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Impact of Inter-Community Conflicts on Wildlife Conservation in Samburu National Reserve and its Environs, Kenya

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Abstract

That inter-community conflicts have profound impacts on wildlife conservation cannot be underrated. A study to assess impacts of inter-community conflicts (ICCs) on wildlife conservation was conducted in Samburu National Reserve (SNR) and its environs between December 2014 and May 2015. The study targeted local communities living around the Reserve, SNR personnel and staff from conservation organizations like Save The Elephant (STE) and Ewaso Lions (EL). Data was collected from randomly selected local community respondents using structured questionnaires, discussion and informal consultations, while interviews were held with staff purposively selected from SNR and targeted conservation organizations. Data analysis was done using descriptive statistics and chi-square goodness of fit test. Results were presented using graphs and tables. Results indicated that there was a significant difference between types of inter-community conflicts experienced due to competition over natural resources ($\chi^2=62.923$, $df=4$, $p<0.0001$). Both the local community and SNR staff noted that although the magnitude of the conflicts experienced was severe, views on causes of the conflict, among them, livestock raiding and competition over resources significantly differed ($\chi^2=27.208$, $df=4$, $p<0.0001$). Results also showed that opinion on impacts of ICCs on wildlife conservation had a significant difference ($\chi^2=11.426$, $df=3$, $p=0.010$). Likewise, local community views on measures implemented by SNR management to mitigate the conflicts differed from those of the local community ($\chi^2=5.456$, $df=3$, $p=0.125$). Views on the effectiveness of measures implemented by both SNR management and the local community also significantly differed ($\chi^2=3.640$, $df=2$, $P=0.162$). Opinions of the community on future measures to be taken by the management to mitigate ICCs showed no significant difference ($\chi^2=9.542$, $df=3$, $p=0.023$). Dialogue, open communication and awareness creation were the most proposed measures to mitigate ICCs in the study area compared to creating a buffer zone or fencing which are viewed as novel measures to conflicts in and around protected areas like SNR. Stakeholder involvement in reconciling the warring communities should be supported with a view to promoting peace and conflict resolution as well as co-existence with wildlife. The local community should be advised to engage in other activities and projects to diversify their livelihoods while supporting SNR management to conserve wildlife.

Key Words: Wildlife, Samburu National Reserve, Conflict, Community, Cattle Rustling

Introduction

Although inter-community conflicts are a historical phenomenon in many parts of the world, in Kenya and other parts of Africa, they are a common feature among pastoral communities living in arid and semi-arid areas like the Sahel region of West Africa and the northern part of Kenya. Most inter-

community conflicts are caused by an interplay of factors that may be either natural, man induced, or both. Cattle rustling for cultural reasons, competition over resources like water and pastures, and historical rivalries between and among clans and communities have been cited as some of the reasons leading to conflicts (Young &

Korir, 2011; UNEP, 2007; Musaasizi *et al.*, 2005). Hence, the term inter-community conflict often carries negative connotations, and is often thought of as the opposite of co-operation and peace. It is commonly associated with violence, threat of violence or disruption (non-violent) disputes (Micheal, 2000).

Arid/and semi arid lands (ASALS) such as the Tibet plateau in Asia, Sahel region in West Africa and the northern districts of Turkana, Baringo, Marsabit, Samburu and Laikipia in Kenya, among others, are part of conflict-affected regions ravaged by internal and cross-border conflicts. In Kenya raiders from Uganda, southern Sudan, Somalia and Ethiopia often raid the districts listed above. Majority of the inhabitants of ASAL areas in Kenya are pastoralists who keep livestock as their main livelihood activity. With a population of over 2 million people of whom 70% are women and children, these ASAL districts have high poverty levels and are among the 10 poorest districts in Kenya. They also have the lowest education levels with large numbers of school dropouts, highest food insecurity, and experience highest levels of civil insecurity (Young & Korir, 2011; Berger, 2003). Unreliable rainfall and cyclic droughts cause food scarcity, malnutrition and high child mortality, and competition over scarce pasture and water is often severe and violent. Cattle rustling, traditionally practiced in these areas, has become more destructive with increasing poverty and proliferation of illicit arms and the influence of political and economic motives (Mburu, 2000; Lona, 2013). This often leads to disruption and/or loss of livelihoods and unemployment among young pastoralists, turning them into key participants in perpetuating inter-community conflicts (Mburu, 2000; Shambaugh, 2001).

Due to conflicts, welfare facilities are often destroyed leading to lack of schools and consequently limited opportunities for education and health services. The perpetual

conflict makes it difficult to carry out effective development action and infrastructure building. There is frequent loss of life/property, and displacement of people and landlessness. In the camps where majority of those displaced take refuge, there is a high level of starvation, epidemics, as well as increased rape, assault, prostitution and child labour, inadequate protection, as well as relief and peace building measures/interventions (UNEP, 2007). Conflict management is made difficult due to remoteness of areas prone to conflict, and the nomadic lifestyle of pastoralists (Lona, 2013; Musaasizi *et al.*, 2005). The influence of traditional governance and social systems has also been diminishing. Consequently, resource-based conflicts prevalent in ASALs have distorted development programmes and eroded civil administration in these areas (UNEP, 2007; Mburu, 2000). In northern Kenya, pastoralists have borne much of the brunt of internal conflicts and considerable efforts are being directed at addressing their specific conflict environment by the government, non-governmental and religious organizations, international agencies, development partners and community based organizations. In Ethiopia, conservation and protected-area programs established since 1965 have not been effective. Continued engagement of some affected communities in armed conflicts have, in the last 25 years, led to an increase in the number of threatened and endangered species, deleterious habitat modifications, and massive destruction of protected area assets (Jacobs & Schloeder, 2001). According to Jacob and Schloeder, conflict-related factors, among them deforestation, farming, overgrazing, hunting and soil erosion, have led to habitat destruction and limited the success of Ethiopia's conservation and protected area programs

The impact of human conflicts on wildlife and habitats is complex. While stretches of depopulated 'no man's land' between warring forces can provide a sanctuary for

wildlife, most war zones are more likely to act as population sinks through the proliferation of arms and uncontrolled poaching by refugees and combatants (Mburu, 2000; Homer-Dixon, 1999; Homer-Dixon & Blitt, 1998). Given the threat that warfare possesses and the prevalence of armed conflicts, it is imperative to identify how wildlife and their habitats can best be safeguarded. Protected areas are a fundamental component of global conservation with a demonstrable capacity to protect biodiversity, but relatively little is known about their efficacy during periods of armed conflict. Evidence suggests that protected areas are often adversely affected by warfare as was the case in the forest and savannah parks of Rwanda and the Democratic Republic of Congo (De Merodet *et al.*, 2007).

The problem of violent conflict and insecurity in the Karamoja region of Uganda has been of a great concern to successive Ugandan governments and the pastoralist inhabitants themselves. Although conflicts have been characteristic of this Ugandan region for decades, as noted by Young and Korir (2011) and Lona (2013), current trends, patterns, and scope are worrying and need to be addressed. The intensity of conflicts in the region has wreaked severe consequences in society, often resulting in destruction and loss of livestock, people, and property. Further, the conflicts have left many people impoverished, with reduced options for alternative livelihoods thus increasing the likelihood of further clashes and instability in the region (UNEP, 2007). Against the foregoing background, this study assessed the impacts of inter-community conflicts on wildlife conservation in and around Samburu National Reserve in Kenya. The study specifically sought to determine the types, magnitude and causes of inter-community conflicts within and around the Reserve, determine the impacts of ICCs on wildlife conservation in and around the Reserve, and establish the effectiveness of measures put in place to mitigate the

impacts of the conflicts in and around SNR. Finally, the study sought to suggest possible ways through which such impacts of conflicts on wildlife can be combated.

Materials and Methods

The study utilized the descriptive research design. This research design describes the status of things pertaining to the phenomena under study. The design involved a survey of key variables and issues guided by the objectives. The study targeted the local community living around the Reserve and staff of SNR and organizations like Save The Elephant (STE) and Ewaso Lions (EL) who are actively involved in conservation within and around the Reserve. A sample of sixty respondents participated in the study. This included fifty community members who were randomly selected from local residents, and ten key informants purposively selected from SNR management (6), STE (2) and EL (2).

To facilitate data collection, areas surrounding SNR were sub-divided into 4 zones namely North, South, East and West based on compass directions, and questionnaires systematically administered in the zones. Primary data was collected using structured questionnaires, discussion, key informant interviews and informal consultations, while secondary data was obtained from books, internet and other published and unpublished documents. Data was coded using the Statistical Package for Social Sciences (SPSS) and analyzed using descriptive statistics to determine frequencies and percentages and the chi-square goodness of fit test. Results are presented using graphs and tables. Results were tested at 0.05 level of significance.

Results

Local community members interviewed consisted of 54% males (n=50) and 46% females. Thirty two percent of the respondents were aged 18-25 years; 62% were pastoralists; 38% had not attained any education; and 98% were residents by birth and were either working in the Reserve or living within 5 kms radius from the

Reserve. Table 1 gives a summary of the results.

Table 1. Socio-Demographic Characteristics of Local Respondents (n=50)

Variable	Response	Frequency	Percentage (%)
Gender	Female	23	46
	Male	27	54
Age (in years)	Total	50	100
	18-25	16	32
	26-35 years	12	24
	36-45 years	12	24
	46-55 years	4	8
	55 years and above	6	12
Occupation	Total	50	100
	Pastoralist	31	62
	Businessman/woman	5	10
	Employed	13	26
	Others	1	2
Level of education	Total	50	100
	None	19	38
	Primary	12	24
	Secondary	14	28
	Tertiary	5	10
Residence	Total	50	100
	Resident	49	98
	Non-resident	1	2

Types of conflicts reported included competition over natural resources (35.6%), livestock raids (35.6%), ethnic animosity (26%), poaching (1.9%) and political influences (1%). There was a significant difference between the types of inter-community conflicts encountered over natural resources ($\chi^2=62.923$, $df=4$,

$p<0.0001$) with livestock raids accounting for 35.6% while political influence accounted for 1.0%. Opinion on the magnitude of inter-community conflicts encountered varied across respondents with 32% of the interviewees reporting that the conflicts were severe while 28% stated they were fairly severe (Figure 1).

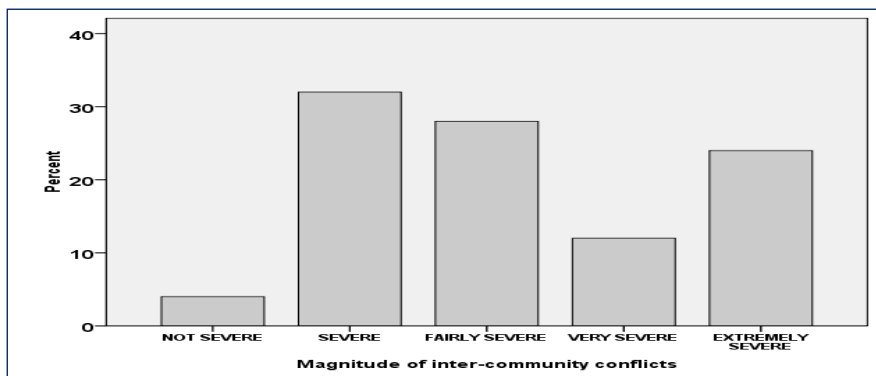


Figure 1. Respondents' Opinion on Magnitude of Inter-Community Conflicts Faced

Diverse causes of inter-community conflicts in and around SNR were reported; among them competition over natural resources

(26.2%), livestock raiding (28.9%), poor governance (22.8%), ethnic animosity (17.4%) and idleness/lack of employment

among youths (4.7%) (Figure 2). There was a significant difference between the causes of inter-community conflicts ($\chi^2 = 27.208$, $df=4$, $p<0.0001$).

Results further showed that 30.5% of the respondents stated that the conflict adversely affected wildlife and conservation efforts, and often resulted in reduced species diversity and richness. Other impacts cited included increased poverty (28.4%), encroachment on the Reserve (28.4%), and insecurity (12.8%) which affect local residents, SNR staff and visitors to SNR. Chi-square results showed that there was a significant difference between respondents' views on impacts of inter-community conflicts on wildlife conservation in and around SNR ($\chi^2=11.426$, $df=3$, $p=0.010$).

Respondents' views on measures implemented by SNR management to mitigate inter-community and their impacts in and around the Reserve were varied and included provision of security for wildlife and visitors (35.6%), creation of awareness on conservation, and inclusion of the local community and other stakeholders in managing SNR and maintaining security in and around the Reserve (20%) (Table 2). Local respondents' views on measures implemented by SNR management to mitigate ICCs and their impacts on the Reserve and its wildlife, however, differed ($\chi^2=5.456$, $df=3$, $p=0.125$). Despite this, respondents reported that measures implemented by the community to mitigate ICCs and their impacts included imposing penalties on conflict perpetrators (46%), holding peace meetings to address issues that fueled conflicts (28%) and establishing community managed conservancies (26%). There was a significant difference in local respondents' views on the measures they have implemented to mitigate the conflicts

in and around SNR ($\chi^2 = 3.640$, $df=2$, $p=0.162$).

Respondents' views on the effectiveness of measures implemented to mitigate ICCs varied with 38% of the respondents indicating that the measures were fairly effective, 26% reported they were very effective, 18% stated the measures were effective, 8% contended they were ineffective and 6% stated they did not know. Results further showed that local community views on other possible measures that can be taken by the management to mitigate inter-community conflicts in SNR also varied. Responses given included empowerment of local residents to enhance support for SNR (39%), support for peace initiatives started by residents by SNR management (28%), implementation of conservation programs to promote local community participation (21.1%) and intensified enforcement of laws to safeguard the Reserve and its wildlife (11.9%). There was a significant difference between local community views on the foregoing possible measures that can be adopted to mitigate ICCs in and around SNR ($\chi^2=9.542$, $df=3$, $p=0.023$).

Results on other measures that can be adopted besides those already put in place by the community showed support for holding more peace and reconciliation meetings (69%), promoting planned grazing to avoid encroachments into the Reserve (19%) and electing leaders with community interest at heart to work with SNR management and other organizations for the benefit of the community (11.5%). There was a significant difference in respondents' views on possible measures that can be taken by the community to mitigate inter-community conflicts ($\chi^2 = 30.615$, $df=2$, $p<0.0001$).

Table 2. Local Respondents' Views on Measures Implemented by SNR Management and the Local Community to Mitigate Inter-Community Conflicts

Variables	Responses	Frequency*	Percent
Measures put in place by SNR management	Creating local community employment	9	15.5
	Awareness creation on conservation	17	28.8
	Providing security for visitors and wildlife	21	35.6
	Involving of stakeholders in SNR management and conservation	12	20.3
	Total	59	100.0
Measures put in place by the community	Penalizing conflict perpetrators	23	46.0
	Creating conservancies	13	26.0
	Holding peace forums	14	28.0
	Total	50	100.0

*Multiple responses given

Lastly, 70% of the key informants interviewed were men while 30% were women. Their designations included executive director (10%), chief warden (10%), warden (20%), corporal (20%), field operation officer (10%), education officer (10%), research and outreach officer (10%) and ranger (10%). Duties performed by these respondents included promoting conservation awareness and outreach (30%), management (20%), patrols and maintaining Reserve security (20%), lion conservation (10%), Elephant research (10%), and administration (10%).

All the key respondents further reported that although inter-community conflicts were prevalent in the study area, they have intensified in the last ten years due to competition over declining resources like water and pastures which has been caused by climate change that has led to prolonged droughts (62.5%), tribal animosity (33.3%), cattle raiding (33.3%), human-wildlife conflicts (19%), illegal grazing (25%), trans-boundary conflicts spilling over from neighbouring counties like Turkana and West Pokot (25%), political influence (14.5%), proliferation of firearms (12.5%) and poor implementation of conservation policies and laws (14.5%).

Impacts of inter-community conflicts reported by SNR management included depletion of resources like water (62.5%), reduced species diversity and richness (45.6%), insecurity of visitors and wildlife (33.3%), disease transmission particularly zoonotic diseases (19%), closure of migratory corridors (14.5%), and loss of property due to wildlife invasions (14.5%). Measures implemented by SNR management to mitigate ICCs included intensive patrols within the Reserve; stakeholders involvement in decision making, awareness creation on conservation; local community empowerment through employment, benefit sharing through allocation of bursaries; and transportation of residence through the park using SNR vehicles.

Discussion

Socio-demographic results showed that variations in respondents' opinions varied with gender, age and occupation among others. Further, majority of the respondents were aware of the existence of inter-community conflicts, their causes and impacts as well as measures adopted to mitigate them. Consequently, results indicated that there were significant differences in opinion over the types of inter-community conflicts with competition over natural resources and livestock raids

being cited as the major conflicts. These findings concur with those documented by other researchers among them Lona (2013), Yong and Korir (2011) and UNEP (2007).

Both the local community and SNR management noted that inter-community conflicts had intensified in recent years, and their impacts were severe. Although the causes of the conflicts were diverse, livestock raiding and resource competition were cited as the most prevalent. Young and Korir (2011), Mburu (2000) and Berger (2003) have noted that over the years, pastoralist's conflicts have become more frequent, more unpredictable, and exhibit marked escalation in violence and geographical spread. Besides leading to loss of human lives, there are frequent livestock raids whereby raiders drive stolen livestock through protected areas and this interferes with wildlife and other natural resources. Lona (2013) and Shambaugh (2001) further report that when armed fighters, cattle raiders and herders take refuge in protected areas with their livestock, they hunt wildlife unsustainably for food thus endangering wildlife and their habitats. The situation is further compounded by uncontrolled livestock grazing leading to habitat destruction and environmental degradation. Furthermore, increased encroachment coupled with livestock incursions drives most wildlife out of protected areas like SNR and in the process, most are either shot and fatally wounded or killed. In SNR, most wildlife have been displaced from their habitats thus undermining wildlife conservation.

Like other protected areas, SNR is also affected by external pressures emanating from armed conflicts outside Samburu County. This has continued to disrupt the ecological cycle through destruction of natural resources like soils, wildlife and plants among others. Concerted conservation efforts have not only been jeopardized, but the management and security enforcement roles of SNR management have been compromised.

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Further, loss and degradation of SNR resources has denied local community's access to herbal plants and other cultural resources. Similar observations are documented by Lona (2013) and Young and Korir (2011).

To mitigate the impacts of ICCs on SNR and its wildlife, as well as local people and their livelihoods, various measures have been implemented by SNR management, local residents and other stakeholders. Among these are intensified patrols within and around the Reserve, local residents' inclusion in enforcing conservation laws and policies, sensitization and holding of peace and reconciliation meetings, awareness creation, and initiation of alternative livelihood activities to diversify local livelihoods. Although the effectiveness of these could not be fully ascertained, respondents interviewed reported that measures adopted had varying degrees of success in curbing the conflicts. These observations concur with those documented by Jon, David and Kate (2008), De Merodel *et al.* (2007) and Plumtre, Masozera and Vedder (2001) who argued that to minimize impacts of conflicts on protected areas and their resources, there is need to adopt various measures to resolve them and promote the security of people and their livelihoods as well as wildlife.

Communities living around SNR include the Samburu and Turkana. On the southern side, SNR is bordered by Buffalo Springs National Reserve (BSNR) which is surrounded by Turkana, Boran and Somali communities. Like the Samburu, these communities are pastoralists and livestock keeping is their main livelihood activity. Hence, in their search for pastures and water for their livestock, competition over these resources often arises leading to animosity and fights. More often, cattle raids have led to intense fights with spillovers into SNR. Shambaugh (2001) and Mburu (2000) reported that violence accelerates proliferation of small arms and light weapons which in turn intensify cattle

rustling. They also allude that the later, which has become increasingly commercialized, is often paralleled by other criminal activities like carjacking and highway robbery. In SNR and its environs, competition over natural resources was reported to be the greatest cause of ICCs. Each ethnic group and clan living around SNR claims control and ownership of resources within its territorial bounds. Any scarcity and/or reduction in resources like pastures and water in one territory often prompts invasions into neighbouring territories to offset deficiencies. Hence, denial of access to outsiders to use such resources often triggers fights leading to conflicts whose intensity in recent years has been compounded by prolonged drought due to climate change and local politics.

Results showed that conflicts have been on the increase in the study area due to political influence, with political leaders siding with their communities to win their support for positions they either hold or are seeking for. Politicians target youths who are idle and unemployed, and use them to attack rival communities. As they traverse the vast ecosystem in and around SNR, the attackers indiscriminately kill wild animals like antelopes and giraffes for food, or poach big animals like elephants for trophies. These observations concur with those of Lona (2013) and Berger (2003) who assert that when armed conflicts spill into protected areas, armed fighters kill wildlife either for food or trophies. Besides the armed fighters, communities living around SNR have also encroached on the Reserve as they seek refuge away from rival groups. While inside SNR, they together with their livestock compete for pasture and water with wildlife leading to environmental degradation and resource depletion hence habitat loss, species extinction and increased livestock predation.

Jon *et al.* (2008) reported that the 12-year conflict (1980-1992) between RENAMO and FRELIMO forces following Mozambique's independence severely

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depleted the natural resource base. Species diversity and richness were reduced due to poaching and hunting, while other species migrated in search of secure habitats. They further asserted that Gorongosa National Park suffered massive declines in large mammal populations with elephant numbers dropping from a pre-conflict figure of 3,000 to 108 in 1994. Other species affected included buffaloes, hippos, wildebeest, and waterbucks. The losses were attributed to hunting and poaching by armed groups and civilians who had occupied the park forcing its management to flee in 1981.

Another consequence of ICCs reported by respondents was increased poverty, and its prevalence was attributed to destruction and loss of property during livestock raids and fighting. Insecurity attributed to these conflicts affected tourism in the study area leading to low visitor numbers and consequently loss of jobs. Local residents and SNR management reported being insecure since most perpetrators of ICCs escape through SNR via settlements adjacent to SNR with stolen livestock from their rival groups affecting security of wildlife and tourists in the Reserve. Wildlife get scared away from their preferred habitats or are shot to scare them. These findings corroborate with those documented by UNEP (2007) and Marjan, Nicholas and Ojok (2001).

To mitigate ICCs and their impacts in the study area, SNR management and local residents have implemented various measures. Measures implemented by SNR management include employing local residents as rangers to enhance patrols, law and policy enforcement, and wildlife protection; supporting local residents' peace and security initiatives to resolve ICCs and fight insecurity caused by inter-community conflicts; creating awareness through education and extension; and empowering local residents through training and support for alternative livelihood activities and projects that complement livestock keeping. While these efforts are geared towards

garnering local support for SNR and wildlife conservation, changing local community attitudes and perceptions towards the Reserve, its wildlife and management, and increasing security for wildlife and tourists to the Reserve, shortage of vehicles, personnel and equipment were cited as major constraints to law enforcement by SNR rangers and community guards. As documented by Plumptre *et al.* (2001), continued communication with local communities can help a project in various ways: it reduces conflicts over natural resource use during the armed conflict; allows feedback from them about their perceptions of the current security situation and may help with warnings of pending attacks; and lastly, it may help identify areas of needed support for the community that, if given, may lead to better relations after the conflict.

On the other hand, local community measures include penalizing conflict perpetrators, regulating grazing in communal lands, establishing community wildlife conservancies like Kalama, Nasulu and Westgate to support conservation initiatives, promoting local employment opportunities and enhancing benefit sharing; and involving locals in community policing. Community conservancies also act as buffer zones thus minimizing encroachment into the Reserve. The Council of elders also makes decisions regarding control and use of resources in respective territories, and also counsels youths who are hired to do livestock raids or fight. Despite this, informal discussions and consultations revealed that although the role of traditional institution is very critical in resolving ICCs, their influence in the study area has waned in recent years due to changing community lifestyles manifested through adoption of a sedentary life. Other factors that contributed to this change include exposure to western education, religion and ethics as well as other cultures (Young & Korir, 2011). Despite this, Lona (2013) argues that established natural resource management

systems and institutions that regulate access and use of local resources often have local support, and can play a key role in resolving conflicts. In the study area, residents are embracing dialogue and communication through peace forums initiated by elders and the government where information to mitigate inter-community conflicts is disseminated.

Lastly, conflicts and insecurity were reported to be a major obstacle to long-term development in the study area and other ASALs. Loss of human life, livestock and other livelihood activities, food insecurity, displacement, and restricted or denial of access to key resources are the most immediate outcomes of violence. Following the Rwanda genocide in 1994, most of the returning Tutsis occupied a major sector of the park as majority of them came back with cattle that required grazing land. It is estimated that the reduction in the size of the park led to a loss of 15% of tree and shrub species, 20% of the herbaceous species and 13% of bird species in the park (Plumptre *et al.*, 2001). Likewise, it has also been noted that the dynamics of this violence accelerated with the proliferation of small arms and light weapons, and the pattern of inter-ethnic violence clashes in some areas resulted in high casualties and acts of “ethnic cleansing” (Lona, 2013).

Conclusion

Inter-community conflicts are a drawback to wildlife conservation in Samburu National Reserve and its environs. The local community and SNR management are faced with challenges of implementing adequate strategies to mitigate the conflicts and their impacts, and improve the security of wildlife, employees and tourists. The most contested resources leading to ICCs are land which is a source of pasture, livestock which is the basis of livelihoods and water which is a crucial resource in arid zones.

The impacts of inter-community conflicts on wildlife conservation were evident from questionnaire and key informant interview

results, and stakeholders. Among the stakeholders are SNR management, local residents and conservation organizations like STE and EL. They contribute to efforts towards wildlife conservation and protection of SNR from human encroachment, livestock incursions, poaching, and habitat loss among others. Of great importance, however, is for SNR management to be keen on drawing lessons from the impacts of ICCs on the Reserve and its wildlife, and collaborate with other stakeholders in securing the safety of SNR, its staff, wildlife and visitors to the Reserve and its environs.

Although the measures implemented by SNR management and local residents have recorded some positive impacts, more efforts are required to stop ICCs and their impacts on SNR and its wildlife, as well as people and livelihoods. A more holistic approach that brings together various stakeholders should be embraced to deal with the root causes of the conflicts.

From informal consultations and discussions it was evident that the warring communities understand their problems more than anyone else, and therefore solutions to the inter-community conflicts experienced in the study area lies upon them. They should be guided in analyzing the reasons leading to ICCs and how to come up with innovative measures to curb them.

Recommendation

The management of SNR should involve all stakeholders in finding concrete solutions to inter-community conflicts and their impacts to minimize further destruction and losses that come with them in order to realize the objectives of wildlife conservation and human-wildlife coexistence.

The Reserve management should work with councils of elders and other stakeholder representatives to mediate the warring communities to end ICCs and participate in promoting cordial relations and coexistence

to enhance local development, community welfare, wildlife conservation and tourist/visitor security. While doing this, the rights of communities bordering the Reserve should be recognized and respected.

While supporting initiatives by communities to regulate grazing and adopt a holistic management programme for pastures, water and other shared resources, awareness creation should be promoted to sensitize communities on rehabilitating degraded areas and avoiding encroachment on SNR. To augment these efforts, alternative livelihood activities, projects and programmes should be started to complement livestock keeping, diversify income sources and empower communities. This will minimize competition over resources and conflicts with wildlife.

Initiatives started by traditional institutions in resolving ICCs, mentoring youths, regulating access to and use of communal and shared resources, and mobilizing communities to participate in community policing and wildlife conservation should be supported by the government, SNR management and other stakeholders. This will promote coexistence between and among communities. These efforts should be complemented by sensitizing residents to elect responsible leaders who can preach peace; articulate community issues; and stimulate development.

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