



## Integrated Bottom-up Economic Strategies for Combating Cattle Rustling in Kenya's North Rift Region

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<p><b>Chief Editor</b> Web: <a href="http://www.ijscd.org">www.ijscd.org</a> Email: <a href="mailto:info@ijscd.org">info@ijscd.org</a></p> <p><b>Editing Oversight</b> Impericals Consultants International Limited</p>	<p><b>Abstract:</b> Cattle rustling pose a significant challenge to security and economic stability in Kenya's North Rift Region, threatening livelihoods and exacerbating inter-communal conflicts. This paper aims to investigate the effectiveness of the integrated bottom-up economic approach in tackling this pervasive issue. The research is premised on the bottom-up theoretical paradigm and Social Capital theory. Descriptive and explanatory research designs and mixed methods approach were the main inclinations for this study methodology wise. Through numerous case studies and empirical evidence, the article demonstrates the effectiveness of the bottom-up approach in reducing cattle rustling incidents and fostering peace elsewhere and how it can be instituted in the North Rift Region of Kenya. The study findings confirmed that cattle rustling is sustained by cultural and traditional demands and interests which are deeply rooted in the social and economic fabric of the communities which engage in cattle rustling; commercialization of livestock and livestock products sustains the practice while politicization gives it credibility among those who profit from the illegal enterprise. In conclusion, the study underscores the importance of a holistic, bottom-up strategy in combating cattle rustling in Kenya's North Rift Region. This study recommends economic empowerment initiatives to address the underlying drivers of cattle rustling, including poverty alleviation and increased livelihood opportunities among the affected communities by key stakeholders. Additionally, policy interventions are essential for creating an enabling environment conducive to sustainable peace and security. Moreover, cross-border cooperation and regional partnerships are vital for addressing transnational dimensions of cattle rustling and preventing the proliferation of illicit arms.</p> <p><b>Key Words,</b> Cattle rustling, Bottom-up economic approach, Stakeholder collaboration, Community Engagement, Peacebuilding</p>
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### 1.1 Study background

Cattle rustling has deep historical roots, often linked to pastoralist societies and the nomadic way of life. In many cultures, livestock, specifically cattle, are a source of sustenance and livelihood, holding cultural and social significance, making them a prime target for theft. The practice of cattle rustling has been romanticized in folklore, literature, and oral traditions, further contributing to its perpetuation over generations (Lomoywara, 2018). The Cattle rustling menace is not confined to a specific region; it is a global phenomenon that has affected communities across several continents. Livestock theft often

results in devastating economic consequences, leading to loss of livelihoods, disruption of food supply chains, and even contributing to cycles of poverty (Kwonyike, 2018).

In the United States of America (USA), cattle rustling has deep historical roots, dating back to the early days of cattle ranching and the expansion of the western frontier. While the scale and nature of cattle rustling have evolved, it remains a concern for ranchers and law enforcement. Modern cattle rustlers use sophisticated techniques, including theft for resale, illegal slaughter, and even altering livestock records. Law enforcement agencies use technology-driven solutions such as The Global Positioning System (GPS) tracking and brand inspections to curb the vice. Furthermore, many ranching communities have taken matters into their own hands by establishing community watch programs, public awareness campaigns and fostering strong relationships with law enforcement while emphasizing the importance of securing livestock. This has shown that strategies adopted from the bottom going up mainly focusing on grass root-based solutions are workable to ensure cases of cattle rustling are mitigated (Herskovitz & Brandes, 2015).

In the West African countries of Mali, Nigeria, and Niger, cattle rustling and insurgency activity have become intertwined, creating a volatile combination that exacerbates conflict and threatens regional security (International Crisis Group [ICG], 2014). Insurgent organizations can keep going and expand their control over impacted areas thanks to the profits they get from livestock theft. (Amao, 2020).

Botswana and Malawi have been successful in combating the theft of livestock, which provides significant insight into the bottom-up strategies that work hence can be applicable in Kenya's North Rift Region. These countries have adopted comprehensive security measures and community participation as essential pillars in their strategy to address this issue. These nations have reduced the number of cattle rustling occurrences by promoting collaboration between law enforcement agencies and local communities (Selebatso & Ntuli, 2019). Cattle rustling interventions in Botswana and Malawi include cross-border cooperation where for example Botswana and Zimbabwe have established a Bi-National Commission (BNC) to tackle cattle rustling collaboratively. This involves joint police operations and interstate liaison efforts, which have been effective in reducing incidents of livestock theft along the border.

Once a traditional practice linked to rites of passage in various pastoralist communities, cattle rustling has evolved into a violent and organized criminal activity in parts of the Eastern Africa region, especially in South Sudan, Uganda, and Ethiopia. In South Sudan, the nation's prolonged periods of civil conflict and instability have exacerbated cattle-raiding activities. Armed conflicts and the proliferation of small arms and light weapons have turned rustling into deadly encounters. Clashes over cattle have fuelled inter-communal violence, especially among pastoral communities like the Dinka, Nuer, Toposa and Murle (Wild, Jok, & Patel, 2018). The lack of a strong centralized authority in remote areas and effective policing makes controlling and mediating this vice challenging (Okumu, 2013).

In Uganda, cattle rustling has been a long-standing issue among the Karamojong and neighbouring ethnic communities. In the early 2000s, the Ugandan government initiated a disarmament program to reduce the number of illegal firearms in the hands of pastoralist communities. The program successfully reduced

the intensity of cattle rustling. However, sporadic incidences of this age-old practice continue, sometimes fuelled by cross-border security dynamics between Uganda, Kenya and South Sudan (Mwangi, 2019).

According to Onditi (2017), in Kenya, the menace of cattle rustling has left an indelible mark on the communities of the North Rift region and other areas experiencing the menace. This phenomenon has particularly entrenched itself within the Turkana, Pokot, Samburu, Laikipia, Isiolo and Marakwet communities. The motivation behind these practices is deeply rooted in a complex interplay of factors, including resource scarcity, sustainment of livelihoods, intense competition over limited grazing land due to climate change, and unresolved historical and ethnic animosities and grievances (Hogg, 2019). Traditional drivers perpetuate a cycle of conflict and retaliation. However, the modern landscape has introduced new dimensions that have intensified the gravity of cattle rustling in the region. The proliferation of small arms and light weapons has furnished rustlers with deadly arsenal, escalating clashes and heightening the potential for loss of life. Furthermore, O’Kadamari (2016) notes that the manipulation of ethnic and political tensions has further inflamed these conflicts, exacerbating the underlying divisions within these communities.

Despite the extensive efforts by the Government of Kenya (GoK) and county governments in the North Rift region to combat cattle rustling, these top-down initiatives have yet to yield substantial positive results. The persistent menace of cattle rustling has entrenched itself within communities like the Turkana, Pokot, Samburu, Laikipia, Isiolo, and Marakwet, driven by a complex interplay of resource scarcity, livelihoods sustainment, competition over grazing land, and historical animosities. Modern factors, such as the proliferation of small arms and manipulation of ethnic and political tensions, have further exacerbated the issue, highlighting the need for more effective strategies. In various regions around the world, bottom-up strategies have demonstrated promising results in mitigating livestock theft. This current study aims to evaluate the potential of bottom-up economic strategies in effectively combating cattle rustling in Kenya’s North Rift region, by focusing on community-led economic initiatives. The success of this bottom-up economic strategies could serve as a model for other regions facing similar challenges, contributing to broader regional stability and development.

## **1.2 Statement of the Problem**

The Government of Kenya (GoK) has invested heavily in combating cattle rustling through various approaches, which include deploying well-equipped, highly trained multi-agency security forces and conflict resolution programs. County governments in North Rift have also participated in efforts to curb the menace by initiating development projects and devolving services to the lowest level. Although these top-down initiatives have been employed to tame the menace, they are yet to yield substantial positive results. Could tackling this challenge require a rethink in strategy that places the communities involved at the front of the fight? Has the GoK considered the need to grant the latitude to communities to take the lead role in stemming the cattle rustling menace in terms of interrogating the economic dynamics? In light of these complexities, this study seeks to explore sustainable bottom-up economic strategies in combating cattle rustling in Kenya's North Rift Region.

## **1.3 Research Objective**

To evaluate bottom-up economic security strategies applied in combating cattle rustling in Kenya’s North Rift region.

### 1.4 Justification of the Study

Cattle rustling and banditry have led to numerous deaths and injuries in Kenya's North Rift region since early 2023. The government declared cattle rustling an existential threat to Kenya's future and security (Cline, 2020). Existing economic policy frameworks need to be more comprehensive to address the multifaceted nature of cattle rustling, as policy implementation often needs improvement due to limited capacity, inadequate resources, and insufficient coordination among stakeholders. The diverse communities in the region require tailored interventions that respect cultural nuances while promoting security and stability. This study is necessary to explore a largely uncharted economic avenue in combating cattle rustling in the region, as failure to address factors contributing to the issue could escalate the situation and increase inter-ethnic tensions (Jemutai, 2015; UNDP, 2018; Muli & Mwamuye, 2015). This study is necessary, and its justification lies in its potential to explore a largely uncharted economic avenue in the quest to combat cattle rustling in the North Rift region. Failure to address factors contributing to cattle rustling, especially from the lowest level going up, will likely escalate the situation, leading to continued loss of lives, livestock, and property as well as increased inter-ethnic tensions in the area.

### 1.5 Significance of the Study

This research holds significant importance in shedding light on the efficacy of bottom-up economic strategies in addressing cattle rustling in the North Rift Region of Kenya. It provides an evidence-based foundation for crafting economic policies prioritizing local community input, ensuring they are more contextual, responsive, and effective in addressing cattle rustling. The central government can allocate resources more efficiently and support initiatives demonstrating promising outcomes by highlighting the efficacy of sustainable, bottom-up strategies. Additionally, County Governments will benefit from a clearer understanding of how community-led interventions can be integrated into broader county development plans, ensuring harmony and synergy in efforts to devolve development to the lowest levels.

### 1.6 Conceptual framework

*Independent variable*

*Dependent variable*

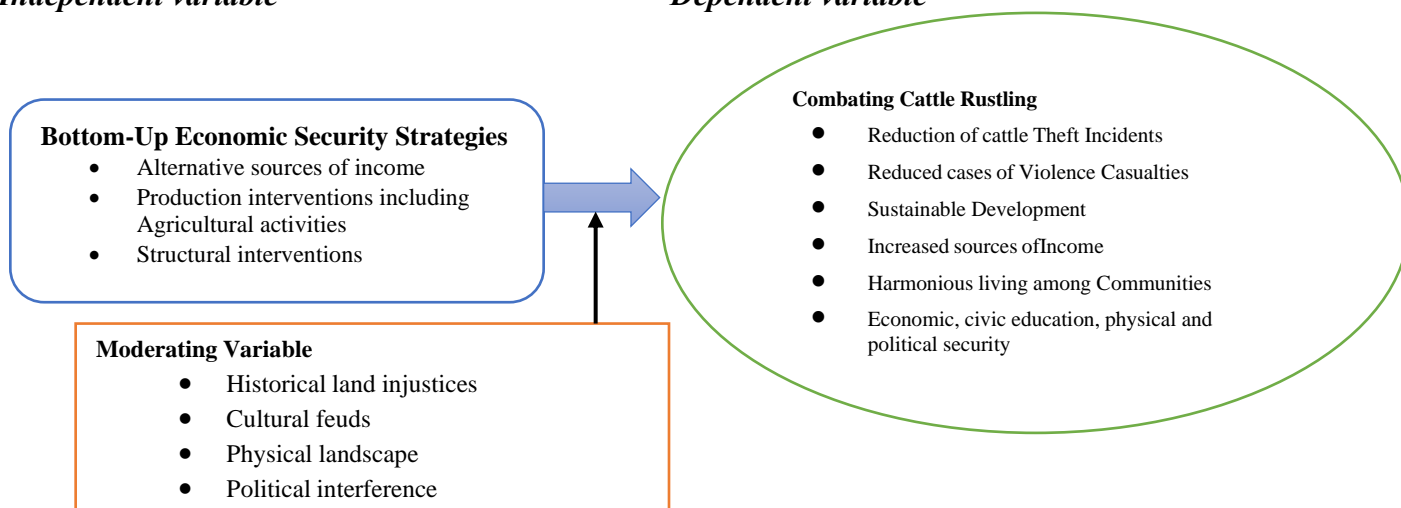


Figure 1: The Conceptual framework

Source: Researchers' own conceptualization, 2024

The independent variable in this study includes economic strategies that include diversification of livelihoods, implementation of capacity building, access to finance and grants, reciprocal institutional arrangements and adoption of fodder banking. The dependent variable includes the alleviation of cattle rustling incidences, which is indicated by the reduction of cattle theft incidents in the North Rift, reduced cases of violence and casualties among the residents, sustainable Development, increased sources of Income and harmonious living among communities. Some variables may intervene, affecting the relationship between the independent and dependent variables, otherwise called the moderating variable. This includes historical land injustices, cultural feuds, physical landscape and political interference.

## 1.7 Literature review

The section is divided into theoretical review, conceptual review and empirical review.

### 1.7.1 Theoretical review

#### *The Bottom-up paradigm*

Bottom-up approaches to development underscore the need for “participation” and involvement of the local community for whom the development projects are undertaken. In these approaches to development, the community can select their own goals and the means of achieving them in any development project (Kothari, 2001). Chambers (1994) puts the example of bottom-up approaches like Participatory Rural Appraisal (PRA) and Rapid Rural Appraisal (RRA) where he sees “richness of knowledge” and “creative and analytical ability” of poor villagers. Similar to bottom-up thinking, Sen (1999) sees “development” as freedom where the poor will shape their destiny, and they will not just be “passive recipients of ...cunning development programs.” Along with participation, bottom-up approaches ensure community ownership, commitment, and accountability to the development project as it seeks development from below (Pieterse, 1998). With this approach, local people are considered “searchers” and are given an opportunity to help themselves (Easterly, 2007). Unlike Paul Collier and Jeffery Sachs, William Easterly of New York University and Dambisa Moyo, former World Bank official, are some of the academics who argue for more bottom-up ways of poverty reduction than top-down solutions. The bottom-up approach seeks micro-level solutions to poverty. In this research, contextually, the goals and means of combating cattle rustling should be participatory within the local communities. In this case, the initiative will have more community ownership, commitment and accountability and therefore success. Few scholars have explored the application of bottom-up economic paradigm in addressing cattle rustling. Social capital theory can explain the deficiencies of the bottom-up economic paradigm in this study.

#### *The Social Capital theory*

Social Capital theory, postulated by scholars in the field of sociology, proposes that the strength of social networks and relationships within a community significantly contributes to its collective efficacy and ability to effectively address shared challenges (Putnam, 2000; Lin, 2001). This theory underscores the intrinsic value of trust, cooperation, and shared norms in fostering community resilience and effective problem-solving. The World Bank (2019) defines *Social Capital* as the institutions, relationships and norms that shape the quality of a society's interactions. They further state that it is not just the sum of the above that underpins a society but the glue that holds it together. In the context of this study, social capital theory can be viewed as the bridge that closes the gap between challenges and opportunities. It postulates

that connections in society through the people and activities they share bring value by creating a social network that aids cooperation for mutual benefit.

Social Capital theory can be traced back to the classic sociological work by Emile Durkheim and George Simmel. It has gained many contributions from contemporary authors like Bourdieu (1986) and Coleman (1988). As a theory, it was first coined by Bourdieu (1985) as "the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance or recognition (Martin, 2015). Social capital has hybrid theoretical origins ranging from Pierre Bourdieu, Robert Putnam and James Coleman. Like Bourdieu, Coleman saw social capital as residing in the social structure of relationships among people. However, whereas Bourdieu was concerned with power and status and the uneven distribution of social capital between individuals, Coleman saw social capital as a public good where the actions of individuals benefit the whole (Lin, 2017). According to Kondo (2018), the theory postulates that positive changes occur when a community's social relationships are benevolent. This can also be deciphered to social bonds acting as a potent inhibitor of deviant or criminal behaviour. Coleman and Bourdieu viewed social capital as residing in the social structure of relationships among people.

Social Capital Theory, therefore, proposes that the strength of social networks and relationships within a community significantly contributes to its collective efficacy and ability to effectively address shared challenges (Putnam, 2000; Lin, 2001). The strength of Social Capital Theory lies in its recognition of the pivotal role of local knowledge, trust, and collective action in addressing complex societal challenges (Bhandari & Yasunobu, 2009). This theoretical framework is particularly relevant to the study's emphasis on bottom-up strategies prioritizing community engagement and incorporating indigenous knowledge. Moreover, the theory's acknowledgement of the influence of cultural contexts and social dynamics makes it a suitable guide for exploring successful cases in the regions and beyond.

At its core, Social Capital Theory posits that communities endowed with robust social ties are better equipped to tackle intricate issues like cattle rustling (Trigilia, 2001). This theory anchors the study as it highlights how strengthening communal ties and initiating joint initiatives at the grassroots may benefit the community by nurturing interpersonal relationships, engendering trust, and fostering cooperation. Social capital augments the capability of local communities to devise and execute strategies that effectively counter the threat of cattle rustling. This notion aligns well with the study's focus on employing bottom-up approaches, which leverage existing social connections to combat this longstanding issue. This theoretical framework is particularly relevant to the study's emphasis on bottom-up strategies prioritizing community engagement and incorporating indigenous knowledge. Moreover, the theory's acknowledgement of the influence of cultural contexts and social dynamics makes it suitable for the study. The study's strength in social capital theory lies in recognizing the pivotal role of local knowledge, trust, and collective action in addressing complex societal challenges (Bhandari & Yasunobu, 2009).

Anchoring the study on social capital theory provides a guiding framework that underscores the importance of community engagement, trust-building, and local networks in addressing cattle rustling. By delving into successful cases in regions like Botswana, Malawi, and Tuva, this theoretical lens allows the exploration of the role of social ties in reducing cattle rustling incidents, integrating indigenous

knowledge, mitigating socio-economic factors, and fostering active community participation (Aldrich & Meyer, 2015).

### 1.7.2 Empirical review

#### *Economic Security Strategies in Combating Cattle Rustling*

In many parts of the world, crime has been occasioned by unequal distribution of wealth and lack of access to resources. Among the pastoralists, cattle rustling, a source of conflict in various parts of the world has been motivated by various economic factors. They depend on livestock for their livelihood. However, they inhabit Arid and Semi-Arid Areas (ASALs), which are characterized by temporal and spatial climatic variation, making the availability of resources uneven (Wamuyu, 2014). Switzer and Mason (2006) state that there is a need for governments and to put in place interventions aimed at preventing resource scarcity conflicts as well as capacity building, especially in pastoralist areas in Sub-Saharan Africa (SSA).

Sandford (2010) studied competition over access and control of scarce natural resources. The findings informed that most conflicts in arid and semi-arid areas in Eastern African states revolve around the economics of natural resources. Conflicts emerge in many areas due to scarcity of water and pasture as communities in the neighbourhood jostle over usage and ownership rights, making such areas hot spots for violence. Cattle herders driven out of their range lands by droughts have more often than not invaded private farmlands and ranches in search of grazing resources, resulting in tension and violent conflicts. Scholars and other external actors have recently begun to identify access to resources as a legitimate dispute between communities and pastoral societies (Kenya Human Rights Commission - KHRC, 2010; Cheserek et al., 2012; Boone, 2013; Gleditsch, 2013). In this context, the vast spaces in the study area are characterized as ASAL, receiving little overall rainfall. According to the Medium Development Plan of Kenya (MDP) 2017, challenges experienced in the Northern Rift region of the country require sustainable economic solutions that encompass all stakeholders. Vision 2030's 2<sup>nd</sup> Medium Term Development Plan (MTP) 2013-17 dictates that critical issues and challenges affecting pastoralists need to be addressed. These include low domestic savings and GDP and per capita income growth, high poverty rates and unemployment. This, coupled with the intensity of climate risks, has brought about devastating effects with drought-related damages and losses between 2008 and 2011 estimated at US \$12.1 billion (10.2% of GDP). Attention is drawn to the dire situation amongst pastoralists who continually experience violent acts, including banditry, which further diminishes their quality of life. Wamuyu (2014) further notes that the effects of cattle raiding, and the violence experienced among pastoral communities need urgent economic intervention measures, failure to which communities in these areas will experience dire consequences with persistent conflicts.

Mathevula (2017) undertook a study in South Africa's Limpopo province in 2022 to assess the effectiveness of the agribusiness model on land reform beneficiaries. The study was conducted on a single-case study farm using purposive sampling. The study sought to investigate how economic interventions such as land reforms were likely to address the inequalities that existed in the area. It sought to understand the socio-economic impact of the agribusiness model on land reform beneficiaries and the broader contributions land made to livelihoods. This approach effectively alleviates conflicts arising from resource allocation and contributes to the promotion of sustainable land utilization. This

congruence in strategies underscores their applicability across different regions and their efficacy in addressing resource-related challenges.

Further, the United Nations Development Programme [UNDP] (2018) posits that the success in Limpopo can be attributed to the introduction of participatory decision-making and sustainable land stewardship. They state that integration of community interests is essential for local intervention measures to take root. The study, however, differs from this study as it focuses on a small area. The study is also set in a different setting where farming of crops is the main activity.

In Burkina Faso, strategies were adopted to foster a fair and balanced utilization of resources. Through community initiatives of rancher-pastoralist dialogue, these strategies effectively tackled conflicts arising from the unequal distribution of grazing lands. The initiatives that were jointly undertaken by pastoralists and ranchers proved to be effective in tackling persistent conflicts that had long existed between the two communities. The country's inhabitants place a significant value on land as a resource, and the study emphasizes the efficacy of sharing resources among communities in tackling resource-related challenges (Wane, 2020). A gap, however, emerges in analysing such strategies' long-term viability and adaptability. Additionally, while the effectiveness of these strategies in mitigating resource conflicts is evident, a deeper analysis of the long-term sustainability of such initiatives, especially considering evolving environmental and socio-economic factors and challenges, would provide a more comprehensive understanding of their impact.

In Ethiopia's Siqee area, among the pastoralist community of the Borana community, economic interventions were introduced to harmonize resource access through traditional rotational grazing systems. This resulted from the failure of state intervention measures that had proven to be less effective due to the lack of cooperation by the Borana community. Study findings show that the approach prominently stresses the community-driven collaborative allotment and oversight of resources, effectively mitigating tensions stemming from resource allocation that had become a thorn in the flesh in the region (Etefa, 2021). The study, however, has gaps as it was conducted on one community and did not consider multi-ethnic communities such as the demographic composition found in the North Rift region of Kenya. In the study area, communities are multi-ethnic with diverse orientations and ideological beliefs but living under nearly the same conditions, hence the persistent re-occurrences of cattle rustling incidences.

Among the pastoral communities in Kenya, economic inequalities exist, as well as regional inequalities. The marginalization of pastoralists can be traced to the marginalization, where they were left out of developmental gains extended to other parts of the country. The unequal distribution of development especially in the ASAL regions where the study area is located, was carried forward by successive governments. There is a need to address these inequalities by involving the communities in identifying their most urgent development requirements. Further, migratory patterns of the various ethnic groups and differences in economic and resource endowment have contributed to cattle rustling. (Friedrich 2012). UNDP (2011) further posits that addressing these disparities in Kenya will require developing and implementing an alternative approach that seeks to integrate community actors who are at the bottom of the pyramid going up and not top-down representation. This will provide a multifaceted framework to foster more balanced economic development in areas left out of crucial development aspects.



Reciprocal Institutional arrangements have been viewed as a strategy that can address the shortage of natural resources such as grazing lands. According to Adan and Pkalya (2006), cases like Isiolo in Kenya have seen pastoralists and other communities with scarce natural resources frequently agreeing on how to utilize such resources most efficiently. The movement has been allowed in/from the neighbouring Wajir and Garissa counties. They state that before the movements begin, Borana and Somali elders negotiate such movements and a general agreement is reached on access to water and pasture. This has dramatically reduced tensions and issues of encroachment.

Triche (2014) conducted a study among the Turkana and Pokot communities in Kenya, and he noted that previous peace-making efforts carried out in the North Rift region have been concentrated on the surface and implemented by non-community members. In his desktop study, he highlights the need to focus on community-driven solutions. He states that by reducing cost benefits from the trade, cattle rustlers would be demotivated from engaging the practice for commercial gain. Triche (2014) further opines that one economic intervention measure for combating cattle rustling is economic sanctions at the community level. This would be by demonetizing the raid and refusing the bride price paid by cattle rustling proceeds. Through his review, internal sanctions decrease cattle raiding and should be implemented to increase the cost of livestock raiding and reduce the cost of positive reciprocity. The study, however, has a gap in that it was a desktop review that lacked the backing of primary data. This study attempts to fill that gap by collecting raw data from pastoral communities. Furthermore, the current study explores how such a system might interact with local customs and traditions to enhance our understanding of its potential challenges and benefits.

In a quantitative study, Haan (2016) sought to investigate if the land distribution of the pastoralists would lead to their economic recovery. The study sought to change the dynamics of the longstanding tensions between pastoralists and farmers. Land distribution was found to have significant implications as discrepancies exist in the use of natural resources. These had also changed the economy of pastoral production; therefore, tensions had escalated to levels of concern. Resource scarcity was identified as one of the main drivers of conflict and instability. As a result of ongoing conflicts, regional markets for their livestock were affected as many pastoralists were forced to sell their animals at a loss or lost their herds when they fled the violence due to attacks by armed groups. This has led to the loss of livelihoods which Haan (2016) views as compounding the cattle rustling menace. He further proposes that any intervention or support that does not address the root causes, such as resource availability, would not bear much fruit as the conflicts would be cyclical.

The above findings are commensurate with case studies adopted from Uganda's Karamoja area (in East Africa), where pastoral communities operated on communal grazing lands that helped mitigate issues such as land scarcity. This also helped communities integrate and live harmoniously as they would migrate to neighbouring community lands and vice versa (Ngaido, 2005). The UNDP (2018) further posits that these strategies exemplify a commitment to fostering equitable resource management across diverse landscapes.

Upon privatization of land, communities scrambled for the available resources that remained scarce. Kratli (2012) further elaborates that due to changing water patterns and lack of adequate grazing land, land-sharing arrangements had to be made between nomadic peoples and other communities. Reciprocal

institutional arrangements were born in which some communities allowed grazing on their lands during specific periods in return for grazing rights in neighbouring regions when they faced similar circumstances. Reciprocity was the essential mechanism which enabled collective action in traditional societies.

Reciprocal relationships among pastoral communities extended to more than land. Similarly, cattle were used in reciprocal relationships where they could be used for bride price, thereby strengthening kinship and communal bonds. Community bonds were so strong among the East Africans that if raiders raided a village, the other communities would shun buying from them, making the practice unattractive (Ngaido, 2005).

The existing literature highlights significant gaps that necessitate the current study on bottom-up economic security strategies to combat cattle rustling in Kenya's North Rift region. Despite extensive research on resource scarcity, economic disparities, and the efficacy of community-driven initiatives in various regions, there remains a lack of comprehensive, empirical data specific to the North Rift's unique socio-economic and cultural landscape. Previous studies have often focused on top-down interventions or isolated case studies without integrating indigenous knowledge, traditional conflict-resolution mechanisms, and localized law enforcement collaborations. Additionally, the variability in the effectiveness of these strategies across different contexts, such as South Africa's Limpopo province, Burkina Faso, and Ethiopia's Borana community, underscores the need for tailored approaches that address the specific needs and dynamics of the North Rift. This study aims to fill these gaps by systematically examining the potential of bottom-up strategies, incorporating perspectives from local communities, law enforcement, NGOs, and governmental agencies to provide a holistic and sustainable framework for combating cattle rustling.

### **1.8 Study design and methods**

This study employed a descriptive and explanatory designs as well as mixed method approaches to collect data. Scholarly publications, institutional reports, and expert opinions regarding the bottom-up economic strategies that have shaped the mitigation and combating of cattle rustling and their effectiveness were reviewed. The key data materials and informants were identified based on their roles, level of knowledge, and organizational representation. The study, therefore, relied on reports and publications from law enforcement agencies, local community members, Public Benefits organizations (PBOs), and government agencies to draw generalizations. Primary data was largely obtained through structured interviews and focused group discussions. Secondary data was mainly from desk reviews of online journals, reports from various organizations, and various government publications, reports, and policy papers. Collected data was stored in notebooks and electronic databases. Content analysis constituted the major technique for analyzing and presenting data in a narrative form.

This study was conducted in the defunct Rift Valley province, which was Kenya's largest subnational unit. It is located in the North- Western part of Kenya and it shares borders with Ethiopia, South Sudan, and Uganda. The region is mainly inhabited by nomadic pastoralist communities and is characterized by rough terrain and a harsh climate. In the context of this study, the North Rift Region refers to the five counties of Turkana, Pokot, Elgeyo Marakwet, Baringo and Samburu.

According to the 2019 Census the six counties comprising the North Rift region of Kenya have a total population of approximately 5,041,935 people. The region covers approximately 89,604.4sq kilometers. Nomadic pastoralist communities comprise about 20% of Kenya's population but occupy an estimated 70% of Kenya's total land area in the vast arid and semi-arid rangelands of the former NFD (KNBS, 2019). As Nderitu (2018) observed, the livelihoods of most inhabitants of the North Rift region are built around their livestock. As a result, residents depend heavily on natural resources such as pasture, water, and vegetation.

The target population of the research comprised of all the pastoralists living in the North Rift, village elders, community policing officials and peace ambassadors. The study sought to collect data from a representative sample of the population in order to gain insights into their experiences, perceptions, and attitudes toward cattle rustling and practical bottom-up economic strategies that can be used in combating the menace. For the purposes of this study, the target population includes all residence living in the North Rift region of Kenya's most disturbed counties due to cattle rustling menace of Turkana, Samburu, Baringo, Elgeyo Marakwet and Pokot aged 18 years and above. However, due to the large size in the population, the study could not collect data from all members of the target population, thus adopted various sampling techniques to arrive at a sample size. To estimate the sample size, the formula for sample size determination which involves the desired level of confidence, the margin of error, and an estimate of the population variability was used. The formula used was the sample size (n) is calculated using Taro Yamane's 1967 formula.

The formula is:

$$n = N/(1+N(e)^2).$$

Where:

n=Sample size

N=Target Population

E=level of precision (0.05 or 5% in this study)

When fitted, the sample size is as follows:

$$n=200/(1+(200*0.05^2))$$

$$n=200/(1+(200*0.0025))$$

$$n=133.3$$

$$n \approx 133$$

The sample size was assigned down to 133 to make the study tenable in terms of time and financial resources. The researcher sampled 85 pastoralists, 15 community opinion leaders/elders, 10 Non-Governmental Organization Administration Officers (NGAO) and 7 national security actors, 5 politicians, 5 county government representatives and 6 representatives from the Public Benefit Organizations (PBOs) operating in the study area. The sample size distribution was as presented in Table 1 below.

**Table 1: Sample Size**

AREA	Pastoralists	Community opinion leaders (elder)	NGAO	National Security Actors	Political leaders	County Government Leadership	PBOs	Total
Turkana	17	3	2	2	1	1	2	28
Pokot	18	3	2	1	1	1	2	28
Elgeyo Marakwet	16	3	2	1	1	1	1	25
Baringo	18	3	2	2	1	1	0	27
Samburu	16	3	2	1	1	1	1	25
<b>Total</b>	<b>85</b>	<b>15</b>	<b>10</b>	<b>7</b>	<b>5</b>	<b>5</b>	<b>6</b>	<b>133</b>

*Source: Researchers, 2024*

The study adopted four sampling techniques, namely multistage (by clustering the areas into administrative units – County to word levels) purposive, simple random and stratified sampling. The study adopted multistage sampling to create a sample size of the pastoralists as they are distributed over a large area. In this study, the various strata included pastoralists, community opinion leaders (elders), NGAO, national security agencies, politicians and PBOs representatives.

Purposive sampling procedure was used to select Key Informant Interviewees (KIIs) as well as specific areas that had experienced recurrent cases of cattle rustling as explained under section 3.2 of this chapter. The KIIs were mostly respondents holding leadership positions within their respective strata and were assumed to be knowledgeable about the study questions by virtue of the information they had access to which relates to the problem statement. The selected areas were presumed to be better versed with the phenomenon of cattle rustling since they had experienced it first-hand. Thus, people in such areas would be better placed in suggesting what works or did not work for them. Finally, simple random sampling was used in obtaining respondents from across the sample strata who had not been purposively selected. This sampling procedure ensured that all non-purposively selected members of the target population had an equal chance of selection into the sample, hence give their insights regarding the study questions.

The instruments of data collection included Interview guides with KIIs and focus group discussions schedules with community members – the pastoralists. A total of 10 FGDs, each comprising of 8 to 10 members was designed, two in each county. The FGDs were organized such that there was one for males and one for females so that each category had an enabling environment to share their thoughts freely. The rest of the members participated in KIIs as tabulated in Table 2. This enabled the researcher to get in depth information. Standardized interview guides were preferred over questionnaires for the semi-literate respondents because they allowed for more flexibility and clarifications in the data collection process. The researcher with support from three trained research assistants administered the interviews and the FGDs and where necessary, adapted local language to ensure that questions were understood to facilitate accuracy of responses. In the course of data collection, clarifications were also made in cases where language was a barrier. Secondary data was collected through extensive literature review of

journals, government and PBOs reports concerning the research to gain an in depth understanding of the study.

**Table 2: Data Collection**

<i>Target Group</i>	<i>Data Collection techniques</i>	<i>Data Collection Tool</i>
<i>Pastoralists</i>	FGD, Observation	<i>Focus Group Discussion guides</i>
<i>Community Opinion leaders (elders)</i>	Interviews	<i>Interview guides</i>
<i>NGAO</i>	Interviews	<i>Standardized Interview guides</i>
<i>Security</i>	Actors	Interviews, Observation
<i>Politicians</i>	Interviews	<i>Interview guide</i>
<i>PBOs</i>	Interviews	<i>Interview guide</i>
<i>County Government</i>	<i>Interviews</i>	<i>Interview guide</i>

**Source: Researchers 2024**

## 1.9 Study findings

### **Response Rate**

Ninety-four (94) respondents of the 133 respondents sampled participated in the study. This represented a return rate of 70.7%. Out of the 94 successful responses, 38 (78.6%) respondents were from among the KIIs while 56 (65.9%) came from among the FGDs. It is instructive to note here that whereas the projected number for each FGD had been 8-10 members, that size eventually reduced to between 5-7 members. The most affected FGDs were those of female participants. This was largely because of the nomadic lifestyle of the respondents where some were out in the field tending to their animals or looking for water when the engagements were going on and others were not authorized to participate by their spouses. A response rate at 70.9% was found to be in tandem with Fincham's (2008) argument that, response rates of 60% and above are adequate representative and should be the goal of researchers. The response rate was as shown in Table 3 below:

**Table 3: Response Rate**

	<b>Sample</b>	<b>Responded</b>	<b>Response Rate (%)</b>
<b>Interviewees</b>	48	38	78.6
<b>FGD</b>	85	56	65.9
<b>Overall</b>	133	94	70.7

**Source: Field Data, 2024**

### ***Gender of the Respondents***

The study went on to determine the gender of the respondents. This was pivotal in gaining a comprehensive knowledge about the characteristics of the respondents that may have influenced the study's findings. From the findings, 15.7 % female respondents and 85.3 % male respondents took part in the study. The findings show that most of the respondents were male. The variance in the roles of men and women explains the wide gap between the participation of men and women in the study. Besides, the fewer women than men in the study illustrates a male-dominated, patriarchal pastoralist society; where men are normally involved in social activities and are more vocal. This observation is line with this, Cheserek's (2007) view that the reason for low status of one gender in pastoral societies is because women have no inheritance right, and are isolated from decision-making concerning them directly or indirectly. They are deemed to be part of children or property and are socialized to respect and submit to male authority from an early age. These perspectives notwithstanding, the findings, underline the presence and essence of women and men in pastoral communities.

### ***Bottom-Up Economic security intervention strategies to alleviate the challenges of cattle rustling***

The study sought to find out the perception of the respondents concerning bottom-up economic security interventions as a strategy to alleviate the challenges of cattle rustling. The findings show that 85% respondents agreed with the statement while 15% disagreed. According to Table 4 the majority of the respondents noted that bottom-up economic security interventions strategies are viable approaches for addressing the problem of cattle rustling since they focus on the underlying economic causes of this illegitimate behavior. The results are presented in Table 4.

**Table 4: *Bottom-Up Economic Security Intervention Strategies in Combating Cattle Rustling***

<b>Descriptive Statistics</b>					
	<b>N</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>Std. Deviation</b>
<b>Bottom-up economic security strategies effectively reduce the vulnerability of communities to cattle rustling.</b>	51	1.00	5.00	2.05	1.05
<b>Community-based savings and credit groups contribute significantly to economic resilience against cattle rustling.</b>	51	1.00	5.00	2.12	1.25
<b>Microenterprise projects empower individuals to diversify income sources, reducing dependence on vulnerable livestock.</b>	51	1.00	5.00	2.57	1.03
<b>The current economic stability resulting from bottom-up strategies positively impacts the overall well-being of the community</b>	51	1.00	5.00	2.30	1.14
<b>Collaborative economic initiatives enhance the community's ability to withstand economic shocks related to cattle rustling.</b>	51	1.00	5.00	2.14	1.22
<b>The bottom-up approach respects and integrates the cultural and economic significance of livestock in the community</b>	51	1.00	5.00	2.37	1.05
<b>The economic security interventions contribute to reducing desperation, a key driver of individuals engaging in cattle rustling activities.</b>	51	1.00	5.00	2.10	1.13

**Source: *Field Data, 2024***

Table 4 reveals that, on average, participants demonstrated a moderate level of agreement (mean = 2.05) regarding the efficacy of bottom-up economic security intervention strategies in mitigating the vulnerability of communities to cattle rustling. The relatively low standard deviation (1.05) indicates a reasonably consistent consensus among participants on this matter. The mean response of 2.12 suggests that participants lean towards the notion that community-based savings and credit groups significantly contribute to economic resilience against cattle rustling. However, the higher standard deviation (1.25) implies a more diverse range of opinions among participants on this particular aspect. Furthermore, participants strongly agreed, on average (mean = 2.57), that microenterprise projects empower individuals to diversify income sources and reduce reliance on vulnerable livestock. The low standard deviation (1.03) signifies a high level of agreement and consistency in responses across the participant group. The average response of 2.30 indicates a moderate agreement that the current economic stability resulting from bottom-up strategies positively impacts the overall well-being of the community. Nevertheless, the standard deviation (1.14) suggests some variability in participants' perceptions, indicating differing views.

Regarding collaborative economic initiatives aimed at enhancing the community's ability to withstand economic shocks related to cattle rustling, participants exhibited a moderate level of agreement (mean = 2.14), with a higher standard deviation (1.22). This points to varying perspectives among participants on this statement. On average, participants expressed agreement (mean = 2.37) that the bottom-up approach respects and integrates the cultural and economic significance of livestock in the community. The relatively low standard deviation (1.05) suggests a moderate level of agreement across participants on this aspect. Participants moderately agreed (mean = 2.10) that economic security interventions contribute to reducing desperation, a key driver of individuals engaging in cattle rustling activities. The standard deviation (1.13) indicates some variability in responses, reflecting diverse opinions within the participant group. These findings agree with the findings by Etefa (2021) who argued that economic security interventions when introduced to harmonize resource access through traditional rotational grazing systems effectively mitigating cattle rustling.

Mathevula (2022) notes that involving communities in economic interventions effectively alleviates conflicts arising from resource allocation and contributes to the promotion of sustainable land utilization including agricultural activities. This congruence in strategies underscores their applicability across different regions and their efficacy in addressing resource-related challenges experienced by pastoralist communities that engage in cattle rustling. Peña-Ramos et al. (2022) state that there is a need for governments and development agencies to put in place interventions aimed at preventing resource scarcity conflicts as well as capacity building, especially in pastoralist areas in Sub-Saharan Africa (SSA). According to the Medium Development Plan of Kenya (MDP) 2017 (Government of Kenya [GoK], 2017), challenges experienced in the Northern Rift region of Kenya require sustainable economic solutions that encompass all stakeholders involved. Vision 2030, 2<sup>nd</sup> Medium Term Development Plan (MTP) 2013-17, indicate that critical issues and challenges affecting pastoralists need to be addressed. These include low domestic savings, high poverty rates and unemployment.

United Nations Development Programme (UNDP, 2014) further posits that addressing these disparities in Kenya will require developing and implementing an alternative approach that seeks to integrate community actors at the bottom of the pyramid going up and not top-down representation. This will

provide a multifaceted framework to foster more balanced economic development in areas left out of crucial development aspects. Total Socio-economic monetized cost and damages from cattle rustling in Kenya in 2023 was estimated at Kshs 196 billion annually and stood at 140 billion in 2015. These losses are much higher than tourism annual revenue of Kshs 128 billion (Bunei, et al 2016).

The key factor that the study established on economic security issue is marginalization of parts of the North Rift Region contributing to cases of cattle theft. Communities in this area feel left out of the national development picture and the presence of both county and national government is conspicuously missing. Haan (2016) noted that resource scarcity is one of the main drivers of cattle rustling among the pastoral communities in Kenya; thus, exacerbating economic inequalities, as well as regional inequalities. The marginalization of pastoralists can be traced to the economic model of development, where they were left out of developmental gains extended to other parts of the country. This could be associated to the fact that, immediately after independence, agriculture was declared as a dominant sector of the Kenyan economy negating other sectors like pastoralism (Mwangangi, 2021). The unequal distribution of development especially in these regions has been carried forward by successive governments. Further, migratory patterns of the various ethnic groups and differences in economic and resource endowment have contributed to cattle rustling (Friedrich-Ebert-Stiftung, 2012).

The goal of programs like those that alleviate poverty, provide alternative livelihoods, and encourage community development is to make people less likely to engage in cattle rustling. Through providing options for lawful employment, tackling the underlying causes of poverty, promoting communal welfare, and promoting agricultural activities as an alternative for pastoralism; these interventions aim to lessen the incentives for engaging in unlawful activity. Furthermore, promoting skill development and legal livestock-related economic activities help achieve the overarching objective of establishing a sustainable and lawful environment in impacted areas, which in turn lessens the incidence of cattle rustling. These findings are in line with the findings by Wamuyu (2014) who found that pastoralists communities engage in cattle rustling, because they are motivated by economic benefits emanating from the practice.

The interviewee responses show that the respondents acknowledged the challenging economic conditions due to recurrent cattle rustling incidents. They highlighted the importance of understanding the root causes of the problem and underscored the need for interventions that go beyond immediate security measures and address the economic vulnerabilities that communities face. To this end, one of the interviewees noted thus:

*“The economic conditions in our communities are challenging due to the recurrent cattle rustling incidents. Livestock is a significant part of our economy, and the constant threat affects our ability to sustain our livelihoods. Many families face economic instability as they fear for the safety of their livestock, which is a primary source of income” (P 04, 2024).*

The mention of livestock as a significant part of the local economy emphasizes the economic dependence of communities on cattle. This recognition is crucial for tailoring interventions that respect and integrate the cultural and economic significance of livestock while seeking sustainable solutions to mitigate the impact of cattle rustling. There are several centers of commerce/markets in North Rift which if properly publicized and recognized by the county government and local administration, the earning therein through livestock sale, will contribute directly to the economic well-being of the communities hence



reducing dependence on cattle rustling. The findings established that these markets are not fully operational due to either insecurity as a result of cattle rustling or because the administration has not taken active steps to establish the prerequisite infrastructure and mandated citizens to trade and interact among themselves boosting the economy of the area significantly. One respondent noted that:

*“It is paramount that the local administration and county government publicize these centers of commerce/markets and create specific days for trading especially in livestock among the pastoralists communities to elevate economic hardships and this is likely to contribute to the reduction of cattle rustling incidences” (P 09, 2024).*

Furthermore, they pointed out that families face economic instability due to the threat of cattle rustling which directly impact on livelihoods. This underscores the urgency of implementing effective and holistic strategies that not only secure communities but also safeguard their economic well-being. To this end, one of the respondents opined that:

*“There is need to initiate community-based savings and credit groups to create economic buffers for families affected by cattle rustling. Additionally, there is need for microenterprise projects that empower individuals to diversify their income sources, reducing the sole reliance on livestock. These initiatives will strengthen economic resilience and provide alternative means of sustenance” (P 10, 2024).*

The mention of community-based savings and credit groups, as well as microenterprise projects, reflects a bottom-up approach to economic security intervention strategies. By involving the community in the design and implementation of these initiatives, there is recognition that solutions should be context-specific, empowering local communities to take ownership of their economic resilience. These findings align with the findings by Lenaiyasa et al. (2020) who argued that empowering communities at the grassroots level can lead to sustainable solutions that address the root causes of cattle rustling.

The study established that communities in many parts of North Rift have turned into charcoal burning as an alternative form of livelihood. This has contributed to environmental degradation and the destruction of previously lush green vegetation especially in areas of Kerio valley and Turkwell basin. Indeed, it was observed that a few individuals masquerading as charcoal burners are criminals who steal people's livestock and load them in the charcoal heaps contributing to the cycle of cattle rustling incidences in the area. For example, Kolowa area in Tiaty, Baringo County which used to have a well-established lush green forest is a shadow of its former past glory with the tree cover dwindling at a very high rate contributing to the overall climate change equation globally.

The research underscores the critical role of bottom-up economic security intervention strategies in addressing the challenges of cattle rustling in Kenya's North Rift region. From the study, it was revealed that, women have been left behind in relation to bottom-up economic strategies crucial in addressing the cattle rustling menace in the region. Climate smart, culturally sensitive and gender inclusion economic strategies are needed in the study area to address this challenge from household levels. The study reveals a substantial consensus among respondents on the effectiveness of these strategies, highlighting their potential to mitigate economic vulnerabilities that drive cattle rustling. The evidence suggests that community-based savings and credit groups, microenterprise projects, and collaborative economic initiatives can significantly enhance economic resilience and reduce reliance on livestock. However, the study also identifies challenges, such as the marginalization of pastoralist communities and environmental degradation from alternative livelihoods like charcoal burning. This researcher's

perspective aligns with the broader findings that sustainable solutions must integrate cultural and economic contexts, involve local communities, and address underlying issues such as gender inequality, poverty and resource scarcity. By promoting economic diversification and community empowerment, these interventions aim to create a more stable and self-sufficient environment, ultimately reducing the incidence of cattle rustling and fostering long-term security and development in the region.

### 1.10 Conclusion

The investigation into bottom-up economic security strategies reveals that these interventions play a crucial role in addressing cattle rustling in Kenya's North Rift region. Economic measures, such as resource-sharing agreements and local economic sanctions, effectively mitigate resource-related conflicts and enhance community resilience. However, persistent economic inequalities and inadequate capacity-building efforts underscore the need for more comprehensive and inclusive approaches. Emphasizing community involvement in identifying development needs and fostering reciprocal arrangements can further alleviate resource scarcities and promote harmony among pastoral communities.

### 1.11 Recommendations

Based on the study findings the following recommendations are made;

#### 1.11.1 Policy Recommendations

***Dialogue, Education, Community Empowerment, Engagement and Security:*** The national government should establish a community-centred interfaith dialogue forum to address cattle rustling in all the disturbed counties of the North Rift Region. The forum should include community elders, peace ambassadors, women, youth, church ministers, Imams, scholars' local administration, security agencies, private sector, and humanitarian organizations. The outcome of these discussions is to be forwarded to the National Security Committee (NSC), which will then task line ministries and state departments to implement the outcomes of the dialogue forums. The essence is to foster community ownership by involving local leaders, elders, and residents in the design and implementation of anti-rustling initiatives, establish community-based organizations focused on conflict resolution, resource management, and livestock security and conduct regular community dialogues and forums to address underlying grievances, promote understanding, and build trust among different ethnic groups.

Education is one of the best tools for cultural transformation. This will deter most pastoralists from relying solely on cattle as their source of livelihood and will provide them with several other alternatives. Education will not only change the cultural mindset of livestock keepers but will also change the landscape and improve the socio-economic indices of the County. The construction of schools, the provision of water through drilling boreholes and water pans, and the construction of health centers should be enhanced. Schools to be facilitated with local teachers, uniforms for learners, books and a reliable school feeding program. Additionally, local authorities to supervise student exchange programs to mitigate attacks on learning institutions. The National Lands Commission should prioritize public participation in collecting views on clearly delineating contested boundaries between these counties. Areas endowed with pasture, water, and other resources should be distributed and shared equally. Government authorities and entities should lower academic qualifications for employment in security forces, teachers' service commission, and other categories to reduce the high unemployment rates.

### 1.11.2 Advocacy and Justice

There is a need to advocate for the implementation of policies and legislation that address the root causes of cattle rustling, such as land tenure reform, resource management, and access to justice. Strengthen the capacity of local institutions, including government agencies, PBOs, and community-based organizations, to support anti-rustling efforts through training, resources, and technical assistance, as well as foster partnerships and collaboration among stakeholders, including government agencies, civil society organizations, private sector actors, and international donors, to pool resources and expertise towards a coordinated and sustainable approach to combating cattle rustling.

***Intervention by third parties (Mediation):*** For the conflict to be resolved amicably, the government should seek to understand the community leadership structures and culture, including the role of the elders who are the decision makers; the government should partner with them to secure peace. This should be in conjunction with other stakeholders, such as PBOs, in training them. The government should also set aside funds towards community dialogue and dispute management activities. This paper also proposes branding and tagging of cattle in Kenya's North Rift. Branding plays a significant role in reducing cattle rustling by providing a means of identifying and tracing stolen livestock. Branding involves marking cattle with unique symbols, numbers, or letters using hot irons or other methods. This permanent mark is a form of identification, allowing owners to distinguish their animals from others. When cattle are branded, it becomes more difficult for rustlers to steal them without detection. Branded livestock can be traced back to their rightful owners through records kept by authorities or private ranchers. When stolen animals are recovered or found in the possession of rustlers, law enforcement agencies can use the brands to identify the owners and return the cattle to them. This traceability helps deter theft and facilitates the recovery of stolen livestock.

### 1.11.3 Practice Recommendations

***Use of kinetics and non-coercive methods:*** Coercive methods in conflict management can be applied where necessary in Kenya's North Rift region. Over time, the pastoral communities in Kenya's North Rift have strived in lawlessness in their region to escalate insecurities, endangering the lives of their neighbours and entire communities. The government should disarm all communities, especially the ones living in the disturbed counties of North Rift in possession of illegal SALW, and in return give them incentives, alternative livelihoods and practically provide them with security for their lives, animals and property as is the case in Karamoja region in Uganda. Non-coercive methods may yield reasonable results in peace-building in the North Rift region if appropriately employed and applied. Some of the non-coercive techniques the government could use are a strong nonviolent campaign message of peace at all levels, peacemakers, and its administration to help transform the culture of all pastoral communities. They should help people understand that the rustling culture is not the only source of wealth and needs to change with the current times. One way of effectively transforming this distractive culture is to introduce peace studies into the school curriculum. In addition, nonviolent, social interactions between the pastoralists and their neighbours should be encouraged. This could be done through sports drama, religious activities, trade and the use of media in peace education programs. Non-coercive strategies could be done through persuasion.

***Livelihood Diversification and Economic Development:*** There is a need for the County and National governments to provide opportunities for alternative sources of income and livelihoods to reduce

dependency on cattle as the sole means of livelihood and support small-scale agricultural projects, micro-enterprises, and vocational training programs to create economic alternatives for youth and marginalized communities. Invest in infrastructure development, such as roads, markets, and irrigation systems, to improve access to markets and increase the value of agricultural produce. There is a need for relevant authorities to map out agricultural potential zones/areas in these counties and initiate irrigation projects through public-private partnership (PPP) to cultivate and provide the local populace with alternative livelihoods. Additionally, communities should be educated on the advantages of planting forests and claiming carbon credits to prevent environmental degradation caused by burning charcoal. Climate sensitive, culturally gender responsive initiatives are important to get women on board as key players in alleviating the temptation of compromising with cattle rustling menace through relevant local and National government initiatives.

## References

- ACLEDD. (2023). Kenya: Government Operation Against Pastoralist Militias in North Rift Region. Vol2. <https://acleddata.com/2023/03/31/kenya-situation-update-march2023government-operation-against-pastoralist-militias-in-north-rift-region>.
- Amao, O. (2020). Cattle Rustling and the Management of Internal Security in Nigeria. *African Security Review*, 29(1), 30-46.
- Anyona, N. N., & Onditi, F. N. (2017). The role of culture in cattle rustling: A case of the Turkana people of Kenya. *International Journal of Criminology and Sociology*, 6, 234- 240.
- Balogun, J. A., & Olaitan, J. O. (2019). Evaluating the Efficacy of Community Vigilante Groups in Curbing Cattle Rustling in Zamfara State, Nigeria. *Journal of Human Security Studies*, 8(2), 40-60.
- Bhandari, H. & Yasunobu, K. (2009). What Is Social Capital? *A Comprehensive Review of the Concept*. *Asian Journal of Social Science*.
- Bunei, E. K., McElwee, G., & Smith, R. (2016). From bush to butchery: cattle rustling as an entrepreneurial process in Kenya. *Society and Business review*, 11(1), 46-61.
- Chambers, R. (1994). "The Origins and Practice of Participatory Rural Appraisal." *World Development* 22(7):953-969
- Chebon J. (2005). The impact of community-led strategies on conflict resolution and peace building among pastoralist communities in Kenya: A Case Study of Olmoran Division of Laikipia West District.
- Cheserek, G. J., Odenyo, V. A. O., & Omondi, P. (2012). Nature and causes of cattle rustling among some pastoral communities in Kenya. *Journal of Emerging Trends in Economics and Management Sciences*, 3(2), 173-179.
- Cline, L. E. (2020). War on the Hoof: regional security in Africa and livestock conflicts. *Small Wars & Insurgencies*, 31(1), 87-105.
- Coleman, S. (1986). "Social Theory, Social Research, and a Theory of Action." *The American Journal of Sociology* 91(6): 1309-35. Retrieved (<http://www.jstor.org>)
- Easterly, W. (2007). *The White Man's Burden: Why the West's Efforts to Aid the Rest Have Done so Much Ill and so Little Good*. Oxford: Oxford University Press.
- Etefa, A., Belay, S., & Fikre, T. (2021). Cattle Rustling and Strategies for Peaceful Conflict Resolution in Borana Zone, Oromia Region, Ethiopia. *Journal of World Studies*, 2(1), 36-49.

- Fernandez-Gimenez, M. E., Batkhisig, B., Batbuyan, B., Ulambayar, T., & Brannstrom, C. (2015). Protecting the Commons while Promoting Livelihoods in Mongolian Rangelands. *Rangelands*, 37(2), 57-65.
- Herskovitz, J., & Brandes, H. (2015). Cattle rustling U.S.A., where 'Rawhide' meets 'Breaking Bad'.
- Hogg, R. (2019). The impact of cattle rustling in the North Rift region of Kenya. Rift Valley Institute.
- Hogg, R. (2019). The Political Economy of Cattle Raiding and Pastoral Conflict in Kenya's North Rift. *African Affairs*, 118(471), 571-590.  
<https://www.scribbr.com/methodology/multistage-sampling/>
- Ibrahim, S. S., Ibrahim, A., Allah, A. N., et al. (2016). Building of a community cattle ranch and radio frequency identification (RFID) technology as alternative methods of curtailing cattle rustling in Katsina State. *Pastoralism*, 6, 10.
- International Crisis Group (ICG). (2014). Mali: Security, Dialogue and Meaningful Reform. *Africa Briefing*, 100. *International Journal of Innovation and Economic Development*, 2(2), 36-44.
- Jemutai, J. (2015). Cattle Rustling and its Effects on Peaceful Co-existence among Communities in Kenya's Rift Valley Region: A Case Study of Baringo County. *International Journal of Humanities and Social Science*, 5(2), 171-178.
- Keshav, S. (2013). Case Study: South Africa - Community Livestock Guarding Program. In *Voices from the Frontline: Human Security and Biodiversity in Africa* (pp. 35-37). PELUM Association.
- Kimani, A. G. (2020). Evaluating Strategic Solutions to Cattle Rustling from a Gender Perspective in West Pokot County. *The International Journal of Humanities & Social Studies*, 8(10).  
<https://doi.org/10.24940/theijhss/2020/v8/i10/HS2010-037>
- Kondo M. H., Naoki K., Toyo A., Yukako T., Daisuke T., and Katsunori K. (2018). Community Social Capital, Built Environment, and Income-Based Inequality in Depressive Symptoms Among Older People in Japan: *An Ecological Study from the JAGES Project*.
- Kothari, U. (2001). "Power, Knowledge and Social Control in Participatory Development". Pp.139-152 in *Participation: The New Tyranny?* edited by Bill Cooke and Uma Kothari. London: Zed Books
- Kwonyike, M. M. (2018). Understanding Cattle Rustling and the Role of Indigenous Conflict Resolution Mechanisms Among the Tugen, Ilchamus and Pokot of Baringo County, 2000-2015. Thesis, University of Nairobi.
- Lin, N. (2001). *Social Capital: A Theory of Structure and Action*. London: Cambridge University Press.
- Lomoywara K. M. (2018). Transformation of Cattle Rustling in West Pokot County, Kenya 1895-2000. Thesis, Kenyatta University.
- Mathevula, D. (2017). The Effects of Land Scarcity on Rural Livelihoods: The Case of Villages in Vhembe District, Limpopo Province, South Africa. *Jàmbá: Journal of Disaster Risk Studies*, 9(2), 1-10.
- Muli, J. A., & Mwamuye, G. W. (2015). Cattle Rustling and the Sustainability of Pastoralism in Kenya. *Pastoralism*, 5(1), 1-9.
- Mwangangi, L. (2021). Reflections on Sessional Paper No 10, 1965, a government policy paper that widened the economic, social and political divide in Kenya. *Yesterday and Today*, (26), 160-163.
- O'Kadameri, A. O. (2016). Cattle Rustling in Kenya: A Threat to Food Security and Livelihoods.

- Okumu, W. A. (2013). Addressing Cattle Rustling in Kenya: Insights and Recommendations.
- Pieterse, J., N. (1998). "My Paradigm or Yours? Alternative Development, Post-Development, Reflexive Development." *Development and Change* 29(2):343-373.
- Putnam, R. D. (2000). *Bowling Alone: The Collapse and Revival of American Community*. Simon and Schuster.
- Selebatso, M. M., & Ntuli, E. G. (2019). Cattle Rustling in Botswana: Prevalence, Causes and Responses. *African Journal on Conflict Resolution*, 19(2), 207-227.
- Sen, A. (1999). *Development as Freedom*. Oxford: Oxford University Press.
- Trigilia, C. (2001). "Social Capital and Local Development", *European Journal of Social Theory* 4: 427-442.
- UNDP. (2018). Reducing the Risk and Impact of Cattle Rustling in Kenya's Arid and Semi-Arid Lands. Retrieved from <https://www.ke.undp.org/content/>
- UNDP. (2018). Strengthening Community Resilience to Conflict and Violence in Kenya: A Case Study of Turkana County. United Nations Development Program (UNDP).
- United Nations Development Program, 2011. *Human Development Report 2011: Sustainability and equity A Better Future for All*. New York: Palgrave Macmillan
- Wild, H., Jok, J. M., & Patel, R. (2018). The militarization of cattle raiding in South Sudan: how a traditional practice became a tool for political violence. *Journal of International Humanitarian Action*, 3(1), 1-11