THE CAUSES OF HUMAN AND WILDLIFE CONFLICT WITHIN KAJIADO SOUTH SUB COUNTY

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Abstract

Purpose: To investigate the main causes of Human - Wildlife conflict in Kajiado South Sub County in Kajiado County.

Methodology: The study utilized a descriptive research design.

Findings: The study findings show that according to 15% of the respondents' population growth caused Human-Wildlife conflict in Kajiado South Sub County. Results also showed that 3% of the respondents indicated that sharing of water with animals was a cause of Human-Wildlife conflict and 1% indicated lack of water. Results also revealed that loss of vegetation influenced Human-Wildlife conflict. In addition, the business people indicated that lack of pasture created Human-Wildlife conflict because the wild animals destroyed crops while feeding on them and caused soil erosion by stepping on land with no vegetation while the *Kipawa Kimoja* Womens Group and the area Chief highlighted that lack of pasture created Human-Wildlife conflict because the wild animals destroyed crops while feeding on them. Further corridor blocks were identified by the area chief as endangering human life and animals because poachers easily accessed animals. The corridor blocks were causing fatalities such as killing of wildlife at Kitengela and Amboseli, killing of humans by elephants, lions eating domestic animals and humans disabled by wildlife.

Unique contribution to theory, practice and policy: Collecting data on the Human-Wildlife conflict in areas such as Kajiado Sub County which host vast resources in wildlife is vital in managing HWC because understanding the timing and locations of conflicts, the behaviors of the involved individuals (wildlife and human), and the perceptions of affected stakeholders is essential to planning. Research into the HWC in Kajiado South Sub County will therefore improve the environmental education or outreach, which can improve people's tolerance for threatening wildlife. The research findings can also be used as a reference point by other researchers in the same study area and can be used to identify research gaps for further study.

Keywords: *Human-Wildlife Conflicts, Population Growth, Water, Pasture, Corridor Blocks*

INTRODUCTION

Background

Devolved governments are facing many challenges such as poor governance, low economic performance and conflicts (Kimenyi & Meagher, 2004). Conflict is the condition in which people's concerns values, perspectives and opinions are contradictory or appear to be incompatible (McNamara, 2007). Human-Wildlife conflict continues to pose a big management challenge to the institutions that are mandated to protect and conserve wildlife and the environment (Nelson, Bidwell & Sillero-Zubiri, 2003) such as the Kenya Wildlife Service (KWS). Human-wildlife conflict (HWC) is also fast becoming a critical threat to survival of many globally endangered species, including the large and rare mammals. The conflict occurs when wildlife requirements overlap those of human populations, creating costs to residents and wild animals (Ogada, 2011).

The cause of Human-Wildlife conflict as identified b the Kenya Wildlife Service (KWS) is mainly the lack of a land use policy for the country, operational strategies, changing socio-economic and increased human population. As a long-term plan, the Kenyan government put in place a National Steering committee to review the existing policies and legislation for wildlife conservation in the country.

According to Hoare (2001), almost all wild animals species have the ability of causing property destruction or inflicting injury to people, even though the big ones are potentially dangerous species, those that gather round in large groups, and the ones that are most wide ranging are more likely to cause problems than smaller species with restricted ranges. This argument is echoed by Ogada and Ogada (2004) who conducted a study in Samburu District and documented the species of wildlife responsible for killing livestock. His findings indicated that deaths were due to: lions (35% of reported deaths), leopard (35%), hyena (18%), baboon (4%), elephants (3%), buffalo (2%), wild dog (2%) and cheetah (1%).

To mitigate the problems of Human-Wildlife Conflict (HWC), a wide range of different strategies have been applied worldwide including: prevention, mitigation and protection strategies most of which are site and species/genera specific measures. A prevention strategy endeavors to circumvent the conflict from occurring in the first place through taking action towards addressing its root causes. The strategy includes eradication of the wild animals, managing the size of the population through killing or controlling reproduction, regulated harvesting or cropping, fertility control, use of physical barriers, fear provoking stimuli, guarding crops and livestock, application of chemical repellant, use of diversions, land use modification and voluntary human population resettlement.

However, mitigation strategies attempt to reduce the level of impact and lessen the problem with the main difference between the two options being the moment at which the measure is implemented. On the other hand, protection strategy is implemented when the conflict is certain to happen or has already occurred. Examples include: Problem Animal Control (PAC), translocation of wildlife, incentive programs, insurance programs, compensation systems and community based natural resource management schemes (Ogada et al., 2003).

An important aspect in developing a positive value of wildlife resource is to reduce the negative aspects of wildlife on human activities. Wildlife can be compatible to a greater or lesser degree with some form of land use, particularly pastoralism and ranching. However, densely settled areas and agricultural land are not compatible with many kinds of wildlife.

Statement Problem

Various studies on HWC have been done. According (Sindiga, 1995) shows that human encroachment on critical biodiversity depository sites in search of agricultural land has since the 1970's and 1980's shifted to low potential rangelands which coincidentally are the prime wildlife ecosystems thus creating a myriad of problems like competition for water resources, Human-Wildlife conflicts, habitat fragmentation and blocking of wildlife migratory routes and dispersal areas and negative perception towards conservation. Conflict is linked to factors such as poor land-use planning and flawed development policies (Madden, 2006).

For quite some time now, Kajiado South Sub County has experienced an alarming rate of Human and Wildlife conflict. Some of the reason of this conflict is due to lack of water and green pasture of wildlife, which cause wildlife to get into the farm areas.Some of the conflict between Human and Wildlife conflict within Kajiado South Sub County has lead to poor crop harvesting and also high death rate of wildlife and humans as well. The study therefore aims at assessing the human-wildlife conflict in Kajiado South Sub County so as to find out the causes of the conflict and recommend measures to mitigate it.

General Objective of the study

The main objective of the study was to investigate the main causes of Human - Wildlife conflict in Kajiado South Sub County.

Specific Objectives

The study was guided by the following specific objectives.

- To determine the influence of population growth on Human - Wildlife conflict in Kajiado South Sub County.

- To establish if lack of water influences the level of Human - Wildlife conflict in Kajiado South Sub County.

- To determine the effect of lack of pasture on Human - Wildlife conflict in Kajiado South Sub County.

- To establish the influence of corridor blocks on Human - Wildlife conflict in Kajiado South Sub County.

THEORETICAL REVIEW

Variation Theory

Coser (1956) argues that conflict can have integrating as well as disintegrating effects. Conflict functions differently whether it is between unrelated groups (external) or inside a group, between factions (internal). For internal conflict, Coser (1956) notes that the question of functionality hinges on the conflict being less violent and more frequent, not threatening the basic assumptions of the group at large, and the group having low interactional network density. Under these

conditions, internal conflict will produce the following functional consequences: conflicts will serve to release pent-up hostilities, create norms regulating conflict, and develop clear lines of authority and jurisdiction.

External conflict that is more violent will tend to have the following functional consequences: stronger group boundaries, higher social solidarity, and more efficient use of power and authority. Conflict violence will tend to increase in the presence of high levels of emotional involvement and transcendent goals (Coser, 1956).

Theory of Unbalanced Growth

Scholars such as Hirschman, Rostow, Fleming and Singer propounded the theory of unbalanced growth as a strategy of sustainable development to be used by the underdeveloped countries. This theory stresses on the need of investment in strategic sectors of the environment instead of all the sectors simultaneously. According to the theory the other sectors would automatically develop themselves through what is known as "linkages effect". These linkages can be further defined in their social, economic and environment categories as having great importance to the development process (Hirschman, 1958).

The theory maintains that investments in strategically selected areas or sectors of the environment will lead to new investment opportunities and so pave the way for further sustainable development. The theory also stresses that for sustainable development to take place a deliberate strategy of unbalancing the main challenges should be adopted. This is possible by investing either in social overhead capital or indirect productive activities. Investments in social overhead capital are advocated not because of its direct effect on the final output, but it permits and invites Direct Productive Activities (DPA) to come in and therefore some SOC is required as a prerequisite of DPA investment (Hirschman, 1958).

Social Psychology Theory

According to Collins (1990) in order for conflict to become overt, people must become mobilized through the material resources for organizing, and they must be emotionally motivated and sustained, feel moral justification, and be symbolically focused and united. Once conflict begins, it tends to reproduce itself through a ritualized exchange of atrocities. The back and forth exchange of atrocities reproduces and boosts emotional motivation and moral justification, and it creates further representative symbols for additional ritual performances. After a time, conflicts are won or lost primarily as the two different kinds of resources are gained or lost (Hewstone & Cairns 2001).

METHODOLOGY OF THE STUDY

This study used a descriptive research design. The target population of the study was from the Kajiado South Sub County and in specific the Amboselli National Pak that is located within the constituency. The total population of the direct beneficiaries of the park is more than 50,000.The study thus used a total of 46 respondents drawn from the more than 50,000 beneficiaries of the park which represented 0.092% of the target population. The researcher used a questionnaire, a key interview guide and a Focus Discussion Group as the main data collection instruments. The questionnaires designed by the researcher consisted of both closed- and open-ended questions. The researcher used a drop and pick later administration method for the study.In addition, the

researcher booked appointments with the key informants and the Focus Discussion Group to administer the interview guide to them.Both quantitative and qualitative methods were used to analyze the data. Quantitative data was analyzed using descriptive statistics such as means, frequencies and percentages and later presented in form of tables, bar charts and pie charts. The MS Excel Software was used for this purpose as it was readily available and is able to translate the data into numeric. Qualitative data was analyzed through content analysis and presented in continuous prose form.

RESULTS OF THE STUDY

Response Rate

A total of 46 questionnaires were properly filled and returned. This represented an overall successful response rate of 87% as shown on Table 1.

Table 1:   Response Rate

Response	Frequency	Percent
Returned	46	100%
Unreturned	0	0%
Total	**46**	**100%**

Demographic Characteristics

The demographic information of the respondents indicated that a majority were male (68%) and 32% female. With regard to sub-county residents, results in table 4.1 show that 62% of the residents resided in Kajiado South Sub County, 36% Loitokitok and 2% Inkariak Rongena. With regard to the wards residents, 74% resided in Kuku ward, 9% in Imbalikani, 9% in Oloolopon, 4% in Loitokitok, 2% in Kimana and 2% in Rombo.

Descriptive Statistics

Causes of Human-Wildlife Conflict

The respondents were asked the causes of Human-Wildlife conflict in Kajiado South Sub County. Results in Figure 1 show that 15% indicated the case to be increasing population, 13% uncontrolled wildlife, 9% farming and lack of game park fence, 8% lack of KWS personnel, 7% poor management, 7% grazing, 5% lack of a land policy, 4% lack of compensation, 4% encroachment of game parks, 3% illiteracy, 3% poaching, 3% deforestation, 3% sharing of water with animals, 3% corruption, 3% poverty, 1% lack of water and 1% unplanned subdivision of land.
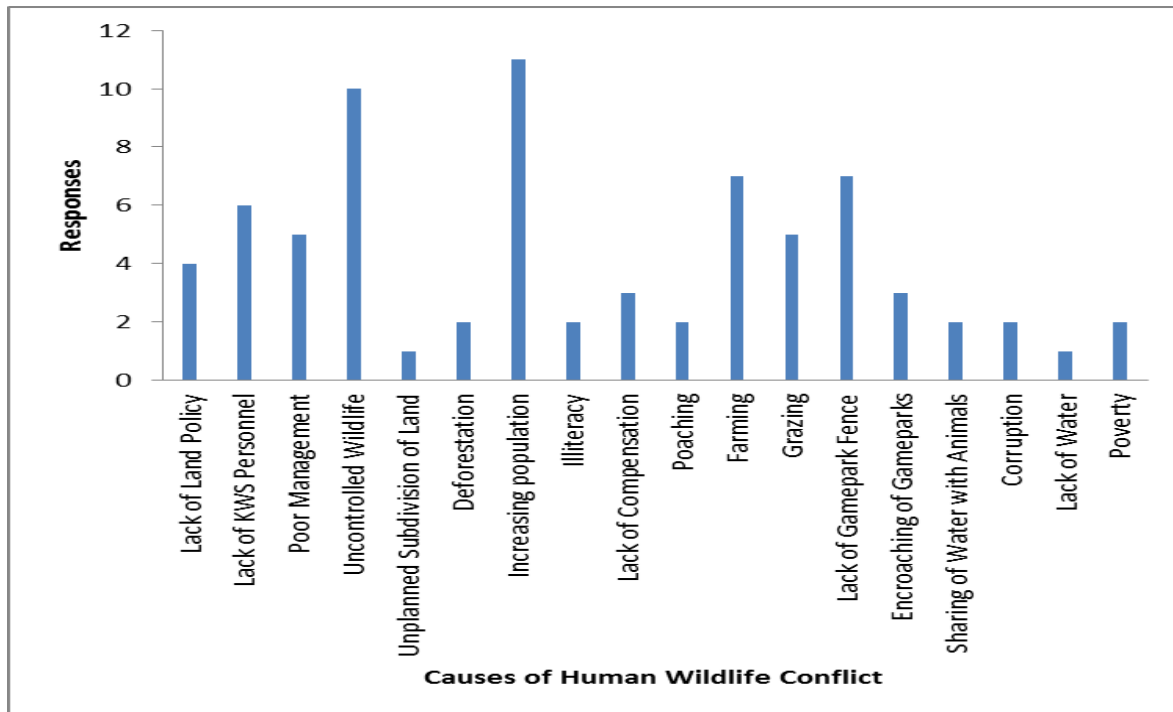
Figure 1: **Causes of Human-Wildlife Conflict**

Effects of Human-Wildlife Conflict

The respondents indicated the following to be the effects of Human-Wildlife conflict; Loss of human life (27%), destruction of property (26%), killing of animals (15%), shortage of food (8%), drought (5%), loss of vegetation (3%), deforestation (3%), poor human coexistence with wild animals (2%), soil erosion (2%), while 1% indicated insecurity, road accidents, wildlife migration, poaching, sleepless nights, pollution, diseases, disability and destruction of water pipes respectively as shown in Table 2.

Table 2: **Effects of Human-Wildlife Conflict**

Effect	Frequency (n)	Percentage (%)
Destruction of Property	29	26
Killing of animals	17	15
Loss of human life	30	27
Drought	6	5
Shortage of food	9	8
Poor co-existence between humans and wild animals	2	2
Insecurity	1	1
Road accidents	1	1
Wildlife migration	1	1
Poaching	1	1
Sleepless nights	1	1

Deforestation	3	3
Loss of vegetation	3	3
Soil erosion	2	2
Pollution	I	1
Diseases	1	1
Disability	1	1
Destruction of water pipes	1	1
Total	**46**	**100**

Cases of Human-Wildlife Conflict

The respondents were asked by the researcher whether they were aware of any Human-Wildlife conflict in Kajiado South Constituency and all respondents were aware of cases of Human-Wildlife conflict, 36% had witnessed wild animals destroying crops and killing of wildlife at Kitengela and Amboseli, 18% had witnessed humans killed by elephants, 5% lions eating domestic animals and humans disabled by wildlife as shown in Figure 2.
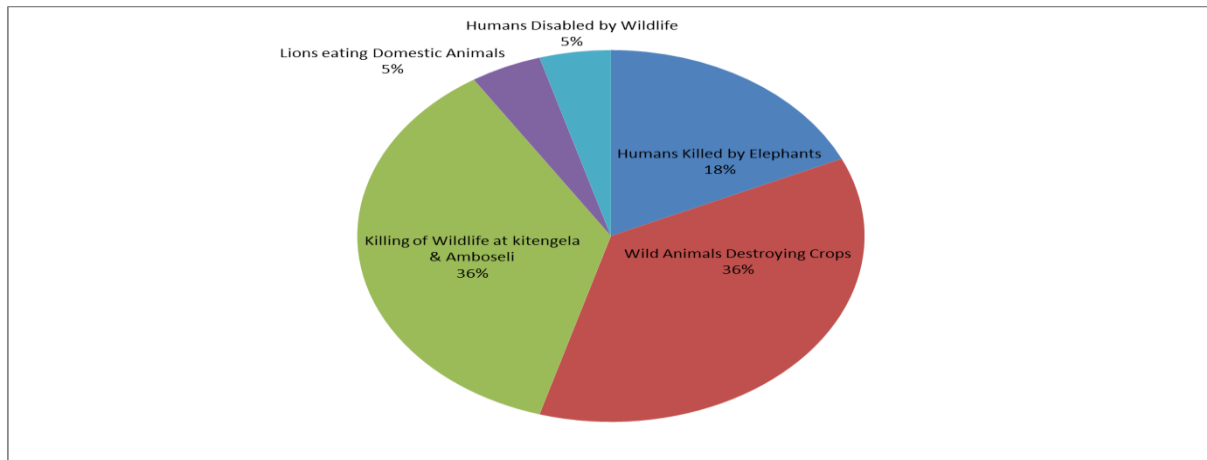

Figure 2:   Cases of Human-Wildlife Conflict

Contribution of Measures taken by the Leadership of Kajiado South Sub County to Solving the Human-Wildlife Conflict

The respondents were asked whether the measures being undertaken by the leadership of Kajiado South Sub County contributed towards solving the problem of Human-Wildlife conflict and 89% answered that there were no measures taken by the leadership in Kajiado South Sub County while 11% answered otherwise as shown in Figure 3.

The measures taken by the leaders that contributed towards solving the problem of Human-Wildlife conflict are ensuring that community lands are available for grazing, ensuring good relations between the community and KWS, returning animals to parks and compensation of affected farmers.
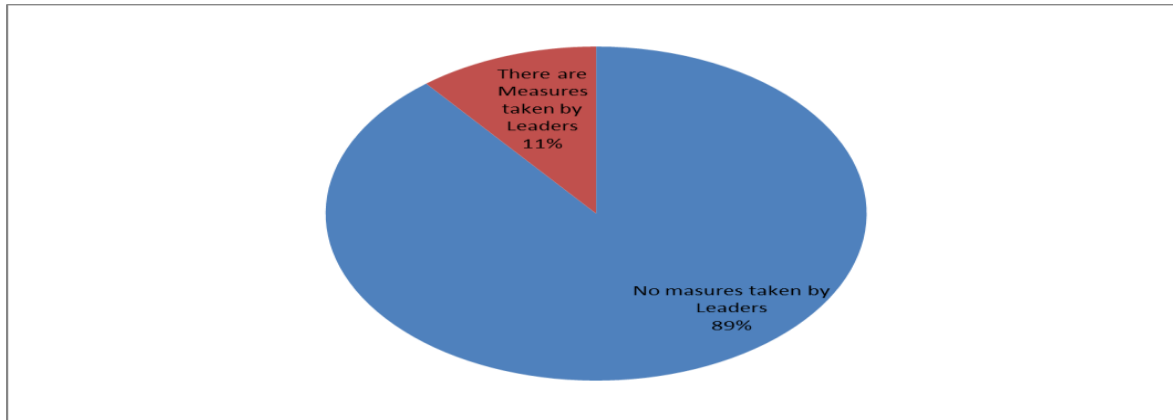
Figure 3:   **An indication of Measures taken by the Leadership in Kajiado South**

Role of Leadership in assuring reduction of Human-Wildlife Conflict

The findings showed that a majority of the respondents (40%) answered creating awareness one of the roles of leadership in assuring reduction of Human-Wildlife conflict while 18% answered passing legislation, 14% organizing discussion forums, 13% fencing, 9% management of wildlife, 2% compensation of affected persons, introducing zero grazing and employing adequate personnel respectively as presented in Figure 4.
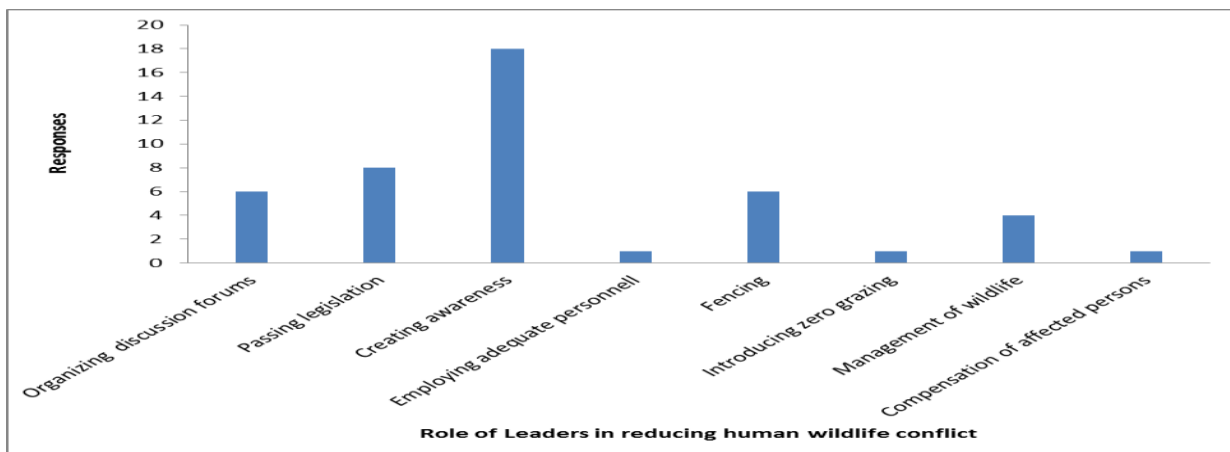

Figure 4: Role of Leadership in assuring reduction of Human-Wildlife Conflict

Suggestions for Improvement of Human -Wildlife Conflict

The findings show that 26% of the respondents suggested fencing game parks for improvement of Human-Wildlife conflict, 14% suggested creating awareness, 12% compensating affected persons, 10% controlling wildlife and legislation, 6% a-forestation, 4% communal land should not be subdivided, 4% employ more KWS officials, 4% ensure accountability of KWS, 4% share revenue from wildlife with locals, 2% suggested resettlement of people living near parks, 2%

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employing local community members to take care of wildlife, 1% digging of boreholes and 1% eradication of corruption as shown in Table 3.

Table 4.3:   Suggestions for Improvement of Human-Wildlife Conflict

Suggestion	Frequency (n)	Percentage (%)
Legislation	7	10
Fence gazette areas for wildlife	18	26
Compensate persons affected by Human-Wildlife conflict	8	12
Communal land should not be subdivided	3	4
Afforestation	4	6
Create awareness	10	14
Employ more KWS officers	3	4
Resettle people living near national parks	1	2
KWS should be accountable	3	4
Share revenue from wildlife with local community	3	4
Employ local community members to look after wildlife	1	2
Control wildlife	7	10
Dig boreholes	1	1
eradicate corruption	1	1
Total	**46**	**100**

Key Informants Interview Findings

The interviews of the business people revealed that the influence of population growth on Human-Wildlife conflict was through migration of wildlife from affected towns and lack of water because animals looked for water in the homesteads.

In addition lack of pasture created Human-Wildlife conflict because the wild animals destroyed crops while feeding on them and caused soil erosion by stepping on land with no vegetation. The business persons suggested that payment to game warders should be increased to stop Human-Wildlife conflict in Kajiado South.

The area chief indicated that the influence of population growth on Human-Wildlife conflict was frequent constituting of conflict between KWS and farmers. Lack of water also influenced the level of Human-Wildlife conflict during the dry season. The corridor blocks endangered human life and animals as poachers easily access animals. In addition, lack of pasture created Human-Wildlife conflict because the wild animals destroyed crops by feeding on them. The area chief suggested that there should be boreholes in the Game Park, the park should be fenced and proper demarcation of land to stop Human-Wildlife conflict in Kajiado South.

Focus Group Discussion findings

The *Kipawa Kimoja Women's* Group indicated that the influence of population growth on Human-Wildlife conflict was that humans migrating from affected towns. Lack of water influenced the level of Human -Wildlife conflict because animals looked for water in the homesteads as there was no water in the parks. In addition, lack of pasture created Human-Wildlife conflict because the wild animals destroyed crops while feeding on them. The women's

group suggested that the game park should be fenced to stop Human-Wildlife conflict in Kajiado South.

CONCLUSIONS

Based on the findings of the study, the study concluded that population growth influenced Human-Wildlife conflict in Kajiado south Sub County. This influence was in the form of migration of wildlife from affected towns, humans migrating from affected towns and frequent conflict between KWS and farmers. The study also concluded that lack of water influences the level of Human-Wildlife conflict in Kajiado South Sub County due to sharing of water with animals. In addition, during the dry season animals searched for water in the homesteads as there was no water in the parks thus increasing the level of Human-Wildlife conflict.

Further, the study concluded that lack of pasture influences the level of Human-Wildlife conflict in Kajiado South Sub County due to loss of vegetation. In addition, lack of pasture created Human-Wildlife conflict because the wild animals destroyed crops while feeding on them and caused soil erosion by stepping on land with no vegetation. Finally, the study concluded that corridor blocks endangered human life and animals as poachers easily accessed animals. The corridor blocks were further causing fatalities with residents witnessing killing of wildlife at Kitengela and Amboseli, humans killed by elephants, lions eating domestic animals and humans disabled by wildlife.

RECOMMENDATIONS

The study recommends that the KWS should embark on fencing game parks and also create awareness on wildlife conservation, compensate affected persons, control wildlife, ensure legislation is enacted on wildlife conservation, employ more KWS officials, increase salaries of game warders, ensure accountability at KWS and share revenue from wildlife with locals for reduction of the Human-Wildlife conflict. The study also recommended that the local community in conjunction with County Government officials should embark on afforestation, ensuring that communal land is subdivided and properly demarcated to stop Human-Wildlife conflict in Kajiado South Sub County.

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