

# No Magic Bullet for Livestock Rustling: Analysis of Drivers to Contain Livestock Rustling in Kenya

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**Abstract:** Livestock rustling is not a new phenomenon among pastoral societies in Kenya. All counties in northern Kenya have lagged behind in term of development due to livestock rustling. In bid to contain the menace, the vexing and cyclic practice has attracted a lot of attention from scholars and policy makers. Therefore, the study sought to establish sustainable solution in containing livestock rustling in Samburu County, Kenya. The specific objectives were value of education in containing livestock rustling; assess utilization of technology and extent of livestock insurance in mitigating livestock rustling risk in Samburu County. The study adopted descriptive survey design which used quantitative and qualitative research methods. The sample population comprised of household heads, herders, security officers, education Officer, Religious leader, NGOs and local administrators. The data was collected using questionnaires, interview guides and focus group discussions (FGDs). The results revealed that the value of education and the use of technology have not been emphasized in Samburu County and this has affected the containment of livestock rustling and its adverse effects. The use of technology such as mobile phone SIM card has not been adopted in the county indicating that recovering of stolen livestock is near impossible. Further, livestock insurance has not been fully embraced in the county rustling that causes great loss of livelihood during livestock theft. The study concluded that an educated pastoral community has the capacity to stop livestock rustling, embrace technology and insure their livestock for increased productivity. It was recommended that there is need to step up efforts in increasing youth education participation especially by local administrators such as chief, County and national government officials to increase investment in education. Policies should be developed specifically on pastoralist education such as mobile schools.

**Keywords:** Containing; Education; Insurance; Livestock; Rustling; Technology.

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## I. INTRODUCTION

Rustling refers to the act of stealing livestock sometimes by the use of force, especially cattle and sheep, from a farm or a pasture. The changing trend in livestock rustling is overt and a vexing problem among the pastoralist communities of Kenya and the whole World. The New South Wales Farmers' Association in Australia estimates about \$1.5 million (KES. 205 Million) of stock theft is reported annually in that State but that this would only represent approximately 20% of the actual level of theft that is in fact occurring, (Frank, 2000). The United Kingdom has also experienced livestock rustling despite stiff laws and modern technology to curb the vice. Livestock rustling continues to blight farming operations all over the UK, with figures from rural insurer NFU Mutual showing the cost of thefts across the UK increased by 170 per cent in 2011 over 2010 (Midgley, 2012).

In Africa, livestock rustling kills and displaces thousands every year in South Sudan, UN report (2009). In 2009 ethnic violence killed more than 2,500 - exceeding the death toll in Darfur - and displaced over 350,000 people. What happens here is part of a larger pattern sweeping Southern Sudan - a spate of cattle raids killing and displacing thousands each

year. The violence causes widespread hunger. With families expelled from farms, there will be no farming thus no harvest. The South is now chronically dependent on food aid, though it has the richest agricultural land in Sudan. Following two civil wars - nearly 40 years of fighting - South Sudan is highly armed and militarized. Now instead of traditional cattle raiding with spears, the trend has become that of cattle raiding with guns such as the RPGs and AK-47s by men with military experience used to getting power through violence (Aljazeera, 9th Oct. 2013).

In the Kenyan situation, although with no much difference from the South Sudan situation, cattle-rustling was traditionally carried out using bows and arrows where wanton acts of killing were not part and parcel of the practice. However, this was to change with the arrival of British colonizers in Kenya. The policies and practices established by the colonialists to marginalize pastoralist communities were carried on in independent Kenya. New regional dynamics, particularly the political instability experienced in Uganda, Sudan, Somalia and Ethiopia have led to the replacement of bows and arrows with bullets and guns as the latter have become increasingly and readily available due to a number of factors (KHRC, 2001). The genesis of the current trend of increased militarization of cattle-rustling and its transformation from a traditional practice to the current criminal activity of livestock rustling can be traced back to the 1970s. In the early 1970s, the pastoralists were faced with acute and prolonged famine and were at the mercy of donor-assisted development programs (Khan, 1994).

Statistics reveal that livestock rustling contribute to 17% of the displaced population. However, it is difficult to ascertain the number of displaced Samburu since most of them live in Manyattas of their relatives unlike the Turkana who at times move to urban centres. Samburu County recorded severe cases of livestock rustling especially through cattle raids. This makes the principal manifestation and concern within this county. The county is arid traversed by Chalbi desert and scarce natural resources. Scarcity in natural resources within these regions has brought competition over the use, access and control of available pasture resources. This has led to constant confrontation amongst Rendile, Borana and Gabbra communities especially during dry seasons owing to concentration of livestock on limited pasture and water.

Livestock rustling is one of the biggest threats to Socio-economic development and security within Samburu County (Amutabi, 2010). The recurrence livestock rustling and the use of small and medium arms have directly and indirectly affects normal socio-economic livelihood of all people within these regions. The vexing problem of Livestock rustling has no overnight solution. This challenge problem needs a long-term well-crafted and concerted effort by all stakeholders at both County and National government. Honest Commitment is expected from the leadership at these two levels of government, all the way from village elders upwards. These two levels of government shoulder the greatest responsibility of resource allocation as provided for in the supreme law of this country- the constitution.

First, resources towards the education for the young men and women at the grassroots are a vital tool that will equip these young minds who could turn out to be either rustlers or anti-rustling crusaders. Although education is offered as an escape route away from pastoralism (education personnel interviewed confirmed this), pastoralists use it as a security net and a way to strengthen the pastoral enterprise. Education is seen as a way of accessing resources outside the pastoral circuit (mainly financial and social capital), particularly sought after by the growing number of households whose entitlements within the pastoral settings have been eroded for various reasons, and who feel increasingly vulnerable to destitution. Pastoralists' resistance to change, ignorance and the determination to exploit their own children (be it for labour or for bride wealth) rather than working hard, their actions are blamed for the low levels of education in pastoral areas. They '[the pastoralists] don't see the value of education' (Krätli, 2001).

Second, livestock rearing supported by basic technology is a clear and sure way for value addition especially to livestock farmers. In the case of pastoralists, if both national and county governments could jointly pool-resources through their respective arms and introduce the use of technology in livestock keeping would turn a new page for the pastoralists. Several studies have tried to implement wireless sensor networks in animal tracking, behavior monitoring, and activity control. The concept of livestock tracking has been around for some time now. Global Positioning System (GPS) and wireless technologies have over the years been used for animal tracking using technologies such as the radio frequency identification (RFID) tags and GPS satellite collars (Tomkins & Filmer, 2007; Raizman et al., 2013).

Third, the engagement of the rural folk in livestock rearing carries a risk that can only be supported by pushing the risk to a third-party in form of Insurance. The importance attributed to livestock insurance varies from one country to another. What can be identified as a shared characteristic, regarding this kind of insurance in all the countries observed, is that the insurer's principal task is to define the conditions in such a way as to attract as many livestock owners as possible to enter

into livestock insurance contracts. In some countries, insurance is also dictated by frequent weather changes. On the other hand, even highly developed countries face some problems when it comes to insuring livestock. One of the features common to all the countries is that, speaking of percentages, the number of livestock insurance contracts is immeasurably smaller than those relating to other kinds of insurance in agriculture (Vladimir, 2016).

The above three key drivers, **Education**, **Technology** and **Insurance**, if effectively enhanced among the pastoral communities could be one of the vital movers towards dealing with livestock rustling. The solution to livestock rustling is a long term investment that requires an all-inclusive approach that requires patience and commitment from all stakeholders. The study sought to examine sustainable strategies that should be put in place to contain livestock rustling in Samburu County, Kenya. The study focused on the following key objectives:

- i. To ascertain the value of education and livestock rustling in Samburu County.
- ii. To assess technology utilization in containing livestock rustling in Samburu County.
- iii. To find out the extend livestock insurance in mitigating livestock rustling risk in Samburu County.

## II. METHODOLOGY

The study was carried out in Samburu County in the northern Kenya. The study adopted descriptive research design in collection, analysis and presentation of data. It focused on household heads, herders, security officers, education Officer, Religious leader, NGOs and local administrators. The survey was conducted using structured questionnaires on 384 household heads; personal interviews targeted 28 key informants and two focus group discussions in two sub counties. The household were selected through simple random sampling techniques. The key informants were sampled through purposive sampling technique so get respondents with the required information. Data was collected using questionnaire, interviews and focus group discussions. Data was analyzed using quantitative and qualitative techniques which aided in triangulation to improve validity and reliability of the study results.

## III. FINDINGS AND DISCUSSIONS

### *A. Value of Education*

The paper sought to find out how education has been used in Samburu County to contain livestock rustling. In this regard, the strategy should focus on young men and women below the age of 10 years. The household heads respondents were required to indicate their level of education, the highest level of their children education and the ratio of educated to uneducated children in the household. In particular, the study was interested to find out if the household in Samburu County value education.

Respondents without formal education represented 34% of the sample population; those with primary education represented 34%; those with secondary education are 26% and respondents with tertiary education represented by only 6%. From the findings it is clear that most residents in the county have limited exposure to education with the majority of the respondents having attained only basic education. This postulated that the pastoral communities do not value higher education for their children.

They therefore make very little effort towards child education. However, this could be attributed to the low number of schools within accessible distance. The perspective can be qualified by the fact that communities within Samburu passionately embrace nomadic lifestyles, therefore, making it difficult for them to attend school. Khisa et al. (2016) found out that most herders who were engaged in livestock rustling have limited or no formal learning. Therefore exposure to formal education will open up their mindset to other opportunities around and beyond them

When asked to state to highest academic qualification of their children, it was found that few (13%) of the children did manage to attain post primary school while majority (61%) of them was unable to finish the primary school. Only 25% of the parents indicated that their children had finish primary schools but were unable to transit to secondary schools. The results also revealed that the ratio of educated children to the total number of students in the household was found to be low. It is evident that in most of the household, only a quarter of the children had the privilege to be educated or are attending school at the moment as shown by 45.0% of the respondents as compare to 5.0% of the household who had all their children educated. However, 14% of the household were found not to be educating their children. The distribution is as shown in Table 1

**Table 1: Distribution of Educated Children**

Ratio	Interpretation	Percentage	Frequency
1:1	All Children	5	19
3:4	Three quarter	13	48
1:2	Half	23	85
1:4	A quarter	45	167
0	None	14	52

The interview with the religious leaders, NGOs, local administrators and education officers revealed that even though education was considered a basic need, its level in the Samburu County is still low as compared to other non-pastoralist communities. According to one of the religious leader, this has resulted to persist practicing of livestock rustling as educated community consider rustling as a vice not a traditional practice. The same sentiments were shared by two officials from the international NGOs who have been in forefront in advocating for girl's education in the county. It was revealed that communities in the county do not value education compared to the value they have put to their livestock. The situation is worse for girl child as they are easily married off after undergoing traditional cut therefore; educating them is seen as a waste of family resources.

During the focus group discussion, the researcher tasked the sampled household heads, youth leaders and women leaders why it is difficult to educate their children yet there is Free Primary Education (FPE) and Free Day Secondary Education (FDSE). Further, various religious organizations and Non-Government organizations have step up effort to improve youth participation in education. This was evident by the number of education centers owned by these organizations across the county. It was noted that, the culture and tradition of the communities found in Samburu County was the limiting factor. Majority of the household heads value their tradition and when there is conflicts between tradition and any other policies, the tradition is given priority. This was best explain by one of the youth leaders who stated that "*Our leaders view the youth as the custodian of the traditions, educating us would results to erosion of tradition and culture which is supposed to be passed to the next generation*". However, all the discussants agreed that education is the best remedy to containing livestock rustling as it enlightens the community on the value of live and respect of other people's property that is usually destroyed during livestock rustling. They also see the high value of education as the best alternative to earning better income and less risky as compared to livestock rustling.

This view was also supported by education officers in each sub counties of the Samburu County who stated that the only way to deal with livestock rustling is through education. It was revealed that education has various avenues to deal with the menace of livestock rustling. Through education, the young men and women are kept out of the field where livestock rustling is common thereby reducing the incidences. In this case, the rustling would witness slow death rate. Further, classroom education informs the students and pupils the losses that are associated with the acts of livestock rustling. It was found that culture and tradition view livestock rustling as show of mighty but education exposes the various negative effect of livestock rustling. The low development in these areas is associated with ignorant as some of the political leaders have been found to use the ignorance of the local communities to advance their political interest through livestock rustling.

*Education is the most powerful weapon you can use to change the world-* Nelson Mandela. This is one of the most powerful tools that can open the world view of any community to seeing beyond one source of income as is with the pastoralists. To break the strong chain of the mostly violent and cyclic livestock rustling, is to inculcate the culture of education among the young pastoralists. The strategy needs to be induced to the young brains from a tender age. This will help them see beyond livestock as the only way of life. An educated and learned person will see no need to risk their life after long term investment in education for unpredictable and low returns in engaging in livestock rustling. Education will open a floodgate of opportunities for such communities. This comes with interaction with other communities that will expose them to other opportunities including varied option for income generation other than what the pastoralists communities seem to be locked in. Education will open the mindset of the pastoralists to the fact that livestock rustling is a retrogressive life-threatening cultural engagement.

Tanzania government does not support or recognize early childhood development in pastoral societies (Nomadic news, 2003). The Maasai children in the remote areas have no prior exposure to the Swahili language. They have not even encountered a person speaking the language. You find that when the children are enrolled in the school they cannot

communicate in Swahili which is the language of instruction in Tanzania. The age groups corresponding to the age-school population are traditionally trained to become future shepherds, through a socially determined process of learning the skills needed for the pastoral productive activities, which cannot be considered in isolation from the socio-cultural relations with which they are integrated.

The Maasai of Ngorongoro are increasingly unable to survive solely by means of their traditional livelihood of herding cattle. They are also finding, due to lack of education and opportunity, that alternative sources of income are not accessible to them. The communities have identified the lack of education as the root cause of their loss of access to land and lack of opportunity in alternative ways of making a living (Ngorongoro Oxfam GB, 2003). Oxfam is supporting communities to develop community schools within their villages. Oxfam is supporting youth to access alternative livelihoods and assist them to develop their existing skills and to access new opportunities. The livelihoods scheme is supporting young people to form groups for purposes of mobilizing funds with which they engage in a variety of petty and small-scale businesses such as beekeeping, beadwork, cattle products and eco-tourism.

### **B. Technology in Arresting Livestock Rustling**

Various countries have deployed technology in containing the menace of livestock rustling. It has been observed that, technology has been used to track the location of cattle especially after theft thereby making it easy for recovery initiatives. The application of such technology backed up by the traditional livestock branding could be one of medium and long-term approaches to help deal with livestock rustling. With such practical approaches to dealing this menace and well presented to pastoralists could make sense. This will call for organized groupings among livestock farmers, which will even make it easy for both national and County Governments to account and reach the pastoralists for assistance.

The household respondents were asked to if they were aware of the use of technology to combat livestock rustling. Majority (78%) of the household heads were not aware of any of the available technology that has been deployed in the county for the purpose of livestock rustling. The study also sought to find out from the 22% of the respondents who were aware of technology if they have adopted. It was found that none of the remaining respondents were aware of adoption of technology in combating livestock. This indicates that recovery of the animal was done manually which is risky as the rustlers in most cases have been found to kill security personnel in ambushes during the recovery exercises.

The qualitative data revealed that even though there is existence of plenty of technologies to combat livestock rustling especially the use of simcard to track livestock, its adoption in the Samburu County was none existence. The Security personnel implied that the government has not dedicated enough resources to roll out the exercise in the pastoralist communities. This was also supported by the local administrators such as chiefs, deputy county commissioners and county commissioner. It was unanimously confirmed that technology is vital to combat livestock rustling as it safe and cheaper in the long run. According Wamuyu (2017) to trying to follow animal tracks without knowing their exact location always puts the lives of the recovery personnel at risk which in most cases has resulted in a high number of military and civilian casualties. Considering the benefits and features of mobile communication, wireless sensor networks, and advancements in animal identification,

One of the main challenges that hinder its deployment is the cost of technology. The high cost of technology makes it difficult for pastoralist community to acquire the necessary devices. However making the technology affordable by the national government through zero-rating of such equipment will boost the effort to have these communities embrace the use of the technology. Such move could only succeed by the collaboration by all stakeholders, among them NGOs and the County government. During the interviews, all the key informants hinted that it was too expensive for the local pastoralist communities to afford. The revenue from the common economic activity (pastoralism) was not able to afford the technology. One of the deputy county commissioner indicated that the cost of technology would force the household to sell almost half of their herd. As reported by Clark et al. (2006) and Davis et al. (2011), several manufacturers market GPS collars for tracking animal movement patterns (i.e. Lotek Inc., BlueSky Telemetry, Telonics Inc., etc.) but commercial GPS tracking collars with remote data-access capabilities that are large enough for beef cattle cost approximately 2300 euros per unit plus the cost of software and any peripheral devices which makes way too expensive for livestock farmers and especially pastoralists.

It was also noted that there are few personnel to support the use of technology to combat livestock rustling. One of the discussants stated that: *“Both governments (County and National) have underestimated the importance of technology in*

*dealing with livestock rustling and therefore, there are few personnel trained to carry out or create awareness among pastoralist communities*". This was also supported by key informants such as religious leaders, NGOs and local administrators. Majority of the communities lack knowledge on the operation of the technology from the experts forcing them to pick different pieces of information about the technology. Presence of trained personnel would enlighten the communities on the importance of technology thereby increase the need for uptake. Maluleke and Mofokeng (2016) identified several factors such as lack of resources, inadequate training, inexperienced SAPS STUs detectives are but few of the identified obstacles in this study. Much needed support should be directed to the livestock farmers by the government, SAPS management and other relevant stakeholders.

Another limiting factor in the use of technology to combat livestock rustling is the lack of cooperation from the local communities. Due to low education level in the county, most of the household heads were reluctant to adopt technology in tracking their animal. During the FGDs, it was revealed that pastoralist communities are not ready to embrace technology in the management of their herds. The use of available technology requires insertion of simcard to animal body. This practice is considered untraditional as the communities value their cattle and inserting foreign material to cattle body is considered as punishment. Some of them also revealed that the waves would interfere with the normal health of their livestock resulting to low productivity. It was also noted that radio waves have been associated with cancer to human beings therefore; introduction to their livestock would result to various livestock diseases that may result to reduction in herd.

In Texas, the United States of America, Northern Ireland, and Australia among other areas that suffered this menace, the use technology helped in dealing with this vice. The use micro-chip with the Global Positioning System (GPS) technology inserted under the skin of livestock sorted out this outdated practice. The cost of one micro-chip is less than Kshs. 100 for sure this is affordable. This cost cannot be compared to the loss of precious human life and livestock associated with the violence that continues to besiege the Northern Kenya among others livestock banditry hard-hit areas in the country.

### ***C. Insurance in Combating Livestock Rustling***

The study sought to find out if pastoralist communities in Samburu County have insured their livestock against rustling. The study was also interested in finding out the factors that influence livestock insurance. The results revealed that majority (87%) of the respondents were aware of livestock insurance to reduce losses associated with livestock rustling. However, none of the respondents had insured their livestock against livestock rustling in the Samburu County. The qualitative data revealed that livestock insurance would cushion pastoralist communities against losses associated with livestock resulting thereby ensuring the socio-economic status of the affect households are not affected adversely. However, lack of insurance services implies that the household are gravely affected by rustling resulting to loss of their livelihood.

Some of the factors that were associated with non-livestock insurance cover policy in the county were the lack of private insurer to cover livestock in the county. It was noted that, the livestock in the pastoralist community have low value and as such, they do not attract private firms for insurance cover. This was also identified by local administrators especially the deputy county commissioners who indicated that insurance cover in the county is considered uneconomical viable by private sectors. However, the livestock farmers indicated that the government had neglected the northern Kenya economy and as a result there is no national insurance cover that is supported by the government. Both the county and National governments were reluctant to offer livestock insurance cover.

Another factor that influences livestock insurance cover in the Samburu County was the inability of the pastoralist communities to pay the premium to the insurance companies. This was closely associated with level of education and lifestyle of the inhabitants of the County. It was found that some of the livestock owner though they appreciate livestock insurance but they are reluctant to pay premium and they indicated that the government should pay the insurance premiums for them. It was also noted that, some of the household view insurer as fraudster as they would be unable to recover their premium in case they do not experience livestock rustling menace thereby losing their cash. This makes it difficult for pastoralist communities to embrace livestock insurance as a way of reducing losses associated with livestock rustling

According to Livestock insurance experts, it is a type of insurance where the risks are very high. The main problem of this study is, precisely, in definition of those risks. On the one hand, there is a need for greater insurance coverage, and on the

other hand, the problem is in high insurance premiums, as well as, in the relationship between these premiums and sum insurance. When we talk about insurance premiums, they are high in relation to income generated in this area, but they are not high relative to the risks.

In a vast majority of countries, the state is expected to create a scheme which would enable a broad-scale protection of livestock through insurance. Even when speaking of the mandatory or voluntary nature of this kind of insurance, the situation varies from one country to another. For example, livestock insurance is voluntary in Japan. On the other hand, this insurance is mandatory for epidemics in the Netherlands and Switzerland. Livestock insurance is mandatory in China with regard to swine epidemics, more specifically sows. In countries such as Ecuador, Morocco, India and the Philippines this kind of insurance is voluntary (Mahul and Stutley, 2010). When it comes to the most highly developed country in the world, the United States, we cannot say that this kind of insurance is at an enviable level. The United States have been constantly working on expanding the livestock insurance market.

Bringing together or having statistics of these formal groupings among pastoralists will be a new dawn for these groups and the country's economy. The move will help in making it possible for the livestock disease control and other approach to manageable and profitable farming. Managing stocking of livestock in dry and wet spells will be a reality. The dilemma pastoralists are in today is as a result of failure to approach livestock rearing with a modern touch. It is as sure as sunrise in the tropics that there are dry and wet seasons. Therefore operating as if it is an emergency trying de-stocking or roaming all over with animals for pasture is not helping pastoralists. In such dire situation should be the opportune moment to introduce the pastoralists to animal-insurance cover and other modern livestock rearing approaches for economic benefit for them and the nation's economy. The cover will also shoulder and mitigate the new trends in livestock rustling when raiders strike; they steal everything in their wake.

#### IV. CONCLUSION AND RECOMMENDATION

The findings revealed that value of education in Samburu County is still low which affects the containment of livestock rustling. Education was found to present the negative effect of livestock rustling, keep youth away from the practice (rustling) and offer alternative ways of wealth creation besides pastoralism. There was a link between low education levels and prevalence of livestock rustling as the communities in county still view livestock rustling as valuable cultural practices. Even though both national and county governments, NGO and religious organizations have placed a lot of emphasize on education, the uptake level is still low to have a significant impact. The communities in the county have placed a lot of emphasis in their tradition and preservation of this tradition. They feel they do not need to be educated maligning role of education in containing livestock rustling.

It was also found out that the use of technology in containing livestock rustling is nonexistence in Samburu County. Few residents are aware of the use of SIM card in locating of their livestock however; the project has not been realized in Samburu County. The use of this technology though expensive initially, it has in the long run beneficial as it makes it easy to locate stolen livestock and deterrent in livestock rustling. However, some of the pastoralist communities have the same reservation on the placement of simcard to their livestock and they are not comfortable seeing their livestock with foreign objects in their bodies. Therefore, the study recommended that there is need for various stakeholders in livestock sector such as National and County governments to invest in the use of technology to combat livestock rustling. The strategy will yield the desired results through creation of awareness on the benefit of technology in arresting livestock rustling and improving livestock productivity.

Though majority of the sampled respondents were aware of livestock insurance cover, a few of them have insured their livestock against theft. Unavailability of private insurers in Samburu County to cover livestock is one of the reasons that were identified. Another reason was inability of pastoralist communities to pay premium and their little understanding of how insurance policy operates and its net benefits. Therefore, the study recommended that there is need for national government through parliament to come up with legislation to set up livestock insurance cover for pastoralist communities. Further, these communities (pastoralists) should be educated on the importance of livestock insurance.

The overall conclusion of the study is that, *“there is no magic bullet for livestock rustling”*, education is one of the most sustainable solution to contain livestock rustling in northern Kenya. Even though other strategies (technology and insurance) as revealed in this study plays a role in combating livestock rustling, an educated pastoral community has the capacity to stop livestock rustling, embrace technology and insure their livestock. The study recommended that there is

need for concerted effort by both County and National governments and other stakeholders to step up efforts to increase youth literacy by investing in education. Sustainable education policies should be developed specifically to support pastoralist education through an all-inclusive approach in order to have meaningful socio-economic development in this region.

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