

People, Wildlife and Conservation in Samburu County, Kenya

Ashley Foster
Ecosystem Science and Sustainability
Colorado State University
1062 Campus Delivery
Fort Collins, Colorado 80523 USA

Faculty Advisor: Dr. Stacy Lynn

Abstract

In East African drylands, including Kenya's Samburu County, pastoral livestock herders share the landscape and its resources with wildlife, presenting challenges for both people and wildlife. The purpose of this study is to identify the benefits and burdens of wildlife and wildlife conservation for local Samburu communities, across seasons. This is of interest because human-wildlife conflict is a major concern of wildlife conservation worldwide. In Kenya, conservation is an important contributor to the national economy, but it also contributes to conflicts – and may contribute to benefits – at the local community level. Wildlife conservancies, community based efforts at natural resource conservation, have become major players in Kenya's drylands and are an important mechanism of bringing conservation to local communities. In Samburu County, conservancies work to protect wildlife and provide local people with increased income and security. Interviews were conducted with fourteen Samburu pastoralists to explore the relationships between wildlife and communities, and communities and conservancies. I expect to find evidence that most burdens of wildlife are experienced by Samburu communities in the dry season, a time of resource limitation. Many Samburu pastoralists expressed that they suffered several wildlife related losses, such as loss of human and livestock lives. These losses were, for most people, uncompensated, which presented hardship and is viewed as a cost of wildlife conservation. An official report will be returned to the communities who participated in this project hoping to bring increased understanding, communication and collaboration to both conservancies and local communities.

Keywords: Wildlife, Samburu County, Kenya, Conservancies

1. Introduction

Drylands are characterized as areas with low humidity and scarce rainfall¹. Marginal drylands account for approximately one-third of Earth's land surface² and more than 65% of Kenyan terrain is classified as dryland ecosystems³.

The Samburu people live in central Kenya and are among the many cultural groups who make Kenyan drylands their home. They partake in a pastoralist herding lifestyle and strongly depend on their livestock to survive⁴. Typically, Samburu families herd a mixture of cattle, goats and sheep.

Sharing the same landscape and resources causes wildlife and East African pastoralists, such as the Samburu, to be closely intertwined with each other. The close relationship between the two is delicate, undeniable and complex. Due to this, both benefits and burdens related to wildlife and wildlife conservation can be experienced by the local communities.

As a result of competition between wildlife and livestock, livestock owners are the ones who may bear the greatest burden. In areas of Kenya, the government has the power to sanction off land and deem it a protected area, prohibiting people and livestock from using water and forage resources on that land. These areas are usually in use by local community members, causing them to lose access to important resources and creating a hostile environment between

the communities and the government. In these cases, members of the community might also experience a sense of hostility towards wildlife and conservation efforts. Studies carried out on wildlife conflicts around the world have shown resentment towards wildlife on the part of the local people due to complex interactions⁵. This resentment can be influenced by several factors, such as predation on livestock, the negative impact predation has on pastoralist livelihoods and social constructs⁶.

Often, negative attitudes towards wildlife due to social constructs are unaccounted for in wildlife conflict based research projects. Hostile attitudes towards wildlife can often stem from hearing stories from other local herders who have had negative experiences with wildlife. Antipathy towards wildlife can also be developed in communities based off their experiences with local government and wildlife conservation practitioners. For example, if a practitioner made promises to community members regarding a wildlife species causing conflict and did not follow through with them, the community may lose trust in wildlife conservation and therefore develop hostile attitudes towards wildlife associated with conservation. In areas, such as Samburu, where there are a variety of wild animals living on land fragmented by development, wildlife conflicts, such as livestock predation and human death and injury, tend to increase⁷. But, among the burdens that wildlife can cause for local people, there is the potential for receiving benefits from wildlife and conservation, such as income related to wildlife tourism.

In East Africa, drought is common and expected, but in the second half of the 20th century droughts have occurred more frequently⁸. In the past, herders adapted to drought by mobilizing their lives and following the rain with their herds⁹. However, in recent times local people have experienced pressure to live more sedentary lifestyles close to resources, such as shops, schools and medical facilities; resulting in pastoralists being forced to endure droughts, the potential loss of livestock and the starvation of livestock and people that ensues when mobility is decreased¹⁰.

Wildlife entices people's attention all over the world. In countries with abundant wildlife, such as Kenya, tourism is a very important aspect of the country's economic system. Tourism provides the country with more revenue and benefits communities by providing additional income to families who sell goods to tourists¹¹. In an effort to complement government-driven conservation, Kenya has developed conservancies as a way to recognize wildlife conservation as a form of land use and to promote community based conservation (CBC) approaches. Conservancies were established during the mid-1990's and by 2013, it was estimated that 140 conservancies had been established in Kenya¹². Samburu County currently has six conservancies¹³. Samburu County's governor, H.E Moses Lenolkulal, encourages the support of conservancies and conservation. Lenolkulal stated that he believes conservancies can help to protect wildlife, encourage peaceful co-existence of communities, maximize tourist potential and therefore increase income and employment in Samburu County¹⁴. CBC is a strong aspect of conservancies, which aim to simultaneously provide benefits to local people and achieve conservation goals¹⁵.

The purpose of this study is to identify the benefits and burdens of wildlife and wildlife conservation for local Samburu communities across seasons. This project is of interest for Kenya's Samburu communities because human-wildlife conflict is a major concern of wildlife conservation. In Kenya, conservation is an important contributor to the national economy, but it also contributes to conflicts at the local community level. The author hypothesized that this project would discover 1) that death and injury caused by wildlife, competition for resources between wildlife and livestock and crop raiding would be some of the experienced burdens, while wildlife-based tourism and cultural value of wildlife to Samburu communities would be considered benefits. It was also hypothesized that 2) benefits and burdens experienced by Samburu pastoralists due to wildlife and/or wildlife conservation would change seasonally due to wildlife migration patterns. Most burdens were expected to be experienced by Samburu pastoralists during the dry season, a time of resource limitation, and the most benefits were expected to be experienced during the wet season, when forage and water resources flourish. Lastly, it was anticipated that 3) the wildlife-related burdens would outweigh the benefits to local communities, with benefits being minimal and largely created by tourism.

2. Methodology

To explore the relationships between wildlife and communities, and between communities and conservancies, semi-structured interviews were conducted with fourteen male Samburu herders throughout six randomly selected villages in Samburu County over a three-and-a-half-week time period. Male members of the community were chosen for this project because males are typically responsible for the care of livestock and crops. Interviews explored a combination of quantitative and qualitative variables. The individual experience of the herders and their interactions with wildlife and conservation were also examined. Questions were translated from English to Samburu (or sometimes Swahili) for the interviewee and responses were then translated from Samburu or Swahili into English with the aid of a male translator. Interviews were recorded with an audio recording device.

This project followed a mixed methods approach, which allowed a combination of qualitative and quantitative data analysis. Respondents were asked to describe their experiences with wildlife and wildlife conservation, provide a free-list of wildlife and wildlife conservation related burdens and benefits during both the dry and wet seasons, and free-list all wildlife species that they encounter and consider to be problematic. They then ranked the free-listed problematic species in terms of most to least problematic and described the problems they caused.

Hand written narratives were transferred to an Excel spreadsheet for further analysis. Quantitative portions of data were extracted from the narrative, including proportions of households that encountered problems, reported species-specific data and ranking data. These data were entered primarily in binary format so that frequency analysis could reveal the degree of problems, quantified as proportions of households reporting particular circumstances. Composite problem index (CPI) values were created to arrange species according to a combination of frequency and severity of interactions with the species. To create the CPI values, a weighted system was developed. Each time a species was ranked number 1, most problematic, it was weighted a 3, species ranked number 2 were assigned a weight of 2, and species ranked as 3, least problematic, were assigned a weight of 1. Values were then compiled to create species CPI scores. The CPI scores were then used to determine which species is most problematic to the Samburu community. Note that since all information was free-listed by respondents, specific species were not mentioned as problematic unless respondents brought them up during the listing process. This approach allowed us to follow a truly inductive approach in this research project.

Additional data were analyzed qualitatively following a grounded theory approach¹⁶, adding a level of detail and personal experience that lent depth, breadth and richness to the analysis. Data were coded into thematic categories. Responses were then clustered using thematic analysis in reference to benefits and burdens experienced by Samburu herders due to wildlife and wildlife conservation, as well as the seasonality of those benefits and burdens and the types of problems that they caused.

3. Results

3.1 Quantitative Data Analysis: Problematic Species

Calculating the CPI values for each problematic species mentioned by the Samburu pastoralists indicated the top three most problematic species were the lion, leopard and hyena. Based off these values, it was determined that the hyena is the most problematic species for Samburu pastoralists. Interviewees free-listed eight wildlife species that they considered to be problematic, this included the jackal, caracal, African wild dog, cheetah, elephant, hyena, leopard and lion. (Table 1). Problems caused by these animals ranged from being considered a pest, to land destruction, to death and injury of humans and livestock. One thing every species listed by the Samburu pastoralists had in common was causing livestock death. 63% of the problematic species also caused human death and injury. While both the lion and leopard were mentioned in 78% of the conducted interviews, they each were ranked as the most problematic species in two interviews, earning them a smaller CPI value than the most problematic species. The lion received a value of 14 and the leopard received a 22. The hyena was mentioned in 71% of interviews, less than both the lion and leopard, but due to the high number of times it ranked as the most problematic species, it earned a CPI value of 24, labeling it the most problematic species for Samburu pastoralists. Of the 71% of people who reported the hyena as a problem animal, 50% of them stated that the hyena came to attack livestock each day.

Table 1. Problem species as reported by Samburu pastoralists in Samburu County, Kenya from data collected in 2016: percentage of times each species was cited, number of times each species ranked most problematic, composite problem index (CPI) values and species-specific problems. A dark box encloses the top three most problematic species.

Problem Species	% of Times Cited	# of Times Species Ranked # 1	# of Times Species Ranked #2	# of Times Species Ranked # 3	Composite Problem Index (CPI) Value	Problems Caused
Lion	78%	2	2	4	14	Human-Livestock Death/Injury
Leopard	78%	2	7	2	22	Human-Livestock Death/Injury
Hyena	71%	7	1	1	24	Human-Livestock Death/Injury, Pest
Elephant	50%	1	0	0	3	Human-Livestock Death/Injury, Destroys land
Cheetah	42%	0	3	2	8	Human-Livestock Death/Injury
African Wild Dog	21%	0	0	0	0	Livestock Death
Caracal	7%	0	0	0	0	Livestock Death
Jackal	7%	0	0	0	0	Livestock Death

3.2 Qualitative And Quantitative Data Analysis: Perceived Seasonal Burdens And Benefits Due To Wildlife And Wildlife Conservation

It was hypothesized that death and injury caused by wildlife, competition for resources between wildlife and livestock and crop raiding would be some of the experienced burdens. Since Samburu County is an extremely dry area, none of the villages were able to practice any cultivation, and therefore crop raiding by wildlife was not a burden the Samburu people experienced. Every herder experienced wildlife attacks on their livestock and an overwhelming majority reported that wildlife would attack people, often resulting in injury and/or death and nearly all herders experienced competition for resources between wildlife and livestock. Predation on livestock heavily affected Samburu herders, whose livestock was their main source of income. When livestock was attacked by a predator, it would place the herder's lives in danger as well, since most would try to protect their livelihood by attempting to protect their livestock. Many herders reported that humans were attacked when they attempted to halt an attack on their livestock; herders were left vulnerable to wildlife and therefore suffered injuries and even death due to these interactions.

During the wet season, the reports about benefits produced several emergent themes including higher income, wildlife residing more exclusively within conservancies, a decreased level of stress, ability to conserve grass for dry season grazing purposes and fulfillment of human health requirements by conservancies (Figure 1). During the dry season, benefits were related to income, ability to graze within the conservancies and fulfillment of human health requirements by conservancies (Figure 1). The only categorical theme reported to be a burden to Samburu communities in the wet season was related to wildlife interactions (Figure 2). In the dry season, burdens included wildlife interactions, increased travel for livestock food and water resources, conflict with nearby communities and an increased level of stress experienced by the herders (Figure 2). Some central themes identified from interviews had interconnected subthemes, which have been broken out for further explanation (Figure 1 and Figure 2).



Figure 1. Flowcharts describing categorical benefits experienced by Samburu pastoralists due to wildlife and wildlife conservation during the wet and dry seasons. In these charts, “H-L Attacks” refers to wildlife attacks on both humans and livestock. *Conservancies will provide local people with transportation to medical facilities as well as food and water during the drought.

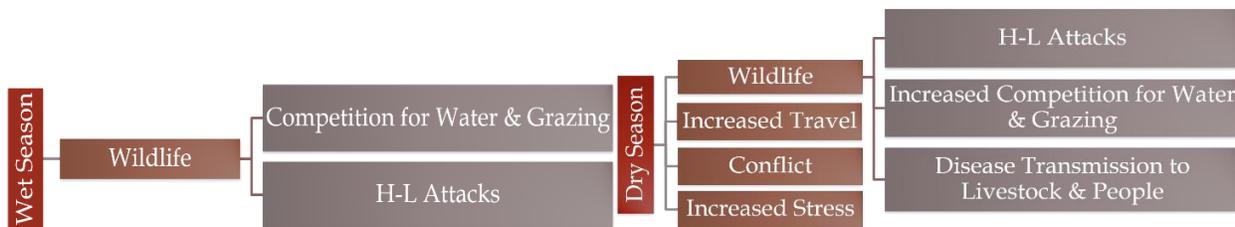


Figure 2. Flowcharts describing categorical burdens experienced by Samburu pastoralists due to wildlife and wildlife conservation during the wet and dry seasons. In these charts, “H-L Attacks” refers to wildlife attacks on both humans and livestock. “Conflict” refers to conflict between the Samburu and surrounding communities.

While year-round, herders experienced additional income due to wildlife tourism as well as income from local conservancies, 50% of herders reported income as a benefit during the wet season and 71% reported income as a benefit in the dry season. Of the 50% who reported income as a benefit due to wildlife and wildlife conservation during the wet season, 29% stated that they believed communities do not receive enough money from conservancies throughout the year and of the 71% who reported wildlife and wildlife conservation based income as a benefit during the dry season, 20% believed they do not receive enough income throughout the year. 43% of the 50% who reported income as a benefit during the wet season stated that tourists generated income for them and 40% of the 71% who stated income as a benefit during the dry season reported that tourists generated income for them.

100% of herders experienced wildlife attacks on livestock and 79% experienced competition for resources between wildlife and livestock. 93% reported that wildlife would attack people, often resulting in injury and death.

71% of herders reported receiving the most benefits during the wet season, while 29% reported receiving the most benefits in the dry season. Only 7% of herders reported that they received the most burdens in the wet season, while 79% stated they received the most burdens during the dry season. 14% did not specify whether they perceived one season to bear more burdens than the other; this may have been due to translation error, misunderstanding of the question or the perception that since both seasons have burdens, herders were unable to distinguish which season’s burdens were more heavily weighted.

64% of pastoralists mentioned that they reported wildlife attacks on people and livestock to the conservancies. Reports made to conservancies and Kenya’s Wildlife Service are most frequently related to wildlife attacks on livestock. Samburu herders reported that when these reports were made, a representative of Kenya’s Wildlife Service or of a nearby conservancy came to talk with the community member who made the report. They then took the report and evidence of the attack, such as the corpse, skin with bite and/or claw marks and bones from the attacked/killed animal with them. Herders also stated that if someone involved with the conservancy came to take the report, the conservancy provided the report to Kenya’s Wildlife Service. Of the 64% who mentioned filing reports, 100% had never personally received any kind of compensation to mitigate the effects that the attack had on their families or livelihoods and 56% of them expected to be compensated. 11% mentioned that if a human or livestock counterpart was attacked while in a prohibited area, they are not allowed to ask for compensation since they were not allowed to

be in the area where the attack occurred. Only one out of fourteen herders remembered a time in 2005 when they knew somebody who had been given 40,000 Kenyan Shillings to compensate a cow that had been killed by wildlife.

3. Discussion

The inductive approach taken in this project permitted the respondents to tell me what is important to them, allowing me to be able to adjust my project and research around their concerns. While problematic species were not initially accounted for when this project began, it became clear after the first interviews that it was a topic the local Samburu communities felt the need to address. Almost every pastoralist complained about the hyena during interviews, even if they did not necessarily consider it a problem species. Half of the people who mentioned the hyena as a problematic species, mentioned that it would come to communities each day to attack livestock. The leopard and lion, second and third most problematic species, respectively, caused livestock and human death and injury, but not nearly as frequently as the hyena. Concern for the safety and protection of their family and livestock resulted in herders experiencing high levels of stress and many reported that they do not sleep much at night due to the need to keep constant watch for predators and problematic species that roam the area. Fear for their families and livelihoods could result in Samburu community members experiencing resentment towards wildlife and wildlife conservation, since the loss of their loved ones and livestock can cause elevated levels of stress and devastation.

Non-seasonal, year-round benefits of wildlife and wildlife conservation include income from wildlife tourism and local conservancies. Samburu herders have the opportunity to become members of conservancies, which would give them a voice during decision making and earn them monetary allowances distributed by the conservancies for attending meetings and informational seminars. Tourists would buy livestock from local pastoralists for consumption and admission fees paid to conservancies by tourists were then distributed by the conservancies to the local people. Herders stated that conservancies used the money provided by tourism for several uses that were beneficial to the communities, such as donations to local schools, employment of eligible young men, bursaries (school fees for children), monetary membership allowances and sometimes aid in paying health care bills. During droughts, when seasonal hunger is common in drylands pastoralism¹⁷ and resources are extremely limited, conservancies also found donors to provide the communities with food and water donations.

While the benefits the Samburu people would experience were originally hypothesized to be wildlife based tourism and cultural value of wildlife, only one out of fourteen Samburu herders reported a desire to protect wildlife for future generations to enjoy. Wildlife based tourism was the main benefit the Samburu people experienced, as it was the root of almost all wildlife conservation based benefits the communities received. Without tourism and private donations to conservancies to help protect wildlife, the local communities would not have experienced any of the conservancy-based income, additional income from selling beaded items, singing and dancing for tourists, selling of livestock to tourists, aid in human health requirements, or help with grazing management and conflict resolution between other communities. Aid in human health requirements is considered a benefit of wildlife conservation because without wildlife to conserve there would be no conservancies to provide these human health related services.

As it was hypothesized, burdens and benefits varied seasonally due to wildlife migration patterns, but it was not predicted that herder's views on the topic would vary due to climatic factors. The greatest benefit during the wet season is the tendency of wildlife to stay within conservancy bounds more often during this time. Presumably, wildlife stays within conservancy bounds during the wet season because of the plentiful supply of resources. Like Samburu herders and their livestock, wildlife must travel far from home to find sufficient pasture and water resources during the dry season. However, during the wet season, when resources are not strictly limited, they are able to stay closer to/within conservancy boundaries, resulting in a decreased amount of predation and attacks on both humans and livestock. Staying within the conservancy also decreases the amount of competition experienced between wildlife and livestock. While competition for resources was a year-round burden, during the dry season it was more intense.

The only categorical theme reported as a burden during the wet season is that of wildlife and wildlife interactions. While some herders reported that they experienced a decreased amount of predation on livestock, competition for resources and human death and/or injury caused by wildlife during the wet season, these threats still exist. Contrary to the herder's reports, literature suggests that predation threats are higher in the wet season. In Kenya's Tsavo National Park, seasonal changes in rainfall were found to be directly correlated to predation strength¹⁸. Lions were more likely to attack livestock during rainy seasons because livestock were easier to catch than their normal, wild prey¹⁹. Since rainfall filled ditches, causing watering holes to accumulate in more areas, livestock had greater access to water resources²⁰. This increased the likelihood of wildlife encountering easy to capture livestock while hunting²¹. Ease of access to livestock due to climatic factors, such as rainfall, worked as a driving force of human-wildlife conflict

and influenced the change of dietary patterns for the lions in Kenya's Tsavo National Park. This interaction between livestock, wildlife and climatic factors as a driving force of human-wildlife conflict could also occur in Samburu during the wet season, as some herders reported that they experienced an increase of wildlife interactions during the wet season. These conflicting data sources show that there are discrepancies regarding whether wildlife interactions are perceived to have a larger burden during the wet or dry season.

We expected to find that Samburu pastoralists would report wildlife and wildlife related benefits to be minimal and only related to tourism. Burdens were predicted to be more prevalent than benefits. Contrary to this prediction, Samburu pastoralists, overall, listed more beneficial categories than burden-bearing categories. During the dry season, pastoralists faced more stressful events than in the wet season, due to the effects of climatic factors causing resource limitation, such as little or no rainfall and lack of plant growth or water resources, and the intense wildlife-livestock competition that accompanies these limitations. It seems that conservancies are working hard to limit the amount of burdens local communities endure, and the communities appreciate the benefits they are receiving because of conservancies. This is consistent with other studies done in areas with conservancies, such as a study performed on the Maasai Mara community in Kenya, which also showed that participation with conservancies was commonly perceived as positive²². Other than climate-controlled benefits, such as lack of resource limitation during the wet season, and the benefit of decreased levels of stress in the wet season, wildlife tourism and the income it brings seemed to be the main source of benefits.

The system is not perfect and the lack of livestock and human loss compensation is a major concern for local people. Human deaths caused by wildlife have not been compensated for by the Kenyan government since 1989, past compensations did not cover funeral or hospital expenses²³. This uncompensated livestock-wildlife conflict undoubtedly created added stress for the affected pastoralists who depended on their livestock for survival.

4. Conclusion

This project is of interest because human-wildlife conflict is a major concern of wildlife conservation worldwide. In Kenya, conservation is an important contributor to the national economy, but it also contributes to conflicts at the local community level. Conservancies are a very important mechanism of bringing conservation to local communities rather than having conservation forced upon communities by governmental agencies.

Governmental agencies and conservancies can use this report to help guide them into making decisions based off of the communities expressed wants and needs. From this report, it is clear that the Samburu people are in need of more efficient predator prevention and protection strategies. This report identified the hyena as the most problematic species of wildlife encountered by the Samburu people. This information can help guide the government and conservancies to potentially invest in research on how to prevent hyena attacks on livestock and people.

This project has also identified what the Samburu people value the most about wildlife and wildlife based conservation programs. It can help those programs and conservancies to focus on improving their agendas, increasing the benefits and lessening the burdens experienced by communities. It would be beneficial for all involved parties to work towards creating a more effective and inclusive human and livestock loss or injury compensation policy. Due to the amount of people who expected, but did not receive, compensation, it is clear that conservancies and government agencies need to communicate their policies regarding compensation more clearly to local people. Clear communication of these policies could help give local people a more realistic standard of compensation expectations. The local government agencies and conservancies could partner with wildlife conservation organizations as well as local conservancies to obtain the funding for these endeavors.

Overall, it seems that association with conservancies is perceived as positive in Samburu County.

5. Acknowledgements

The author would like to express her gratefulness to Dr. Stacy Lynn of the Natural Resources Ecology Lab at Colorado State University for her guidance, support and instruction on this project. She would also like to acknowledge the Samburu community members and translators, Benedict Caine Lemaramba, Sandra Naanyu, and Apen Bell Yasin, who donated their time for this project. The author expresses her gratitude to the National Science Foundation, which provided the funding to make the project feasible. Lastly, she would like to thank the graduate students and professors at the University of Nairobi who helped provide guidance to her while conducting research in the field. Without the cooperation and support of all mentioned parties, this project would not have been possible.

This material is based upon work supported by the National Science Foundation under Grant No. 1460145. Any opinions, findings and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.

6. Endnotes

1. James F Reynolds, et al., "Global Desertification: Building a Science for Dryland Development" *Science* 316 (2007): 847-51.
2. A. Hjort, "Constraints on Pastoralism in Drylands", *Ecological Bulletins* 24 (1976): 71-82.
3. Tamas Pócs, et al., "East African Bryophytes XXIV. Records from the Dry Lands of Kenya, with a Description of *Didymodon Revoltus* Var. Nov. Africanus (Pottiaceae)" *Lindbergia* 32.2 (2007): 33-39.
4. A. Hjort, "Traditional Land Use in Marginal Drylands" *Ecological Bulletins* 24 (1976): 43-53.
5. A.J. Dickman, "Complexities of Conflict: The Importance of Considering Social Factors for Effectively Resolving Human-Wildlife Conflict", *Animal Conservation* 13.5 (2010): 458-66.
6. Ibid.
7. Elisa Distefano, "Human-Wildlife Conflict Worldwide: Collection of Case Studies, Analysis of Management Strategies and Good Practices", *Conflict* 7.6 (2005): 1-34.
8. W.N. Ekaya, "The Shift from Mobile Pastoralism to Sedentary Crop-livestock Farming in the Drylands of Eastern Africa: Some Issues and Challenges for Research", *African Crop Science Conference Proceedings* 7 (2005): 1513-1519.
9. Ibid.
10. Ibid.
11. Martin Enghoff, "Wildlife Conservation, Ecological Strategies and Pastoral Communities: A Contribution to the Understanding of Parks and People in East Africa", *Nomadic Peoples* 25 (1990): 93-107
12. Aidan Keane, et al., "Gender Differentiated Preferences for a Community-Based Conservation Initiative" *POLS One* 11.3 (2016): 1-15.
13. "Samburu County." The Great Grevy's Rally. *The Great Grevy's Rally* (2015).
14. H.E. Moses Lenolkulal, "Governor's Speech." Launching of Community Conservancies- 16th April 2014. 2014. Samburu County.
15. Aidan Keane, et al., "Gender Differentiated Preferences for a Community-Based Conservation Initiative".
16. Richards, Lyn. *Handling Qualitative Data*. Sage Publications, 2005.
17. Jon D. Holtzman, "In a Cup of Tea: Commodities and History among Samburu Pastoralists in Northern Kenya" *American Ethnologist* 30.1 (2003): 136-155.
18. Elisa Distefano, "Human-Wildlife Conflict Worldwide: Collection of Case Studies, Analysis of Management Strategies and Good Practices".
19. Ibid.
20. Ibid.
21. Ibid.
22. Aidan Keane, et al., "Gender Differentiated Preferences for a Community-Based Conservation Initiative".
23. Elisa Distefano, "Human-Wildlife Conflict Worldwide: Collection of Case Studies, Analysis of Management Strategies and Good Practices".