



ISSN: 0975-833X

RESEARCH ARTICLE

FACTORS INFLUENCING REPORTING OF AGRICULTURAL CRIMES IN KENYA

***Bunei K. Emmanuel, Rono K. Joseph and Chessa R. Samuel**

Department of Sociology and Psychology, School of Arts and Social Sciences Moi University,
P.O. Box 3900, Eldoret, Kenya

ARTICLE INFO

Article History:

Received 13th September, 2012
Received in revised form
29th October, 2012
Accepted 18th November, 2012
Published online 18th December, 2012

Key words:

Agricultural Crimes,
Reporting,
Farms,
Victims,

ABSTRACT

The reporting of crime is very important especially for effective policing. Several studies have shown that there are three factors that affect reporting practices of the victims. One's decision is determined by either individual, incident or environment factors. The present study sought to test influence of these factors in crime reporting using seven types of agricultural crimes. A survey was conducted to a randomly selected 200 farming households in Uasin Gishu District in Kenya. Logistic regression analyses were done to test the influence of all factors. The findings show that individual and incident types have high impact on victims' decision to notify police.

Copy Right, IJCR, 2012, Academic Journals. All rights reserved.

INTRODUCTION

Most crimes recorded by police results from victim's notification which tend to under estimate criminal statistics (Levitt, 1998, Barclay, 2003 and Anderson and McCall, 2005). It is even worse for property crimes which on average are less likely to be reported as compared to violent crimes such as murder, assault etc (Goudriaan, Wittebrood, and Nieuwbeerta, 2004). Criminal statistics reflect those crimes that are recorded: crimes that are either detected by police or reported to police and verified. However, officially reported crimes are underestimated since they are dependent on the willingness of the victims to report or presence of police. Several studies have shown that half of victimizations are reported with those incidents involving great financial loss and injury being reported most and crime reporting plays a crucial role in actions and reaction by criminal justice institutions (Barclay, 2003; Carcach, 1997; Bennett and Wiegand, 1994; Greenberg and Beach, 2004). As Barclay (2003) states, lack of reporting of crime limits the deterrent capability of the criminal justice system, contributes to the misallocation of police resources, it renders victims ineligible for public and private benefits and it helps shape the police role in society. A victim's decision to report crime is contingent on a number of factors such as individual characteristics of the victim, victim-offender relationship, kind of criminal incident, economic value of goods stolen, the likelihood of recovery or compensation for lost property, damage or loss, and attitudes toward the criminal justice system in general (Carcach, 1997, Barclay, 2003). As Greenberg and Beach (2004) puts, property crime notification to police is determined by social, cognitive and affective

factors. Cognitive factors refer to the process of weighing the cost of crime against benefits of reporting crime. Victims of crime make a conscious or unconscious choice in deciding to report crime by weighing the benefits versus the cost of reporting. The likely benefits include the prospect of recovering the stolen goods, the gratification of seeing offenders punished and brought to justice, and the protection of the victim and others from future victimization. The costs include resources and time used to recover stolen items, reprisal, sanctions and disapproval by community members (Felson, 2002; Gottfredson and Gottfredson, 1987; Skogan, 1984; Barclay, 2003 and Greenberg and Beach, 2004). Studies consistently show that the greater the monetary loss the higher the chances of reporting crime (Greenberg and Beach, 2004 and Barclay, 2003). Research has shown that crimes that are emotionally disturbing are more likely to be reported than those that have less impact on a victim's mental state (Greenberg and Beach, 2004). The emotional arousal that occurs when a person loses property or damage is detrimental to one's quality of life includes stress, anger, resentment and frustration can predispose one to report crime. Social determinants entail factors outside an individual, namely the consultative process in making a decision to report crime (Greenberg and Beach, 2004).

Individuals usually face two categories of cost relating to reporting. Direct cost relates to the cost of goods stolen and indirect cost includes the expense of recovering the stolen goods and the potential impact of reporting suspects. When the cost of goods stolen is high, the probability of reporting is high. The indirect cost of reporting acts as a disincentive by making it less attractive to notify the police because the long term impact may erode the essence and benefit of reporting. These disincentives include fear of reprisal from offenders,

embarrassment at having been victimized, disapproval from others in the community where cooperation with governmental officials is frowned on, and fear of formal sanctions for victims themselves who have engaged in illegal activities (Carcach, 1997, Bennett and Wiegand, 1994 and Zhang *et al.*, 2007). The strength of these incentives will depend on personal assessment of the capacity of the police to do something about the crime. In addition, crime reporters may incur nontrivial opportunity costs, especially if victims are required to participate in a prolonged adjudication process (Felson, 2002). Cost can be measured in terms of injury sustained or material loss and whenever these impacts are higher than benefits, there is high chance of reporting to the police than when injury or loss is less. This line of reasoning provides a rationale for expecting a relationship between the seriousness of an incident and crime reporting: The more serious the crime, the greater the desire for retribution and protection (Barclay, 2003 and Greenberg and Beach, 2004). Bennett and Wiegand (1994) have identified three factors that determine crime reporting namely: incident-specific, individual-specific and environmental specific factors. According to the authors, there is a hierarchical ranking in which the incident-specific correlates (especially the seriousness of the offense) are the most powerful predictors followed by the victim specific factors. Typically, the environment-specific factors have the weakest effects on crime reporting (Bennett and Wiegand, 1994 and Barclay, 2003).

Individual-specific factors

The individual-specific factors encompass major demographic characteristics for personal victimization, such as gender, age, race, and education (Hindelang and Gottfredson, 1976; Skogan, 1984). Individual decisions to contact police when victimized play a significant role in explaining crime reporting. Demographic characteristics such as age, marital status, education level, employment status and gender have been known to explain crime reporting variations (Barclay, 2003 and Zhang *et al.*, 2007). Age has shown a significant prediction with older victims being more likely to report than younger (Barclay, 2003; Gottfredson & Gottfredson, 1980). Barclay (2003) found that farmers who had farmed for a long time and those aged more than 50 years were more likely to report. Gender plays a role in determining the likelihood of reporting with women having the high tendency of reporting than men (Skogan, 1984). Differences across income levels and employment status alike do not appear conspicuous, although a little variance exists depending on the type of crime (Skogan, 1984; Zhang *et al.*, 2007). Repeat victimization experience has a significant relationship with the likelihood of reporting. Depending on the action taken by criminal justice system on the first incidence, victims may be motivated or de-motivated to report theft. A study conducted in China by Zhang *et al.* (2007) found that prior victimization rendered the victim more isolated from society, making the victim more reluctant to call the police. Prior victimization will test the relationship between victims and the police and if the victims felt that they were not helped during the first incidence, they will be less likely to seek police intervention. A belief that the police would not be able to do anything greatly determines the decision to report.

Incident-specific factors

The incident-specific factors refer to the nature and situational characteristics of the criminal incident, such as injury,

monetary loss, and the victim-offender relationship (Gottfredson and Hindelang, 1979; Goudriaan, Lynch, and Nieuwbeerta, 2004; Skogan, 1984). Some features of the crime event itself are important predictors of whether crimes are brought to the attention of the police. The general consensus is that the more serious the injury and monetary loss, the more willing victims are to report, and that certain types of crimes are less reported due to an existing victim-offender relationship (e.g. intimate partner violence). As such, an individual's rating of crime in terms of seriousness has a great impact on reporting crime. Those who consider crime as serious are more likely to report as compared to those who regard loss as not serious (Barclay, 2003). In a study conducted by Carcach (1997) in Australia, concerning reporting of crime, whether or not the offender was known to the victim emerged as one of the determinants of report violent crimes to the police.

Environmental Factors

With respect to the environment-specific correlates, most studies have investigated the effects of neighbourhood characteristics, such as neighbourhood disadvantage and social cohesion (Bennett and Wiegand, 1994; Goudriaan, Wittebrood, and Nieuwbeerta, 2006; Ruback, Greenberg, and Westcott, 1984). Accordingly, environmental factors such as victim's social, physical and geographical environment may increase chances of reporting with those residing near institution of justice such as police station and urban centres have a high tendency of reporting than their counter parts in remote rural areas.

Reporting of Agricultural Crimes

Reporting of agricultural crimes is a problem in developed nations (Barclay *et al.*, 2001, Carcach, 2002, Barclay, 2003 Anderson and McCall, 2005 and Jones, 2008) and one of the reasons why there is lack of documentation in agricultural crimes is the lack of reporting, which has hampered the delivery of service to farmers (Barclay and Donnermeyer, 2001). Jones (2008) observes that agricultural crimes are highly hidden from criminal justice institution because it is rarely reported. Barclay (2003) found out that 49% of farmer interviewed had reported farm theft while Anderson and McCall (2005) found out that 42% had notify police of crimes in their farms in Australia. Several reasons have been put forward to explain low reporting of rural crimes and particularly farm thefts. Some of the reasons blamed for lack of reporting include lack of evidence, late detection of theft, complexity of reporting a suspect known and related to the farmer, lack of proper investigation and prosecution, triviality of theft and offence not being serious enough (Barclay *et al.*, 2001, Anderson and McCall, 2005 and Jones, 2008). In a study conducted by Anderson and McCall on agricultural crime in Australia; the most common reasons mention for low reporting of agricultural crimes was lack of proof, police would do nothing and general circumstance surrounding environment similar research was previously conducted by Barclay *et al.* in 2001 and found out that difficulty in finding evidence and telling if theft has occurred, too much time has occurred and waste of time reporting since police would not help were the recorded reason for not reporting farm theft. Most reported agricultural crimes typologies as observed by western scholars include theft of machinery, stock, farm burglary while least report theft of tools and small equipment, fuel and grain

(Barclay *et al.*, 2001, Barclay, 2003 and Anderson and McCall, 2005). Barclay (2003) in Australia found that there was no significant relationship between farm ecology and the reporting of agricultural crimes. This study revealed that victim reporting is more of a function of the characteristics of the incidence (type of crime, perceived seriousness by the victim) than the location of the crime. For example, repeated victimization of fuel theft was significant predictor of reporting of this theft and Individual attitudes towards the criminal justice system play a vital role in explaining non-reporting of theft (Barclay, 2003 and Carcach, 1997). Further, the author notes that though the farming environment does not influence the reporting of farm thefts to police, it is the subjective attitudes arising from the nature of farming areas that impedes reporting of theft. Rural areas are vast, open and large which makes it difficult to prove and detect theft in the right time and space. This greatly impedes one's decision to contact police due to lack of evidence and long lapse of time between the crime occurrence and its discovery (Barclay *et al.*, 2001).

METHOD

This study relied on a survey was carried out in 2012 on the factors influencing one to notify police for the crimes that have occurred in their farms. A multi-stage sampling technique was employed to randomly to select 200 farming households and 20 key informers in Uasin Gishu District of Kenya. The target population was all households who were engaging in agricultural production in the last five years preceding the study. More specifically it represented 54.9% of the total households of district. Agriculture is the mainstay of Uasin Gishu district and is a farming district which feeds the Nation of Kenya (Daily Nation, 2011: 26, Owuor *et al.*, 2010). The district is one of the high agricultural potential districts in Kenya and is rightly referred to as the grain basket of the country. Data was collected using semi structured questionnaire and key informant interviews. The instruments asked farmers about agricultural crime victimization during the last five years prior to the study. Farmers were asked to supply information on the type of agricultural production, characteristics of their operations, whether they reported specific crimes and reason for not reporting. The study concentrated on seven major types of agricultural crime which include livestock theft, theft of farm machinery, tools, spare parts (including vehicle or machinery parts), theft of farm produce with special reference to grain, theft of agrichemicals (pesticides, herbicides and inputs), theft of farm tools and implements, fuel theft and vandalism. Due to the binary character of the dependent variables, the current study used logistic regression analysis (Hosmer and Lemeshow, 2000). The analysis sought to assess the level of reporting farm crime across the seven dependent variables: whether theft of livestock, fuel, grain, tools and equipment, agrichemicals, machinery and vandalism were reported to the police. Each dependent variable was coded (1 = "No," 2= "Yes"). In order to understand the factors affecting non-reporting of farm theft, a logistic regression was conducted using individual, incident and environmental characteristics of the farming household and farming areas. The hypothesis was that, a significant association will be found between the reporting of agricultural crime and certain individual, characteristics, incidence type and environmental factors. The hypothesis was measured by variables namely sex, age, land size, stress levels, cost, the number of farm thefts, attitudes towards police and

prosecution, location and the relationship between perpetrator and victim.

RESULTS

Reporting of Farm Thefts

Reporting rates and reason for not reporting mirrored other studies conducted in developed nations with frequency at which victims stated that they had reported offences to the police being strongly related to the type of crime involved, but also differs by location.

Table 1. Frequency of Reporting Farm Theft

	Yes	Total
Type of Theft	(%)	(N)
Livestock	80	87
Machinery	59	29
Vandalism	51	91
Grain	43	156
Fuel	29	42
Agricultural chemicals	29	94
Tools and small equipments	18	166
Other	9%	21
Average	44	

From Table 1 on overall, 44% of farmers usually report farm thefts with the majority of livestock and machinery theft being reported, as well as most vandalism. Over 80% of livestock thefts and 59% of all machinery thefts are reported which is much higher than countries such as Australia and United States of America (Barclay *et al.*, 2001, Anderson and McCall, 2005 and Mears *et al.*, 2007). For vandalism and grain theft, the reporting percentages are respectively 51% and 43%. Agrichemicals, fuel, tools and small equipment theft are the least reported with less than 30% of these crimes being reported to the police.

Reason for Non-Reporting of Agricultural Crimes

From the responses, it was evident that the majority of farmers failed to report due to a lack of evidence with 72% citing this reason, 70% blamed the high cost of reporting and prosecution¹ and 60% did not trust police. On the other hand, some farmers failed to reports because the suspect are known or related to the farmer (46%) in one way or another while 43% discovered theft very late or were even unsure if it was theft, 40% regarded the loss as minimal and it would add nothing to pursue, and 27% were of the opinion that it was not easy for a farmer to detect theft. Other reasons mentioned by farmers include fear of reprisal and preferring to negotiate with the perpetrator. This information mirrored responses of key informers with 89.5 % reporting that farmers failed to report thefts on their farm because of the high cost of enforcing charges as compared to stolen items; 84.2% felt that farmers lacked evidence to press charges while 68.4% were of the opinion that farmers find themselves in difficult situation when the suspect is known by the farmer and may decide not to report so as to preserve the communal relationship.

¹ Cost of reporting and prosecution is both direct and indirect. Direct cost include calling police, transporting suspect to police station and corruption charges while indirect cost include time in making follow, attending court proceedings, fear reprisal, community sanctions and loss of trust and friendship.

Table 2. Reasons for Non-Reporting of Farm Thefts

Reasons	(%)
Lack of evidence	72
High cost of reporting and prosecution	70
Don't trust police	60
Suspect is known by the farmer	46
Late discovery of theft	43
The loss is minimal	40
Difficulty in detecting theft.	27
Other reasons (preferring to negotiate with offender and fear of reprisal)	24

It can be noted from the study that farmers do lack adequate evidence to enable them to report to a criminal justice institution, especially the police to sufficiently prosecute suspects. The lack of evidence has made farmers prefer not to report especially grain and agrochemical theft as it is hard to put identification on the product or substance. Farmers do often know the suspect but having evidence is the greatest obstacle; as one of the chief said.

"I usually get information or calls from farmers complaining that their grain had been harvested or stolen on the farm, but rarely do they come to report formally."

It was also interesting to find out that more often when farmers were asked to provide evidence of the stolen items or property from their farms, most of them claimed that they had no evidence at all. One farmer was surprised when told to prove whether the grain found with a suspect was his. He lamented this;

"I was surprised to be told to prove that the grain (wheat) I had found a suspect taking from my farm belonged to me. The policeman gave me two sacks with grain to identify as mine. Though, I could identify mine. I was asked, "What proves that it is yours?" I could not press charges anymore."

Another respondent reported;

"It was on Christmas Eve of 2010, I had planned to present a ram as a gift to my children, but I was awoken very early on 25th December by a call inquiring if I still had my ram. I checked and indeed my ram was missing. I send my son to check if the ram was mine. To our surprise, it was my ram and to make it worse the suspect was my neighbour's son. We took him to the police station and I was surprised to be asked to provide a witness for him to be arrested. The suspect claimed that I sold the ram. I could not provide the evidence."

Another reason mentioned for not reporting farm theft was the high cost of arresting and prosecuting. Farm financial losses are varied and may range from an item costing² Kshs 50 to as expensive as Kshs 500,000. But when an item is stolen, it usually involves a cost in recovering or getting justice which include time and resources. It was evident from discussion that farmers weigh the historical or market cost of an item versus the cost of recovering and time lost. Many farmers regretted to be required to part with "something" for the police to act on a reported incident and meet full cost of apprehending the suspect. This serves to add the cost of reporting on the cost of the item making reporting unattractive economically.

One farmer had to say;

"When you report a stolen item, police will require you to fuel the vehicle to transport both the police and suspect and considering the fact you have lost an item costing Kshs 500. The cost of recovering the item will be higher than the actual cost of item stolen. Why then report and incur extra cost"

Participants in the study reported to be losing trust in the police for their willingness to help them. Farmers in the division have lost faith in the police in addressing these thefts and would rather deal with them on their own. Some of the farmers prefer not to report and channel the loss to cost of production. Another farmer alleged that;

"Police officers would only concentrate on exploiting you in terms of money and taking you in circles. Some even don't know the characteristics of rural areas. They can't distinguish between different farm properties such as cattle and the model of farm machineries e.g. tractors."

It was also evident that, many farmers fail to report thefts because of late discovery. Farms are usually open and large, and detecting theft may be a tall order. More often farmers discover the loss accidentally or when they want to use the item. Thefts of items such as tools, chemicals, grain or fuel can hard to notice. Grain in particular, may not be discovered unless it involves a big volume.

One participant in the study recorded the following incident

"We had harvested and shelled the maize. I stored my 76 bags of maize with animal feeds in similar bags. Unfortunately, a perpetrator stole the bags of maize in a way that surprised me by systematically replacing animal feed with maize bags so as to make my family members not notice the changes. I only discovered it accidentally three months later when I wanted to sell the maize. I found out that 13 bags of maize were missing and had been replaced with the animal feed."

Further analysis of the farmer's failure to report theft pertained to the complexity of reporting a suspect known or related to the farmer to the police. The point of concern was; could farmers report someone who is related to them in one way or another? Some of them found it difficult to report suspects known to them. These suspects included relatives, friends and neighbours. Although some could report and have their own children apprehended as one of the farmers did to his son, they could not press charges due to the strong social relationship.

"I reported and had my son arrested after losing 3 bags when I had gone to church. He sold the grain to one of the maize vendors. I got my maize and left the police to negotiate with my son"

It was evident from the study; some farmers did not report theft on their farms because they regarded the loss as results of theft as minimal or trivial. Tools and small equipment were the least reported because of its triviality in cost. Farmers can lose item costing Kshs 100 but see this as not costing anything to the farm and choose to replace and not report.

On further analysis of farm theft across location as shown in Figure 1 below, it was found that participants on locations far away from Eldoret town tended to report their thefts compared to their counterparts residing near urban centres. This could be

² At the time of the study, one dollar was equivalent to Kshs. 85

attributed to the nature of farming practiced in these locations with those far away deriving their livelihood from agriculture, perhaps taking farming more seriously than those living adjacent to town who may have other sources of livelihood or farm for subsistence purposes or as a hobby. When theft occurs, those in remote locations take it as a serious issue and may see the only way to solve the problem is to report the offence while those near urban centres may be preoccupied with tasks other than farming.

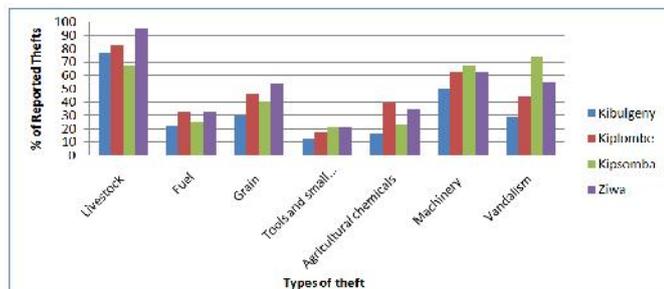


Figure 1. Percent of Reporting per Farm Theft Type across Locations

DISCUSSION

The reporting of crime is very important especially for effective policing of crime. The major finding of the study as presented in Table 3 below is that decision to report a crime is dependent on age, stress levels, cost of stolen items, the relationship between perpetrator and victim, attitudes towards the criminal justice system, and the location of the victim. Age was significantly related to the reporting of fuel theft ($b = -2.254$) indicating that as one grows older, there is a greater tendency to report farm theft. Farmers' stress levels were significantly related to the reporting of livestock theft ($b = 0.708$). Livestock theft represents property in this region to which farmers have a strong cultural attachment and loss of livestock through theft can lead to serious psychological disturbance prompting a farmer to report with the hope of recovery. Livestock and machinery can be easily be identified by the farmer unlike grain, fuel and agrochemicals which may be difficult for farmers to provide proof of ownership. Attitudes towards criminal justice system were statistically significant to livestock theft ($b = 1.872$), grain theft ($b = -1.363$) and theft of small equipment ($b = -1.216$) especially with police. In relation to livestock, there was positive significant effect meaning, as the attitude of farmers towards police improves, the tendency to let police know of offence increases unlike grain, tools or small equipment theft where there is little faith in the ability of police to solve these crimes.

Table 3. Logistic Regressions of Farm Theft Reporting on Individual, Incident and Environment Characteristics

Variable	Livestock	Fuel	Grain	Tool & Small Equipment	Agrichemicals	Machinery	Vandalism
Individual Characteristics							
Sex	-1.386	-1.721	-0.576	0.441	0.043	0.432	-0.520
Age	-0.607	-2.254**	0.078	0.359	-0.129	-0.146	-0.175
Stress levels	0.708**	0.006	-0.265	0.172	-0.249	0.137	-0.115
Incident Characteristics							
Cost of item	1.644*	2.029	0.318	0.541	0.728**	0.253	-
Workers	0.064	0.711	0.214	-0.508	0.498	-0.460	0.186
Land size	-0.152	-0.895	0.001	-0.550	-0.145	0.152	0.249
Family members	0.589	0.019	0.112	0.801*	-0.056	-0.100	-0.012
Number of Incidence	0.266	-0.815	0.034	0.181	0.288	0.106	-0.263
Cost of Prosecution	1.872**	0.467	-1.363	-1.216**	-0.570	0.085	-1.058
Environmental Characteristics							
Attitudes towards Police	.508	1.822	0.040	0.179	1.013	0.379	0.355
Location of theft	0.779	0.738	0.379**	0.378	0.203	0.058	0.644*
-2 Log likelihood	69.706	27.284	167.57	102.531	179.868	12.243	102.926
Chi-square	11.379	5.196	8.729	5.768	12.445	0.831	17.144

Note: $N = 197$. ** $p < .05$, * $p < .001$

It is also notable that the cost of items stolen plays a role in the reporting behaviours of the victims. The findings revealed that the cost of property was significantly related to the reporting of livestock and agrochemical theft. This implies that the greater the cost of livestock or agrochemical, the greater the likelihood of reporting. Knowing the suspect was significantly related with the reporting of tools and equipment theft ($b = 0.801$). In other words, farmers were more likely not to report loss of equipment if the suspect was either a relative or employee. Environmental factors were also found to be statistically significant in farm crime victimization reporting. This was measured by examining the location of the farmer. It is evident from the study that the ecological characteristics of farming areas determine the reporting of crime. The location of the farmer was found to be significant related to grain theft ($b = 0.379$) and vandalism ($b = 0.644$). The high incidence of reporting of theft of livestock and machinery can be attributed to cost and cultural attachment to the farm property; low reporting of fuel and agrochemical theft can be linked to difficulty in detection and lack of evidence whereas theft tools and equipments can be due to the low costs of items stolen. There was no relationship between the rate of reporting machinery theft and the variables tested in the study. Yet the majority of the farmers in the study reported machinery theft but its reporting to police is not determined by incident or environmental characteristics, but incident specific characteristics.

Summary and Conclusion

The objective of this paper was to investigate factors associated with non-reporting of agricultural crimes in Kenya. It is evident from the findings that, a small proportion of agricultural crimes are visible, but the bulk remains hidden from the general public and criminal justice system through non-reporting. The non-reporting of farm crime to police is clearly a worldwide phenomenon (Barclay *et al.*, 2001, Anderson and McCall, 2005 and Mears *et al.*, 2007) and as for this study, 56% of the farmers did not report crime unless the theft loss or vandalism is of higher value. Reasons given by the farmers for failing to report vary and overriding reasons for farmer's decision not to report farm thefts in Kenya are: lack of evidence (72%), high cost of reporting (70%) and lack of trust in police (60%). A consistent finding with other studies (Barclay *et al.*, 2001 and Zhang *et al.*, 2007) is that crime seriousness in terms of costs and impacts is a significant predictor of crime reporting. Generally, those crimes which entailed high costs were reported especially thefts of machinery (59%) and livestock (80%). Theft of livestock and

machinery usually involves a huge investment and victims will report in the hope of recovering stolen property. It is worth noting that costs of stolen agrichemicals and livestock influenced victims' decision to report. Thefts of agrichemicals and livestock were positively related with reporting indicating that farmers were encouraged by the cost of farm property coupled with urge to recover stolen property. Thus, the higher the costs associated with crime, the higher the chance of reporting. Further, it is evident from the study that the location of the farmer has a role in explaining the reporting of theft with farmers residing adjacent to urban centers having a higher tendency to report grain theft and vandalism than those from remote locations. Another significant finding was that, the more stressed the farmer was the high the likelihood of reporting, especially for theft of livestock) which considered in the region as more disturbing and the need to solve the problem by notifying police. The study also showed that the age of the farmer is a significant predictor of farm theft reporting with older farmers having a negative tendency of not reporting fuel theft. In summary, one's decision to notify police in this study was influenced by cost of stolen item, stress levels, age and location of the farmer.

Recommendations

1. The national government of Kenya should formulate laws to guard and prevent farmers from agricultural crimes. More often, farmers fail to report farm thefts because of inadequate laws or weakness in criminal justice system. It will be vital, if laws relating abattoirs, handling of stolen goods and the general administration of justice are strengthened.
2. The Kenyan government should also consider reducing the costs to victims for pursuing and prosecuting offenders by speeding court cases and eliminating corruption in the police to encourage reporting of crime against farms.
3. It is also of importance to deploy police officers who have knowledge about farming to rural areas. The government could also consider the establishment of a rural police unit. Data collection on agricultural crimes should be widened to involve crimes other than livestock thefts.

REFERENCES

- Anderson, K.M. and McCall, M. 2005. "Farm Crime in Australia," Canberra, AU: Australian Institute of Criminology, retrieved on 7th February, 2011 from: www.aic.gov.au/publications/current%20series/cfi/101-120/cfi119.aspx
- Barclay E. M. and Donnermeyer J. F. 2001. "Crime in Regional Australia." Paper presented at the 4th national Outlook Symposium on Crime in Australia, New Crimes or New Responses Convened by the Australian Institute of Criminology, Canberra 21-22 June.
- Barclay, E. M. 2001. "A Review of Related Literature on Agricultural crime" Institute for Rural Futures, University of New England, retrieved on 21st November, 2010 from: www.criminologyresearchcouncil.gov.au/reports/barclay.pdf
- Barclay, E. M. 2003. "Determinants of Reporting Farm Crime in Australia." *International Journal of Comparative and Applied Criminal Justice*, Vol. 27, 131-151.
- Barclay, E.M, Donnermeyer, J. F., Doyle, B. P., & Talary, D. 2001. "Property Crime Victimization and Crime Prevention on Farms," Report to the NSW Attorney General's Crime Prevention Division (Report No. 01.2). Armidale, New South Wales: Institute for Rural Futures, University of New England.
- Bennett, Richard R., and R. Bruce Wiegand, 1994. "Observations on Crime Reporting in a Developing Nation." *Criminology* Vol.32: 135-48.
- Carcach, C. 1997. "Reporting crime to the police." *Trends and Issues in Crime and Criminal Justice*, 68. Canberra: Australian Institute of Criminology.
- Carcach, C. 2002. "Farm Victimization in Australia", *Trends and Issues in Crime and Criminal Justice*, No. 235, Canberra, ACT, Australian Institute of Criminology.
- Dick, J. J. M. 2007. "Attitudes of Victims and Repeat Victims toward the Police: Results of International Crime Victims Survey", *Crime Prevention Studies: An International Journal*, Vol. 12: 27- 52.
- Felson, M. 2002. "Crime and Everyday Life," (3rd Edition). London: Sage.
- Gottfredson, M. R., and Don M. Gottfredson 1987. "Decision-Making in Criminal Justice: Toward the Rational Exercise of Discretion," 2ndEd. New York: Plenum Press.
- Gottfredson, Michael R., and Don M. Gottfredson. 1980. "Decision-Making in Criminal Justice: Toward the Rational Exercise of Discretion." Cambridge, MA: Ballinger.
- Goudriaan, H., James P. Lynch, and Paul Nieuwebeerta. 2004. "Reporting to the police in Western Nations: A Theoretical Analysis of the Effects of Social Context." *Justice Quarterly*, Vol. 21:933-969.
- Greenberg, S. M. and Beach, R. S. 2004. "Property Crime Victims' Decision to notify the Police: Social, Cognitive and Affective Determinants," *Law and Human Behavior Journal*, Vol. 28 (2):177-186.
- Hindelang, Michael J., and Michael Gottfredson. 1976. "The Victim's Decision not to invoke the Criminal Justice Process". *Criminal Justice and the Victim*, 2 ed. William F. McDonald. Beverly Hills, CA: Sage.
- Hosmer, D., & Lemeshow, S. 2000. "Applied Logistic Regression." New York, NY: Wiley.
- Jones, J. 2008. "Farm Crime on Anglesey: Local Partner's and Organisations' Views on the Issue, First Report, unpublished, commissioned by University of Chester. First Report (PDF). Retrieved on 7th December, 2011 from <http://www.aber.ac.uk/en/media/jane-jones---second-report.pdf>
- Levitt S. D. 1998. "The Relationship between Crime Reporting and Police: Implications for the Use of Uniform Crime Reports," *Journal of Quantitative Criminology*, Vol. 14, No. 1, 1998, Vol. 14(1): 61-81.
- Mears, D.P., Scott, M.L. and Bhati, A.S. 2007. "Opportunity Theory and Agricultural Crime Victimization," *Rural Sociology Journal*, Vol. 72(2): 151-184.
- Republic of Kenya 2010. *Statistical Abstracts*. Government Printer, Nairobi.
- Skogan, W. 1984. "Reporting Crimes to the Police: The Status of World Research." *Journal of Research in Crime and Delinquency*, Vol. (21):113-137.
- Zhang Lening, Messner and Liu Jianhong 2007. "An Exploration of The Determinants Of Reporting Crime to the Police in The City Of Tianjin, China," *Criminology* Vol. 45, No. 4: 959- 984