Human-wildlife conflict in Isiolo County, Kenya: An assessment of its nature and extent

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ABSTRACT

Human-wildlife conflict (HWC) is still a significant environmental, socio-economic and security problem in Isiolo County, Kenya, as more and more interactions between local communities and wildlife continue to present a threat to human livelihoods and wellbeing. This study aimed to assess the nature and extent of human–wildlife conflict in Isiolo County, Kenya, to generate empirical evidence to inform policy and practice. The study was guided by the Human–Wildlife Coexistence Theory, Human Needs Theory and Political Ecology Theory, to examine the occurrence of conflict incidents, common types of conflict, wildlife species involved, frequency and severity of conflict, factors contributing to human–wildlife conflict and impacts on livelihoods and community security. This study used descriptive survey research design and the respondents were 2,422 from the local communities, Kenya Wildlife Service officers, local administrators, security officers, and conservation stakeholders. The sample size was determined using Yamane formula for stratified and simple random sampling techniques with n=330. Structured questionnaires, key informant interviews and focus group discussions were employed as data collection methods and descriptive data analysis and thematic analysis were utilized. The results showed that 62.6% of the respondents had encountered or managed human-wildlife conflict (HWC) incidents during the past five years. Crop destruction and livestock predation were the two most frequent types of conflict reported (63.9% and 56.1%, respectively). Actually, the wildlife species identified most often involved in wildlife conflict issues are elephants (30.3%), hyena (26.5%) and leopard (21.3%). Most respondents indicated several times a year people had been impacted by conflict and 69.1% felt the increased frequency of conflict over the last five years. The top three drivers of conflict were drought (66.5%), wildlife migration corridors through settlements (59.4%), and human occupation of wildlife habitat (55.5%). The study shows that human-wildlife conflicts are quite prevalent and are having a high impact on livelihoods, food security and community security in the study area of Isiolo County. The study suggests a need for robust protection of corridors, better management of habitats, community-based alternative strategies for managing conflicts, and greater cooperation between various stakeholders to support sustainable human-wildlife coexistence.

Keywords: Human-Wildlife Conflict, Isiolo County, Kenya, Livelihoods, Security, Wildlife Conservation

I. INTRODUCTION

Human-wildlife conflict (HWC) is now a serious problem in the conservation of biodiversity and also for human welfare and sustainable development of communities around the world. The conflict arises when interactions between people and wildlife are negative, causing destruction of crops, loss of livestock, damage to property, injury to people, or death. The populations of humans have been growing, the use of land for agriculture or other applications, and the demand of land has not only decreased wildlife habitats, but also increased the contact between humans and wildlife. De Vries (2021) reported that activities that intrude on wildlife dispersal hotspots have led to more instances of conflict around the globe. Sharma et al., (2022) also suggest that, due to rapid land use change, traditional migration patterns of wildlife have been disturbed, and that humans have come into closer contact with wildlife dangers. Environmental human-wildlife conflicts have taken a new turn in the last few years and are no longer like merely a conservation issue, but also a socio-economic and governance issue that needs the continued attention.

The rising incidence of man-wildlife conflicts has raised alarm as well as concern from the point of view of its impact on livelihood and food security. The communities in close proximity to wildlife habitats tend to suffer significant losses due to crop and livestock depredation and limitations on natural resources. These losses have implications for households' income and community development in many developing countries. Guadu et al., (2026) noted that the next incursion of wildlife on farm land lowered agricultural productivity and exposure for farmers. As temperatures change, so have wildlife taking to human habitat, raising communities' risk levels compared to past decades, according to Gayo (2025). As conflicts between human and wildlife communities become more common the importance of educating and appreciating about the nature and scope of the interactions between them are all the more apparent.

Human-wildlife conflict is a growing issue throughout Africa, especially in areas where human populations have grown and natural resources are limited. Agricultural and pastoral communities that rely on access to land, water and pastoral resources are often living around a wildlife conservation area. Human populations have continued to grow, resulting in a greater overlap between wildlife habitat and human activity. In Malawi, Thompson (2022) reported that increased presence in the wildlife corridors was a key driver to crop destruction by elephants. Akinsorotan et al., (2021) have also noted that habitat encroachment also increased predator-prey interactions between farmers in Nigeria. These patterns appear to continue, with Africa's land use and resource use patterns now having a significant impact on human-wildlife conflict.

Changes in the environment have exacerbated conflict between people and wildlife in numerous African nations. Repeated droughts and reduced water supplies have impacted animals' population and migration patterns. This creates an ecosystem whereby wildlife is drawn to community lands when resources are low in protected lands in search of food and water. Bernhard (2024) noted that long continued dry spells in Ethiopia exacerbated conflicts between wildlife and pastoralists over access to grazing lands. Seasonal migration of wildlife in agricultural areas of Somalia also led to higher rates of crop damage in Somalia (Salal, 2026). The situation has been aggravated by these ecological pressures so that human-wildlife conflict has now become a recurring feature, impacting ecological sustainability and human welfare.

The problem is especially acute in East Africa due to presence of large populations of wildlife and reliance on lifestyles based in natural resource production. Farmers' and pastoralists' habitats often overlap with the path of wild animals, posing the risk of recurring encounters. Crop-raiding by elephants and other protected area wildlife species around the rural areas of Tanzania is resulting in significant losses, as reported by Sanare (2023). Conflict between local communities and wildlife also increased, as more area is occupied by humans, around conservation areas in Rwanda (Sun et al., 2025). These events are common, and balancing conservation goals with livelihood needs continues to be difficult throughout the region.

Human-wildlife conflict in Kenya has been a continual problem since the country has abundant wildlife resources and a great extent of wildlife migration corridors. Wildlife can provide great contributions to the development of a country both in terms of tourism, but also in terms of support for conservation, albeit at the expense of communities that lives in close proximity to the presence of wildlife. A report from Kenya Wildlife Service (KWS) (2021) showed that, between 2017 and 2020, there had been wildlife attacks having left 388 deaths and left over 2100 to 2200 injured. Crop destruction, livestock predation, and property damage also remain a problem for adjacent households in some counties, as reported by Cheptarus (2022). These figures will show the size of the issue and its implications both in terms of conservation and community security.

Each of the counties is affected by human-wildlife conflict and Isiolo County is among the most affected counties in the arid and semi-arid lands of Kenya. The county is an ecologically strategic location and the dispersal habitat landscape for wildlife between major conservation landscapes in Northern Kenya. Its pastoral economy is extremely much reliant on the access of land, pasture, and water resources, most of which are also occupied by wildlife. Food and water, especially during dry seasons, is what elephants are usually looking for in settlements and farms in Isiolo County, where they often venture, as noted by Mugo (2021). Livestock predation by carnivores continues to be a concern within pastoral households as reported by Matsuura et al., (2024). This ecological and socio-economic situation makes for increased potential for human-wildlife interactions in the county.

Isiolo County's discourse on human-wildlife conflict can be seen in the different species of wildlife that are involved and their different impacts on the local communities. Typical conflict events involve damage to property, threats to humans, destruction of livestock and crops. Ikuathu (2019) ranked elephants among the target wildlife species which are reported with highest frequency in the county for causing crop destruction and property damage. Wildlife related losses can pose serious pressure on household livelihoods, especially on the agriculture and livestock keeping communities, according to Chepkwony et al., (2025). The conflicts have negative repercussions on the economic activity as well as on the general quality of life of the impacted populations.

Human-wildlife conflict in Isiolo County has escalated over the years as a result of stress on the environment, population growth, encroachment into areas where wildlife moves and more. There has been an encroachment into human habitats and agricultural activities from the natural areas and thus the habitat area has reduced and there are chances of animal-human interaction. According to Suratissa (2021) environmental crisis and scarcity of resources are some of the key factors in the increase of human-wildlife conflicts in arid and semi-arid areas. The competition for scarce resources also often causes wildlife to be forced into people's environments, as Datta et al., (2025) argue. These factors have led to conflict incidents continuing and being more severe in Isiolo County.

Though numerous interventions have been implemented to minimise human-wildlife conflict in Isiolo County such as compensation programmes, wildlife corridors, community awareness programs among others, wildlife conflicts are still prevalent in the county. Existing studies have largely focused on mitigation measures and institutional responses, yet limited attention has been devoted to comprehensively assessing the current nature and extent of the conflict itself. Burudi et al., (2025) stress the need to understand community dynamics of conflict before engaging in conflict

management. Similarly, Dickman (2010) contend that it is essential to use evidence informed decision making to ensure the sustainable co-existence of wildlife and human populations. This study therefore seeks to assess the nature and extent of human-wildlife conflict in Isiolo County in order to generate empirical evidence that can inform policy and practice.

1.1 Research Objective

The study aimed to assess the nature and extent of human-wildlife conflict in Isiolo County to generate empirical evidence to inform policy and practice.

II. LITERATURE REVIEW

2.1 Theoretical Review

2.1.1 Human–Wildlife Coexistence Theory

One particular theory, known as the Human–Wildlife Coexistence Theory, has become one of the most prevalent for studying human–wildlife relationships within an overlapping space. Coexistence is defined by Carter and Linnell (2016) as a dynamic process which entails adaptations between humans and wildlife and a reduction in any threat posed to biodiversity and human life. The theory was not National/Non-National separation, but rather adaptive management, community engagement, conservation of wildlife habitat and integrated land use planning. Frank (2016) argues that successful co-existence requires the balancing of conservation and local livelihood benefits by involving and engaging in collaborative governance and conflict mitigation aspects. As such, the theory treats human–wildlife conflict as a solvable issue of sometimes growing competition over shared ecological resources instead of a natural by-product of conservation.

Though Human–Wildlife Coexistence Theory is widely accepted, it has been criticized for its idea of coexistence as an ideal, which might not be possible in current socio-economic landscape. Dickman (2010) suggests that there is a lack of focus on the significant economic losses faced by communities due to crop losses, livestock predation and property destruction by wildlife in many coexistence programmes. Redpath et al., (2015) argue that good governance, financial investment over the long term, institutional capacity and community trust are necessary for coexistence, but are often missing in many developing countries. This theory is, therefore, viewed critically to be a minimisation of the practical challenges involved in implementing a balanced approach to conservation priorities and local livelihood requirements.

The study is underpinned by Human – Wildlife Coexistence Theory, which lends itself to an analysis of how landscape where wildlife dispersal areas intersect and coincide with human settlements, pastoral livelihoods and agriculture enables animals to coexist with humans. Elephants and other wildlife frequently enter community lands, leading to greater competition for land, water and pasture, and frequently leading to conflict. Based on this theory, therefore, the extent to which human–wildlife conflict occurs in the county, as well as the frequency and severity of such conflict, can be analyzed ecologically. It also provides information for recommendations made in the study for stronger protection of wildlife corridors, encouraging local communities to participate, strengthening the management of wildlife habitat and implementing sustainable conflict mitigation strategies to help build long-term coexistence between local communities and wildlife.

2.1.2 Human Needs Theory

The theory of human needs was largely developed by John Burton (1990) but is closely related to the theory of Human needs Maslow (1943) developed. Burton sees conflict as necessarily resulting when people feel their basic needs for recognition, security, identity, participation, livelihood, and well-being are threatened or denied. These needs are universal, distinct from material interests, needs, and can be neither negotiated over nor suppressed without the creation of grievances. With Burton, “realistic conflict resolution will only endure if underlying human needs are cared for that drive people's actions”. Accordingly, in contrast to its focus on the immediate manifestations of conflict, the theory will turn its focus to the structural conditions that undermine human welfare and social stability.

In spite of the impact of Human Needs Theory in conflict analysis, there are a number of limitations identified in it. Rubenstein (2001) suggests that the theory is becoming another oversimplifying explanation of complex conflicts by focusing mainly on human needs and neglecting the roles played by politics, institution and economics. Similarly, Mitchell (2005) notes that the theory takes a Universalist perspective but there are significant variations in cultures and contexts about the meaning and importance of human need. Even though the theory helps to guide the practicality of conflict, critics point out that when multiple groups have equally legitimate claims to resources that can't be met at once, the theory is limited.

Human needs theory is particularly applicable for this study because the human–wildlife conflict poses a direct threat to people's livelihoods and security, in Isiolo County. Crop losses are also caused due to wildlife invasions which result in loss of life and livestock, damage of property, and loss of income for households, which in turn affect food security and wellbeing. These losses are related to basic human needs of survival, safety and livelihood, and are likely

to result in the resentment against both wildlife conservation programmes and institutions for wildlife management. This study will address questions relating to how wildlife-related losses affect community's perception, livelihood vulnerability and human security, making the theory useful when analyzing the influence of wildlife-based losses in these issues.

2.1.3 Political Ecology Theory

During the 1970s, Political Ecology Theory was developed as a multidisciplinary framework to analyse environmental issues by incorporating ecological, political and socio-economic processes. Blaikie and Brookfield (1987) suggest that the governance system, resource allocation, population growth and land-use patterns will affect environmental degradation and therefore must be taken into account when analyzing problems. Robbins (2012) builds upon that perspective, stating that although "ecological issues cannot be the only cause of environmental conflict, ecological issues should not be discounted because environmental conflicts are also a product of unequal access, institutional decisions, and political and economic forces." This theory considers what environmental change, public policy, and human actions do to interact to change the pattern of resource utilization and to cause conflicts between people and their environment.

However, there have been some scholars who criticize the Political Ecology Theory. Walker (2005) maintains that political ecologists tend to tend to political and economic factors at the expense of less attention to ecological processes and biological dynamics that also have impacts on the environment. In this case, Benjaminsen and Svarstad (2009) argue that most political ecology papers are mostly qualitative interpretations, making the comparison of empirical measurements and of materials from different settings not straight-forward. Other critics have challenged the theory's focus on structural inequalities and undermined community agency and the potential of conservation institutions to promote sustainable resource use.

Political Ecology Theory is mostly relevant to this study because the interaction between humans and wildlife in Isiolo County is determined by several environmental and socio-economic processes that are interconnected, that is, acting concurrently. Changes in human settlements, agricultural expansion, and fragmentation of land use, lengthening droughts, climate variability and water and land ownership disputes have impacted wildlife movements and led to increased encounters between wildlife and local communities. Thus, the theory offers a full-blown toolbox for understanding the dynamic between ecological pressures and governance mechanisms and how these dynamics shape land-use in order to create recurring conflict. It also provides further evidence to back up the study's findings regarding the environmental factors involved in human–wildlife conflict and integrated resource management practices that promote wildlife conservation and promote sustainable living.

2.2 Empirical Review

Increasing worldwide implications for the conservation of biodiversity, as well as for rural livelihoods, have attracted significant empirical research focus on human–wildlife conflict. Household surveys were conducted with focus group discussion approach to explore the human–wildlife conflict in community forests of Nepal by Bista and Song, (2022), which identified crop loss and livestock predation as the most common types of conflict reported by the households. Poudel et al., (2022) in Kenya found that using a descriptive survey approach, there were significant impacts on wildlife–human conflict on agricultural output, livelihood earnings and school performance in Baringo North Sub-County. While these studies showed that human–wildlife conflict was quite common, the studies have largely limited their analysis to socio-economic outcomes, and taken an incomplete looking at conflict incidents. As such, there are few studies that have been conducted on the occurrence and nature of human–wildlife conflict in Isiolo County.

Empirical studies have also investigated the types of human–wildlife conflict experienced by communities living adjacent to protected areas. Shiweda et al., (2023) found that elephant crop-raiding was the most frequent type of conflict followed by conflict with large carnivores over livestock in farmland, in a mixed methods study among farming communities in northern Kenya. Furthermore, in Isiolo County, West et al., (2024) covered household questionnaires, interviews, and ecological observations which provided indications that the most recurring forms of conflict were related to destruction of crops, predation of livestock, property damage and threats to human safety. These studies revealed common types of conflict, but vended incomplete explanations about their prevalence, frequency, and severity as seen by the several parties to the conflict. The present study thus sheds a broader light on the various types of conflicts that occur in the County of Isiolo.

In-depth studies on animal species causing human–wildlife conflict and the factors that are causing such incidents to intensify have been carried out. Jha and Dev (2024), identified elephants, hyenas, and leopards as the key species responsible for the maximum number of wildlife–human conflicts in Isiolo County due to the shared usage of migration routes by wild animals and people. In addition, Mukomberanwa (2025) reported that agricultural encroachment on elephant migration routes in Malawi significantly contributed to the encroachment of humans on elephants' habitat by encouraging increased crop-raiding, and Abrahms et al., (2023) showed that the entry of wildlife in human settlements due to climate change and long dry spells has increased in several ecosystems. While these studies

did identify key ecological influences, they tended to concentrate on ecology and to less extent on community perceptions of the frequency and severity of conflict.

Studies have also shown that in many countries across Africa, both environmental and human-caused factors play a role in human–wildlife conflict. A study by Malley and Gorenflo, 2023 found that in Ethiopia, the adoption of qualitative interviews and household surveys indicated that the intensity of conflict between pastoral communities and wildlife was further exacerbated by the drought, reduced availability of rangeland resources and water competition. Likewise, Adams et al., (2022) have discovered that habitat degradation or land-use alteration hindered wildlife movement which led to more wildlife and community interactions. A similar trend was observed by Elisa et al., (2024) in Malawi, where farming households near elephant populations felt more deteriorating situations due to the encroachment of wildlife into Uganda's settlements. Elisa et al., (2024), conducted the same study in Uganda and observed that settlement expansion into wildlife corridors increased feeling of negative changes among farming households around elephant populations in Malawi. However, the findings do not highlight any apparent proof that has highlighted both the climatic, ecological, and anthropogenic drivers of pastoral change experienced simultaneously within the special pastoral setting of Isiolo County – an issue that this study aims to cover.

Human–wildlife conflict has long-lasting consequences for livelihoods and security. Human–wildlife conflict has consistently been known to have implications to livelihoods and security. Gayo et al., (2025) found wildlife impacts lost agricultural production, household incomes and food security to rural households in Kenya. To a similar end, Chepkwony et al., (2025) found that frequent wildlife incidents constituted a threat of fear, insecurity and economic hardship for surrounding communities in southern Africa. In East Africa, Maghanga (2024) revealed that livestock predation significantly added to the economic vulnerability of pastoral households due to the livestock being the main sources of income and wealth for the pastoral households. Various studies have investigated the livelihood or conservation impact alone but few had studied the impact in a collective manner that aggregates livelihood, food security, household income, personal safety and community security in a single empirical research study. This study tackles the lacuna by giving a detailed appraisal of these dimensions in Isiolo County.

III. METHODOLOGY

3.1 Research Design

This study used a descriptive survey research design, which was used to examine what and how much human–wildlife conflict issues are in Isiolo County, Kenya. A descriptive survey design can be used to gather information on the characteristics, attitudes, perceptions and conditions of a population as they exist on their own (Creswell & Creswell, 2018). The design allowed the researcher to collect both quantitative and qualitative data pertaining to the incidence/habits of human–wildlife conflict, its nature, frequency, severity, and what was causing it and the effects it was having on different categories of respondents. Other considerations for design were: that it could be used to gather data from a relatively large population within a relatively short period of time, and could oversee comparisons across the different stakeholder groups.

3.2 Study Area

The study was implemented in Isiolo County, Kenya, one of the wildlife conservation areas of high wildlife dispersal corridor lengths and regular wildlife-human contact. The county is part of the arid and semi-arid land (ASALs) of Kenya and is a significant hotspot where several protected conservation areas in northern Kenya connect. Isiolo County has a high frequency of dry spells and is predominantly populated by pastoral and agro-pastoral communities whose incomes rely on livestock grazing and/or small-scale farming activities. Interactions between wildlife and human settlement have increased in the county since the population has continued to grow, land, water, and pasture is a continued issue, and agriculture continues to be an elementary primary industry in the area; thus, the county is an appropriate area of study on human–wildlife conflict.

3.3 Target Population

The stakeholders in and/or affected by human–wildlife conflict in Isiolo County were the target population. These were members from local communities within the vicinity of Wildlife habitats and officers of Kenya Wildlife Service (KWS), National Government Administrative Officers (NGAOs), conservation NGOs operating in the county, security institutes and community leaders. The accessible target population comprised respondents from all of the stakeholder categories; 2,422 respondents were obtained. These groups were chosen due to their knowledge and experience in the study area and human–wildlife conflict issues.

3.4 Sampling and Sample Size

Stratified sampling and simple random sampling techniques were used in the study. The stratification of respondents was done using stratified sampling, where they were categorized as either local community, Kenya Wildlife

Service (KWS) officers, National Government Administrative Officers, community leaders, security personnel, or members of conservation groups. The respondents were then selected through simple random sampling from each stratum so that each member had equal chance to be taken into the study. The sample size was determined using Yamane's (1967) sample size determination formula as follows:

$$n = \frac{N}{[1 + N(e)^2)]}$$

Where:

n = required sample size
N = target population
e = level of precision (sampling error)
For this study:
N = 2,422
e = 0.05

Substituting these values into the formula:

$$n = \frac{2422}{[1 + 2422(0.05)^2)]}$$

$$n = \frac{2422}{7.055}$$

$$n = 343.3$$

A simple random sample of 343 respondents was computed. Logistic constraints and resource availability, however, as well as the possibility of respondents to respond on site while collecting data, a sample of 330 respondents was chosen. This was deemed to be sufficient to representatively provide data with a 95% confidence level and a margin of error of 5%.

3.5 Data Collection Instruments

The study was conducted both with primary and secondary sources. Structured questionnaires were used to gather primary data from the members of the local communities. The questionnaires had both closed ended and some open-ended type questions to gather data related to the prevalence, nature, causes, frequency, severity and consequence of human wildlife conflict. Additionally, the researchers held Key Informant Interviews (KIIs) with Kenya Wildlife Service staff, National Government Administrative Officers, Community Leaders, security officers and conservation organisation representatives. The interviews collected detailed qualitative data on the causes, trends and management strategies of human-wildlife conflict as well as institutional response to it. Secondary data were collected by a literature review of Kenya Wildlife Service reptile and predator collation reports, literature found in Kenya Policy documents, published journal articles, published books, and other scholarly publications on human-wildlife conflict.

3.6 Data Analysis

Data obtained from the questionnaires were coded, keyed, cleaned and analyzed in SPSS software. Data were summarized using descriptive statistical methods such as frequencies, percentages, means and standard deviations. The collected data was displayed in tables, graphs, charts and descriptions to aid interpretation. Key Informant Interviews were used to obtain qualitative data and was analysed and transcribed through thematic analysis. This resulted in responses being structured around the themes that emerged consistently across the study to include event characteristics, wildlife species entangled, trigger of conflict, intensity of events, livelihood impacts and mitigation strategies. The results of qualitative process were added with quantitative results for meaningful interpretation, and for triangulation of the research results.

3.7 Ethical Considerations

Ethical considerations were respected during the study. Prior to the start of data collection, permission was secured from the appropriate university and other authorities to conduct the research. The respondents were made aware of the study and their participation was voluntary. All procedures were carried out with informed consent from all participants prior to questionnaires and interview. Participants' confidentiality and anonymity was assured and in the research report no personal identifier was included. The data gathered were solely for academic research and the respondents were told they are free from being in or out of the study at any time without any repercussions.

IV. FINDINGS & DISCUSSION

4.1 Findings

4.1.1 Nature and Extent of Human-Wildlife Conflict in Isiolo County

The aim of this study was to analyse the nature and extent of human-wildlife conflict in Isiolo County. To address this objective, structured questions were asked and results presented in the following subsections; Human–Wildlife Conflict Incidents: Respondents were asked to indicate if they have ever experienced or handled any human–wildlife conflict incidents in the past five years (2021–2025). Results were as presented below;

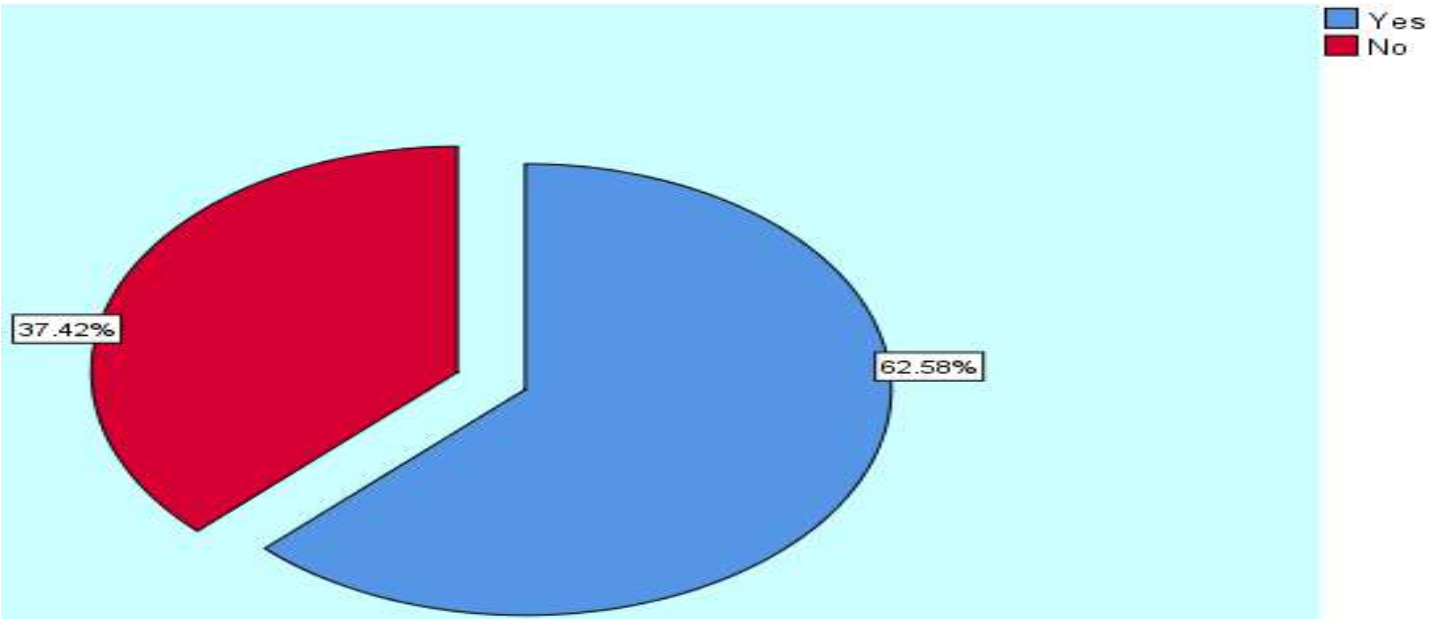

Figure 1
Human–Wildlife Conflict Incidents

The results in Figure 1 indicate where respondents have experienced or been involved in human-wildlife conflict (HWC) incidents in the past five years in Isiolo County. The results show that 194 (62.6%) people had experienced or had been a part of an HWC incident; 116 (37.4%) said that they had not. The results indicate that many institutions and people faced by HWC exist in the county and pose extensive problems. The quantitative findings were supported by information obtained from key informant interviews. One Kenya Wildlife Service (KWS) officer observed that:

> *"There has been a significant change in frequency and intensity of HWC in the past five years. The trend has been attributed to conservation challenges, climate change, severe drought, blockage of corridors, growth of people population, encroaches on wildlife habitat."* (Key Informant Interview, Kenya Wildlife Service Officer, Isiolo County, 02 June 2026).

The farmers' viewpoints were consistent with the responses from the focus group discussion and they indicated that destruction of their crops by elephants was the biggest and most common type of conflict, and they stated that the reason why things had become more frequent was because of the expansion of irrigation farming activities along the river banks, the development of irrigation schemes and the encroachment on the migratory corridors of the animals. One participant noted that:

> *"Elephants often make incursions onto farms, especially when water and green vegetation is in short supply in the wild at the time, especially in the dry season. There is a significant economic loss with large numbers of elephants attracted to the available irrigated crops and water sources."* (Focus Group Discussion Participant, Gambela Area, Isiolo County, 03 June 2026).

The results are clear and indicate that HWC is still a big problem in Isiolo County, both in the environmental and livelihood aspects as well as in security issues. The majority of the respondents reported that they had a direct experience of HWC indicating significant influences on livelihoods, food security and community wellbeing. These views are corroborated by the recent County statistics which reported 372 reported incidents of human-wildlife conflict in Isiolo County, with about 80% (298 incidents) reported as elephants causing the most conflict in the County (KWS 2025). Additionally, other species that were seen included lions (29 cases), hyena (26 cases), leopard (12 cases), crocodile (3 cases), snake (2 cases), baboon (1 case) and warthog (1 case). December (101 cases) and January (64 cases) had the highest incidence numbers, with the lowest in May (40 cases) showing seasonal influences in the occurrence of conflict (KWS, 2025). The most common types of conflict observed were damage to the crops, predation of livestock, damage to property, human injuries and threat to human life mostly close to the wildlife corridors and water points (KWS, 2025).

In addition, the study reveals that environments influenced by extended periods of drought, expansion of agricultural lands, degradation of habitats and encroachment into areas of wildlife movements have exacerbated human-wildlife interaction. It was identified that water and pasture resources are a major driver of the conflict during dry seasons

particularly with elephants. The main factors contributing to the conflict between humans and elephants in Isiolo are habitat loss and fragmentation, obstructs on migration routes, access of water and grazing, climate change, and encroachment of agriculture into elephant habitat (KWS, 2025). The results corroborate those of Ikuathu (2019), who cited environmental conditions in Isiolo County which includes long droughts, and the encroachment of people into wildlife habitats as contributing to HWC. Also, Matsuura et al., (2024) noted that elephant massing into farms still remains a threat to crop destruction and loss of farm property in northern Kenya.

It was also identified that wildlife protection projects and limited human access to some military training camps have added more value to them becoming wildlife refuge zones in Isiolo. Key informants in Kenya Defence Forces (KDF) reported suitable habitat for elephants created through military conservation programmes such as afforestation and habitat restoration attracts elephants for breeding and calving, some of which stay within the area under military control for several months. In addition, significant populations of waterbucks have increasingly sought refuge within military cantonment areas in Burat ward over the past eight years. This trend is largely attributed to the enhanced protection these areas provide from poaching and predation, as well as the availability of adequate pasture and reliable water resources, which together create favorable conditions for wildlife conservation and survival. These conservation activities have positive impacts on wildlife protection; however, they also affect wildlife movements, and possibly result in more interaction between wildlife and neighbouring communities (KDF KII, 09 June 2026).

The on-going and massive incidences of HWC in Isiolo County therefore calls for enhanced collaboration and coordinated security operations between the Kenya Wildlife Service (KWS), the National Government Administrative Officers (NGAOs), Kenya National Police Service (NPS), Kenya Defence Forces (KDF), county government, conservation groups and local communities. Capable cooperation and information sharing, joint response strategies, and greater community involvement are needed to help manage human–wildlife conflict sustainably and promote coexistence in the county's future. Common Types of Human–Wildlife Conflict: Respondents were asked "Which types of human–wildlife conflict is most common in your area?" and results were as presented below;

Table 1

Most Common Types of Human–Wildlife Conflict in Isiolo County

Type of Human–Wildlife Conflict	Frequency	Percent (%)
Crop destruction	198	63.9%
Livestock predation	174	56.1%
Damage to property (fences, water points, houses)	142	45.8%
Human injury	88	28.4%
Human fatality	34	11.0%
Restricted access to water or grazing areas	121	39.0%
Other (Specify)	12	3.9%

Table 1 shows the prevalence of the major forms of human–wildlife conflict reported by the respondents in Isiolo County. The results suggest that the most common types of conflict were crop destruction (198 respondents, 63.9%) and livestock predation (174 respondents, 56.1%). 45.8% of the respondents reported property damage such as destroys fence, house, etc. Other kinds of conflict involved limited access to water resources or grazing land (39.0%), injury to humans (28.4%) or loss of human life (11.0%). The results have indicated that the main method through which livelihoods are affected by the conflict with wildlife in Isiolo County is by destruction of people's livelihoods potential, which is mainly farming and livestock keeping, for the County's residents.

The quantitative findings were corroborated by evidence from the key informant interview with a Kenya Wildlife Service officer, who observed that:

> *"Most cases reported of human–wildlife conflicts are as a result of crop destruction by elephants and predation of livestock by lions, leopards and hyenas."* (Key Informant Interview with Kenya Wildlife Service Officer, Isiolo County, 10 June 2026).

The elephant's destructiveness on farms was highlighted when they are commonly found on farms especially during dry spell in the season, which sometimes leads to farmers losing a significant number of crops and loss of household income due to elephant attacks, as echoed by farmers during focus group discussion.

This indicates that human–wildlife conflict in Isiolo County is predominantly a result of competition for land, water and other ecosystem services and resources, between people and animals. Crop destruction and livestock predation suggests that the conflict directly jeopardizes livelihood security and offending households' vulnerability in rural areas. This discovery sustains the Human Needs Theory that states that various factors threatening livelihoods, food security, and community well-being are important security issues that call for institutional responses. The results corroborate Cheptarus (2022) and Baral et al., (2021) who reported on elephant raids on crops and livestock predation by large carnivores as the two most common types of human-wildlife conflicts in northern Kenya. The similarity found may imply that the pastoral and agro-pastoral communities that are within the proximity of the wildlife dispersal areas are

still experiencing high socio-economic costs of wildlife conservation. However, it is crucial to carry out good coordination between various agencies such as the Kenya Wildlife Service, County Governments, National Government Administrative Officers (NGAO) and communities to reduce these effects and foster sustainable living and coexistence with wildlife. Wildlife Species Frequently Involved in Conflict Incidents: The study sought to determine the type of species that frequently involved in conflict incidents and results were as noted below;

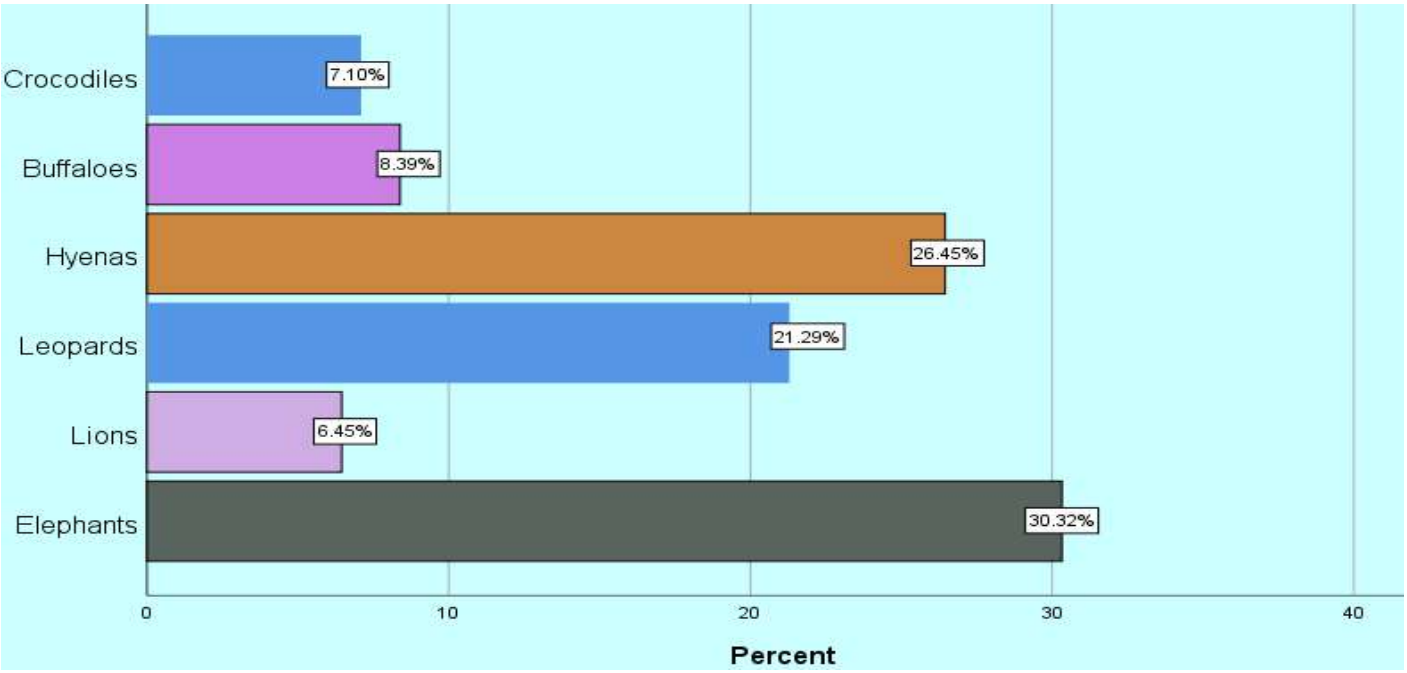

Figure 2
Wildlife Species Frequently Involved in Conflict Incidents

Figure 2 shows the most widespread wildlife species that engage in human-wildlife conflict in Isiolo County. The results show that the most commonly reported species that was engaged in a conflict situation was the elephant with 94 respondents (30.3). The hyenas possessed 82 responses (26.5%), and the leopards had 66 responses (21.3%). 26 respondents reported buffaloes (8.4%), 22 who reported crocodiles (7.1%), and 20 who reported lions (6.5%). These findings indicate that big herbivores and carnivores play a significant role in causing a human-wildlife conflict in the region under study. A wildlife officer pointed at the fact that the elephants and predators were involved in conflict cases:

> "*In Isiolo, most of the destruction of crops is caused by the elephants, and livestock is often preyed upon by predators like the hyenas and leopards. Such cases are prevalent in the regions near the wildlife corridors and grazing areas*." (Key Informant Interview with Kenya Wildlife Service Officer, Isiolo County, 10 June 2026).

The results are in line with earlier research on human-wildlife conflict in northern Kenya. According to research conducted by Datta et al., (2025) it has been pointed out that the elephants have caused most of the crop losses in Isiolo County because of migration that occurs through wildlife corridors, which pass through human settlements. On that note, Dawson et al., (2021) also discovered that hyenas and leopards used to feed on the livestock in pastoral societies, leading to financial losses on the herders. The studies substantiate the existing evidence of elephants and carnivorous animal species as the most significant agents of human-wild life conflict in the area, therefore, require unified efforts in reducing them. Frequency of Human–Wildlife Conflict Incidents: Respondents were asked "How often do human–wildlife conflict incidents occur in your area?" and results were as presented below;

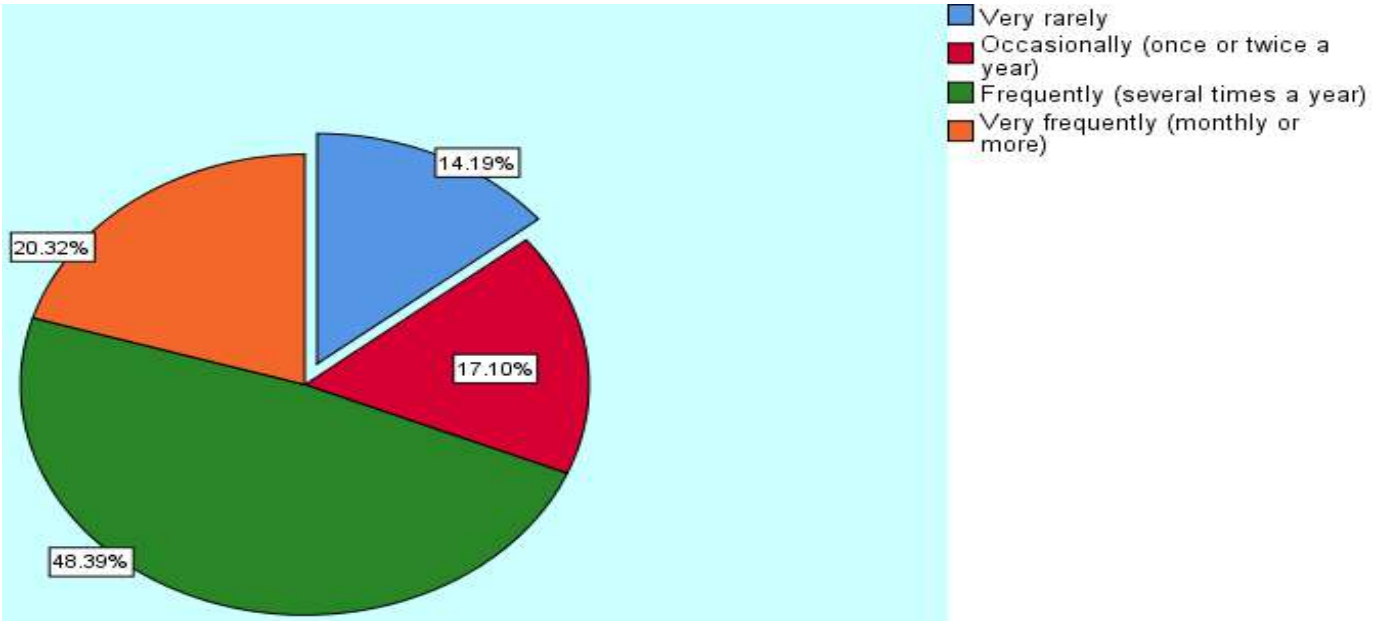

Figure 3
Frequency of Human–Wildlife Conflict Incidents

Figure 3 shows how often the cases of human-wildlife conflict happen in Isiolo County. The findings reveal that the large percentage of the respondents (150, 48.4%), stated that it happens often, several times a year. Moreover, 63 respondents (20.3%) indicated that the disputes are very common, in fact very common like monthly basis. In this sense, 53 respondents (17.1%) stated that the incidents happen occasionally and 44 respondents (14.2%) stated they occur very rarely. Such results indicate that the incidences of the human-wildlife conflicts are relatively prevalent in the research region. One key informant described the situation as follows:

> "*My practical experience of working in this field suggests that human-wildlife conflict occurs numerous times annually. I am constantly being reported incidences of elephants that have destroyed crops or predators that have killed livestock in communities……*." (Key Informant Interview with Local Administrator, Isiolo County, 02 June 2026).

The results can be compared to the current literature regarding the issue of human-wildlife conflict in arid and semi-arid East African countries. Past studies have indicated that incidences of conflicts rise in location where the migration of wildlife collides with human settlement and grazing lands. As an example, a study in northern Kenya discovered that on dry season times, elephants often enter their community spheres of farming and grazing and cause recurring cases of conflict with the local people searching water and food (Ikuathu, 2019). On the same note, research in Tanzania has indicated that the pastoral communities residing by the conservation zones are faced by frequent livestock predation and destruction of crops as a result of animal movements in the same territories (Gayo & Ngonyoka, 2025). In the case of Ethiopia, Bernhard (2024) also noted that climate variability and a reduction in grazing areas increase human-animal interaction in pastoral areas.

4.1.2 Changes in the Frequency of Human–Wildlife Conflict in Isiolo County

Respondents were asked to indicate the frequency of human–wildlife conflict increased or decreased over the past five years and results were as presented below;

Table 2
Changes in the Frequency of Human–Wildlife Conflict over the Past Five Years

Response	Frequency	Percent (%)
Increased significantly	118	38.1%
Increased slightly	96	31.0%
Remained the same	52	16.8%
Decreased slightly	28	9.0%
Decreased significantly	16	5.1%
Total	**310**	**100.0%**

Table 2 outlines the responses to the question on whether there is a change in the frequency rate of the human-wildlife conflict in Isiolo County in the last five years. The results show that most of the respondents, 118 (38.1%) felt

that human-wildlife conflict has grown drastically. Similarly, 96 respondents (31.0%) indicated an increment of slight conflict. At the same time, 52 respondents (16.8%) claimed that the number of conflicts has not changed. Fewer percentages of the respondents (28 out of 100), expressed the view that the conflicts have reduced to a smaller degree, with only 16 respondents (5.1) expressing the view that the conflicts have reduced to some significant degree. These findings imply that majority of the respondents believe that there is an increasing trend in the cases of human-wild life conflicts in the region. One key informant explained the situation as follows:

> "*My personal experience over the last few years has shown that the incidents of human-wildlife conflicts have been on the rise. I frequently get community reports of the elephants entering the farms and predators attacking the animals…...*" (Key Informant Interview with Kenya Wildlife Service Officer, Isiolo County, 04 June 2026).

These results are in agreement with a number of studies done on the trends of human-wild life conflicts in East Africa. It has been established that the level of conflicts is soaring in most arid and semi-arid areas as a result of pressures on the environment and human encroachment into the habitat of the animals. Indicatively, Abrahms et al., (2023) noted that the degradation of habitats and climatic anomalies have compelled wildlife to relocate nearer to human settlements and in the process, escalate the conflicts. On the same note, Nyenge (2021) documented the drought effects of the long drought conditions in Tanzania, which has led to increasing rates of crop raving and predation of animals due to the lack of food and water that the wild animals sought. Moreover, as Kariuki et al., 2021) pointed out, there has been an increase in human population and intrusion of humans and wildlife to cattle grazing areas, which has enhanced interactions between people and wildlife in some parts of Africa.

4.1.3 Extent to which Human–Wildlife Conflict Affects Livelihood and Security

The study sought to examine the Extent to which Human–Wildlife Conflict Affects Livelihood and Security and results were as presented below;

Table 3

Extent to which Human–Wildlife Conflict Affects Livelihood and Security

Impact Area	1 Not at all	2 Low extent	3 Moderate extent	4 High extent	5 Very high extent	Mean	SD
Crop production	18 (5.8%)	32 (10.3%)	74 (23.9%)	96 (31.0%)	90 (29.0%)	3.67	1.13
Livestock survival	12 (3.9%)	28 (9.0%)	66 (21.3%)	102 (32.9%)	102 (32.9%)	3.82	1.07
Household income	20 (6.5%)	34 (11.0%)	80 (25.8%)	96 (31.0%)	80 (25.8%)	3.58	1.16
Food security	24 (7.7%)	36 (11.6%)	72 (23.2%)	94 (30.3%)	84 (27.1%)	3.57	1.18
Personal safety	30 (9.7%)	44 (14.2%)	86 (27.7%)	84 (27.1%)	66 (21.3%)	3.36	1.24
Community stability	36 (11.6%)	48 (15.5%)	92 (29.7%)	78 (25.2%)	56 (18.1%)	3.23	1.26
Average						3.54	1.17

Table 3 reflects the perception of the respondents on the level in which the human-wildlife conflict influences livelihoods and community security in Isiolo County. Results depict that survival of livestock was the most impacted area with most respondents showing high (102; 32.9%) and very high (102; 32.9%) impacts causing the greatest average (M = 3.82, SD = 1.07). The effect on crop production was also influenced significantly with 96 respondents (31.0%) responding that the effect was high and 90 (29.0) respondents responding that the effect was very high (M = 3.67, SD = 1.13). Likewise, the effects of the household income were high (96; 31.0%) and very high (80; 25.8%), and food security was ranked high (94 respondents; 30.3%) and very high (84 respondents; 27.1%). Personal safety and stability of the community were also quite significantly affected, despite a slight decrease. In general, the mean score (M = 3.54, SD = 1.17) shows that the human-wildlife conflict is a leading determinant of the livelihood and socio-economic stability in Isiolo County. A wildlife officer explained the livelihood consequences as follows:

> "*I am used to watching pastoralists lose their livestock to predators and farmers lose their crops to the elephants; these losses are instant threats to the food security and income of the household*." (Key Informant Interview, Kenya Wildlife Service Officer, Isiolo County, 10 June 2026).

A local administrator also emphasized the community-level effects:

> "*In situations where wild animals ruin farms or kill animals, families cannot fulfill their basic needs, and tensions develop between communities and wildlife authorities who protect them*." (Key Informant Interview, Local Administrator, Isiolo County, 04 June 2026).

This is similar to previous research on socio-economic effects of human-wildlife conflict in rural Africa. For instance, Thompson, (2022) established that crop-raiding of the elephant in Malawi led to massive agricultural losses and low household income among smallholder farmers who live in the areas of wildlife corridors. On the same note, Akinsorotan et al., (2021) documented that the predation of livestock by predators like lions and hyenas in Nigeria had

a negative impact on pastoral livelihoods and led to economic susceptibility within households. In Kenya, Ikuathu (2019) noted that rampant livestock predations and crop losses in Isiolo County make food security and income in agro-pastoral communities there directly threatened. Moreover, Bernhard (2024) showed that instability in climate and the declining grazing lands enhance human-wildlife contact in pastoral landscapes, curbing death of livestock and portfolio anthropogenic hardships.

4.1.4 Time of the Year Do Human–Wildlife Conflict Incidents

Respondents were asked "What time of year do human–wildlife conflict incidents mostly occur in your area?" and results were as revealed below;

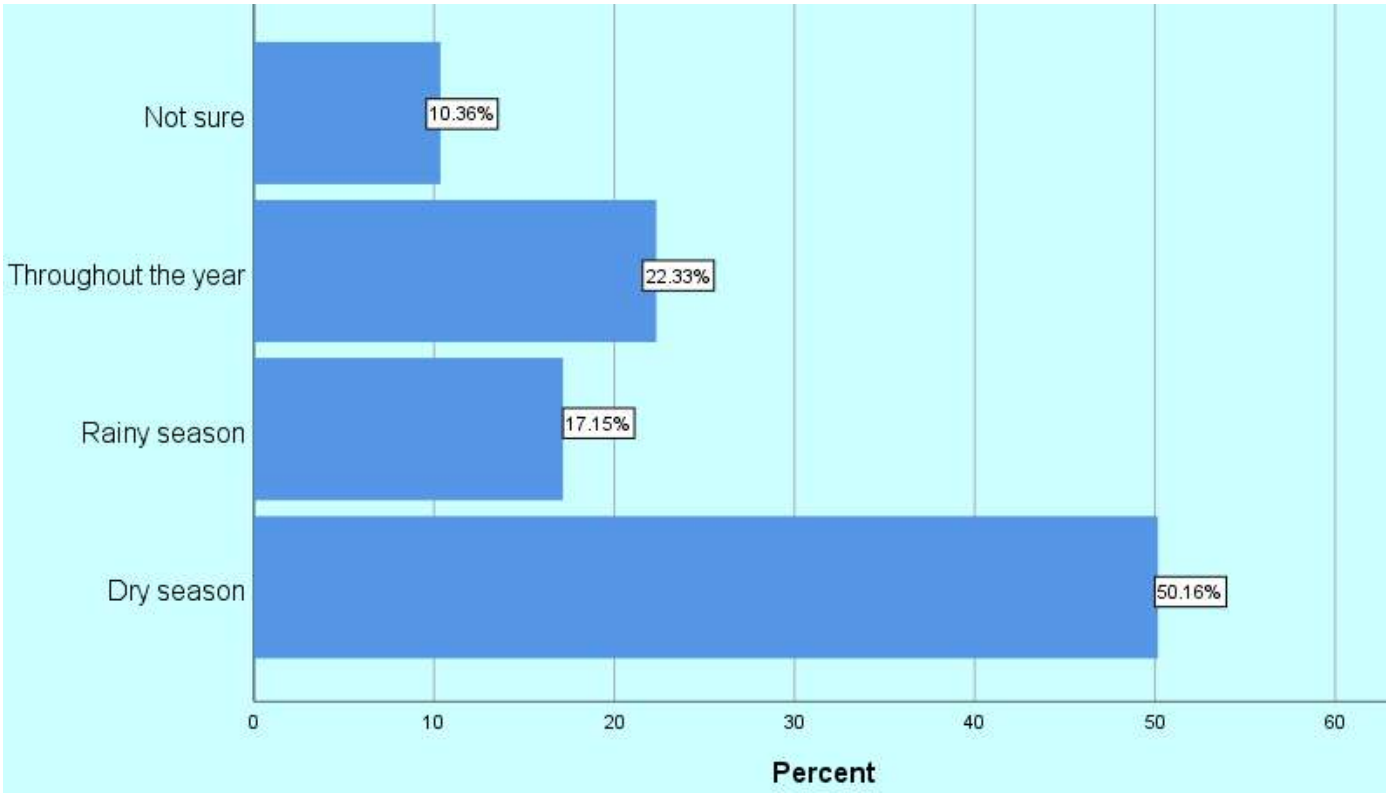

Figure 4
Time of the Year Do Human–Wildlife Conflict Incidents

Figure 4 illustrates what respondents thought is the most common time of the year when the incidents of the human-wildlife conflicts in Isiolo County occurred. The results indicate the highest proportion of 155 respondents (50.2%) recorded during the dry season, which reports that most of the conflicts take place during this time. Also, 69 respondents (22.3%) mentioned that there are conflicts all year round and 53 respondents (17.2%) responded that they mainly come in the rainy season. A lower percentage among the respondents, 32 (10.4%), did not know. This finding indicates that the shortage of resources in the dry season poses a significant constraint resulting in an increased interaction between human beings and wildlife.

Kenya Wildlife Service official described the season-changing nature of fights:

> "*Throughout the dry period, I typically notice the movement closer to the community settlements of wildlife due to the lack of water and pasture within the confined areas...*" (Key Informant Interview, Kenya Wildlife Service Officer, Isiolo County, 02 June 2026).

A community leader further emphasized the livelihood implications:

> "*In the case of extreme drought, I observe that elephants come into farms and grazing fields more frequently thereby destroying crop regularly and creating tensions*." (Key Informant Interview, Community Elder, Isiolo County, 09 June 2026).

The results can be compared to various surveys of the seasonality of the human-wildlife conflict in East Africa. In this case, according to Snyder et al., (2021), the crop-raiding cases of the elephants in Tanzania occur with greater intensity during dry seasons when the animals go in search of water and forage across farm lands. In a similar vein, Awazi (2025) discovered that droughts surrounding Murchison falls national park in Uganda tend to drive the elephants into agricultural settlements, thereby enhancing crop damages and hunting of animals. Matsuura et al., (2024) also found in Kenya that long dry seasons in the dry pastoral areas of the north often see wildlife moving into communities grazing

blocks, which puts more humans and wildlife in contact with each other and leads to inter-human and inter-wildlife conflicts.

4.1.5 Factors Contributing to Human–Wildlife Conflict in Isiolo County

The study sought to examine Factors Contributing to Human–Wildlife Conflict in Isiolo County and results were as indicated below;

Table 4

Factors Contributing to Human–Wildlife Conflict in Isiolo County

Contributing Factor	Frequency	Percent (%)
Drought and climate variability	206	66.5%
Wildlife migration corridors passing through settlements	184	59.4%
Human encroachment into wildlife habitats	172	55.5%
Lack of physical barriers	141	45.5%
Competition over water and pasture	167	53.9%
Weak enforcement of wildlife policies	118	38.1%
Other (Specify)	14	4.5%

Figure 4 shows the perception of the respondents about the key drivers of human-wildlife conflict in the Isiolo County. The results show that the most cited drivers were drought and climate variability, with 206 respondents having reported them (66.5%). This was followed by wildlife migration routes through settlements reported by 184 respondents (59.4%), and human invasion into the wildlife habitats reported by 172 respondents (55.5%). Also, 167 respondents (53.9%) reported competition over water and pasture, 141 (45.5%) lack of physical barriers. A more minor percentage of respondents, 118 (38.1%), said that weak implementation of policies in wildlife caused the conflicts and 14 respondents (4.5%) indicated that there were other factors.

A wildlife officer described the environmental drivers of the conflict:

> "*In my observation of this area, drought can be listed as one of the key causes as to why the wildlife has been moving closer to human settlements in search of water and pasture*." (Key Informant Interview, Kenya Wildlife Service Officer, Isiolo County, 08 June 2026).

A community leader also highlighted the role of human activities:

> "*In my case, there would be tension among the people who establish settlements near the animal migration routes due to conditions taking their course since they are in these routes*." (Key Informant Interview, Community Elder, Isiolo County, 10 June 2026).

The findings are found to be consistent with other studies that emphasize on environmental and human factors causing human-wildlife conflict. In their case, Doherty et al., (2023) found that drought and climate variability in Isiolo county cause wildlife to forage to get water and pastures beyond the protective zones, enhancing the chances of contact with the adjacent communities. On the similar note, Thompson (2022) discovered that the process of farming encroachment of the wildlife corridors in Malawi was a major cause of crop losses and clashes between farmers and elephants. According to Gontse (2024) in Ethiopia, during dry seasons, competition among limited grazing land, water resources aggravate interactions between the pastoral communities and wildlife. Such studies illustrate that land-use conversion and pressures of the environment still play significant roles as sources of human-wildlife conflict in most African pastoral landscapes.

4.1.6 Severity of Human–Wildlife Conflict in Isiolo County

Respondents were asked to indicate the Severity of Human–Wildlife Conflict in Isiolo County and results were as presented below;

Table 5

Severity of Human–Wildlife Conflict in Isiolo County

Severity Level	Frequency	Percent (%)
Very low	18	5.8%
Low	42	13.5%
Moderate	88	28.4%
High	104	33.5%
Very high	58	18.7%
Total	**310**	**100.0%**

Table 5 depicts the perception of the respondents as to the severity of the human-wildlife conflict in the Isiolo County. The data suggest that most of the respondents in the severity of the conflict ranked it high with 104 respondents (33.5%), and moderate, with 88 respondents (28.4%). Moreover, 58 (18.7%) participants (n=58) expressed a very high rating of the conflict indicating that the number of people affected seriously due to wildlife interactions is relatively high. In this sense, 42 respondents (13.5%) bore the severity to be low and only 18 respondents (5.8%) thought the conflict was very low. These results indicate that HWC is viewed as an important issue in the research site. A local administrator described the situation as follows:

> "*I believe that the wildlife/community conflict here is severe since it involves farms, livestock and even human lives*." (Key Informant Interview, Local Administrator, Isiolo County, 30 May 2026).

A wildlife officer also emphasized the severity of the issue:

> "*Based on my day-to-day work resolving incidents, I feel that the conflict is intense as wildlife regularly gets into settlements and plots the crop*." (Key Informant Interview, Kenya Wildlife Service Officer, Isiolo County, 02 June 2026).

The results match earlier empirical research on the intensity of problems associated with human–wildlife interactions in mixed-use areas. They noted that conflicts between wildlife and farmers are becoming more common due to the growing overlap, causing significant crop damage, livestock predation and property loss for farmers (Croft & Witte, 2021). Also, Hull et al, (2023) observed a rise in both the number and intensity of such conflicts in conservation landscapes, due to the greater wildlife and human contact caused by expanding human settlements and land use change. The authors also said there is a link between the negative community perception of wildlife conservation and the recurring cases of wildlife incursions and the consequent livelihood insecurity. This finding has also been confirmed by the present study that indicates that human–wildlife conflict in Isiolo County is perceived as a serious environmental, socio-economic and human security problem that needs a multifaceted and sustainable management intervention.

4.1.7 Human–Wildlife Conflict as a Threat to Livelihoods and Security

The study sought to assess Human–Wildlife Conflict as a Threat to Livelihoods and Security and results were as presented below;

Table 6

Human–Wildlife Conflict as a Threat to Livelihoods and Security

Response	Frequency	Percent (%)
Strongly disagree	16	5.2%
Disagree	34	11.0%
Neutral	48	15.5%
Agree	124	40.0%
Strongly agree	88	28.4%
Total	310	100.0%

Table 6 shows the responses of the respondents to the statement on whether human-wildlife conflict is a serious threat to livelihoods and security in Isiolo County. The findings show that most of the respondents indicated that they agree (124 respondents (40.0%) and 88 respondents (28.4%) strongly agree that human-wildlife conflict is a serious threat. Meanwhile, 48 respondents (15.5%) were neutral, and 34 respondents (11.0%) disagreed with the statement. There was a low percentage, 16 respondents (5.2), of strong disagreement. These results suggest that the majority of the respondents consider human-wildlife conflict to be a significant challenge to livelihoods and community security.

A community leader expressed this concern as follows:

> "*I am of the strong opinion that wildlife conflict endangers our livelihoods since families lose crops, livestock and even a way to access grazing fields*." (Key Informant Interview, Community Leader, Isiolo County, 04 June 2026).

Another respondent emphasized the security implications:

> "*In my experience, these battles instill fear and insecurity among communities since individuals fear attacks and destruction of property*." (Key Informant Interview, Community Elder, Isiolo County, 08 June 2026).

These findings are consistent with previous empirical studies on the socio-economic impacts of human–wildlife conflict. Guadu et al., (2026) discovered that repeated wildlife attacks on fields were great contributors to farm productivity losses and household income decline, consequently making rural communities that depend on agriculture and livestock rearing activities vulnerable. Similarly, Franchini (2023) have reported that periodic loss of crops and livestock from wildlife attacks leads to a reduction in household food security, economic resilience, and livelihood security for communities surrounding wildlife habitats. The authors also noted that repeated wildlife encounters can escalate conflicts between communities and conservation authorities, especially when there is limited or no

compensation or mitigation. The present findings corroborate these studies by revealing that house–wildlife conflict is a serious threat to the household incomes, food security, livestock survival, and community well-being in Isiolo County.

V. CONCLUSION & RECOMMENDATIONS

5.1 Conclusion

The study found that the issues of human-wildlife conflict in Isiolo County continue to be severe and persistent and cause a significant impact on human welfare, livelihood and food security. The results showed that most respondents had been involved in a human-wildlife conflict event; the top four most frequent types of conflict were crop damage, livestock predation, damages to property, and threat to human safety. The elephants, hyenas and leopards were the species of wildlife which was most commonly seen in conflict situations while drought, climate variability, encroaching on new territory, conflicting over water and pasture and blocking of migration corridors were identified as the main drivers of the conflict. The study also concluded that HWC is a common occurrence and has been on the rise over the last five years, and its effects are devastating on farm yield, livestock mortality, household's income, food security and community safety. In summary, the study findings reveal that in the study area, human-wildlife conflict is a conservation challenge with important human security implications; it demands on-going and evidence-based measures to facilitate coexistence between the communities and the wildlife.

5.2 Recommendations

The study recommends that Kenya Wildlife Service, Isiolo County Government, conservation groups and the community need to extend and support protection of the wildlife corridors, promote sustainable water and pasture use and aversion of domestication of wildlife habitat. Community-based mitigation strategies (CBMS) should be strengthened to include wildlife-proof fencing, early warning systems and public awareness programs, to minimize conflict incidents. Moreover, the provision of timely compensation to households could also support mitigation, and improved stakeholder participation in tools and systems for conflict monitoring, and volumes of information and response, would contribute to sustainable human-wildlife coexistence in Isiolo County.

Declaration of Interest

The authors declare that they do not have any known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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