STRATEGIES ADOPTED BY AMBOSELI NATIONAL PARK ON MANAGEMENT OF HUMAN WILDLIFE CONFLICT IN KENYA

by Stephen Parpoika Sarinke

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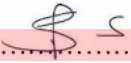## STEPHEN PARPOIKA SARINKE

A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE

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DECLARATION

This research project is my original work and has not been presented for award in any other University.

Signature……………………………   Date……**30/11/2020**……………

STEPHEN PARPOIKA SARINKE

D61/10391/2018

This research proposal has been submitted for examination with my approval as University supervisor.

Signature………………………………   Date…**30/11/2020**……………..

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DEDICATION

I dedicate this Project to my wife Rose Kanina and to my children Abraham Odupoi, Michelle Nampaso, Joel Pose, Jonathan Ketukei and Joy Melelo for their understanding and unconditional support during the study period.

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I would wish to thank my wife Rose Kanina for her encouragement and support; I would not have made it this far without her.

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Thank you all

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ABBREVIATIONS

ANP:	Amboseli National Park
AWF:	African Wildlife Foundation
CBNRMM:	Community Based Natural Resources Management Mechanisms
CEO	Chief Executive Officer
CEP:	Conservation Education Program
GEF:	Global Environment Facility
HWC:	Human-Wildlife Conflict
IUCN:	International Union for the Conservation of Nature
LGD:	Livestock Guarding Dogs
NRM:	Natural Resource Management
PAs:	Protected Areas

ABSTRACT

Conflicts between wildlife and other competing land use forms and hostilities towards state policies in wildlife conservation is as persistent problem. Lack of development in areas of wildlife concentration has had an impact on food security in these areas. This leads to the delicate interaction between humans and wildlife hence complicating resolution of conflicts. As land use and land tenure transition has increased in the scattered areas of the Amboseli National Park (ANP), there has been a major hindrance in wildlife conservation. Human-wildlife conflicts, habitat transformation and environmental degradation are some of example of threats to wildlife conservation caused by land use changes. The general objective of the study was to investigate strategies adopted by Amboseli National Parks on management of human wildlife conflict in Kenya. The study was based on three theories, Dynamic capability theory, Stakeholder management theory and Conflict system theory. The study adopted case study design.The study used primary data which was collected using an interview guide. The collected data was then analyzed through content analysis which is a qualitative description of the data. The respondents to study were seven members of the top-level management staff of Amboseli National Park. The study found out that the community has being involved in farming practices mostly in Loitokitok and Eselenkei, district to offer some of the best methods to manage human wildlife conflicts. Amboseli National park uses diligence of KWS rangers by digging of trenches, netting and other defense structures around the resources is characteristic of this method. It was found out that current awards of Sh 3million for permanent incapacity and Sh 5 million for death should be revised to 5 million and10 million, respectively. Local communities are paid directly for conserving conflict causing wildlife as compensation. The study concludes that there is direct compensation done in Amboseli through payment in the event of loss of human life, injury or livestock killed by elephants or other predators. The study recommend that Amboseli National Park should collaborate with the private sectors, government, and local communities to build capacity of local environmental groups, inform and educate the public and the voice of the local communities needs to be heard. The livelihood of the local communities is at stake.

CHAPTER ONE: INTRODUCTION

1.1 Background of the study

Conflicts between wildlife and other competing land use forms and hostilities towards state policies in wildlife conservation is as persistent problem (Messer, 2009). Lack of development in areas of wildlife concentration has had an impact on food security in these areas. This leads to the delicate interaction between humans and wildlife hence complicating resolution of conflicts. According to the frustration-aggression theory, if basic needs are not met, the communities become frustrated. Resulting to violent conflicts where the communities that have coexisted with wildlife now turn to their heritage killing the animals. Human wildlife conflict arises when the wildlife behavior and needs adversely affect human objectives or when human objectives negatively affect the wildlife needs (Messer, 2009). The Kenya's wildlife survival relies upon social ecological solutions to problems of equity and equity. The government should solve the underlying problems that makes wildlife and humans victims.

This study will be anchored on three theories to explain the concept of management strategies and human wildlife conflict. The dynamic capability theory explains how conflicts are dynamic in nature and therefore the main cause keeps shifting. In order to solve the conflict must have the capacity to scan the change to avoid misdirected effort. In this regard it is good to continuously evaluate the conflict and the management strategies. The conflicts system theory provide some ideas and practices that may provide the grounds of converting even the most negative and serious forms of conflict into collaborative, joint problem solving which expands social justice, human needs satisfaction and peaceful social relations in every level. Frustrations aggression theory argue that among other attributes a company ought to advance its competences in a

dynamic setting by utilizing peripheral company specific proficiencies (K'Obonyo, 2011) and this is the logic that forms the basis of strategic choice.

Human-wildlife conflict (HWC) has become a serious concern both in Kenya and globally. The interaction between people and wildlife has increased in frequency, intensity and consequences of the conflict. The animals involved in the conflict vary from large to small and mostly are from the three classes, that is, Reptilia, Mammalia and Aves. The intensity, frequency and consequences of the conflict are caused by several factors including the animal species involved and proximity to people's homes. This conflict is a major concern and a barrier to conservation of wildlife (Dickman, 2011; Nyhus *et al.*, 2005). It also poses serious challenges to the local communities living with livestock, governments and conservation societies. Ravenelle and Nyhus, (2017), pointed out that the cost of conserving both large and sometimes dangerous animals is frequently born disproportionately by farmers and others living in proximity to wildlife.

Human-wildlife conflicts in Kenya challenges conservation efforts, and mostly where wildlife is highly dependent on the dispersal areas adjacent to the parks and confront local communities (Okello & D'Amour, 2008). There are several techniques have been used in managing this conflict. These methods include chain link fences around homesteads, fencing of protected areas (PAs) and use of livestock guarding dogs (LGD). Other methods used include; trapping, relocation of wildlife controlled hunting, trapping, and compensation of farmers and pastoralists for losses caused by wildlife. However, most of these traditional and short term control mechanism utilized by in the conflict zones have been found to be inadequate and unsustainable to effectively contain the problems necessitating use of long-term measures which are difficult and complex at a large national scale as the right option to apply (Hoare, 2011). Therefore there

is need for wildlife management system to come up with management strategies or combination of strategies that will go a long way in reducing the conflict, promoting wildlife conservation and safe guarding people's livelihoods. It's against this background that this study seeks to establish strategies that can be adopted by Amboseli National Park to effectively manage to effectively manage human wildlife **conflict in Kenya.**

1.1.1 Concept of Strategy

Strategy denotes the long-term direction and scope of an organization that helps it achieve an advantage for the organization by utilizing its resources in a challenging environment so as to meet the market needs and fulfill the expectation of stakeholders (Johnson, 2016). Strategies are systematic actions on how to deploy resources in the achievement of goals (Biscoe & Safford 2010).

Strategy remains one of the most broadly debated and discussed topics in the world of modern organizations. There is a universal agreement that a strategy is a scheme or an elaborate and systematic plan of action designed to accomplish a particular goal. It is a long term success plan, to obtain an advantage while describing the different activities an organization aims gaining competitive advantage. Tactics and specific methods of action are applied in small scale operations to bring about the strategy for a specific campaign (Ronda & Guerras-Martin 2012).

1.1.2 Strategies for Managing Human –Wildlife Conflict

According Sutter, Foerster, Krakauer, Polo and Almeida (2013) Environmental SWOT analysis is among the most important elements of strategic planning on the strength of encouraging organizations to develop mechanisms of constantly monitoring the environment in which it operates. An effective program to scan the environment should enlighten policymakers in understanding current and potential changes are likely to take place in the external environment

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of the institution (Fahey & Naravanan, 2016). According Jobber (2015) stated that SWOT (strengths, weaknesses, opportunities and threats) investigation is an examination of an organization's points of interest, deficiencies, great elements and clubs outside. A decent SWOT examination can enable an organization to comprehend itself to better and it is an essential rule for making an appropriate advertising technique arrange.

Capacity building is the mechanism of obtaining and strengthening skills, attitudes and knowledge within individuals and groups of people required in the development process, design and maintenance of infrastructures and processes that are important in order to attain sustainable results (Groot & Moolen, 2001). Kipkemeu, Mwangi and Njogu (2014) posit that, participation of local people in wildlife management where they benefit economically, a "win-win" situation will arise where wild animals will be conserved and community welfare will improve simultaneously. According to FAO report (2016), to effectively address HWCs, developing response in partnership with affected communities is crucial. The report also postulates that locals will be less aggrieved and more forbearing with wildlife populations and the destruction they bring if they are involved in planning and management and when the costs involved with living with wild animals are offset by benefits from their sustainable use and conservation.

Human wildlife conflicts leads to direct economic costs as a result of crops and livestock loss as well as medical expenses incurred as a result of injury (Biscoe, & Safford, 2010). To engender community support in wildlife conservation, compensation of the losses incurred has been used to foster community tolerance towards offending wildlife. Compensation schemes are intended to prevent people who bear the costs of living with wildlife from becoming enemies of conservation (Chon, 2012)

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The game park reserve uses data tracking devices to collect and vast amounts of data on the animals. The devices assist the game reserves in making decisions on where to place water points, for instance, or quickly find out if an animal has broken through a fence. However, analyzing and interpreting this data can be difficult.

1.1.3 Strategies Used by Amboseli National Park on Human –Wildlife Conflict

Human-wildlife conflicts are a threat to sustainability of wildlife and the people's way of living. These conflicts increases as the number of people increase, development expands, weather varies, and as natural resource base shrinks (Distefano, 2004; Messmer, 2000).There are various strategies of managing of human wildlife conflict which include; vigilance by KWS rangers, Community participation, and Compensation of human loss. According to World Conservation Union (2003), conflicts between humans and wildlife happen when the needs of animal meet with those of humans, therefore leading to occurrence of costs in any form. There are various strategies used manage human wildlife conflict. The community need to be informed the importance of wildlife and reasons for not hunting them down. It is a challenge to manage problems facing wild animals in their own very state of nature. While the concerned authorities" values, views, attributes and beliefs change, the conflicts concerning these views will also change. However, if these conflicts are seen as a reaction of change in the society, then they may give acceptable impact (Schafer & Tait, 1981). When conflicts by humans to wildlife or wildlife to humans are not solved at the right time, they can fuel people's frustration and therefore affecting the credibility of the organization and their long-term goals. (Hewitt & Messmer, 1997).

Concerned organizations find it important to employ strategies to combat conflicts that can wisely be used to reduce or manage wildlife administration disagreements (Bingham, 1997).

These strategies are ways in which the wildlife management administration seeks to get mutual and important solutions to their different opinions. A third person or party is always involved in these processes to lead the way in establishing a framework in how successful negotiations can be achieved. Components of conflict resolution include: identification of defined goals to be achieved, identification of clearer definitions, before dealing with the problems, encouragement of working together in solving different issues, maintaining progress and discouraging alternatives, promotion and implementation of factors that encourages active listening; and lastly being contented with small successes before addressing bigger issues (Guynn, 1997).

In addition, there little information on social and economic costs associated with restrictions placed on traditional wildlife management strategies of hunting or trapping or the loss of a registered control technique such as toxicants and repellents; increased wildlife damage associated with limitations or restrictions placed on the use of traditional harvest management strategies to control over abundant and nuisance wildlife populations; the effects of wildlife overpopulation on the other natural resources; and the cost (social, economic) associated with lost chances for the wildlife administration to enjoy benefits that are derived from flora and fauna. This information is important to the concerned stakeholders in establishing proactive programmes to combat human and wildlife conflicts. Systems and frameworks should be developed by the local authorities to successfully allocate financial resource to deal with conflicts of all kinds (Conover & Decker, 1991; Conover et al.,1995).

Wildlife administration should be able to optimize the benefit accrued from wildlife to the local community rather than focusing on maximizing wildlife population. A challenge is felt when benefits accrued is not well distributed to different market segments. Farmers and private land owners have taken the blame, and this will always trigger conflict concerning wildlife population

and how they are managed. Wildlife stakeholders have known the magnitude of rapidly growing conflicts between humans and wildlife and also the processes that can be adapted to involve the concerned stakeholders in seeking solution to increasing conflicts. They should also perceive these raising problems as a chance to improve the existing strategies and gain support from the local and other people to better management (Messmer, 2000).

Curnow (2001) and Conover (2001) have shed the light on the history of wild animal destruction, processes, changes and maintenance of continuity in wildlife destruction management and the application or establishments of methodologies. More concern have been shown by the state agencies, universities, and private establishments to participate in research internationally, nationally and even in residing country, to clearly identify the sources of conflicts and effective processes to regulate and control human wildlife-conflict. According to Curnow (2001), factors that affect people's developments, settlements and changes on the land need different methodologies and attributes to be able to work efficiently

1.1.4 Amboseli National Park

Amboseli National Park (ANP) was previously known as Maasai Amboseli Game Reserve and it is located in Kajiado County, Kenya. The coverage of ANP is a total area of 39,206 hectares at the core of 8,000 km^2 ecosystem spreading through Kenya-Tanzania border (WDPA, 2008). The Maasai are the local community living in this region though there are other people from other communities that have moved into this region because of attraction from the successful tourist driven economy and rigorous agriculture in the swampy areas. ANP is one of the parks with the best wildlife viewing experiences in the world with a total of 400 species of birds including water birds like kingfishers, pelicans, crakes, hamerkop and 47 raptor species. The region is typically arid to semi-arid with very minor variations in its agro-ecological zones and makes it

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ideal for pastoralism instead of agriculture with a great potential for the protection of wildlife and tourism enterprises. The Amboseli ecosystem includes the National Park Amboseli and the six community ranches surrounding it. These six community ranches comprise of: Eselenkei, Kimana, Kuku, Tikondo, Imbirikani and Olgulului/Olalarrashi with a coverage of 506,329 hectares in Loitokitok district. The region also consists of the former 48 ranches on the foot of Kilimanjaro, primarily rain-fed farming, which now come into development.

1.2 Research Problem

Several and different strategies have been proposed and implemented in attempt to manage human-wildlife conflict in different parts of the world. It is quite evident how effective these strategies have been. Human-wildlife conflict in Kenya is a major factor affecting wildlife conservation on one hand and local people's livelihoods on the other. Some of the strategies that have been put in place in an attempt to manage conflict across Kenya with varying degree of success include; fencing around homesteads to ward off wildlife, fencing protected areas to restrain movement of wildlife, rearing of dogs, provision of incentives that encourages local communities to live with wildlife and compensating people for the loss of life and property.

As land use and land tenure transition has increased in the scattered areas of the Amboseli National Park (ANP), there has been a major hindrance in wildlife conservation. Human-wildlife conflicts, habitat transformation and environmental degradation are some of example of threats to wildlife conservation caused by land use changes. Human wildlife conflict in ANP is driven by livestock predation, crop raiding, property damage and human injury and death. Human-wildlife conflicts rise throughout Amboseli due to several underlying factors: land use transformation, population growth, increasing livestock populations, climatic factors, reduced

abundance and distribution of wild prey and habitat destruction (Distefano,2005). There has been a concerted effort both with non-governmental organizations and the government. Despite the effort, conflicts are continuously rising in the sector and the communities that once cherished wildlife are now killing animals daily therefore there is need for management strategies in order to mitigate the conflict.

Various research works has been done on wildlife conservation, Sindiga (2018), laid out the some of the key threats to protected areas which ought to be addressed. Several attempts have been implemented to solve and mitigate these threats but through community wildlife strategies there has been mixed success. Maina (2010) did a study on HWC in Laikipia District especially focusing on area specific strategy recommendations. He recommended that, a wildlife migration corridor should be made through Laikipia to Mt. Kenya reserve. Omondi (1994) did his research in the Maasai Mara Region. In order for wildlife to coexist peacefully he tried to create ways of integrating the wildlife and the needs. Abudulghafur (2013) tried to determine what influence of education programs by Kenya wildlife conservation on minimizing human wildlife conflict when focusing on Kenya Wildlife Service conservation education program. Mungai et al. (2008) research tried to reduce the HWC threat at Arabuko-Sokoke forest by fencing the perimeter of the tropical forest. A gap was created for he only focused on conservation education programs. These studies only tend to solve the problem of environmental conflicts (Kariuki, 2011) and do not focus on human wildlife conflicts management strategies. The wildlife conservation approaches, objectives and policies have been re-examined by the government and Kenya Wildlife Service in particular. To the researcher's knowledge limited study has been done on strategic management approaches on human wildlife conflict an no known local study focused on Amboseli National Park. The current study aims on filling the research gap existing by

undertaking a study on the strategies adopted by Amboseli National Park on the management of human wildlife conflict in Kenya

1.3 Research Objective

The objectives of the study were

i. To establish strategies adopted by the Amboseli National Parks.
ii. To establish the relationship between strategies adopted and management of human wildlife conflict in Amboseli National Parks.

1.4 Value of the Study

This study examines policy options targeting strategies for conflict management in Amboseli National Park and offers recommendations to policy makers. By determining the methods used in the management of several causes of conflict and measures taken it will increase the knowledge of mitigation. New designs and alternatives will be synthesized for the prevention of conflict and modification of existing prevention strategies.

The findings will enable policy makers to formulate strategies based on empirical evidence to be used to maintain a peaceful and productive co-existence of humans and wildlife together in various parks and reserves in the country. The study finding is of academic importance and provides literature that will be used by other scholars also provide a basis for further studies to be conducted on related topics where there is a study gap. The main aim of the study will be to determine the management strategies that can be adopted to prevent future conflicts while ensuring sustainable coexistence between neighboring and wildlife communities in Amboseli

National Park. The study also attempts to bridge knowledge gap by developing insights into possible ways of strengthening strategies to be adopted for effective conflict management.

CHAPTER TWO: LITERATURE REVIEW

2.0 Introduction

This chapter examines the critical theories underlying the study that includes dynamic capability theory, frustrations aggression theory and conflict system theory and the relevant literature pertaining to the study this includes strategic approaches in management of HWC, causes of human wildlife conflicts, empirical literature and research gaps.

2.1 Theoretical Review

Three theories will be the foundation of this study and they include: Dynamic capability theory, frustrations aggression theory and Conflict system theory.

2.1.1 Dynamic Capability Theory

Dynamic capability theory is when organizations reconfigure, build and integrate their external and internal organization-specific competencies into better and newer competencies that manage their turbulent environment (Teece et al., 2010). In assumptions, organizations having capabilities that are more dynamic will outsmart organizations that have capabilities that are less dynamic. The theory aims to recognize the use of dynamic capabilities in an organization to come up with and sustain a strategy implementation over other organizations through the response to environmental changes and building new ones. Capabilities are a group of high-level, patterned, learned, repetitious behaviors which an organization is able to perform better relative to its competition. Organizational capabilities are referred to as zero-order or zero-level capabilities, as they indicate to how by selling the same product on the same scale to the same customers an organization earns a living. (Winter, 2003).

Dynamic capabilities theory emerged from a main limitation of the resource based view theory. The Resource Based View has assumed that the factors surrounding resources simply exist hence the criticism. There has been under-exploration in literature of how resources are integrated within the organization and how they are released (Teece et al., 2010). Dynamic capabilities aim to overcome these gaps through the implementation of a process strategy that is a bridge between the dynamic economy and organizational resources. In order to modify an organization resource mix thus maintaining the sustainability of strategy implementation dynamic resources are needed to avoid quick erosion. So, dynamic capabilities emphasize on renewal and resource development while the RBV stresses on selection of suitable resources or resource choice.

Newbert (2007) dynamic capabilities empirical studies remain largely outnumbered by conceptual and theoretical studies in spite of the increasing attention and validity of systems to strategic management. Teece et al. (1997) began the first theoretical work with the development theory, followed by proposition or hypothesis development, after which empirical testing was done and finally managerial prescriptions were developed. Secondly, a drawback for empirical evidence might be since the construct is poorly designed and configured, so that researchers can hardly figure out what to look for. Third, empirical studies challenges could be due to the concept "that has been evidenced to be mainly resistant to measurement and observation" (Kraatz and Zajac, 2001).

2.1.2 Frustrations Aggression Theory

The proponents of Frustrations aggression theory argue that among other attributes a company ought to advance its competences in a dynamic setting by utilizing peripheral company specific proficiencies (K'Obonyo, 2011) and this is the logic that forms the basis of strategic choice. The shortfall of DCT is that it assumes the existence of an equilibrium point of frustrations

aggression theory, which ought to be the preoccupation of a prudent corporate strategist; which is not ideal since organizational performance is relative. Lawrence and Lorsch (2009) arrived to a conclusion that while different environments exists, each sub-unit involved is forced to re-align its organizational structures in order to correspond to the emerging needs of the environment. A successful firm in that regard, therefore, is one that is capable of differentiating itself and devising new ways to integrate with various elements of change. This theory has created interventions for assessing an organizations reaction to the external environment and making changes in the organization if the need arises.

Organizations as arrangements that evolve constantly in response to various economic needs and consistent competition over scarce resources. In that regard, Frustrations aggression theory provides a major aspect of surveillance and self-analysis particularly for organizations faced with constant changes in their operational environment. According to the Groonros (2000) it remains upon the environment to select organizations that are fit enough to survive and rejects ones that prove rigid and unresponsive to change. Organization responses to the environment more often than not involve change. In order to maximize chances of survival, it is imperative for organizations to adapt newer strategies and embrace new operational perspectives.

2.1.3 Conflict System Theory

Conflict System theory is social life approach that affects parts functioning mutually for a common end. Generally, it deals with what keeps the organism together, when joint with conflict, the theory describes the separation of things. A system theory of conflict indicates how different parts of a system do not work together peacefully always (Walter, 2011). The theory points out how oppression is a piece of larger social whole and that the purpose of the theory is to describe how the structures of production oppress labor.

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The theory stick to the point that, human nature is not constant, and those possessing power will always create ideologies that protects their domination. Those ideologies would disappear without the system hence leading to a fully honest human life without the deception or smokescreens (Walter, 2011). Systems theory not only deals with politics or economics but also with human attitudes (such as the sense of superiority) that derive from these relations in a system. The supreme function of a systems theory of conflict is to change the system; for example it can be used in comparison with the perceived superiority gained through ownership of small arms and light weapons. The theory can be used to show rebellion to status quo, where individuals engage in certain things to alter the system.

Woodroffe *et al,* (2005) adopted the phrase human wildlife conflict to describe an occurrence of a conflicting condition amongst wildlife and people taking place in the basis of crop destruction, predation of wildlife, human death or livestock depredation. These kinds of conflicts are prevalent internationally and are not only in land but also in waters and not only in countryside but also in city. As indicated by John Knight (2000), HWC appear uniformly, but mostly happen in human settlements along forest edge regions. Mostly conflict between human and wildlife emerges often because of territorial nearness, dependence of resources or insecurity to human safety and livelihood. The study differentiated eight distinct HWC which included; destruction of forestry, crop raiding, livestock attacks, human attacks, human and wild forage competition, prey with hunter's competition, house and other buildings infestations and other kind of threats to biodiversity and natural species.

2.2 Causes of Human Wildlife Conflicts

The growing competition between humans and wildlife for the same reducing resources and living environment is the key cause of human wildlife conflicts. This has been fueled by land use changes which has resulted to the conversion of forests, savannah and other ecosystems into settlement, urban and agricultural areas due to rising demand for food production, land, energy and raw material (Kioko & Okello, 2010). By the year 2000, human population tripled in Africa since 1960. This has led to the distribution of agriculture therefore encroaching more marginal lands which are wildlife habitats (Muruthi, 2005; Okello & Kioko, 2010). The increase in demand for resources is due to the settlement of people into new habitats which are also a necessity for wildlife for example water and pasture for their livestock. Building permanent homes near water resources keeps wildlife from accessing water, thus creating incidences of conflicts (Fergusson, 2002).

The movement of local people from one area to another has led to the destruction of wildlife habitats. This movement has been fueled by several factors, civil unrest, droughts, natural disasters, war, and floods. Local communities experiencing such problems tend to migrate into other areas in which resources could be obtained, which in the case often happen to be habitats of wildlife, a factor for conflicts. In Kenya, the human population growth rate into the Amboseli ecosystem along the southern rangelands was about 4%, way higher than the country's growth rate of 2.9% (Republic of Kenya, 2009; Okello & Kioko, 2010). Droughts and desertification have also been a factor in the migration of people to rangelands in Kenya. The migrants tend to settle near the remaining pockets of natural resources within or around protected areas thus exposing themselves to Human-wildlife conflicts, like the Tsavo National Parks buffer zone of about 20000km^2 supports almost 250 000 people.

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Migratory roots for wild animals have been blocked as a result of fencing of fields from the fear of wildlife attacks. In order to reclaim their usual exit in and out of their territories the wildlife destroys the barriers. The conflicts between local communities and wildlife have been fueled by the human activities on the marginal fields. Due to the subdivision of the open area into small lands for farming that was available for the migration of wildlife. Human contact with the wildlife has increased rapidly due to land fragmentation causing conflicts in wildlife populated areas, like in TransMara, Samburu, Taita and Kwale of Kenya (KWS, 2015).

2.3 Strategic Approaches in Management of Human Wildlife Conflicts

The dedication to resolving Human Wildlife Conflict led to adoption and implementation of various strategies; like Conservation Education Program (CEP), which trains and empowers both the community and school going children on the values of wildlife. This pilot scheme for the use of wildlife, which gives landowners rights of use and quotas for planting, exceeds the legal limits of Director's Special Authorization To Hunt (Cap 376, Section 26), The only legislative provision of the country for hunting, which relates to "special circumstances". Mostly wildlife is viewed as a source of suffering for several Kenyans. To understand the importance of this tourism product there is need to view wildlife conservation and management from a different perspective. There is need to communicate the value of wildlife in the economic development when people host the wildlife on their land (Schulte, 2016).

KWS has distinctive projects towards sustainable conservation. These projects include patrolling the area to control problematic wildlife by transferring them to the park and awareness creation on conservation through community-based educational services. The Law Enforcement ability was improved by training, positioning it in a better place to deal with evolving security threats.

They benefitted from training and other capacity-building programs provided by KWS partners to their law enforcement officers. Various skills and techniques were trained to 375 personnel on: investigation, leadership, information management, targeting and risk management, counter terrorism operations, rural border, digital radio systems, canine handling, and night vision devices operations. (KWS, 2015). Wildlife agencies that take a proactive approach to developing stakeholder capacity have the potential to have great impact if they direct intervention activity toward affecting stakeholder knowledge and understanding and developing or harnessing local leadership (Raik et al., 2005). Wildlife agencies are not necessarily staffed with people who have the community development skills needed, so partnerships may be necessary to design and implement an appropriate intervention for capacity building in communities for successful community-based, collaborative wildlife management.

Better planning of land-use problem areas is the long term solution to human-wildlife conflict. Through landscape-level and land-use planning African Wildlife Foundation (AWF) has begun to address this issue. The AWF has facilitated participatory land use planning and zoning in several heartlands. The creation of hunting blocks or wildlife or game management areas at the boundaries of protected areas, on either state-owned or private land, is a form of zoning widely used in Africa. One advantage is that the interface of human-wildlife conflict is displaced from the park boundaries to the boundaries of the blocks which act as a buffer zone (Loveridge, 2002). Another advantage is that wildlife management in these zones whether for consumptive and, to a lesser extent, non-consumptive purposes, reduces human-wildlife conflict by controlling wildlife populations and generating income. In the heartland of Kilimanjaro, participatory natural resource management (NRM) planning has been done for the Elerai and Kitirua Community Conservation Areas in Kenya and the Enduimet Wildlife Management Area in Tanzania. With

the support of the AWF the Kitendeni Wildlife Movement Corridor, between the Kilimanjaro Forest and the plains, has been secured. Kiyiapi (2003), reports that the natural resource management planning has been done for many community lands and their implementation is progressing. One good example of success of AWF success at protecting the vital wildlife habitat to move across areas that are protected and henceforth minimizing the human-wildlife interface is Maasai Steppe Heartland's Manyara Ranch. There has been a significant contribution to conservation of the AWF supported research in Maasai steppe Heartland. In terms of conservation there are approximately 6,000 hectares of areas and now the total conservation area is 13,500 hectares, a fair share of the elephant range in Northern Lolkisale Game Control Area (Foley 2002).

The local communities by definition are part of stakeholders since they are directly affected by and affect wildlife, and should be involved formulation and implementation of management strategies. The local community should both share from losses and benefits caused by wildlife. Macdonald, Yirga and Bauer, (2010) argue that the only workable solution in managing HWC will need compromise and strategies which do not involve sealing people from wildlife. The vital indigenous knowledge among the local communities in conservation should be acknowledged. They have lived with wildlife for a long time. Wildlife managers and scientist should try and discover the secret behind the tap.

2.4 Empirical Review and Knowledge Gaps

A study conducted by Olson and Slater (2015) on the balanced scorecard, competitive strategies and performance established that the need to adopt various strategies can be effective towards enhanced organizational performance. The study identified that one of the most common and

effective strategy an organization can focus on is cost leadership, it also identified that out of a total of 100 studied companies, 60% have been struggling with cost management hence contributing not only to break-even but also realization of loss within an organization.

Kingbade (2015) conducted a study on the implementation of competitive strategies to improve customer satisfaction, retention, and loyalty. The study identified that customers are always concerned with availability of services or products hence calling the need for implementation of differentiation strategy. Just like in the production industry or retail industry, a supermarket can be worthy selling if it differentiates or invests in different and various products where customers can make a choice based either on availability, quality, price and promotion.

Koffi, Yanney and Awuath (2014) stressed on the need for adoption of focus strategy. The study identified that most of the small-scale organizations in Ghana have failed to attain competitive advantage because they have failed to strategize on their products. The study considered that 60% of the market in Ghana is made up of perfect competition market where organizations strive to sell their products due to the nature of the products, which is being common. The study proposed the need for companies to do intensive research towards creating unique and customer focused product which will help them attain competitive advantage.

A study conducted by Schmutzler (2013) proposed the need for implementation of innovative strategy towards attaining competitive advantage. The study portrayed that through innovation, an organization can be able to concentrate its limited resources towards achievement of competitive advantage. The study also pointed out that innovation contributes to over 20% of organizational performance since through innovation, an organization can redesign products and

services, manufacture or produce customer focused products and create product efficiency in the market through pricing and packaging.

Garfinkle (2005) on strategies used by companies to gain competitive advantage pointed out that adoption of technology based strategy effectively contributes to achievement of competitive advantage. The need to adopt modern technology in the face of production and enhancement of services has grown over years. Technology based applications and access of financial services conveniently has grown over years with customers preferring to adopt the best technology based company. Ability to provide services effectively and efficiently contributes to competitive advantage over competitors. Technology is also one of the key strategic resources which contribute to competitiveness once effectively applied.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction.

Research methodology is the approach as the research approach by which the phenomenon is reviewed scientifically and inferences made about the findings (Bowling, 2014). The research methodology provides details on the design and methods applied in the study. It provides discussions on the methods adopted in carrying out the survey. Additionally, the target population is discussed, the sample size and sampling techniques are covered. The procedure for data collection is covered and the reliability and validity of the instruments used is studied. Data analysis method is detailed and the ethical consideration for this study are covered.

3.2 Research Design

As indicated by Lewis (2015), research design is the plan, strategy and structure of investigation determined to obtain answers to research questions and hypothesis of the study. It addresses the techniques and procedures to be adopted in conducting the researcher services. The research design intended to be used in the study is a case study. Schindler (2005) argues that case studies put an emphasis on a complete contextual analysis of less incidents or circumstances and their interrelationships. The advantage of adopting a case study is that it enables a deeper understanding of the pattern of the behavior of unit being studied. The justification of selecting case study is because case studies are best suited to examine the process through which events unfolds and explore causal association and additionally provide a complete understanding of a situation.

3.3 Data Collection

This study used primary data which was collected using an interview guide. This method was necessary due to the need to acquire relevant and sufficient information concerning the subject matter under investigation. The respondents interviewed were chief operating officers, human resource managers, finance managers, communications managers and project managers of Amboseli National Park as they are the major contributors in the formulation of management strategies in the management of the national park. They are regarded to be main informants for this study. The departments in which the respondents work in are the key developers and implementers of the park's management strategies.

3.4 Data Analysis and Presentation

The data that was acquired from the interviews guide was analyzed through content analysis. Content analysis is a procedural qualitative description of the nature of the materials or object of the study (Hsieh & Shannon, 2005). It entails observing and detailing the description of items or objects make up the study object. According to Kothari (2014), content analysis is a method utilized to evaluate various perspectives of a specified subject. Content analysis was adopted because it helped in explaining the approaches and strategies that have been adopted in the management of wildlife. It also identified the management strategies that if implemented would help in reducing the conflict. The outcome of the analysis was interpreted to establish the association amongst management strategies and human wildlife conflict as it is Amboseli National Park.

CHAPTER FOUR:

DATA ANALYSIS, PRESENTATION AND DISCUSSION

4.1 Introduction

This chapter presents data analysis as well as findings in relation to the laid out research objective. The study was designed to establish the strategies adopted by Amboseli National Parks on management of human wildlife conflict in Kenya. Data analyzed herein was constituted by use of interview guide and analyzed by content analysis technique. The interview guide contained two sections containing general information of the interviewee and strategies adopted.

Further this chapter provides a discussion of results and what those results means. The results are discussed in the context of how they fit into the existing body of knowledge and whether they are consistent with the theories earlier mentioned in literature review. Insights from these results are also given in this chapter with a view to provide a comprehensive presentation of the results.

4.2 Strategies Used by Amboseli National Park on Human –Wildlife Conflict

Human-wildlife conflicts are rising worldwide, especially in and around protected areas. The conflict occurs in various forms and involves all types of untamed animals, both big and small. They occur when the needs of people or wildlife impinge on each other. The consequences also range from minor to very complicated situations. The respondents were able to state various strategies used in managing Human –Wildlife Conflict which include; community participation, vigilance by KWS rangers and compensation of human loss.

4.2.1 Community participation

The respondents stated that the Maasai community benefits from the national park through alternative income generation. This entails diversification of income sources to divert human dependence on the Amboseli ecosystem which includes the National Park Amboseli and the six community ranches surrounding it. These six community ranches comprise of: Eselenkei, Kimana, Kuku, Tikondo, Imbirikani and Olgulului/Olalarrashi with a coverage of 506,329 hectares in Loitokitok district. The region also consists of the former 48 ranches on the foot of Kilimanjaro, primarily rain-fed farming, which now come into development. Another income generation enterprises is beekeeping for honey production which is also being done at the Loitokitok district. The management of Amboseli national park has being able to increase benefits of wildlife conservation to local communities is another non-lethal control approach. For instance, through ecotourism, profit sharing schemes, wildlife-based employment such as wood carving, increasing lifestyle benefits such as providing recreational aesthetic benefits through activities like wild animal viewing, hunting or providing meat from wild animals 'hunting. It is strongly anticipated that invoking a culture of environmental entrepreneurship to the local communities will go a long way in curbing the human–wildlife conflict.

The community has being involved in farming practices mostly in Loitokitok and Eselenkei, district to offer some of the best methods to manage human wildlife conflicts. Practices like changing the crop planting time or harvesting time could help in decreasing crop raids by wild animals. To accomplish this, use of special breed of maize seeds like the hybrid 1 (Katumani) which mature early and can hence be harvested earlier than other food crops is imperative. As a result of their early maturity time, such maize species are less vulnerable to damage by wildlife which occurs later in the crop growing period. Through intensive farming, mechanization,

application of organic fertilizer and irrigation, farmers can get optimal returns from smaller tracts of land thereby making it easier for them to guard against crop invading elephants, monkeys and baboons. Intensification can be achieved through introducing practical, environmentally sound techniques like the use of organic fertilizer and mulching.

Small patches of crops scattered over a large forest inhabited by wild animals can be easily destroyed than those that are clustered together. By this token, a landscape strategy towards reduction of human-wildlife conflict should entail crop plantations in large communal fields with straight fences or edges. This may entail clearing the nearby bush and habitat to guard against wildlife crossing. This is because baboons and bush babies do not like crossing open areas. The is also this method known as Community Based Natural Resources Management Mechanisms constitutes a system of returning a hand to the local communities in a bid to motivate them to discourage poaching and guard wildlife outside protected areas. Community based natural resources management mechanisms (CBNRM) are gaining popularity and have great potential in mitigation the human-wildlife conflict.

4.2.2 Vigilance by KWS rangers

It was found out that there are Amboseli habitat conservation approaches which include technical approaches for human–wildlife conflict management which contribute towards lessening conflict. Technical strategies work to the reduction of the magnitude of wildlife damage suffered. Despite the fact that conservation scientists cite wildlife damage as the main reason for conflict between humans and wildlife causes of conflict are very complex and deep-rooted, hence an all-inclusive strategy must be employed so as to abate the conflict totally in the long term. The interviewees further indicated that there voluntary relocation programmes done by Amboseli National Park which include; fencing, enclosing resources, use of repellents, deterrents and

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scaring devices. It also involves fencing of protected areas with electric fence. Digging trenches, netting and other defense structures around the resources is characteristic of this approach. Further, use of visual repellents, chemical repellents, rubber bullets and radio activated guard boxes is part of this approach.

The use of Amboseli uses guarding assets which involve guarding and use of animals which sound warning to intruders. Here, special animals such as trained dogs (Mbwa Kali),animals like donkeys and domestic dogs are used to raise an alarm on predator presence. The technique also involves human guardian resources (Askari), to keep vigil in farms to chase invading animals, pastoral thieves and also to guard and scare away any carnivores. In the same vein, physical devices such as protection collars, king collars and cyanide collars are put on livestock to identify them and make noise as a gimmick to scare away any intruders.

The Habitat use and modification approach is used to reduce human and wildlife conflicts Amboseli forest has been divided into forest management zones such as non-extractive zone, subsistence zone, commercial zone and intervention zone. The essence of zoning is to bring about specialization on how different zones in the forest can be sustain-ably managed to ensure sustainable conservation of the biodiversity of the forest ecosystem. Another approach is use of Behaviour Modification of Conflict-Causing Animals this conditioned taste aversion is implored. For example, poisonous salts such as Lithium chloride as well as other toxic compounds are applied to the resources to cause discomfort to the culprits. After consumption, the animals are naturally compelled to change behavior or direction altogether. Prudent livestock management is part of this approach. It entails scientific modes of breeding, more conscientious herding, guarding, raring livestock under enclosures (walled and gated bomas), scientific methods of carcass disposal and avoiding conflict hot-spots.

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The study aimed at establishing Amboseli National Park uses behaviour Modification of People Responsible for Forest Resources. This involves relocating people. The local communities are advised to migrate from animal dominated zones. Requisite capacity building and education is imparted to the local people. They are taught on risk reducing factors such as reduction of driving speed to avoid deer-vehicle collision and best techniques of reducing conflict.

The respondents further stated that National park has being able to implement lethal control programme in which animal population control is done. It involves ruthless killing of conflict causing animals as a strategy of averting conflict. It also involves selective culling of animals to suppress growth in animal population. Another strategy is retaliatory killing. This involves killing the conflict causing animals in response to ongoing conflict in the locality. Under this approach also comes problem animal control. This strategy targets to invoke lethal control of all problems animals.

4.2.3 Compensation of human loss

Non-Lethal Control of Conflict-Causing Animals in which it involves the alleviation of economic costs associated with conflict. It advocates for compensation for wildlife losses and insuring the resources. Another technique is giving economic incentives to contain the species that exacerbate conflict. Local communities are paid directly for conserving conflict causing wildlife. In addition the respondents stressed direct compensation is done through payment when a person dies, injury or domestic animal skilled by carnivorous predators or elephants. Such schemes usually get funding from conservation organizations like the Global Environment Facility (GEF) or by the National Government through KWS. These schemes are carried out to boost damage tolerance among the local communities affected and hence prevent them from hunting and killing the animal culprits like lions, elephants and baboons. The respondents further

explained that there exist some compensation schemes to cater for the losses brought about by wildlife within sub –Saharan Africa. However, majority of African nations do not compensate farmers for damages caused by wild animals. They argue that these schemes cannot do much in reducing human wildlife conflicts. They further argue that these schemes have been associated with much red tape, are less accountable, less transparent and hence redundant. It was found out that The study found out that Current awards of Sh 3million for permanent incapacity and Sh 5 million for death should be revised to 5 million and 10 million respectively.

Majority of compensation strategies have failed to take place in Amboseli national park because of challenges occasioned by obscure bureaucracy, cheating, fraudulent claims, corruption, long procedures, high costs involved, moral hazards and the fact that most illiterate farmers find problems in filling and submitting the compensation claims. Coupled with this, there is also the problem of competent personnel to move, verify and quantity damage involved over large areas. These bottlenecks lead to delays in decision making on the part of KWS officials, low monetary amounts, inadequate payments, irregular payments, or worse still, rejection of the compensation claims altogether. Although when the correct channel is followed most victims are compensated. The study found out there are an alternative compensation scheme which dwells on giving out licenses to local community dwellers to exploit and use natural resources. In this regard, locals are dully licensed to carry out ecotourism, hunting, collecting mushrooms fodder or timber from the forest. This type of compensation is more preferred than monetary payment. It was also found out that there are insurance policies regarding compensation in which to compensate farmers who make premium payments to cover themselves against some defined risks like livestock depredation among others. Such premiums are normally set at the prevailing market rate or subsidized as per the provisions of the conservation organizations such as United Nations

Environmental Programme (UNEP)and Global Environment Fund (GEF). The insurance policy scheme needs accurate assessments of the causes of the crop damage, livestock depredation, humans who have died or injured. Since it is operated locally, reports can easily be verified. The method calls for participation by farmers to mitigate against human wildlife conflict but it is more viable.

4.2.4 Strategic Planning for Land Use

The study found out that land use planning was designed through a coordinated approach where by all the governments departments were involved. In order to use planning to prevent or mitigate human wildlife conflict, planning and manipulating the distribution of human activities was applied. The land-use planning techniques that was adopted to manage conflict with the farming communities were relocating agricultural activity out of wildlife range, moving or relocating the crop fields from the forest edge closer to their residential and reducing human settlement encroachment into wildlife range, by re-positioning the boundaries of protected area or creating buffer zones.

The respondents further added that clear designation of areas suitable for human activities were put in place for example areas that are important for cattle or agriculture rather than wildlife should be devoted to animal husbandry or crops, while areas of particular wildlife importance such as strongholds, corridors, and economically viable wildlife-use areas, should be dedicated to wildlife conservation.

The respondent added to the fact that improved transport methods could help reduce the interaction with the wildlife, like those that currently take place when humans move on foot or on bicycles at night in areas common to dangerous animals such as lions, hippopotamuses or

elephants, or when they cross rivers. Similarly, in places inhabited by dangerous animals, toilets should be situated close to houses and not be used at night.

Through zoning around protected areas has offered more advantages in terms of mititgating human-wildlife conflict by focusing resources for costly conflict reduction and intensive conservation measures on limited grounds. It allows the degree of predictability, so that people can make long time plans knowing to what extent wildlife will be part of their future an may also accustom people to the presence of wild animals hence reducing fear.

4.2.5 Capacity Building

The study found out that the KWS agencies and their partners are well-poised to affect the knowledge and leadership capacity of stakeholders required for effective community-based collaborative management. Wildlife agencies, alone or in partnership with educational or community development entities, are unable to design intervention processes that deliberately address knowledge and leadership development to improve decision making and decision outcomes on human-wildlife conflict management. If collaborative, community-based wildlife management were explored, an opportunity for managers at Amboseli national park to explore the boundaries of their roles would be provided. The KWS may not always be equipped to address knowledge and leadership development needs alone. Through defining their roles in collaborative processes, they can identify when they require external support and should seek out relevant partners to complement agency resources.

The respondents further pointed out that there are no opportunities and resources available to the KWS who wish to offer their staff in-service training on building community capacity. KWS manager has not done much in organizing and increasing knowledge through education and cultivating the development of leadership through stakeholder engagement processes.

4.3 Discussion of the Findings

The study found out that the community has being involved in farming practices mostly in Loitokitok and Eselenkei, district to offer some of the best methods to manage human wildlife conflicts. Practices like changing the crop planting time or harvesting time could help in decreasing crop raids by wild animals. The findings agree with Muruthi, (2005) agricultural strategies offer some of the best methods to manage human wildlife conflicts. Practices like changing the crop planting time or harvesting time could bring about a decrease in crop raiding by wild animals. Through intensive agriculture, availability of more inputs so as to increase the yields enables the farmers to attain increased outcomes from small plots which make it easier for them to guard against crop raiding moneys, baboons and elephants. Intensification can be achieved through introducing practical, environmentally sound techniques like the use of organic fertilizer and mulching (Timber Producers' Federation, 2006). Community based natural resources management mechanisms (CBNRM0 is another method used to deal with conflict between the wildlife in the local communities and conservation authorities. It entails changing the affected communities' attitudes towards wildlife and the conservation authorities. Such strategies convince the local communities to participate in day to day management decisions of the forest resources, policy making and benefits sharing scheme. The findings agree with Muruthi (2005) further opines whether such benefit sharing programmes influence the affected communities' attitudes to live with wildlife.

The respondents also said that there is direct compensation is done through payment in the event of loss of human life, injury or livestock killed by elephants or other predators. Such

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schemes obtain funds from conservation organizations such as the Global Environment Facility (GEF) or by the National Government through KWS. These schemes are carried out to increase the tolerance to tolerance among the local communities affected and hence prevent them from hunting and killing the animal culprits like lions, elephants and baboons (Treves et al., 2003).It was also stressed that most compensation schemes have failed due to bureaucratic challenges, fraudulent claims, cheating, corruption, time wasting, moral hazards, high costs involved and the fact that most illiterate farmers find problems in filling and submitting the compensation claims. This agree with Muruthi (2005) there is also the problem of competent personnel to move, verify and quantity damage involved over large areas. These bottlenecks lead to delays in decision making on the part of KWS officials, low monetary amounts, inadequate payments, irregular payments, or worse still, rejection of the compensation claims altogether.

The study also found out there is also Vigilance by KWS rangers whereby there is a physical preparation of conflicting species and resources. The use of Amboseli uses fencing enclosing resources, use of repellents, deterrents and use of scaring devices. Digging of trenches, netting and other defense structures around the resources is characteristic of this method. It also uses visual repellents, chemical repellents, rubber bullets and radio activated guard boxes. The national park also uses guarding and use of warning animals. In this regard, specialized livestock such as guarding dogs, donkeys, and domestic dogs are used to raise an alarm on predator presence. The findings agree with Ogada et al. (2003) at Arabuko-Sokoke Forest, the approach involves human guards (Askari) who stays in crop fields to scare away herbivores, pastoral thieves and carnivores. Guarding is popular at Arabuko forest as a preventive method as is also popular in parts of India such as Rajasthan. The park also uses habitat manipulation so as to

reduce human-wildlife conflicts. For instance this could involve the mowing of vegetation around the airports to reduce cover for problematic wild animals. Under this strategy, habitat is demarcated into different land use zones to prioritize human or wildlife use.

CHAPTER FIVE:

SUMMARY, CONCLUSION AND RECOMMEDATIONS

5.1 Introduction

This chapter relates the findings of the study to the objective of the study which was to establish strategies adopted by Amboseli National Parks on management of human wildlife conflict in Kenya. It highlights the researcher's summary as adduced from the foregoing chapters describing the whole study. It further gives a highlight on suggested study areas

5.2 Summary of the Finding

The study found out that the community has being involved in farming practices mostly in Loitokitok and Eselenkei, district to offer some of the best methods to manage human wildlife conflicts. Practices like changing the crop planting time or harvesting time could help in decreasing crop raids by wild animals. The management of Amboseli national park has being able to increase benefits of wildlife conservation to local communities is another non-lethal control approach. For instance, through ecotourism, profit sharing schemes, wildlife-based employment such as wood carving, increasing lifestyle benefits such as providing recreational aesthetic benefits through activities like wild animal viewing, hunting or providing meat from wild animals 'hunting

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Amboseli habitat conservation approaches which include technical approaches for human–wildlife conflict management which contribute towards lessening conflict. Digging of trenches, netting and other defense structures around the resources is characteristic of this method. It also uses visual repellents, chemical repellents, rubber bullets and radio activated guard boxes. The use of Amboseli uses guarding assets which involve guarding and use of animals which sound warning to intruders. Here, special animals such as trained dogs (Mbwa Kali), animals like donkeys and domestic dogs are used to raise an alarm on predator presence.

It was found out that current awards of Sh 3million for permanent incapacity and Sh 5 million for death should be revised to 5 million and10 million respectively. Local communities are paid directly for conserving conflict causing wildlife. In addition the respondents stressed direct compensation is done through payment when a person dies, injury or domestic animal skilled by carnivorous predators or elephants. Such schemes usually get funding from conservation organizations like the Global Environment Facility (GEF) or by the National Government through KWS

5.3 Conclusion of the study

The study concludes that the community has being involved in farming practices mostly in Loitokitok and Eselenkei, district to offer some of the best methods to manage human wildlife conflicts. Practices like changing the crop planting time or harvesting time could help in decreasing crop raids by wild animals. Community based natural resources management mechanisms (CBNRMM) is another method used to deal with conflict between the wildlife in the local communities and conservation authorities. It entails changing the affected communities' attitudes towards wildlife and the conservation authorities. Such strategies convince the local

communities to participate in day to day management decisions of the forest resources, policy making and benefits sharing scheme.

The study concludes that Amboseli park uses Vigilance by KWS rangers whereby the uses fencing enclosing resources, use of repellents, deterrents and use of scaring devices. Digging of trenches, netting and other defense structures around the resources is characteristic of this method. It also uses visual repellents, chemical repellents, rubber bullets and radio activated guard boxes. The national park also uses guarding and use of warning animals. In this regard, specialized livestock such as guarding dogs, donkeys, and domestic dogs are used to raise an alarm on predator presence.

The researcher concludes that there is direct compensation is done in Amboseli through payment in the event of loss of human life, injury or livestock killed by elephants or other predators. This is an alternative compensation scheme which dwells on giving out licenses to local community dwellers to exploit and use natural resources. KWS also gives out insurance policy as a compensation strategy where farmers make premium payments to cover against some defined risk such as depredation of livestock among others. The premium is predetermined based on the true market rate or subsidized as per the provisions of the conservation organizations such as the UNEP and the global environment fund.

5.4 Recommendations

The study recommends that Amboseli national park should be actively involved in the monitoring and reporting of the state, response and pressure in fundamental bird areas based on routine monitoring and evaluation. Majority of the activities that have been undertaken indicate positive outcomes with findings on monitoring according to research responses and observation,

indicating deteriorating state of biodiversity and increasing pressures despite the various initiatives to protect biodiversity.

Amboseli National Park should Collaborate with the private sectors, government and local communities to build capacity of local environmental groups, inform and educate the public, publish all the relevant print and electronic materials and strive to meet the international reporting standards in the protection of biological biodiversity and among other global consensus. The KWS through the community wildlife initiative in collaboration with other stakeholders promotes conservation of biodiversity by communities living on land adjacent to wildlife such as dispersal lands and wildlife corridors at the outskirts of parks and reserves. This is premised on the ideology that —if people benefit from wildlife and other natural resources, then they will take care of these resources.

The voice of the local communities needs to be heard. The livelihood of the local communities is at stake. Chronic poverty levels have impaired education standards since most of the local communities cannot afford even school uniform and basic primary school requirements let alone secondary and university level education.

The study recommends that once compensatory funds have been granted by the government priority should be given to the victims and not KWS as in the current practice under the WCMA 2013.When it comes to compensation rewards the process of claiming should be shortened, without much bureaucracy and should be made more transparent. Internal checks should be incorporated into the process to ensure justice is given to victims of wildlife damage to either crops, property or even fatal injury and death.

Further, modern methods of maize production such as use of mechanization, certified seeds and application of organic fertilizer as supplementary to chemical fertilizer will need to be invoked for higher yields. In this regard local farmers should be sensitized on planting self-nitrogen fixing plants such as legumes, grivalia and carbon 3 and 4 vegetation which enrich the soil. It is, therefore, recommended that the national and county governments collaborate to intensity agricultural extension services to the area. Also channels of distribution and marketing outlets have to be sought to improve the economy of the local residents.

5.5 Limitations of the study

he research was taken with extra care to ensure comprehensive research, analysis and documentation of findings is done. A number of challenges were experienced which had to be addressed to ensure successful study and quality work. The researcher however found innovative ways to manage any limitation experienced. Being a part time student, the researcher had to drive a balance between studies and full time engagement at work and this posed a challenge in terms of time required to conduct interview.

One of the challenges was that, the target respondents for this study were managers. Majority of them were quite busy and had tight schedule due to work pressure and could not therefore have adequate time to answer the interview guide. Another the challenge was that the current study was limited to primary data that was collected using interview guide. However, it could be prudent when data is obtained from both the primary and secondary sources were used to substitute each other. At the same time, not questionnaires that the researcher issued to respondents were returned hence reducing the return rate.

Another limitation of this study is that it only focused on strategies adopted by Amboseli National Parks on management of human wildlife conflict in Kenya; however, there are other factors that are very instrumental in the strategies. These factors include but not limited to community participation, Vigilance by KWS rangers and Compensation of human loss.

5.6 Recommendation for Further Studies

With the findings from the study, there is an avenue for more research on this topic either in a different time context for the same organization or a different organization. Hence the researcher recommends a similar study to be conducted but in different context such as in the Maasai Mara. This would provide an avenue for comparison between Amboseli national park and Maasai Mara national Park. In addition by carrying out similar study in Maasai Mara national Park, contingency factors in application of human –conflict strategies can be brought to the limelight.

This research is considered to be a cross-sectional study that used quantitative approach. It only captured the perceptions and opinions of respondents. The cross-sectional study using the quantitative approach was selected because it was the most appropriate method available to address the issues given limited time and financial constraints. Therefore, there is need for a similar research to be carried out based on qualitative approaches.

The gist of this study was strategies adopted by Amboseli National Parks on management of human wildlife conflict in Kenya. This paper therefore recommends further studies on other related factors such as organizational leadership, corporate governance and organization design in relation to strategies adopted to human and wildlife conflict.

Suggestions for further study arise from the findings and the missed opportunities in this study. The study design was a case study thus the findings cannot be generalized considering that

organizations have different cultures, structures and capacities. Thus there is a need for further study in different national parks to establish the strategies used to manage human-wildlife conflict. The study was also Amboseli National park due to cost and time constraints. It is therefore recommended that a replication to be carried out through comparative studies in other National Park..

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APPENDICES

APPENDIX 1: INTERVIEW SCHEDULE

STRATEGIES ADOPTED FOR THE MANAGEMENT OF HUMAN WILDLIFE CONFLICT

Community participation

1.Which benefits does the local community derive from wildlife management in Amboseli National Park?

2. Do you involve the local community when making decisions about the Kitengela area? and how are they involved in decision making?

3. Are the community members aware on importance of wildlife by KWS?

4. Are the community members involved in the fencing process?

5. How does corporate social responsibility that was implemented by KWS reduce human – wildlife conflict?

Vigilance by KWS rangers

6. Which Amboseli habitat conservation approaches is your organizations employing and how effective are they?

7. How is Voluntary relocation programmes done?

8. How is Intense vigilance done KWS rangers?

9. Has KWS intensify its fencing for the park?

10. How is the fencing done?

11. How does lethal control programme work that was implemented by KWS?

Compensation of human loss.

12. Does KWS has compensation scheme?

13. Which criterion is used to compensate the community?

14. How much compensation are they given?

Strategic Planning for Land use

15. What are the strategic planning approaches for land use?

Capacity Building

16. What effect does capacity building have on knowledge and leadership?

17. Are there any opportunities in staff training?

18. What has the KWS management done on capacity building?

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