The study sought to assess the level of awareness of the local community on policies and legislations on Natural Resource Management as they relate to the conservancy and conservation.

4.6.1 Importance of the Natural Resource Management legislation

The study examined the level of community awareness with regard to policies, laws and regulations regarding guiding the wildlife resource management and their

involvement in policy formulation for the management of the conservancy. The study established that the respondents acknowledge the importance of the various policies and legislations governing Natural Resources Management in the Country (see Table 4.5) with 90% of the respondents agreeing that NRM legislation is necessary. However there were low levels of awareness on the Wildlife Policy and Wildlife Conservation and Management Act (2013) and the rules and regulations governing conservancy management as they relate to local communities. Only 25% of the respondents said that they were aware of the Wildlife Conservation and Management Act while a majority (75%) had not heard of the Act (Table 4.6).

Table 4.5: Importance of legislation in Natural Resource Management

Conservancy members opinion on Necessity of the NR legislation	**Frequency**	**Percent Response**
Respondent who recognized importance of NRM legislation	171	85.5
Respondents who had no idea	29	14.5
Total	**200**	**100.0**

Table 4.6: Respondents awareness of the Wildlife Conservation and Management Act (2013)

Conservancy members Awareness of the Wildlife Act	**Frequency**	**Percent (%)**
Percentage of respondents aware of the Act	50	25.0
Percentage of the respondents who were not aware of the Act	150	75.0
Total	**200**	**100.0**

Part of the conservancy also borders Nyekweri forest which is the largest remaining forest in TransMara covering approximately300 square Km. The forest forms part of the disposal area of Maasai Mara National Reserve and is a habitat for various Wildlife species, however charcoal burning, crop farming and human encroachment have greatly contributed to the loss of sections of the forest. The study therefore sought to find out if the members of the Oloisukut conservancy were aware of any Community Forest Association (CFA) in the Area. Results indicate that only 5% (see Table 4.7) were aware of CFA in place while majority 80% were not aware while

17% had no idea what a CFA is. Part four of the Forest Conservation and Management Act, is devoted to community participation in forest management. The main mechanism for community participation is the registration of Community Forest Associations under the societies act. The Kenya Forest Service would then enter into a management agreement with the CFA, hence a co – management governance structure. Though the Act has some weakness in legislation in that it limits the role of communities in forest management, and does not provide for benefit sharing mechanisms; it provides for local communities representation hence leading to conservation of forest resources. The members of Oloisukut conservancy should therefore be educated on the need to form or join such an association in the area.

Table 4.7: Existence of Community Forest Associations in the Area

Conservancy members opinion on Existence of CFAs	**Frequency**	**Percent Response**
Percentage of respondents aware of a CFA in the area	5	2.5
Percentage of those who did not	161	80.5
Percentage of those who had never heard of a CFA	34	17.0
Total	**200**	**100.0**

The study also found that there was minimal continuous active participation of the conservancy members through consultative meetings/ barazaz as of the respondents had attended such meetings and a majority that information within the conservancy did not adequately trickle down to all its members. The community also had little regard to Kenya Wildlife Service due to unresolved complaints of Human Wildlife Conflicts and late action in cases especially relating to compensation.

The Wildlife Conservation and Management Act, of 2013 and the wildlife policy improve public participation through the creation of various institutions and committees. Public participation is therefore a key aspect in Natural Resource Management because it allows communities to convey their views on key government polices and laws especially concerning wildlife (KWS, 2011). The Kenya Wildlife Service further realizes that for successful management of wildlife, the cooperation of communities living with wildlife is vital. The Community Wildlife Department of

KWS is structured around the principle of public participation. The function of this Department is to establish linkages and gain support for wildlife management from stakeholders and communities living with wildlife. The Department does this through community outreach, corporate social responsibility programs and encouraging communities to come up with enterprises that would enable them benefit from wildlife (KWS, 2011).

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a summary of the findings from chapter four above. It also gives conclusions and recommendations of the study based on the study objectives. The results are supported by statistical data, key respondent statements and personal observations and experiences.

5.2 Summary of findings

The following were major findings of the study.

a) Oloisukut Conservancy is characterized by individuals who are mid aged most of whom are not literate with a large percentage being unemployed; those in employment had jobs related to Maasai Mara National Reserve and the conservancy such as manual labourers, hotel stewards, tour guides and cooks. The main economic activities being practised is livestock keeping, farming i.e. both commercial and subsistence; with charcoal burning and bee keeping viewed as an alternative source of livelihood. A vast majority of the population were residents by birth and had lived in the area for a period of over 10 years. Regarding tenure status most respondents had acquired the land through inheritance; this showed that indigenous Maasai are ones who are the traditional owners of the land. The study further found that the conservancy members had experienced Human Wildlife Conflicts with livestock predation being the most rampant, followed closely by crop destruction. Elephants, Zebras, gazelles, hyenas and baboons were ranked as the most problematic animals. Habitat destruction, farming and settlements being the main causes of the conflicts.

b) Regarding the local communities' attitudes and perception towards the establishment of the conservancy and its management. The study found that the community had positive attitude towards the community conservation initiative. It was perceived that the formation of the conservancy would contribute to

conservation of wildlife, enable planned development in the area through tourism and contribute to the livelihood of the community. However, the local community had negative attitude and perception towards the management of the conservancy citing weak and poor leadership.

c) The study revealed that benefits accrued from the establishment of the conservancy were minimal. Direct benefits included employment opportunities within the conservancy and market for their products. Indirect benefits from social amenities such provision of clean water, physical infrastructure and bursaries to students were not achieved. Land leases payable to the land owners had not been fully developed in Oloisukut conservancy since it was in its early stages of development. On the other hand, the study established that the conservancy had contributed towards wildlife conservation in the mara region as a majority of the respondents noted a significant increase in wildlife within the conservancy. Additionally, the conservancy had brought about surveillance and security through frequent patrols by the conservancy rangers hence reduced incidences of illegal logging and bush meat hunting were recorded. The challenges faced by the community members since the establishment of the conservancy were lack of adequate benefits and incentives from conservation, poor distribution of funds, weak and poor governance of the conservancy, lack of market for their crafts and inadequate grazing ground for their livestock.

d) The study further established that the local community had some level of awareness on policy and various legislation governing natural resources i.e. wildlife and forest policy and legislations but they were not aware of their provisions. The community was also not aware of the existence of institutions such as Community Forest Associations.

5.3 Conclusion

The study concludes that the formation of the conservancy has contributed to wildlife conservation and to some extent improvement of community livelihoods through

employment and sale of handcrafts, though the conservancy members are not receiving any dividends to their land. The contributions depicted by the establishment of the conservancy ranges from ecological to socio-economic gains.

Firstly, in terms of wildlife conservation, the conservancy has diversity of wildlife, making it an important conservation zone and therefore calls for its protection and conservation. The area is a host of species marked as endangered; it also offers refuge for migratory wild animal species. The existing human wildlife conflicts are a normal scenario in areas where wildlife range and human beings overlap.

Secondly, the land use recorded is a result of dynamics of land tenure system in the area. This is an area where land was communally owned under group ranch and has gradually been subdivided into individual holdings whereby each owner has user rights by virtue of title deed. In this case, one has rights to put it under any use. Uncontrolled use of land and grazing of large hard of livestock as common with the Maasai culture has contributed to massive forest destruction, and consequently destruction of wildlife habitat. The Community Conservancy model therefore is conservation compatible land use option that should stabilize land use in the area by controlling what is to be practiced.

Thirdly, the positive attitude and perception that community has towards establishment of the conservancy is attributed to three things: age, level of awareness about conservation and community involvement in the establishment of the conservancy. The Community in the study area is composed mostly of the mid aged folk aged between 30 – 40 years who have lived in the area all their lives and understand the relation of the dispersal area to the Maasai Mara National Reserve. The negative attitude towards the management of the conservancy is mostly due to the lack of monetary or direct benefits to the conservancy members who think that the management is weak and not best suited to run the conservancy.

Fourthly, the challenges experienced by the conservancy members is normal due to the fact that the conservancy is relatively young and lacks a conservancy management plan; however the community conservancy model has helped organize the community

within the area in ways that they can eke out livelihood from conservation activities. Both direct and indirect benefits have been realized by members of the conservancy though minimal, even though it is at its early stages of establishment.

After the review of polices and legislations that influence conservation in Kenya, it can be noted that the Country is guided by fragmented policies and laws found in various sectors. Most of the Natural Resource polices and laws acknowledge and try to promote community participation in Natural Resource Management, this can be seen in the provisions of the Constitution, Wildlife policy and law, Forest Policy and law and the Water act and the Environmental Policy. However these provisions are not comprehensive and are subject to different interpretations. Each sector has institutions determining how communities will participate in resource management, however conflicting mandates and management approaches by these institutions usually creates confusion at the community level. In addition there is no specific policy that anchors Community Based Natural Resource Management to the country hence no national consensus on specific principles and approaches.

5.4 Recommendations

In view of the research findings highlighted in this study and the conclusions arrived at, policy recommendations are as follows:-

5.4.1 Policy Recommendations

(i) There is need for the development of a Community Based Natural Resource Management Policy in Kenya that would provide guidelines on community participation across all natural resource sectors in Kenya. The policy would provide a common definition of CBNRM, its principles, characteristics and Cleary outline benefits expected by the communities.

(ii) The local community has little knowledge on policy issues and provisions contained in the Wildlife Conservation and Management Act, 2013 hence they should be sensitized.

(iii) Whereas the various sectrol policies and laws influencing conservancies outline benefits from community participation Natural Resource Conservation, in most cases the benefits accrued are not direct nor are they shared equally among beneficiaries, What trickles down to the local community is normally tokenism decided in an adhoc manner as to whom, where and amounts to be given hence the country needs to develop a cost and benefit sharing policy and legislation between the lead actors and community institutions

(iv) Need to build the capacity of governments, environmental policy experts and other relevant stakeholders on drafting policies with regards to making sound policy decisions geared towards conservation and improved livelihoods.

5.4.2 Recommendations on management

i. Wildlife management has been devolved to the local levels hence need to strengthen collaborative resource conservation and partnerships with the Narok County Government, conservation organizations and the private sector so as to encourage and support investment initiatives that enhance socio economic development and wildlife revenue flowing to communities.

ii. Benefits are the most important and usually complicated aspects of the conservancy development. The study therefore recommends that the conservancy should have a benefit distribution plan embedded in the management plan as they are both currently lacking and are very crucial. However realizing the benefits associated with the conservancy is entirely dependent on the conservancy members awareness about the conservancy, conservancy development stage and effectiveness, therefore there should be sensitization of the community about what the conservancy could offer them, conservancy concept and a general understanding of benefits associated with it. It should be made clear to the community that not only monetary benefits should be regarded as benefits but rather the health of the environment which biodiversity is rich is also an imperative benefit, although the ultimate goal of the conservancy concept is poverty alleviation.

iii. Capacity building should be undertaken for communities and their leaders to enable them manage the wildlife effectively. Capacity building includes financial management, dispute resolution, security operations and data collection and analyzing, documentation e.t.c.

5.4.3 Recommendations for further studies

It is proposed that further studies be conducted on

i. Wildlife census within Oloisukut conservancy
ii. Equitable sharing of conservation benefits
iii. Trends on Human -Wildlife Conflicts
iv. Determine the impacts of Oloisukut conservancy on land use and land cover changes
v. Role of livestock levels in sustainable wildlife conservation within the conservancy

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Appendix I: Household Questionnaire:

Questionnaire no……..

Date……

(GPS coordinates) X……. Y …..…….

Please respond to each of the item by either putting a tick of [√] next to the response applicable, or as you deem necessary.

SECTION A: PERSONAL DETAILS

1. What is your age in years:

   1=18 - 28☐ 2=40 - 50 ☐

   3=29 - 39☐ 4=50 and above☐

   ☐

2. Gender:

   1= Male☐ 2=Female

3. Marital status?

   1=Married ☐ 2=Widowed/widower ☐

   3=Single ☐ 4=Divorced/separated☐

4. How many are you in your family?

   1=1-3☐ 2=4-6☐ 3=7-10 ☐ 4=above 10☐

5. What is the highest level of education attained

   1=Primary ☐ 2=Tertiary ☐

   3=Secondary☐ 4=Illiterate☐ 5= Other…….

6. What is your occupation?

   1=Employed (specify)☐ 2=Self employed☐ 3=Not employed ☐

   ……

   a) If self employed, what is the nature of the business? .....

7. What is the level of your monthly income?

   1=Less than Ksh 10,000 ☐ 2=Ksh 10,000 - 30,000 ☐ 3= above 31,000☐

SECTION B: LAND TENURE AND LAND USE

8. How long have you lived in this area

   1=1 – 3☐ 2=7 -10 ☐

   3=4- 6 ☐ 4=Above 10☐

9. (a) Do you own the land you are living in?

   1=Yes☐ 2=No☐

   (b) If yes, how?

   1=Registration☐ 2= Purchased ☐ 3=Other (Specify)☐

10. What is the size of your land in acres? ……

11. What is the total number of livestock you have?

Species	Number
Cattle	
Goat	
sheep	
Others (Specify)	

12. Have you suffered from wildlife predation between 2011-present? 1=Yes ☐ 2= No ☐

    If yes, fill in the table below.

Predator	2011			2012			2013		
	cattle	sheep	goats	cattle	sheep	goats	Cattle	Sheep	goats
Lion									
Leopard									
Hyena									
Jackal									
Cheater									
Others									

b) What action did you take?

1= Killed predator ☐ 2=scared it away ☐ 3= captured by KWS ☐

13. Do you grow crops 1=Yes 2= No ☐

(If No got to 15 and if Yes, Specify the crops: ……..

a)When did you start farming? .....

b) Why do you grow crops? 1=Commercial☐ 2=Subsistence ☐ 3= Both☐

c)How much land is under farming in acres? .....

d) If for commercial purposes, how much yield do you get per acre? ....

e)How much money do you get once the produce has been sold?

……

……

14. Have you suffered crop damage from wildlife? 1=Yes ☐ 2=No ☐

a) If yes, what are the problem animals?.....

15. Why don't you grow any crops?

1=Wildlife problems ☐ 2=Soil fertility problem☐ 3= Lack of no how ☐

4=Insufficient rain ☐ 5=Want to conserve wildlife ☐

(b) Do you intend to start farming soon? 1=Yes ☐ 2=No☐ (either please give reasons why)……

……

SECTION C: BENEFITS OF COMMUNITY CONSERVATION

16. The following are benefits accrued from tourism within the conservancy (tick appropriately)

	Benefits	**Agree**	**Disagree**	**Not sure**
1	Sale of handcrafts			
2	Employment (ranger, scout, porter, lodges)			
3	Health centre construction			
4	School construction			
5	Water			
6	Construction of roads			
7	Bursary			
8	Other			

17. What has been the impact on the following resources since the formation of the conservancy: (tick appropriately)

		Increased	**decreased**	**Not Sure**
1	Wildlife population			
2	Forest cover			
3	Charcoal burning			
4	Other			

18. Are you or any member of your household currently gainfully working in the conservancy? 1=Yes☐ 2= No ☐

    If yes, please specify how? .....

19. In your opinion what could be done to ensure the conservancy members adequately derive benefits from conservation?

……

……

……

……

20. What challenges do you face a conservancy member?

……

……

……

……

SECTION D: CONSERVATION ATTITUDES

Please indicate the answers by the use of numbers corresponding to your choice where necessary **(1=Agree, 2= Disagree, 3=Not Sure)**

	Statement	Agree	Disagree	Not Sure
1	The Conservancy is a good approach towards natural resource conservation			
2	Your living conditions and those of you household have improved since the establishment of the conservancy			
3	Maasai Mara National Reserve is important to you.			
4	The management of the conservancy is doing a good job			
5	The revenue obtained from tourism has helped improve development in the area.			
6	The non members should join conservancy and become members			
7	The forest should be cleared for farming			
8	Poachers should be severely punished			
9	Population has increased since the establishment of the conservancy			
10	The benefits derived from the conservancy are adequate			

SECTION E: HUMAN WILDLIFE CONFLICTS

21. Has HWC decreased since the formation of the conservancy? 1=Yes ☐ 2=No ☐ 3=Do not know ☐
    If no, please explain further……
    ……..
22. Has any member of your family been attacked and killed since 2011 to present? 1=Yes ☐ 2=No ☐
    If yes, please give details of the number, specific year and animal responsible

……
……

SECTION F: POLICY AND LEGISLATION

23. In your opinion, are the various legislations put in place to govern forests, wildlife and water resources necessary? 1=Yes ☐ 2=No ☐
    If no, explain further
    ……
    ……
    ……
24. Are you aware of the wildlife bill 2012? 1=Yes ☐ 2= No ☐
25. Are you aware that wildlife crimes have been revised, and now stiffer penalties have been put in place? 1=Yes☐ 2=No ☐
26. Do you have any Community Forest Associations in place? 1=Yes ☐ 2=No ☐ 3=Do not know ☐
27. Do you have any Water Resource Users Association? 1=Yes ☐ 2=No ☐ 3=Do not know ☐