

Human-Wildlife Conflict Management: Towards a Comprehensive Strategies for Sustainable Coexistence in Conservancies in Laikipia County

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ABSTRACT

The article explores the rampant issue of human-wildlife conflicts (HWC) in conservancies, primarily focusing on Laikipia County, Kenya. In response to the escalating global challenge of HWC, privately run conservancies have emerged as a proactive approach to safeguarding natural ecosystems while promoting responsible resource utilization. These conservancies also aim to reshape societal perceptions and behaviors regarding wildlife. However, the conservancies in Laikipia County currently face a significant HWC crisis due to the encroachment of human activities into wildlife habitats. This encroachment has led to adverse consequences for biodiversity conservation and local livelihoods. The insufficiency of existing control measures necessitates the development of comprehensive strategies that can effectively reduce conflicts, protect the interests of both human and wildlife populations, and ensure the long-term viability of conservancies. The study employs the socio-ecological systems (SES) theory as its foundational framework. Research within Laikipia County involves diverse participants, including conservancy staff, community leaders, and representatives from non-governmental organizations (NGOs) engaged in community outreach. The study adopts a mixed-methods approach, utilizing questionnaires and interviews to collect primary and secondary data. Quantitative data is analyzed using SPSS version 21, while qualitative analysis uncovers underlying patterns and themes in the dataset. The study's findings emphasize the pivotal role of community engagement and strategic land use planning in mitigating human-wildlife conflicts. The data highlights that private conservancies actively organize community training programs to raise awareness about the significance of wildlife conservation. Moreover, a shift in land use, explicitly transitioning from livestock rearing to cropland cultivation, emerges as a viable strategy for reducing conflict incidents in Laikipia County. The SES theory underscores the importance of understanding both social and ecological factors for coexistence. Social acceptability influences attitudes towards wildlife, impacting conflict dynamics and conservation efforts. Striking a balance between environmental diversity and social acceptability is crucial for effective conflict resolution. The study's results reveal how conservancies' impact on local lifestyles can influence attitudes and values, potentially leading to conflicts between humans and wildlife.

Key Words: Human-wildlife Conflicts, Private conservancies, Mitigation, Social strategies, Land use, Environmental Strategies

INTRODUCTION

Human-wildlife conflicts (HWC) are a severe global issue happening in Countries where wildlife and human requirements overlap. There are different forms of HWC, including the destruction of crops by carnivores, competition for resources with the Conservancy, and retaliatory killing, among others. Osei-Owusu (2018) found that HWC could result from the loss of biodiversity, mainly when people hunt for wildlife for food. Although the issue of human-wildlife conflicts (HWC) has existed since time immemorial, its growing complexity and severity have made it a central issue in wildlife management worldwide (Marchini & Crawshaw, 2015).

In recent times, one factor that has been linked to HWC is climate change. Abrahms (2021) observes that climate change and HWC pose significant and urgent challenges to the preservation of biodiversity and human welfare in the Anthropocene era. Climate change is a pivotal factor that often goes unrecognized when it comes to intensifying conflicts between humans and wildlife. This is because it worsens the scarcity of resources, modifies the behavior and habitats of humans and animals, and leads to more frequent interactions between them (Abrahms *et al.*, 2023). These conflicts, driven by climate-related factors, occur across ten different taxonomic orders, on six continents, and in all five oceans. They disrupt not only the livelihoods of communities dependent on subsistence but also the economies of industries. Furthermore, they may expedite the pace at which human-wildlife conflicts contribute to the decline of wildlife populations.

Research into the impacts of climate change often focuses on the consequences for human populations separately from its effects on ecosystems. However, a recent study is shedding light on the intricate connection between humanity and our environment, revealing how global warming contributes to an upsurge in conflicts between humans and wildlife. For instance, elevated air temperatures in Australia triggered more aggressive behavior in eastern brown snakes, resulting in increased snake bite incidents. During La Nina events in the Americas, disruptions in terrestrial food webs pushed black bears in New Mexico and foxes in Chile into human settlements in search of food. Sumatra, Indonesia, experienced wildfires due to El Nino, forcing Asian elephants and tigers out of reserves and into areas inhabited by humans, leading to at least one fatality. In South Africa, warmer air and ocean temperatures during a severe El Nino event increased shark attacks. In Tanzania, torrential floods prompted a higher frequency of lion attacks as their usual prey migrated away from the floodplains. Further, in 2009, a severe drought hit western Tanzania's Kilimanjaro Region, reducing food supplies for African elephants. Consequently, elephants ventured into local fields to graze on crops, sometimes destroying 2 to 3 acres daily. In response, local farmers, whose livelihoods were directly threatened by the drought, occasionally resorted to retaliatory killings of elephants to mitigate these raids. Governments can proactively prepare for instances when extreme climate events bring humans and wildlife into closer proximity. For instance, Botswana has established funds to compensate herders and ranchers for losses due to drought-induced attacks by wildlife on livestock, often in exchange for commitments not to engage in retaliatory killings of wildlife (UW News, 2023).

The constant rise of HWC being a global issue has resulted in the establishment and recognition of privately-run conservancies. A privately-run conservancy is an institution established by individuals or non-governmental organizations to manage wildlife. Establishing private consultancy aims to reduce human-wildlife conflict (Sharma *et al.*, 2020). Before private consultancy emerged in Kenya, wildlife could not graze on pastoral land since the wildlife could be poached or poisoned. However, wild animals can graze alongside the livestock in the present conservancies, while people are more tolerant to water and grass competition (Mateo-Tomás *et al.*, 2012).

Private conservancies do not act to replace protected regions like national parks but only complement them. The primary effect of the private Conservancy is to ensure natural ecosystems have been protected while ensuring sustainable use of natural resources (Anand & Radhakrishna, 2017). Unlike national parks, private conservancies are established to ensure that people live along with the wildlife while harvesting sustainable natural resources. Private conservancies aim to enhance wildlife's sustainability, which is recognized in three dimensions: economic, social, and environmental (Manfredo & Dayer 2004). In the economic dimension, private conservancies help improve wildlife management while enhancing profitability (reducing probable loss) for the owners of the land. In the environmental dimension, the conservancies provide an extra space where people can live with wild animals (Manfredo & Dayer, 2004).

Scotland is among the countries worldwide with no private conservancies, although the communities wishing to purchase estates are supported by the government (Odeck, 2016). The Royal Society manages the

nature reserves for birds and other wildlife to protect Birds in Scotland. In Malaysia, Zafir *et al.* (2016) shared that one of the HWC issues is between people and elephants. This conflict has threatened the habitat loss of the elephants. Tan *et al.* (2020) conducted a similar study in Malaysia and argued that people's attitudes determine the interventions used to conserve wildlife.

The social effects of the private conservancies manifested in the efforts to change society's perceptions. Digun-Aweto *et al.* (2019) in Nigeria shared that those perceptions of people inform the level of tolerance among people concerning wildlife. In a related study in Nigeria by Digun-Aweto *et al.* (2020), observations revealed that the capacity to endure human-wildlife conflicts is influenced by various factors, including the advantages and compensation offered, the resilience exhibited at the community level, and the means of sustenance. The economic ramifications introduced by private conservancies can be understood through the lens of creating policies for compensating individuals affected by wildlife-induced damages.

In Ghana, Harich *et al.* (2013) attributed the increasing incidences of human-wildlife conflicts in Africa to factors like changes in land use and an increase in human population. In Namibia, the first freehold conservancy was established in 1992; currently, there are 23. In Zambia, Kasanka National Park was the first national park to be managed under private arrangements. Countering HWC requires the conservancies to receive local support. This is supported by Matseketsa *et al.* (2019), who noted that the relationship between the local community and the private conservancies in Zimbabwe was poor, largely due to a lack of compensation mechanisms. This was consistent with the views shared by Gandiwa *et al.* (2013) in Zimbabwe that the local community with a higher rating of the effectiveness of the private conservancies would have perceptions of declining incidences of HWC. In Uganda, many populations call for constant interaction between people and wildlife and thus increased HWC.

Kenya experiences human-wildlife conflict just as other developing countries with tropical and sub-tropical climates, where agriculture is the mainstay of the local livelihood (Huaping *et al.*, 2020). This has challenged biodiversity conservation by establishing national parks, reserves, forest reserves, and national sanctuaries for wildlife conservation, covering about 12.34 percent of the land area of Kenya's land mass (Kenya Wildlife Conservancies Association, 2016). Despite conservation efforts in the last four decades, Kenya has lost 68 percent of its wildlife population (Ogutu *et al.*, 2016). The loss was due to a combination of factors, including climate change, heightened economic activities, and land use changes. This has resulted in the establishment of mitigating efforts on better planning and management as a primary concern to wildlife conservation and the livelihoods of the local people. The Ministry of Tourism (2020) also showed there have been compensation programs to reduce human-wildlife conflict and the establishment of private conservancies to help alleviate this hazard.

Private conservancies account for 36% of the members of the Kenya Wildlife Conservancies Association (KWCA) and play an essential role in the conservation and management of wildlife. For instance, some large colonial estates have evolved from ranches for cattle rearing to wildlife sanctuaries in the 20th century and Conservancy in the 21st century. Examples of these conservancies that evolved from ranches include Lewa Wildlife Conservancy, which evolved from Lewa Downs. Similarly, Ol Pejeta Conservancy also evolved from a cattle ranch, but presently, cattle are managed alongside wild animals (Ogutu *et al.*, 2017). The key means of providing governance to the private conservancies include the ability to lease land to NGOs involved in the conservation process, for-profit or even non-profit entities. The private conservancies are mostly found in Laikipia (9), Nakuru (15), and Taita Taveta (25) (Koech, 2018). The Laikipia Nature Conservancy, Ol Pejeta Wildlife Conservancy, and Rukinga are the largest private conservancies in Kenya, with the smallest one being Lentolia Farm.

Bedelian (2014) argued that private conservancies can significantly contribute to the income of the participating households. This could be viewed as an economic effect of these conservancies in mitigating HWC. On the other hand, the environmental effects of the conservancies can be viewed in terms of the land use restrictions that result in a trade-off for a livelihood that is based on livestock (Bedelian, 2014). Drought

is an environmental issue that needs to be addressed by privately run conservancies to prevent human-wildlife conflicts. This view is supported by Bedelian and Ogutu (2017); conflicts between the conservancies and the pastoralists may increase during drought times.

Furthermore, the restrictions on land use create a challenge for livestock mobility, affecting the pastoralists' flexibility. From an economic perspective, the conservancies pay the owners of land under the lease agreement for the use of land to conserve wildlife, although this is based on land ownership. Given that women and other marginalized groups do not have land ownership in most of these areas, it creates a social issue of inequality (Bedelian & Ogutu, 2017).

Laikipia County is in the Great Rift Valley, with different landscape features and climatic zones conducive to agricultural activities. Most people in Laikipia County are involved in cultivating food crops, including maize, and keeping livestock. There are diverse communities and valuable resources within Laikipia County. However, establishing these private conservancies has increased inequality between those groups of few individuals deriving from the benefits of wildlife and the other residents (Pellis, Pas & Duineveld, 2019). In Laikipia, many small-scale farmers are bordering the private conservancies within the areas where wild animals are supposed to move through. At the same time, a growing number of residents in Laikipia do not have employment, creating danger for some species of wildlife being converted to meat. These issues have sparked conflicts between humans and wildlife in Laikipia (Pellis, Pas & Duineveld, 2019).

The private conservancies can use National Police Reservists to stop poaching and other security issues outside the Conservancy, such as tracking cattle that have been raided. This initiative is capable of sparking further conflicts between the public and the management of these privately run conservancies (Kabiri, 2010). It is argued that the conversion of the Laikipia region to private conservancies was seen to have greater economic effects than leaving it for the sake of the pastoralists. However, most private conservancies in Laikipia have poorly maintained electrical fences. Hence, lions and elephants, among other wild animals, freely roam, increasing the further human-wildlife conflict (Pellis *et al.*, 2019). Moreover, the existing methods of controlling human-wildlife conflicts in private-run conservancies have shown limitations in their effectiveness. The traditional approaches, such as physical barriers or reactive measures like lethal force, may not be sustainable or socially acceptable in the long run. The conservancies require comprehensive strategies that consider the conflict's ecological, social, and economic dimensions to find a balance between conservation and the needs of local communities. Hence, there is a need for the stakeholders in Laikipia County on conservation to urgently mitigate the negative consequences of human-wildlife conflict and ensure the coexistence of wildlife and human population. Sustainable efforts to counter HWC require that privately run conservancies focus on the economic, environmental, and social aspects that are the basis of realizing sustainability (Torres *et al.*, 2018).

The private-run conservancies in Laikipia face a significant challenge of human-wildlife conflict due to increasing human encroachment into wildlife habitat, resulting in negative impacts on biodiversity conservation and local livelihoods. The current control measures are inadequate, necessitating the development of comprehensive strategies to minimize conflict, protect both human and wildlife interests, and ensure the long-term sustainability of the conservancies, hence the current study.

THEORETICAL FRAMEWORK

The study was anchored on the socio-ecological systems theory (SES), which evaluates the tools' ability to mitigate conflict and promote coexistence. The approach acknowledges HWC as informed by social and ecological dynamics and responses. Carter & Linnell (2016) define coexistence as a self-motivated, ensuring supportable state encompassing humans dealing with wildlife to confirm co-adaptation. This calls for humans to adjust their interactions with wildlife by understanding the social and ecological factors that contribute to conflict and how to mitigate it.

This is a call to humans to guarantee co-adaptation, proposing living with wildlife needs more plans to

enable them to exist in the same place at the same time without conflict. The theory focuses on comprehending social and ecological influences that provide disagreement and, most significantly, disagreement vindication.

Volski *et al.* (2021) noted that social effectiveness by combining ecological and social acceptability is essential. This theory addresses issues of environmental diversity and acceptability as a way of adopting a particular guideline that would help humans exist with animals. Social acceptability is a condition that affects the attitudes and values on the human dimensions of wildlife conflict. This means attitudes are favorable or unfavorable dispositions towards an action. Values also guide fundamental attitudes and consistent belief systems that transcend specific situations.

On the other hand, attitudes and values have been found to be unique to individuals and inform their identities. Still, values also exist along a continuum and can reflect broader shifts among groups of people. The values, therefore, can help in the traditional desire to protect cultural heritage, which means traditional wildlife conservation. In this study, social acceptability may describe the symbolic effects of wildlife in determining attitudes and values. People are generally more concerned with changes in their lifestyle, and the conservancies may impact the lifestyle of many communities around the conservancies, having to keep away from their traditional ways of handling wildlife. This may threaten external forces that may be perceived as being imposed. The positive attitude may lead to the conflict between wild animals and humans.

RESEARCH METHODOLOGY

This study utilized a mixed methodology approach, combining qualitative and quantitative techniques to thoroughly investigate the impact of privately-run conservancies on human-wildlife conflict (HWC) in Laikipia County, located in the Great Rift Valley. The region’s economic activities mainly revolve around tourism and agriculture, with Nanyuki and Nyahururu as urban centers. The research engaged a diverse range of participants, including conservancy staff, community leaders, and NGO representatives, totaling 249 respondents. Primary data was collected through structured questionnaires and interviews, while secondary data was sourced from literature and established procedures. Quantitative data was organized using codes, facilitating pattern identification and analysis in SPSS. Descriptive statistics were employed to address research questions, presented through tables. Concurrently, thematic analysis was applied to qualitative interview data to uncover significant patterns and themes relevant to the research.

FINDINGS AND DISCUSSIONS

4.1 Social Strategies in the Mitigation of Human-Wildlife Conflict by Private Conservancies in Laikipia County

The study sought to establish the social strategies for mitigating HWC by private conservancies in Laikipia County. The findings were as indicated in Table 1.

Table 1: Private conservancies have taken community education to alleviate Human-Wildlife Conflict

	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
Private conservancies organize community training to create awareness programs of sensitize them to the importance and benefits of wildlife	20 (8.0%)	149(59.8%)	0	50(20.1%)	30(12.0%)
Private conservancies educate the communities on the benefits offered by the conservancies	36(14.5%)	142(57.0%)	10(4.0%)	49(19.7%)	12(4.8%)

Private conservancies have set a community financial consolation payment for victims of human-wildlife conflict	25(10.0%)	141(56.6%)	9(3.6%)	59(23.7%)	15(6.0%)
Private conservancies involve community members in decision-making processes	36(14.5%)	142(57.0%)	10(4.0%)	49(19.7%)	12(4.8%)
Private conservancies have coordinated technological training	45(18.1%)	112(45.0%)	25(10.5%)	48(19.3%)	19(7.6%)

Source: Field Data, 2023

The findings in Table 1 revealed that most respondents (59.8%) agreed, 20.1 percent disagreed, and 12.0 percent strongly disagreed with the assertion that private conservancies organize community training to create awareness programs to sensitize the community on the importance of wildlife. This implies that the private conservancies could organize and disburse information by training the community on the importance of game rearing.

These findings agreed with Ward (2013), who opined that conservancies should work with local NGOs within the host communities to create awareness of the need to manage wildlife. Ward (2013) further argued that different factors are considered by people when dealing with conflict between humans and wildlife, such as cultural norms, experiences, expectations, and beliefs. This would help people change their attitudes towards such organizations. It is, therefore important to know that such social effects can help quiet down human-wildlife conflict among communities. Ziegler *et. al.* (2020) further argue that Community engagement in conservation is very important since it increases community awareness, reducing conflict between private conservancies and the community. For instance, in Ol Pejeta Conservancy, the community participates in the Conservancy’s activities. The Conservancy has created a mobile platform where they engage the local community in different projects such as irrigation and education to ease the pressure on the natural resources during dry seasons that are experienced in the area.

Further, the findings revealed that 57.0 percent of the respondents agreed, 19.7 percent disagreed, and 14.5 percent strongly agreed that private conservancies hold campaigns with the communities on the different conservation benefits. This implies that the majority agree there are benefits for the communities from conservation. The findings were in tandem with Mwandime (2022), who argued that wildlife-related activities could be income-generating activities that would help the local people as well as the Country at large if well managed and positively identified. The initiatives can become popular among the community members, especially if the community is involved in initiating the projects. For instance, in Sonora, Mexico, projects such as raising a Jaguar on a privately-owned ranch have seen the ranch become one of the attraction areas. This has benefited the community as well as the ranch owners.

Additionally, the findings indicated that 56.6 percent of the respondents agreed, 23.7 percent disagreed, and 6.0 percent strongly disagreed that private conservancies have set community financial consolation payments for victims of human-wildlife conflict. This implies that the compensation can create a win-win situation by redistributing costs. The findings supported those from a study by Mukeka *et al.* (2019) on trends in compensation for human-wildlife conflict losses in Kenya, and the study found that compensation was important in changing the community’s attitude towards wildlife conservation. The compensation’s monetary value may not have much impact, especially for families that have lost loved ones, have been injured, or even lost crop and property damage or livestock during the attacks from the wildlife mitigated by the HWC. The study was interested in cases of compensation between 2007-2016, where there were human-wildlife conflicts, and the outcome should there be a variation in human-wildlife conflicts. The study found that 18,794 compensation claims were filed with the Kenya National Compensation Scheme (KNCS) during

the period. The results showed that snakes, elephants, hyenas, lions, and leopards all contributed to cases of human-wildlife conflict.

Also, about 57 percent of the respondents agreed, while 19.7 percent disagreed and 14.5 percent strongly agreed that private conservancies involved community members in decision-making processes. This means that the local community is involved in the decision-making process by the private conservancies to resolve human-wildlife conflict. The finding supported a study by IUCN (2023), which argued that regular meetings with the community ensure that action is working and allows proper monitoring and evaluation. The meeting could take place to encourage stakeholders to have a series of conservation to find a long-term solution to issues affecting the community and the conservancies. The purpose of such meetings may be decision-making and is crucial in identifying amicable solutions. The meeting may emphasize relationship building, which is essential in addressing presenting problems and creating an understanding of the situations and the consequences. Ziegler *et al.* (2020) further noted that meetings with the community have helped coordinate different projects involving the conservancies and the community. Others are training meetings, and responding to security issues that affect the local community and the wildlife. The community is also encouraged to keep open communication during meetings that help make social connections viable.

The findings revealed that 45 percent agreed, 19.3 percent disagreed, and 18.1 percent strongly agreed that private conservancies have coordinated technological training. This implies that there is technological training to ensure the community can communicate with the private conservancies on issues related to human-wildlife conflict and help avert the same. The private conservancies have established technological innovation for the security of the people and wildlife (Northern Rangeland Trust, 2019). The private conservancies had established training on the use of technology to ensure a communication hub was established within the KWS headquarters in Nairobi to monitor and coordinate responses to human-wildlife conflict incidents across the Country. Similar communication hubs have been established to ensure that women are trained on financial services that would enable them to maximize business opportunities. The study sought to establish the social effects used to alleviate human-wildlife conflict by privately run conservancies.

4.2 Land Use and Environmental Strategies in the Management of Human-Wildlife Conflict by Private-run Conservancies in Laikipia County

The study sought to investigate the utilization of Land Use and Environmental Strategies in the Management of Human-Wildlife Conflicts by Private-run Conservancies in Laikipia County. The findings were discussed in the subsequent sections. They investigated the role of land use changes in reducing human-wildlife conflict in Laikipia County. The findings are shown in Table 2.

Table 2: Land Use and Environmental Strategies in the reduction of human-wildlife conflict in Laikipia County

	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
Alteration of livestock rearing to cropping land	60(25.0%)	85 (34.1%)	0	80(32.1%)	24(25.0%)
Switch to non-agricultural use	50(20.1%)	98(39.4)	20(8.0%)	53(21.3%)	28(11.2%)
Erecting of infrastructures	45(18.1%)	112(45.0%)	25(10.5%)	48(19.3%)	19(7.6%)

Source: Field Data, 2023

The findings in Table 2 revealed that 25% of the respondents strongly agreed, 34.1 percent of the

respondents agreed, 32.1 percent disagreed, and 25.0 percent strongly disagreed that the alteration of livestock rearing to cropland as a form of land use change has helped in the mitigation of human-wildlife conflict in Laikipia County. This implies a small difference between those respondents who agreed and those who disagreed about the alteration of livestock rearing to crop farming.

From the interviews with the Conservancies owners, one of the owners had this to say

“...many conservancies have accommodated pastoralists during the dry season and shared pasture, particularly during the dry seasons. This was to alleviate human-wildlife conflict.”

Another Conservancy owner had this to say

“Farmers have been encouraged to alternate livestock rearing with crop farming to reduce the human-wildlife conflict, although this does not eradicate human-wildlife conflict since animals eat up the crops.”

The study also established that 39.4 percent of the respondents agreed that switching to non-agricultural land use had environmental implications that helped mitigate human-wildlife conflict. From the interviews, some respondents noted that when the land is used for agricultural purposes, there is more conflict since the land could be a corridor in which animals were used to pass when moving from one Conservancy to another. This means that as the livestock pass through these agricultural lands, they could cause the destruction of crops, which puts the wildlife in conflict with farmers. Additionally, the use of the land around conservancies for agriculture may lead to reduced Forest Cover. The decline of forest cover would mean reduced resources that would help the terrestrial biodiversity, which is critical in maintaining ecological balance, hence environmental stability and biodiversity conservation.

The Findings agreed with Chapin *et al.* (2010), who opined that converting land from agricultural use to natural habitat or conservation areas allows for the restoration of native vegetation and ecosystems. This restoration creates suitable habitats for wildlife, providing them with the necessary space and resources. As a result, wildlife populations can thrive without encroaching on human-dominated areas. Treves & Karanth (2003) argue that Agriculture often attracts wildlife due to the presence of crops or livestock. When agricultural activities cease, the absence of these resources can lead to a decrease in the presence of wildlife in the area. This can help reduce opportunities for conflicts between humans and wildlife, as there is less incentive for wildlife to venture into human settlements.

Finally, according to Table 2, most of the respondents (45.0%) agree that the change in land use by erecting infrastructure had contributed to human-wildlife conflict. At the same time, 19.3 percent disagreed, 18.1 percent strongly agreed, and 7.6 strongly disagreed that erecting infrastructure had contributed to human-wildlife conflict. This implies that erecting infrastructure as a way of changing land use had led to human-wildlife as opposed to mitigating the conflict within the ecosystem where private conservancies were situated, affecting the environment. The findings agreed with Forman *et al.* (1998), who indicated that constructing roads and other infrastructure can fragment natural habitats, creating barriers that disrupt wildlife movement and migration patterns. This fragmentation can isolate populations, making it challenging for animals to find food, mates, and suitable habitats. As a result, some wildlife may be forced to venture into human settlements in search of resources.

CONCLUSIONS

The study concludes that engagement with the local community, land use and environmental strategies by privately run conservancies have been key in mitigating human-wildlife conflicts. The engagement is done across various strategies, including community meetings, compensations, and local community training, which have helped local communities living around conservancies coexist with the wildlife more peacefully. Additionally, land use changes and environmental strategies, such as altering livestock rearing to cropping

land and switching to non-agricultural land use, have helped mitigate the conflicts significantly.

RECOMMENDATIONS

There is a need to mitigate the challenges associated with human-wildlife conflict (HWC) through a legislative framework that underscores the significance of fostering coordination between communities and wildlife management efforts. This policy should purpose to reduce the frequency of HWC incidents while concurrently ensuring the fulfillment of the essential needs of human populations and wildlife species. The following are some of the policy recommendations:

The Educational and Awareness Policy should encompass provisions to enlighten communities about the fundamental importance of wildlife conservation and the imperative of harmonious coexistence with wildlife. To achieve this objective, multifaceted strategies should be employed, including public awareness campaigns, community assemblies, and educational programs within educational institutions.

Concurrently, the Early Warning Systems Policy should focus on establishing robust mechanisms that can promptly notify communities about the presence of wildlife within their vicinity. This can be effectively executed through state-of-the-art technology, such as motion sensors, surveillance cameras, and drones.

Furthermore, the Wildlife Management Plans Policy should be geared towards formulating comprehensive strategies for wildlife management, wherein the needs of both human communities and wildlife populations are given due consideration. These plans should be developed in collaboration with local communities, wildlife experts, and pertinent stakeholders to ensure their effectiveness.

The Compensation Policy should also be devised to institute a mechanism that compensates individuals who have incurred losses attributable to HWC incidents. This may encompass restitution for damages to crops, livestock casualties, or personal injuries resulting from interactions with wildlife.

Lastly, the Enforcement Policy should be established to delineate clear guidelines for enforcing regulations pertinent to HWC. This would involve implementing punitive measures for individuals violating wildlife conservation regulations, thus ensuring adherence to these critical statutes.

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