



# Drivers of Banditry and Its Effect on Household Economic Welfare in Kerio Valley, Kenya

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## Abstract

Banditry continues to undermine security, livelihoods, and development in Kenya's Arid and Semi-Arid Lands (ASALs), with Kerio Valley being one of the most affected regions. Although the effects of banditry continue to be felt by households, the underlying drivers remain insufficiently explored, limiting the effectiveness of interventions. This study investigated the socio-economic and structural drivers of banditry in Kerio Valley, Kenya. Based on the Economic Theory of Crime, the Capability Approach, and Conflict Transformation Theory, the study employed a descriptive survey design targeting 384 households selected through simple random sampling to investigate the drivers of banditry in Kerio Valley. Primary data were collected using structured questionnaires and analyzed using SPSS, applying both descriptive statistics and inferential analysis, including factor analysis and multiple linear regression. The findings revealed that youth unemployment, poverty, proliferation of small arms, weak security presence, and cultural practices such as cattle raiding significantly contribute to the persistence of banditry. A correlation analysis revealed a strong inverse relationship between banditry and household well-being, implying that as banditry intensifies, household well-being declines. The results of the regression analysis showed that these drivers were strongly and significantly related to the prevalence of banditry in the area. The research concludes that a set of economic, social, and institutional factors that promote banditry in Kerio Valley are present. It prescribes multi-pronged interventions, such as enhancing security infrastructure, increasing youth employment, controlling small arms, and overcoming of cultural drivers through education and peace-building initiatives.

**Keywords:** Banditry, drivers, youth unemployment, small arms, poverty, security, Kerio Valley

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## Introduction

### Background Information

Banditry is still one of the significant development and security issues in the world, regionally, and locally. Akinyetun (2021) and Mohammed & Alimba (2016) characterize banditry as organized crime involving armed robbery, cattle rustling and ambush usually involving well-armed groups. Traditionally, the factors that contribute to banditry include inequality, the absence of state authority, and economic opportunities (Tawane, 2025). As an illustration, in Europe and Latin America, violence of bandits was associated with the plight of the marginalized community against an oppressive regime, with a lack of livelihood resources compelling young men to turn to criminal activity to make ends meet (Berkman, 2007; Brooks, 2020; Slatta, 1987). These descriptions imply, that besides violence, banditry flourishes in areas where socioeconomic and structural factors contribute to vulnerability.

In Sub-Saharan Africa, banditry has socioeconomic and political contexts as drivers such as poverty, unemployment among the youth, environmental stress, and the spread of small arms (Krätli & Toulmin, 2020). As an example, youth unemployment, bad governance, and availability of illicit firearms in the

northwestern states of Nigeria have restructured cattle rustling into a highly organized and violent illicit economy (Akinyetun, 2022). Droughts and diminishing grazing lands increase competition for limited resources in the Sahel, which lead to raids and retaliatory attacks. The lack of control by weak state security and the accessibility of the justice system also contribute to the thriving of these activities.

The same dynamics apply to the Arid and Semi-Arid Lands (ASALs) in Kenya. In some counties like Turkana, Samburu, West Pokot, and Baringo, various factors contribute to banditry. For example, unemployment and poverty among youth predispose them to engagement in criminal networks (Musau et al., 2023). Second, easy accessibility to small arms through porous borders exacerbates the severity of attacks and exposes communities to vulnerabilities (Ndambuki, 2016). Third, a low level of security and slow reaction by the state weakens deterrence, which allows bandits to commit and escape without significant punishment (National Crime Research Centre, 2024). Lastly, cultural habits that celebrate the rite of passage through cattle raiding, combined with the influence of politics, continue to

perpetuate the violence cycles (Chemase & Muhindi, 2024).

Kerio Valley, a region that spans across Elgeyo-Marakwet, West Pokot, and Baringo counties, effectively depicts these challenges. Characteristics of the area include high rates of youth unemployment, poverty, resource-based disputes over grazing land and water, as well as a porous security infrastructure. The livestock is of great importance to communities in Kerio Valley, particularly making them susceptible to raids. In this respect, banditry is not a mere crime of an economic character but a method of survival of marginalized groups supported by structural distinction and neglect of the state. Even with disarmament, curfews, and military interventions, by the government of Kenya has not be able to address the causes of banditry. Previous research on Kenyan banditry has elaborated chiefly the effects of banditry but has not yet systematically examined the socio-economic and structural determinants that perpetuate the vice (Ndambuki, 2016; Gumba et al., 2019). This paper is therefore fills the above gap by investigating the drivers of banditry in Kerio Valley. The findings will help the government of Kenya and relevant stakeholders to come up with evidence-based interventions.

### Statement of the Problem

Banditry has remained a significant security and development problem in the Arid and Semi-Arid Lands (ASALs) of Kenya, with Kerio Valley being one of the worst hit areas. The vice has flourished despite various government efforts, which include security operations, curfews, and disarmament initiatives, which have raised concerns about the factors that support it. Although the effects of banditry on livelihoods, displacement, and insecurity have been well known, there has been less focus on

the socio-economic and structural factors behind the practice. Youth unemployment and poverty in Kerio Valley are high, which has provided an ideal starting point to join banditry because raids are consistently perceived as a means of survival, as well as a form of social identity (Ndambuki, 2016; Musau et al., 2023). It is also comparable to the spread of small arms, which has increased the severity and frequency of attacks, due to porous borders and weak arms control (Mugo, 2023). Insecure status, slow state reaction, and political interference have enabled the situation to be further institutionalized so that banditry is not only a means of survival but a process of violence (National Crime Research Centre, 2024). In the context of Kerio Valley, only a few studies in northern Kenya have analyzed the relationship between these drivers, which has helped address cattle rustling and insecurity. This study therefore addresses this knowledge gap by analyzing the socio-economic, cultural and institutional factors that perpetuate banditry. Addressing this gap is essential in coming up with evidence-based strategies and policies that go beyond reactive security measures to address the underlying causes of the problem.

### Justification of the Study

This study gives empirical information concerning the conditions that perpetuate banditry in Kerio Valley. The study will assist policymakers, security agencies, and development actors to come up with interventions that transcend the law enforcement aspect of protection and involve creating jobs, controlling the use of arms, educating people, and peace-building by establishing what drives these activities. These evidence-based plans would be critical in dealing with the structural factors of banditry, sustainable peace, and the

economic well-being of the households in Kerio Valley.

## Literature Review

### Theoretical Review

#### *Economic Theory of Crime*

The Economic Theory of Crime, developed by Becker (1968), describes criminal conduct as rational choice whereby offenders calculate the perceived benefits of crime against the costs which may be involved (arrest or punishment). When applied in the case of Kerio Valley, the theory suggests that youth may resort to banditry as a means of subsistence when they have no other means of earning a living, and that the perceived rewards of livestock raiding or violent theft outweigh the perceived risk of being caught. Lack of economic options, poverty, and unemployment, hence, make people more prone to crime as a means of livelihood. Critics of this theory claim that the theory has simplified crime by disregarding social and cultural factors (Ehrlich, 1996). Still, however, it would be handy in explaining the economic motivation behind banditry in marginalized areas such as the Kerio Valley.

#### *Capability Approach*

The Capability Approach developed by Amartya Sen (1999) underlines the fact that poverty cannot be assessed only by the level of income; it must be measured by the inability to have the fundamental freedoms and opportunities, including education, health, and security. Multidimensional poverty has a negative impact on communities living in Kerio Valley because they are unable to live secure and dignified lives. The young men in this setting can resort to banditry as another form of attaining recognition, security, or

economic reward. The framework is especially applicable to the concept of structural deprivation and access to resources, which contributes to the perpetuation of banditry. Although the approach has been criticized as abstract and may not be operationalized, (Alkire, 2005), it provides insightful information on how inequalities within systems and a lack of capabilities contribute to conditions that perpetuate banditry.

#### *Conflict Transformation Theory*

Conflict Transformation Theory, developed by Lederach (1995), suggests that the root cause of conflict is structural inequalities, fractured relationships, and cultural practices that perpetuate hostility. The theory also looks further than considering conflict as a problem to be solved, but rather as a chance to transform through the establishment of trust, getting to the root of the problem, and altering patterns of interaction. Violence as a social identity is evident in Kerio Valley, whereby the culture of cattle raiding, political manipulations, and inter-community rivalries are accepted. The Transformation Theory of Conflict can be used to understand why short-term security initiatives, such as disarmament, are ineffective, as they do not address the socio-cultural and institutional processes that promote banditry. Although some critics argue that it is too utopian and slow to implement (Miall, 2004), the theory is a valuable tool for explaining how to mitigate banditry by bringing about structural changes, peace-building, and inclusive development.

### Empirical Review

#### *Drivers of Banditry*

Banditry is a widely recognized issue in research across various settings, revealing the presence of a group of repeat drivers. Brooks (2020) reported

that, in the past, rural banditry in Latin America was due to economic inequality, a lack of strong state capacity, and inadequate livelihoods, which led to curvilinear survival strategies among marginalized populations. Similarly, Slatta (1990) has stressed that in South America, social marginalization and lack of state security support rural banditry, in which raids are not only a source of livelihood but also a way of defining themselves. Nguyen and Tran (2025) found that in Southeast Asia, organized violence had an environment of poverty and environmental stress. According to these studies, socioeconomic deprivation, access to weapons, and low institutional presence are the primary global causes of banditry.

Regional studies in Sub-Saharan Africa also confirm similar dynamics. According to Akinyetun (2022), in northwestern Nigeria, young people were unemployed. Their poverty was increasing, and the weak borders allowed organized bandit gangs to emerge, and the spread of small arms to be uncontrolled. Krätli & Toulmin (2020) emphasized that environmental stresses and droughts, as well as the shrinking of grazing lands, regularly provoke raids and retaliatory attacks, thereby aggravating resource competition in the Sahel. Ucko and Marks (2023) also found that there was poor governance and a deficit in security in West Africa, and consequently, emboldened bandits to act with impunity. What these findings have revealed is that the lack of evidence on the persistence of banditry in Africa closely links with unemployment and poverty, as well as the frailty of formal state institutions.

Ndambuki (2016), cattle raiding has ceased to be a traditional activity. Still, it has turned into a violent business due to the involvement of small arms trafficking by the neighboring nations, especially Ethiopia, South Sudan, and Uganda.

Musau et al. (2023) established that unemployment and poverty among the youth were some of the push factors that led the young men within the Kerio Valley to join bandit groups, which was, in many cases, a survival strategy. The authors of the study, Chemase and Muhindi (2024), reported that deterrence was reduced in the North Rift due to weak security presence and slow response by the state, with bandits repeatedly attacking vulnerable households. According to the Kenya National Crime Research Centre (2024), another critical way of supporting banditry was the cultural practices of cattle raiding as a rite of passage. This finding reinforces the findings of Kaprom (2013), who reported that young men in pastoral societies get their social recognition and status through successful raids, thus making banditry both a cultural and economic one. The high costs and disruption of basic services highlight the economic strain that insecurity places on already vulnerable households. Based on these findings, this study hypothesizes that **H<sub>01</sub>: Determinants of banditry have a significant influence on its occurrence in Kerio Valley, Kenya.**

### Conceptual Framework

The conceptual framework (Figure 1) of this study shows how the relationship exists between the drivers of banditry (independent variables) and household economic welfare (dependent variable) in Kerio Valley, Kenya. The study considers the following drivers: youth unemployment, poverty, small arms proliferation, lapses in the security front, and practices that promote cattle raiding among the cultures. These factors are likely to impact household economic well-being, which is represented by household income, food security, access to education, and asset ownership. The framework assumes that banditry can lead to short-term benefits. Still, in the long



The study population consisted of households in Kerio Valley. Specifically, the target population was the 13,076 households officially recognized as being affected by banditry in the region (Kenya Population and Housing Census, 2019). The sample size for the study was determined using Cochran's (1977) formula for a population of more than 10,000, which is widely used for its precision.

A total of 384 households were selected for the study. To select these households, the study employed purposive sampling, a non-probability technique. This method allowed for the selection of households that had been affected by banditry, ensuring that the sample had the specific characteristics necessary to address the research objectives.

Primary data was collected using a structured questionnaire with both closed- and open-ended questions. The questionnaire was designed to be simple for respondents to complete, which facilitated the collection of empirical data aligned with the study's objectives (Mugenda & Mugenda, 2003). The study adhered to strict ethical principles to protect participants and ensure the integrity of the research. Participation was voluntary, and informed consent was obtained from all respondents. Confidentiality and anonymity were maintained by not recording personal identifiers and securely storing all data. The study was designed to ensure non-maleficence, avoiding any questions that could cause harm, discomfort, or expose participants to security risks. Permission was secured from the National Commission for Science, Technology, and Innovation (NACOSTI) and local authorities, and a culturally sensitive approach was adopted, involving local leaders to build trust and facilitate data collection.

A pilot study was conducted to ensure the validity and reliability of the research instrument. According to Saunders et al. (2007), a pilot test on 10% of the sample size is adequate. Therefore, the questionnaire was pre-tested on 30 participants from the neighboring Elgeyo escarpment in Elgeyo Marakwet County, a region with a similar demographic profile to the study area. This process helped to refine the questionnaire and ensure the questions were clear and unambiguous (Saunders, Thornhill & Lewis, 2009).

Validity was established through both construct and content validity. The questionnaire was structured into sections corresponding to the research objectives to ensure construct validity. Content validity was ensured by having the questionnaire reviewed by two experts in the field of study (Bryman, 2008).

Reliability was measured using Cronbach's Alpha coefficient to assess the internal consistency of the questionnaire items (Mugenda & Mugenda, 2003). The pilot study data yielded Cronbach's Alpha values above 0.7 for the majority of the constructs, indicating good reliability and confirming that the instrument would produce consistent results. Any ambiguous items identified during the pilot were revised or removed.

Data from the questionnaires was prepared for analysis through editing, coding, and categorization. The data was then entered into the Statistical Package for Social Sciences (SPSS) version 25.0 for analysis. Both descriptive statistics (e.g., frequencies, percentages) and inferential statistics were used to analyze and interpret the data.

Principal Component Analysis (PCA) was employed to validate measurement scales and reduce the dimensionality of the data. This technique helped identify underlying constructs from observed variables and was applied

to three variable sets: determinants of banditry, interventions, and household welfare measures. The suitability of the data for PCA was verified using the Kaiser-Meyer-Olkin (KMO) and Bartlett's test of Sphericity, with a KMO value above 0.60 and a significant Bartlett's test indicating adequacy. Varimax orthogonal rotation was used to enhance the interpretability of the components.

Multiple Regression Analysis was used to assess the relationships between the independent variables (determinants of banditry) and the dependent variable (household economic welfare).

The regression model was specified as:

$$Y = \beta_0 + \beta_1 X_1 + e \dots \dots \dots \text{Model 1}$$

Where:

Y = Household Economic Welfare (Dependent Variable)

X<sub>1</sub> = Determinants of Banditry (PCA component scores)

β<sub>0</sub> = Intercept coefficient

β<sub>1</sub> = Regression coefficients

e = Error term

## Results and Discussion

### Demographic Characteristics

The results of the household characteristics (Table 1) provide valuable background information about the dynamics of banditry in Kerio Valley. The distribution of respondents across Elgeyo-Marakwet, Baringo, and West Pokot counties ensured that the views obtained reflected the geographical spread of households affected by banditry, thereby enhancing the validity of the study. The findings indicate that a majority of the respondents were male (59%), showing that banditry and its consequences are gendered, with men being more at risk of exposure to banditry as livestock owners, household heads, and protectors of families. At the same time, women often experience the indirect consequences

such as displacement, food insecurity, and loss of household stability.

The age distribution reveals that banditry disproportionately affects households headed by individuals in the 36–55-year age group (46%), which represents the most economically active stage of life. This indicates that raids and insecurity disrupt households during their most productive years, undermining income generation, asset accumulation, and long-term welfare. At the same time, 18% of households were headed by youth aged 18–25 years, reflecting the vulnerability of young families, many of whom lack the resources and coping mechanisms needed to withstand repeated bandit attacks.

The education levels of respondents also illustrate the socio-economic vulnerability of the region. A significant proportion of household heads (33%) had no formal education, while 31% had only primary-level schooling. Only 11% reported tertiary education. This low level of educational attainment limits opportunities for livelihood diversification and confines many households to traditional pastoral and agro-pastoral activities, which are the most targeted by raids. In turn, limited education also contributes to the persistence of poverty and insecurity, reinforcing the cycle of vulnerability.

Occupational data further highlight the dependence of households on livelihoods most affected by banditry. The majority of respondents were farmers (35.9%), followed by business operators (19.3%) and casual laborers (17.2%). Formal employment was relatively low (20.1% combined for government and non-government), underscoring the dominance of informal and agricultural livelihoods in the region. Because banditry primarily targets livestock and disrupts agricultural production, these occupations place households at high risk of losing

their primary sources of income and food security.

Household size also revealed important dynamics in terms of household welfare. Most households had between 4 and 6 members (44%), while nearly a quarter (24%) had 7 to 9 members. Larger

household sizes increase dependency ratios and intensify the burden of recovery from raids, as households struggle to feed, educate, and protect their members when insecurity due to banditry depletes their assets and incomes.

**Table 1:** Demographic characteristics of the respondents

Variable	Category	Frequency	Percentage (%)
<b>Age</b>	18–25 years	71	18
	26–35 years	64	17
	36–45 years	78	20
	46–55 years	100	26
	56 years and above	71	18
<b>Gender</b>	Male	228	59
	Female	156	41
<b>Marital Status</b>	Single	134	35
	Married	193	50
	Widow/Widower	53	14
	Divorced	4	1
<b>Household Size</b>	1–3 members	105	27
	4–6 members	169	44
	7–9 members	94	24
	Above 10 members	16	4
<b>Education Level of Household Head</b>	No formal education	125	33
	Primary education	120	31
	Secondary education	96	25
	Tertiary/college education	43	11
<b>Occupation</b>	Formally employed (Gov't)	46	12.0
	Formally employed (non-Gov't)	31	8.1
	Farmer	138	35.9
	Business	74	19.3
	Casual laborer	66	17.2
	Others	29	7.6

*Source: Research Data, (2025)*

### Descriptive Analysis on Key Variables

#### *Drivers of Banditry*

The findings presented in Table 2 reveal that banditry in Kerio Valley is strongly associated with socio-economic deprivation, weak security presence, and

resource-based conflicts. A majority of respondents (51.8%) strongly agreed and 29.6% agreed that poverty contributes significantly to banditry, yielding a high mean score of 4.16 (SD = 1.09). Similarly, 49.7% strongly agreed and 32.5% agreed that youth unemployment increases banditry, producing the highest mean

score of 4.17 (SD = 1.01). These findings suggest that the absence of sustainable livelihoods and income opportunities pushes young people into raids as an alternative means of survival. They corroborate the arguments by Mkutu (2022), who emphasized that high poverty and joblessness in pastoralist zones perpetuate cycles of violence.

In addition, the study identified structural and institutional weaknesses as significant drivers. Over half of the respondents (52.3%) strongly agreed that easy access to firearms promotes

banditry, reflected in a mean score of 4.16 (SD = 1.08). Equally, 45.6% strongly agreed and 33.1% agreed that limited police presence encourages raids, resulting in a mean of 4.08 (SD = 1.06). These responses highlight how the proliferation of small arms and weak law enforcement capacity enable raiders to operate with minimal deterrence. The results are consistent with Saferworld's (2023) findings, which noted that poor policing and the availability of illicit arms exacerbate insecurity in northern Kenya.

**Table 2:** Descriptive statistics on drivers of banditry

Determinant	Strongly Agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly Disagree (%)	Mean	Std. Dev.
Poverty in households contributes to banditry	51.8	29.6	6.5	7.3	4.9	4.16	1.09
High levels of youth unemployment increase banditry	49.7	32.5	7.0	6.8	4.0	4.17	1.01
Land disputes between communities are a key driver	41.2	36.5	9.6	7.8	4.9	4.01	1.07
Inter-communal tension and mistrust escalate banditry	42.0	34.4	10.2	8.1	5.3	4.00	1.11
Easy availability of firearms promotes banditry	52.3	28.4	6.3	8.6	4.4	4.16	1.08
Limited police presence encourages banditry	45.6	33.1	9.4	7.8	4.1	4.08	1.06
Seasonal livestock mobility leads to banditry	40.5	30.2	12.1	10.3	6.9	3.87	1.14
Porous borders facilitate cross-border banditry	43.1	32.7	9.8	9.1	5.3	4.00	1.12

**Source:** Research Data, (2025)

The study findings also revealed natural resources as well as cultural dimensions as drivers of banditry. About 41.2% strongly agreed and 36.5% agreed that land disputes between communities'

drive banditry, while 42.0% strongly agreed and 34.4% agreed that inter-communal mistrust escalates conflicts, with mean scores of 4.01 and 4.00, respectively. These findings demonstrate

that unresolved boundary conflicts and historical animosities reinforce retaliatory attacks, sustaining cycles of violence. Seasonal livestock mobility also emerged as a relevant but comparatively weaker factor (mean = 3.87, SD = 1.14), with only 40.5% strongly agreeing. This finding suggests that while migration in search of pasture and water exposes livestock to raids, it is not the primary driver compared to factors such as poverty, unemployment, or arms availability.

The porous borders (mean = 4.00, SD = 1.12) were also highlighted, with 43.1% strongly agreeing and 32.7% agreeing that they facilitate cross-border raids. This finding suggests that stolen animals are easily moved into neighboring regions, making recovery difficult and reducing accountability. The qualitative insights from key informants further supported this, noting that cross-border movements often shield perpetrators from law enforcement.

The average mean score across the eight drivers was 4.05, indicating a strong and consistent perception that a combination of poverty, unemployment, arms proliferation, weak policing, and inter-communal tensions drives banditry in Kerio Valley. While seasonal factors such as livestock mobility play a role, structural socio-economic vulnerabilities and systemic governance weaknesses sustain the persistence of banditry.

### ***Household Economic Welfare***

Table 3 provides the perceptions of banditry in Kerio Valley on household economic welfare. A majority of respondents (74.5%) agreed or strongly agreed that banditry has led to loss of livestock, producing the highest mean score of 4.34 (SD = 0.98). This finding reflects the centrality of livestock as a source of household income, wealth, and food security in the region, and confirms that raiding activities directly undermine

household livelihoods. Likewise, 76.3% of respondents agreed or strongly agreed that banditry has reduced household income, with a mean score of 4.21 (SD = 1.06). These results highlight how persistent insecurity erodes both productive assets and regular income streams.

Similarly, substantial proportions of respondents reported that banditry has resulted in loss of household assets such as tools and equipment (mean = 4.12, SD = 1.05) and destruction of farms and reduced productivity (mean = 4.08, SD = 1.09). These findings suggest that insecurity not only affects livestock-based livelihoods but also disrupts agricultural production and the preservation of critical household resources. The perception that banditry forces households to sell assets at low prices to survive was also strongly supported (mean = 4.05, SD = 1.11), further illustrating how raids generate distress coping mechanisms that diminish long-term welfare.

Conversely, some indicators presented a slightly more restrained view of the impact of banditry. The statement that banditry prevents investment in new income-generating activities recorded a lower mean score of 3.98 (SD = 1.12), while forced relocation affecting household livelihoods registered the lowest mean at 3.91 (SD = 1.13). Although these still represent substantial impacts, they suggest that households prioritize immediate losses in livestock, income, and assets over longer-term barriers to investment and resettlement. Similarly, limited access to markets and trade opportunities was rated at a mean of 4.00 (SD = 1.08), showing that disrupted trade routes and insecurity hinder livelihood diversification and economic recovery.

The qualitative data from key informants reinforced these patterns. Respondents noted that repeated raids leave households unable to rebuild assets,

with many families' dependent on humanitarian relief and unable to accumulate savings or reinvest in productive ventures. The average mean score across all indicators was 4.09, indicating a strong and consistent perception that banditry has profoundly undermined household economic welfare

in Kerio Valley. While the most critical dimensions include livestock losses and reduced incomes, secondary effects such as restricted market access and limited investment capacity highlight the multidimensional nature of household vulnerability in the face of persistent insecurity.

**Table 3:** Descriptive statistics on household economic welfare

Statement	Strongly Disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly Agree (%)	Mean	SD
Banditry has reduced my household's overall income	5.2	6.5	12.0	41.4	34.9	4.21	1.06
Banditry has led to loss of livestock which form a key source of income	3.9	5.7	10.4	39.6	40.4	4.34	0.98
Banditry has caused destruction of farms and reduced farm productivity	6.0	7.3	14.1	40.1	32.5	4.08	1.09
Banditry has forced us to sell assets at low prices to survive	7.0	8.1	12.5	39.0	33.4	4.05	1.11
Banditry has prevented investment in new income-generating activities	6.8	9.1	15.1	37.2	31.8	3.98	1.12
Banditry has led to loss of household assets such as tools, equipment etc.	5.5	7.8	13.0	41.7	32.0	4.12	1.05
Banditry has forced relocation, affecting household sources of livelihood	7.3	9.9	15.9	36.5	30.4	3.91	1.13
Banditry has limited access to markets and trade opportunities	6.5	8.6	14.0	38.2	32.7	4.00	1.08

**Source:** Research Data, (2025)

### Factor Analysis Results for Drivers of Banditry

The data underwent sampling adequacy and suitability tests based on

the Kaiser Meyer Olkin (KMO) measure and Bartlett's test of Sphericity before the factor analysis was done. Table 4 is the results of the analysis.

**Table 4:** KMO and Bartlett's test for drivers of banditry

<b>KMO and Bartlett's Test</b>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.659
Bartlett's Test of Sphericity	Approx. Chi-Square	188.157
	Df	7
	Sig.	0.000

*Source: Research Data, (2025)*

KMO value was 0.659, exceeding the minimum required value of 0.5, meaning that the data was sufficient to do factor analysis (Kaiser, 1974). The Test of Sphericity carried out by Bartlett gave an

approximate Chi-Square value of 188.157 and a significant level of  $p = 0.001$  and 7 degrees of freedom. This finding suggests that variables were sufficient for a factor analysis.

**Table 5:** Total variance explained for drivers of banditry

<b>Determinants of Banditry</b>	<b>Component 1</b>	<b>Component 2</b>
	<b>Economic Drivers</b>	<b>Weak Security/Governance Factors</b>
Poverty and unemployment	0.812	0.216
Cattle rustling as livelihood	0.785	0.242
Competition over scarce resources	0.721	0.341
Youth idleness and lack of opportunities	0.693	0.287
Weak policing and law enforcement	0.241	0.801
Proliferation of small arms	0.326	0.774
Political incitement	0.293	0.732
Inadequate state presence in remote areas	0.347	0.694

**Extraction Method:** Principal Component Analysis

*Source: Research Data, (2025)*

The results presented in Table 5 show that all the variables had loadings above 0.5 in at least one component, confirming their suitability for the analysis. Two dominant components emerged from the analysis: economic drivers and weak security/governance factors. The first component, economic drivers, consisted of factors such as poverty, unemployment, competition over scarce resources, cattle rustling as a livelihood activity, and youth idleness. The second component, Weak security and Governance Factors, was defined by weak policing, proliferation of small arms, political incitement, and inadequate state presence in remote areas. These two

dimensions accounted for most of the variability in the determinants of banditry, thus providing a clear framework for interpreting the underlying causes.

#### **Factor Results for Household Economic Welfare**

Table 6 presents the results of the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's test of Sphericity for household economic welfare. The KMO value of 0.782 indicates a good level of sampling adequacy, suggesting that the variables under household economic welfare share enough common variance to justify the use of factor analysis. Bartlett's test of Sphericity produced an approximate Chi-square value of 283.374 with 7 degrees of

freedom and a significance level of  $p < 0.001$ , confirming that the correlation matrix is not an identity matrix.

**Table 6:** KMO and Bartlett’s test for household economic welfare

<b>KMO and Bartlett's Test</b>			
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.			.782
Bartlett's Test of Sphericity	Approx. Chi-Square		283.374
	df		7
	Sig.		.000

*Source: Research Data, (2025)*

Table 7 shows Total Variance explained for the variable. The table compares variance of each component with the total variance of all the 8 items and indicates the percentage of variance and cumulative percentage before and after rotations. The results show that household economic welfare indicators under the influence of banditry were reduced into three main components with eigenvalues greater than one. The first component accounted for 40.18% of the total variance, the second explained 23.08%, while the third contributed

13.90%. Together, these three components explained 77.15% of the cumulative variance, indicating that they captured a substantial proportion of the information contained in the dataset. The remaining five components each had eigenvalues below one and explained minimal variance, suggesting they were not retained for further interpretation. This outcome implies that the economic effects of banditry on households can be effectively explained through three dominant dimensions.

**Table 7:** Total variance explained for household economic welfare

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.214	40.175	40.175	3.214	40.175	40.175
2	1.846	23.076	63.251	1.846	23.076	63.251
3	1.112	13.902	77.153	1.112	13.902	77.153
4	0.621	7.764	84.917			
5	0.514	6.425	91.342			
6	0.369	4.615	95.957			
7	0.218	2.728	98.685			
8	0.105	1.315	100.000			

**Extraction Method:** Principal Component Analysis

*Source: Research Data, (2025)*

Table 8 presents the rotated factor loading matrix for household economic welfare. The results show that the items clustered into three clear components. The first component, labelled Income and Assets Loss, loaded strongly on statements relating to reduced household income, livestock loss, destruction of farms, forced sale of assets, and loss of household tools and equipment. This suggests that banditry directly erodes household earnings and asset ownership, weakening families' economic base. The second component, Livelihood Disruption, was defined mainly

by strong loading on forced relocation, with moderate contributions from destruction of farms and loss of household assets. This indicates that displacement and instability undermine households' capacity to sustain productive activities. The third component, Market and Investment Constraints, was characterized by high loadings on limited access to markets and prevention of investment in new income-generating activities. This points to the way banditry obstructs long-term economic development by reducing opportunities for trade and future-oriented investment.

**Table 8:** Factor loadings for household economic welfare

Statement	Component 1 (Income & Assets Loss)	Component 2 (Livelihood Disruption)	Component 3 (Market & Investment)
Banditry has reduced my household's overall income	0.812	0.274	0.191
Banditry has led to loss of livestock which form a key source of income	0.857	0.201	0.178
Banditry has caused destruction of farms and reduced farm productivity	0.791	0.334	0.211
Banditry has forced us to sell assets at low prices to survive	0.776	0.291	0.229
Banditry has prevented investment in new income-generating activities	0.244	0.201	0.801
Banditry has led to loss of household assets such as tools, equipment etc.	0.733	0.328	0.297
Banditry has forced relocation, affecting household sources of livelihood	0.315	0.842	0.214
Banditry has limited access to markets and trade opportunities	0.298	0.228	0.816

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

**Source:** *Research Data, (2025)*

**Correlation Analysis**

Correlation measures the strength or the extent of association between variables and the direction, where coefficients values range from -1 to

+1. Pearson’s Product-Moment Correlation test was applied to analyze correlations among variables and the findings are presented in Table 9.

**Table 9:** Correlation Analysis results

Variables	Determinants of Banditry Household Economic Welfare	
Determinants of Banditry	1	
Household Economic Welfare	-.586**	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Source: Research Data (2025)

The results in Table 9 indicate that the determinants of banditry showed a negative and significant correlation with household economic welfare ( $r = -.586, p < 0.01$ ) suggesting that persistent socio-economic and structural causes of banditry reduce households’ resilience capacity. The results are similar to those of Chemase and Muhindi (2024), who found that banditry in Baringo South leads to a loss of income, displacement, disrupted businesses, and school closures. This demonstrates the various ways banditry negatively affects a household's ability to cope with economic shocks. Similarly, a report by the Kenya Institute for Public Policy Research and Analysis (KIPPRA) (2024) highlighted that in Arid and Semi-Arid Lands (ASALs) like the Kerio Valley, banditry causes disruptions in education and agriculture, leading to a general economic decline. This supports the conclusion that the determinants of banditry directly undermine economic

stability. Furthermore, Osamba (2000) provided a similar analysis, identifying the socio-economic and structural roots of banditry as resource competition, the easy availability of firearms, and the political marginalization of certain regions.

**Hypothesis Testing**

The hypothesis stated that drivers of banditry have no statistically significant effect on household economic welfare. From Table 10, the beta coefficient for determinants of banditry was ( $\beta = -0.317, t = -4.593, p < 0.05$ ). The null hypothesis was rejected due to the significant  $p$ -value, indicating that determinants of banditry exert a statistically significant negative effect on household economic welfare. This shows that variations in factors driving banditry reduce household economic welfare by 0.317 units per unit increase in these determinants. The  $t$ -value of -4.593 suggests the effect is strong relative to the standard error.

**Table 10:** Regression Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.
	$\beta$	Std. Error	Beta	t	
(Constant)	1.214	0.218	—	5.569	.000**
Determinants of Banditry	-0.317	0.069	-0.346	-4.593	.000**

a. Dependent Variable: Household Economic Welfare

Source: Research Data, (2025)

From Table 10, the beta coefficient for determinants of banditry was ( $\beta = -0.317$ ,  $t = -4.593$ ,  $p < 0.05$ ). The null hypothesis was rejected due to the significant  $p$ -value, indicating that determinants of banditry exert a statistically significant negative effect on household economic welfare. This shows that variations in factors driving banditry reduce household economic welfare by 0.317 units per unit increase in these determinants. The  $t$ -value of  $-4.593$  suggests the effect is strong relative to the standard error. Empirical work in Baringo and the wider North Rift documents reduced earnings, forced distress sales of livestock, and business disruption, aligning with your negative coefficient and the scale of the  $t$ -statistic (Chemase & Muhindi, 2024; Musau et al., 2023). Government crime research further links raids to arms proliferation, weak security presence, and cross-border mobility structural drivers your model aggregates into a single index that moves household welfare downward as it intensifies (NCRC, 2024).

## Conclusion

Poverty, youth unemployment, land disputes, and inter-communal mistrust are major drivers of banditry, according to the findings. Easy access to firearms and limited police presence were also identified as key contributing factors. While seasonal livestock mobility and porous borders were also mentioned, they were considered less significant. The effects of banditry on households are substantial, leading to significant economic losses. These include the destruction of farms, forced sale of assets at low prices, and loss of livestock and income. The insecurity also restricts households from making new investments, forces them to relocate, and limits their access to markets. These findings show that the causes of banditry are rooted in socio-economic and

structural issues, and its consequences severely weaken household finances and long-term stability. A regression analysis confirmed that the factors driving banditry have a significant negative impact on household economic welfare. This means that as socio-economic and governance-related issues worsen, the well-being of households in Kerio Valley declines. The analysis further demonstrated that a rise in banditry-related factors directly leads to a substantial reduction in household income, assets, and overall livelihood stability.

## Recommendation

Based on the study findings, the study suggests the following targeted recommendations;

The National Government through the Ministry of Interior and Coordination of National Government should strengthen security operations in Kerio Valley by increasing police presence, enhancing intelligence systems, and tightening control over the proliferation of firearms. The study showed that easy access to weapons and limited security patrols embolden perpetrators; therefore, coordinated disarmament programs and enhanced border surveillance will reduce opportunities for armed attacks.

The County Governments of Elgeyo-Marakwet, Baringo, and West Pokot should prioritize economic empowerment programs, especially for youth and vulnerable households. The results indicated that poverty and youth unemployment are key drivers of banditry. Expanding vocational training, creating agribusiness opportunities, and supporting micro and small enterprises through affordable credit can provide alternative livelihoods that reduce reliance on violent practices for survival.

The National Land Commission and local leaders should expedite conflict resolution mechanisms related to land

disputes and communal boundaries. Since land-related grievances were identified as a major cause of inter-communal mistrust and violence, participatory land adjudication, community dialogue forums, and peacebuilding initiatives should be institutionalized to foster coexistence among communities.

The Ministry of Agriculture and Livestock Development should develop structured livestock management systems to address seasonal mobility challenges that often trigger raids. Establishing designated grazing corridors, water points, and livestock insurance schemes can reduce tensions and safeguard household assets, which the study found to be highly vulnerable to banditry-related losses.

Local community-based organizations (CBOs), religious institutions, and elders' councils should intensify grassroots peacebuilding and trust-rebuilding efforts. The findings showed that mistrust among communities' fuels violence. Programs that encourage inter-communal dialogue, cultural exchange, and reconciliation can strengthen social cohesion and resilience against conflict drivers.

Finally, humanitarian agencies and development partners should support recovery programs for displaced and affected households. The results demonstrated that banditry significantly reduces household income, destroys farms, and forces asset sales. Targeted interventions such as cash transfers, farm input subsidies, and psychosocial support can help restore livelihoods and improve household welfare in the long term.

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