Farm Crime Experiences and Effects on Livelihood in Awendo Sub County, Kenya

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Abstract: This study dealt with farm crime experiences and effects on livelihood in Awendo sub County in Kenya. The study employed a descriptive survey design, using the mixed methods research approach, with a sample of 384 respondents. The study used a questionnaire, an Interview schedule and Focus Group Discussion as sources of data. Data was analysed using descriptive statistics and thematic approach. Based on the findings, the study concluded that distinct patterns of farm crime victimization existed in Awendo. They involved offences like night attacks on isolated farms. The study found a rising trend in farm-related crimes, mainly when crops are ready for harvest. In response, local authorities and community leaders should implement targeted security patrols and community watch programs, focused on vulnerable farm locations, especially at night. Law enforcement agencies should raise farmers' awareness of the importance of environmental security measures, including improved lighting and fencing, especially during high-risk times.

Keywords: Patterns; farm crime; victimization; livelihoods; antisocial groups.

Introduction

Crime is often associated with urban settings due to the formation of antisocial groups in such areas (Bahriny & Bell, 2020). Antisocial groups, according to Ceccato and Abraham (2022), refers to as antisocial organizations or entities, encompassing a range of groups characterized by behaviors that deviate from societal norms and often operate against the interests of society. However, rural areas where around 50% of the world's population lives also have serious crime problems (Ceccato & Abraham, 2022). According to Svircev et al. (2018), 3.1 billion people live in rural areas. These people dependent on agriculture and suffer issues related to crime that have an impact on their life.

Property-related victimization, as defined by Farrington and Welsh (2007), is the term used to describe criminal activities that target a person's

possessions or property and cause them to suffer loss, harm or disturbance. This may result in monetary losses and psychological pain (Donnermeyer, 2016). Communities in Africa, including the Zulu, Shona, Asante, Somali and Maasai experience attacks and damage as a result of weakened security, which has an impact on social and economic factors (Bunei & Barasa, 2017). Farm crimes are more prevalent in rural than urban regions, even in nations like Kenya, where farming is essential for life (Kamau et al., 2018). Theft, burglary, robbery and other crimes involving farms can have a negative financial and personal impact.

These difficulties are demonstrated by the case of Migori County in Kenya. Residents are terrorized by the 24 Brothers group, which causes fear among the people and they kill people causing fear to those passing through farms (Bunei & Barasa, 2017). According to Kempen (2019), the area is plagued by a number of farm-related crimes, such as stock theft and burglary. The prevalence of these crimes adds to the populace's sense of unease.

In a farming community, the ideal situation should exhibit existence of a strong sense of safety among residents. They should work together to create a supportive and safe environment. To ensure safety, there should be effective law enforcement agencies continually controlling and preventing insecurity cases in church. Regular patrols and visible police presence deter criminal activities and ensure prompt incident response (Smith, 2018). Additionally, well-maintained infrastructure, such as properly lit roads and secure storage facilities discourage potential crimes. Awareness programs should also be available to keep people informed and prepared to handle continuous attacks in the farming areas.

In Kenya, it is evident that farm crime experienced continues to be a severe social, economic and cultural challenge among the farming communities (Bunei, 2018). Due to the widespread nature of agricultural crime victimization in Awendo Sub-County, there is a need for researchers to examine farm crime victimization effects on farmers' incomes and possible solutions to the problem.

Literature Review

This section presents empirical literature on patterns of farm crime victimization and their effect on the livelihoods of victims. Besides, the theories that underpinned the study are also presented.

Frequency of Farm Crimes

Farm crimes have taken varied dimensions in Kenya as country among the farming areas. They appear in forms of livestock theft, cane fires, farm tools stealing and other offenses (Bunei et al., 2013). Rono (2016) revealed increased cases of onslaught on agricultural operations within the farm areas thus, heightened farm related crimes. Through stealing of the farming products, victim homes face increased cases of loss within affected homes.

In Jamaica, banana theft has been on the rise, thus discouraging farmers from concentrating on such product plantations due to fear of loss loss (Weis, 2006). Spain, among other countries has witnessed an increasing cases of farm related theft, including orange and garlic theft. Negative influence on agricultural performance leads to increased cases of food insecurity and inability to attain individual family sustainability as they fail to daily meeting their livelihood.

Grote and Neubacher (2016) contended that because offenders increasingly weigh the costs and rewards, farm-related crimes have changed from opportunistic acts to systematic operations. They plan abnormal actions and aim for low-risk, high-reward circumstances. Research in Kenya shows how farmers' practices contribute to an uptick in violence at night when farms are deserted. A predictable pattern is created for potential offenders by farmers' consistent routine of early waking up to farms, lengthy days on the farm and early night time returning home. Motivated criminals are able to recognize and target farms due to this predictable routine. This impression emphasizes how offenders could plan their acts to accomplish their illicit objectives as they can easily predict the ease of most farm access.

Research by Nyamohanga (2017) on farm crime attacks in Kuria Sub-County disclosed that crime against farms is widespread and costly due to farmers' continuously victimised. Farming area setup's remote nature makes the farmers reluctant to report crimes to the police; many victims suffer the loss and remain unreported. Farmers mostly use portable equipment or machines that offenders can easily carry, therefore an easy target for theft (Bunei, 2014). Research revealed that criminals mostly target highly market demanded products from the farms including maize, beans and sugarcane (Smith et al., 2022). This makes it possible for potential offenders to commit the offenses

within the shortest time possible as long as it is planned early. Clack and Minnaar (2018) revealed that most offenses occur at night when the farm places are not guarded and the perpetrators have the least risk of being caught.

Settlement patterns influencing farm crime victimization

Sparse settlement patterns in farming areas promote repeated crime victimization. Since the area is primarily remote, there is a likelihood of less awareness of crime patterns. Homes are far from each other, so there is limited social networks, as massive farm plantations separate each homestead. Reaching an inhabited place takes a long distance, but most large tracks are under farm coverage (Smith et al., 2020).

In seeking to explain crime patterns, this study engaged farmers across the region. The feedback was based on the targeted victim's narration of who the offenders were and why they chose certain groups of people in the area. Settlement choices influenced farmers' victimization since they remained vulnerable due to a lack of proper crime control measures. According to Bunei and Barasa (2017), farms are extensively covering larger portions of land separating villages. This has impact on settlement as people sparsely settle into this region. Due to the sparse population, offenders can easily create fear as many are unwilling to run for support across versed pieces of land.

Settlement patterns and the land layout are linked to the socio-economic structure of the agricultural land, thus defining the social features of the people inhabiting such regions. The topographical appearance of the land influences the settlement patterns. Many avoid remote areas and next to river banks, thus sparse settlement with people concentrating on certain parts leaving vast land disserted with only large sugarcane potations (Bunei, 2018). This aspect of settlement layout influences negatively the social life within the farming areas as the deserted places remain as hiding places for criminals (Donnermeyer, 2016).

In the views of Bunei et al. (2013), a steady rise in population in Kenyan countryside regions has influenced settlement patterns, routine life and activities. The increasing cases of high cost of living among people across major agricultural regions have contributed to abandoning average dependence on farming and engaging in alternative survival means, including theft, to make ends meet.

Since they cannot sustain their daily basic needs provision, some are attracted to target their fellow villagers targeting the farm produce like chicken and even house breakings. Social life changes are the genesis of most social problems as the settlement dynamics influence preferred relations, making people susceptible to victimization (Smith et al., 2020).

Compromised Level of Security in Plantations

The farm-related offenses experienced in farming regions include robbery, kidnapping, thefts, conflicts over land, cattle rustling and night attacks. Literature by Clack and Minnaar (2018) reveals that contact with farm victims exposes how they suffer unexpected home attacks at different times within their homes. It further reveals that offenders target and wound the victims in their homes by gaining access to their premises at specific times. Victims target the farmers together with their families, whom they find in the surroundings in case of home attacks (Abraham & Ceccato, 2022). The ease of penetration to homes surrounded by farms makes farmers vulnerable to experiencing crimes since the safety of their homes is largely compromised.

According to Clack and Minnaar (2018), research in South Africa discloses that the effects of farm-related attacks range from emotional suffering, including repairing damages, to covering more emotional needs like arranging for burial programs of the dead within the community to financial loss. At the time of the commission of the farm-related offenses, perpetrators arm themselves with dangerous weapons that make it easy for them to cause fear and they escape easily without community retaliation (Miethe & Meier, 1994). Most farmers are attacked and left with severe injuries or death, using dangerous weapons.

Compromised security trends are increasing, especially for farmers near roads or trading centres. The trend thus reveals increased victimization with homes located far away from police stations. The preferred farming practices in most Kenyan counties have been animal keeping and crop production. This leads to a rise in farm theft during harvest periods and the movement of livestock in search of pasture (Hilson, 2016). Kamau (2017) associates the crime commission with poor visibility at certain hours of the day or night. With increased victimization among farmers, poor living standards escalate, resulting in poor living conditions leading to failure to meet daily provisions. The literature concludes

that victimization causes fear among farmers, making them susceptible to attacks.

Farm Crime Perpetrators' Pattern
Gender is an essential aspect of understanding farm crime patterns (Jones, 2017). According to Landersø et al. (2017), violent offenses are often committed by male persons. Apart from age, offenders are also identified within the community by their sexes. Particularly, young male people in the community are considered responsible for most offenses committed in society.

According to Okoth (2018), parenting influences suggest that differences in offending patterns in males and females vary depending on how boys and girls are treated in the community. Research associates most of the offenses in society with males due to their masculinity and aggressiveness (Hilson, 2016). Crimes among boys could be harming parents as they risk attack even from their sons within their homes.

Theoretical Framework

This study was guided by the Routine Activity Theory (RAT), authored by Lawrence E. Cohen and Marcus Felson in 1979. The theory focuses on converging a potential offender, a suitable target and the absence of a capable guardian. According to the theory, criminal activities are influenced by daily social interaction patterns between offenders and victims. In the context of the study problem, the theory helps explain patterns of farm crimes and the environmental exposures contributing to them. The theory analyses causal factors and existence of

prevention of crimes in the study area (Bunei & Barasa, 2017).

Large tracks of land under the coverage of mature canes contribute to lack of effective guardianship. Property exposure in these areas provides hiding places and opportunities for offenders to escape without being identified (Bunei, 2018). Literature further discusses the increased theft risk due to heightened market demand for agricultural products. The theory suggests increasing the efforts offenders must make to commit a crime, identifying trends in violations and implementing measures to reduce offence chances. Strategies mentioned are specified differently, such as fencing, fixing gates and having guarded entry points on farms to manage the possibility of offenses (Smith, 2018).

Methodology

Design
The study employed a descriptive survey design, using the mixed methods research approach where quantitative and qualitative data was infused.

Population and Sampling
The study was conducted in Awendo Sub-County, with a total population of 117,290 persons (Okyere *et al.,* 2024). Stratified random sampling was employed to achieve the desired representations by dividing the respective class of respondents into strata, according to location, farm size and gender. The following formula was used to determine the sample size (Singh & Masuku, 2014).

$$N = \frac{z^2 pq}{d^2}$$

Where:
n = the desired sample size (if the target population is more significant than 10,000)
z= the standard average deviation at the required confidence level, which the formula used 1.96, representing a 95% confidence.
P= the proportion in the target population estimated to have measured characteristics (0.5 used for sample size needed on crime experiences constant figure of 0.5 used.
Q = 1- p (Proportion in the target population not having the particular characteristics).
D = degree of accuracy required, usually set at 0.05 (the level of significance being set)

Normally, n = $\frac{(1.96)^2(0.50)(0.50)}{(0.050)^2}$ = X

n= $\frac{(3.8416)(0.25)}{(0.0025)}$ =........

Thus, from the formula n = $\frac{(0.9604)}{(0.0025)}$= ....

n= $\frac{(0.9604810000)}{(0.0025)810000}$= ....

n= $\frac{9604}{25}$ = ...

Therefore, n=384

Instruments

The study used a questionnaire targeting 384 respondents, an Interview schedule targeted 14 key informants and eight Focus Group Discussants, two from each location.

Validity and Reliability

The validity of the study questionnaire was ascertained using expert review. The researchers assessed the content validity of the research instrument by seeking assistance from experts on the topic of the study. The researchers conducted a pilot study to test and determine the reliability of data collection instruments from Rongo Sub-County, which was not part of the final data collection study area. The reliability of the study's instruments was determined using the test-retest technique, where Cronbach's Alpha Coefficient of reliability was computed. Data from the first and second tests were subjected to Cronbach's Alpha tests, and a coefficient of reliability of 0.791 was realized, which was higher than the 0.7 thresholds r behavioral sciences.

Statistical Treatment of Data

Quantitative data from the questionnaire was analysed using descriptive statistics with the help of the Statistical Package for Social Sciences. Qualitative data was analysed thematically in line with the study objectives and presented concurrently with quantitative data.

Ethical Considerations

The study ensured informed consent and confidentiality and anonymity of respondents. Moreover, the researchers considered the potential for harm by keeping obscurity as some of the information obtained involved security matters to be preserved, hence needing strict confidentiality. Finally, the researchers adhered to research integrity rules by accurately reporting the study's findings without any changes, exaggerations, alterations or falsification.

Results and Discussions

This section presents the results of the study, guided by research questions and discussed through literature.

Research Question 1: What is the perception of respondents on the existing of farm crimes?

The first research question sought to establish whether there exist crimes in the region. Respondents were asked whether they had experienced farm crime for the last 12 months. Results show that 291 (81.51%) of the respondents had experienced farm crime while 66 (18.49%) reported not having experienced any form of farm-related crime. Therefore, most of the respondents had experienced farm crime victimization, hence were competent in providing accurate information that was useful in addressing the research objectives. The interview findings supported this findings in the following narrations:

> There have been numerous cases of farm crime victimization reported in the location. This has been a menace since a large number of community members are affected. It is disheartening to realize that it is not easy to nab farm criminals, given the discrete nature with which they operate (R1 23/12/2022, Central Sakwa).

During a Focus Group Discussion, a respondent revealed,

> Farm crime victimization is so prevalent that one has to go an extra mile of securing the farm by employing security guards to look after the crops. This is because we normally invest heavily in farming that any loss through theft reverses leads to serious disruptions of livelihoods, particularly for the small-scale farmers. Farm inputs have gone up in price and all efforts must be made, particularly towards harvesting, to ensure that farms are secured from thieves (R5 29/12/2022, Central Sakwa).

Another respondent reported,

> Some of our neighbors are drunkards and always look out for opportunities to make easy money through theft of farm produce. Such neighbors hardly do any farming activities and yet they have large farms from land that they have leased out and used up all the money in drinking alcohol. They rely on stealing from other people's farms to make it in life.

Contrarily, a study in the US by Miethe and Meier (1994) showed that only 38% of people in the farm areas had experienced crimes. This variation may be explained by factors such as reporting systems and socioeconomic background. A high prevalence of agricultural crime victimization in America was similarly reported by Johnson et al. (2022) and

Smith et al. (2022). Johnson *et al.* (2022) found that over 70% of respondents had experienced farm-related crime, while Smith et al. (2022) established a similar victimization trend in America, highlighting how persistent this problem is in farming regions.

When asked whether farm crime cases increased or decreased, the findings show that the majority of respondents (56.86% considered the farm crimes increasing while 43.14% considered the crimes decreasing. Therefore, the majority vote indicates that farm crimes were in the increase trends. Interview data further revealed,

> Cases of farm crime victimization have been on the increase in the past few years due to the general economic hardships that everybody has been experiencing. With the increase in the prices of fertilizers and abandoning sugarcane farming one can see as the sole source of earning in this area, many people are not able to invest into farming, and some resort to stealing from other people's farms as a survival strategy (R3 24/12/2022, Mariwa).

Research question 2: How did farm crimes affect the victims?

Those who had experienced farm crime were asked to state how farm crime victimization had affected them. It was reported that 137 (47.08%) of the respondents reported loss of investment as farm crimes affected them, thus negatively impacting their livelihood. Furthermore, 74 (25.43%) reported loss of time and resources as a way in which farm crime affected them. For instance, one of the respondents revealed,

> I have abandoned farming and leased my entire farms to an investor who is now planting rice and tomatoes since I was making losses every year due to farm crime victimization. It was not possible to

continue venturing into farming and making loses every year. The investor who took over my farm paid me Kshs. 15,000 per acre and I used the money to buy dry maize, beans and millet that I have been feeding my family on (R7 04/01/2023, Kanyamgony South).

Furthermore, 51 (17.53%) reported emotional anguish as a way in which farm crime affected them, and 9.96% (29) reported suffering anxiety and restlessness as a result of farm crime. Similarly, a study by Barclay and Bartel (2015) in Australia revealed that large-scale and medium-scale farmers who practiced commercial agriculture suffered losses in the loss of farm produce through theft of farm products and damage to their means of livelihood.

As they regarded farming as an investment, farm crime has caused the farmers losses, denying them an opportunity to earn an income from their farm investment, thus revealing the effect on their daily livelihoods. They further aver that farming is an expensive investment in farm inputs and labour costs, and any pilferage erodes the potential return on investment for the farmers, strongly reducing livelihood or survival means.

Research question 3: what is the view of respondents on farm crime trends?

The respondents described trends in the crimes that took place as indicated in Table 1. Results show that 135 (37.82%) of the respondents stated that farm crime occurs at night while 89 (24.93) indicated that farm crimes happened near roads. A Focus Group Discussion revealed that "These thieves normally operate at night when people are not in their farms the acts of farm crime involve young men as the majority of the perpetrators judging from cases where our farm guards have made a few arrests" (R5 29/12/2022, Central Sakwa).

Table 1: Farm Crime Trends

Trends in Crimes	Frequency	Percentage (%)
Crime occurs mostly at night	135	37.82
Crime occurs during harvesting	71	19.89
Crime occurs when it rains at night	62	17.37
Farmers living in easily accessible places are highly victimized	89	24.93
Total	**357**	**100.0**

Furthermore, 71 (19.89 (71%) showed that farm crimes occurred during harvesting time and 62 (17.37%) indicated that farm crimes occurred at

night and when it was raining. The interview supported the timing of farm crime during the harvest time when farms are most vulnerable to

attacks by farm criminals due readily available market of the produce. One of the respondents reported,

> Farm crime victimization is predictable since it happens mostly towards harvesting when farm produce ready to be converted into food or cash through the sale of the same. We always endeavor to deploy officers on night patrol duties during harvesting to deter farm produce theft, and we also involve the community in policing to help identify criminals among them (R2 23/12/2022, Awendo Police Post).

They also suggests that farmers must be alert, mainly when their produce is ready for harvest. From these findings, it is clear that most respondents witnessed farm crimes at night hours, during harvesting time, during raining time, and close to roads.

Respondents indicated that some specific food crops were more at risk of attracting farm crime victimization. For instance, one of the respondents reported, "Over the previous planting seasons, there have been repeated crime cases. I have lost maize, millet sorghum, bananas, beans, ground nuts and green vegetables from my farm (R6 04/01/2023, North Sakwa).

Findings revealed that 47.34% of the respondents were of the view that there was a link between farming type and farm crime. For instance, large plantations experienced more farm crime as compared to small farms. The large-scale farms provided hiding places for thieves and offenders. Verkaart et al. (2018) revealed similar trends that, given the vastness of large farms, it is not always easy to guard the farms and get rid of farm crimes. Therefore, large farms became targets of farm crimes partly due to the difficulty involved in detecting such crimes.

The majority (84.87%) registered that farm crimes were attributed to specific locations. Farms closer to main roads were the most targeted for farm crime. One of the respondents, for instance, revealed,

> Several factors predispose farms to crimes, and the key among those factors is proximity to roads and the distance from the farm to the nearest home. Farms that appear easily accessible and less watched

over are more prone to farm crime victimization (R4 28/12/2022, Siruti).

Conclusions and Recommendations

The study concludes that distinct patterns of farm crime victimization exist in Awendo. Farm crimes are influenced by situational factors, such as nighttime hours and rainy periods. There is a rising trend in farm-related crimes, mainly when crops are ready for harvest. This trend underscores the need for enhanced security measures, especially during high-risk periods. Rural crimes are a critical concern that requires tailored interventions.

The study recommends that there is a need for security patrols and community watch programs, focused on vulnerable farm locations. Law enforcement agencies should raise farmers' awareness of environmental security measures. Finally, agricultural extension officers and local governments should work with farmers to establish harvest-time security protocols and facilitate access to affordable security tools, such as cameras and alarm systems.

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