EFFECT OF CATTLE RUSTLING ON INCOME OF FARMERS IN BENUE STATE, NIGERIA

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ABSTRACT
Cattle rustling or stealing of cattle has grown in dimension and viciousness particularly in the Northern part of Nigeria. Benue State is categorized as one of the flash points. This scenario made it apt to undertake the study of its effect on the income of farmers in Benue State, Nigeria. The study used a multi-stage sampling procedure in the selection of 108 farmers in the three (3) Senatorial Districts of Benue State. The farmers were interviewed using a structured questionnaire instrument. Data gathered were subjected to both descriptive and inferential statistics. The result shows that the mean age was 38.74 and SD 7.655 , the mean number of years spent on education is 9.25 and SD 4.762, while the mean farming experience and herd size was (14.61 and 17.79) respectively. The mean annual income stood at N 556203.70. Majority (75%) of farmers' cattle were rustled. Age and number of cattle owned are significant ($p<0.01$) with positive influence on income whereas paid security is significant ($p<0.05$) and has negative influence on income. Many (55.1%) of the farmers viewed that unemployment is the bane for involvement in cattle rustling. Cattle rustling have become a phenomenon that is rampant in the study area and neighbouring States. To this effect, efforts should be made to provide increased security at areas of flashpoints and to improve the wellbeing of the farmers.
Keywords: Cattle Rustling, Farmers, Income, Benue State, Flashpoints.

INTRODUCTION

Farmers in addition to crop production, also, keep livestock (chickens, goats, sheep, donkeys, camel and cattle) for economic status and as work bulls. This economic system has largely enhanced the living standard of the poor farmers by helping to defray most of their liabilities and enhance their social status. However, with the presently experienced recession and downturn in the National economy, proliferation of arms and arm banditry by various militia groups and general insecurity in the Country, the Nation has suffered the rebirth of criminal groups that have visited it with different levels of disaster and mayhem. A number of anti-social practices are perpetrated by criminal elements and some unemployed youths such as: Cattle rustling, Kidnapping, Rape, wanton destruction of lives and properties which have become a new pattern of lifestyle experienced by both rural and urban dwellers (Akowe and Kayode, 2014).

Cattle rustling, which began as a cultural practice, have now developed into a system of economic plundering of the wealth of pastoralists and farmers (Manu *et al.* 2014). This system of economic plundering has often degenerated into conflicts known to have ravaged entire households and communities as well as aggravated the existing poverty situation of the farmers.

Moreover, recent information on conflict situations in Nigeria (Okoli, and Okpaleke, 2014) pitched cattle rustling as a major, devastating and tragic occurrence which leads to huge losses of income, employments, fixed assets and lives. In Benue State, Nigeria, this phenomenon has degenerated into a conflict situation whereby lives are lost and often communal crises arise as a result of organised pilferage (Anonguku, 2008). At the economic level, cattle rustling constitute a major threat to the livelihood of herders and those who depend on cows for survival (Olaniyan and Yahaya, 2016).

Benue State is in the middle belt region of the country and constitutes one of the major flash-point areas for conflict and cattle rustling due to the vegetation which favours cattle rearing and high presence of pastoralists and farmers. Cattle rustling activities have destroyed people and villages, turning villagers into Internally Displaced Persons (IDPs). It is with this background in mind that this study sought to investigate these objectives: describe the socio-economic characteristics of the farmers in the study, describe the operational strategies used by the cattle rustlers, describe the security mechanisms employed by the farmers and determine the effect of cattle rustling on the income of farmers.

METHODOLOGY

Benue state was created on 3rd February, 1976 by the late General Murtala Mohammed. It derives its name from the River Benue. It has a population of 4,253,641 in 2006 (NPC, 2006) and an estimated projected population of 5,402,124 in 2015. Agriculture is the mainstay of the economy, engaging over 75% of the state working population. Benue State has twenty-three (23) Local Government Areas uniquely divided into three (3) geopolitical zones, Zones A and B are predominantly Tivs and Jukuns in some part; while Zone C is predominantly Idomas and some other ethnic groups like Igede, Akweya and Ufia (Abah *et al* 2015).

The study made use of a multi-stage sampling procedure. Benue State was purposively selected being one of the States recorded as a major flashpoint area of cattle rustling activities. The first stage involved the selection of one Local

Government Area (LGA) each from the three Senatorial Zones, namely; Makurdi, Gboko and Otukpo which also are flashpoint LGAs. The 2nd stage involved a random selection of four villages each from the chosen LGAs. given a total of 12 villages. The 3rd stage involved the use of relevant official lists obtained from the selected villages. A total of 1204 farmers were populated from which10% were proportionally sampled through a ballot technique given a total of 120 respondents. However, only108 questionnaires were sorted out and used for the analysis. The analytical tools employed were: Descriptive Statistics involving Percentages, Frequencies, Mean Median, Mode, Tables and Graphs to analyse Objectives 1 and 3 while Inferential Statistics (Linear Regression) was used to analyse Objective 2 of the study. The model for Linear Regression is presented thus:

$$\mathbf{Y = a + b_1x_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 \ldots. + b_8X_8}$$

Where:

Y = income (actual annual income estimated) in Naira value
a = Constant
b_1-X_n = Regression Coefficients
X_1 = Age (years)
X_2 = Education (years)
X_3 = Marital Status (Single= 1, Married=2, widowed=3)
X_4 = Quantity of cattle owned (Number equivalent of 1Tropical Livestock Unit)
X_5 = Paid security (Number)
X_6 = Type of arms used (Long knives and cudgels=1, locally made shotguns=2, Ak-47 riffles=3 and charms and ropes=4)
X_7 = Quantity stolen (number of cattle)
X_8 = Lives lost (number)
e = Error term

RESULTS AND DISCUSSION

Description of the socio-economic characteristics of farmers

The result in Table 1 shows that the mean age presented was 38.74 years and the standard deviation (SD) was 7.655, which implies that most of the farmers are within their active age. This is in conformity with Wamuyu, (2014), who found that: "it is evident that majority of the community members who are mainly affected by livestock rustling are the youth and those below 40 years of age." This finding also agrees with similar finding by Kaprom (2013), that youths between 31 – 40 years were familiar with cattle rustling and its effect on the income of victims. The people within the specified age bracket are presumed to be the breadwinners of most families in the society; therefore, any negative effect on their disposable income can affect the larger society negatively.

The result of the educational characteristics of the farmers presented in Table 1 shows a mean score of 9.25 years and a SD of 4.762, which signifies a low level of education. This finding agrees with those of (Kaprom 2013 and Wamuyu, 2014), that majority of those they investigated had low level of education but could relate with the effects of cattle rustling.

Results in Table 1 again, show that the mean farming experience was 14.61 and SD of 8.704. This seems to be a fairly long period of time and during which it was expected that quite some investments might have been made. It was expected that during this period of time, efforts would have been made to ensure adequate security for the owned cattle.

The results in Table 1 further show a mean herd size of 17.79 and an SD value 0f 35.715. This result does not tally with that found by Manu *et al* (2014) which suggests an average of 95.85. This implies that most of the farmers kept small herds and could probably not afford to pay for security and provide arms or build housing structures that could protect their herds.

The result in Table 1 shows a mean income of N556203.70 and a SD of 618614.245. This amount is considerably low when compared with the average amount that a farmer may likely lose to cattle rustlers. The implication is that farmers need to increase and diversify investment to forestall loss of income.

The result in Table 1 shows an average loss of cattle 8.39 (estimated at N4,000.000) and a SD of 14.320. The amount estimated is quite high. The implication is that such huge loss of income could cause farmers untold hardship. It could affect the present and future income and wellbeing of the farmer and his family negatively. This is because most farmers keep dependents that are not even immediate family members and this could result into a setback.

Table 1: Socioeconomic characteristics of farmers

Variables	Minimum	Maximum	Mean	Standard Deviation
Age	23	60	38.74	7.655
Education	0	18	9.25	4.762
Farming Experience	3	44	14.61	8.704
Herd size	0	300	17.79	35.715
Income (annual)	N40.000	N3000.000	556203.70	618614.245
Cattle rustled	0	100	8.39	14.320

Variables	Minimum	Maximum	Mean	Standard Deviation
Estimated value of cattle lost	N0	N8,000.000	N4,000.000	3265986

Number of times farmers experienced cattle rustling and other estimated Losses Suffered

The bar chart (Figure 1) shows that majority (75%) of the farmers experienced cattle rustling between 1-3 times, with a mean value of 1.5 and standard deviation (SD) of .497. The fact that

Majority of the farmers were rustled shows how enamours the problem of cattle rustling has become.

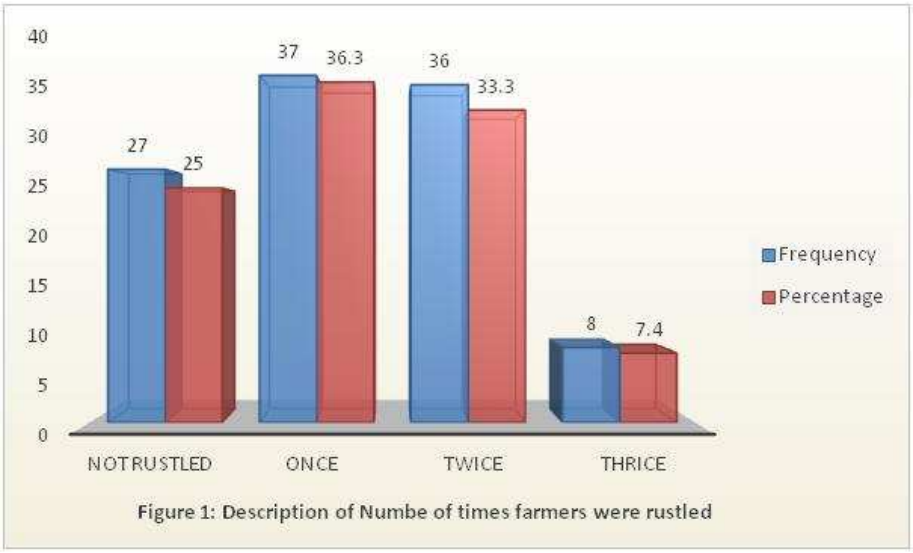

Figure 1: Description of Numbe of times farmers were rustled

The pie chart result of Figure 2 shows that many (56%) of the farmers in addition to cattle loss also suffered loss of building. Most of the cattle rustling recorded in the study area were quite vicious leading to destruction of lives and property. The implication of being homeless and loss of means of livelihood can be quite challenging for poor farmers.

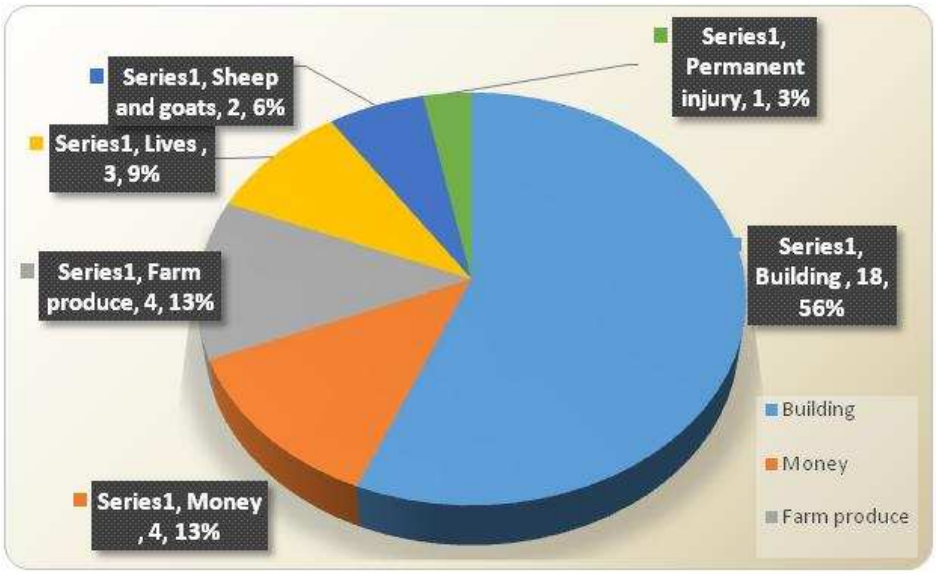

Figure 2: Pie Chart showing other losses suffered by the farmers from cattle rustlers

Description of the operational strategies used by the cattle rustlers and the security measures employed by the farmers

The result in Table 2 reveals that the true identity of the rustlers was unknown to many (55.29%) of the farmers studied. This may not be unconnected to the fact further presented in the

table that majority (87.9%) of the attacks happened at night.

The result still in Table 2 shows that majority (74.1%) of the farmers believed that the cattle rustlers are non-members of the community. However, this may not preclude the fact that there exist informants or collabourators within the community that divulge information to the rustlers.

Further findings showed that majority (65.7%) of the farmers said that they were attacked by 1-5 rustlers. The general understanding is that the rustlers move in bands and thereby overpower their victims. The implication is that due to the rustlers' mass movement, they could easily overwhelm their victims and carry out maximum damage on the innocent farmers who are unsuspecting and powerless.

It was also found that the rustlers used different weapons to attack their victims. The result showed that many (46.3%) of the rustlers used long knives and cudgels. The weapons used by the rustlers are very deadly.

Another finding showed that majority (92.6%) of the farmers viewed that the cattle rustlers came by foot. The fact that most of the rustlers trekked into the villages might be a deliberate strategy not to draw the attention of villagers.

More findings revealed that majority (73.2%) of the farmers made use of fenced poles as security to restrain their cattle and keep away rustlers from having access to the cattle. While, fenced pole might restrain the cattle from straying away, it was unlikely that it might keep armed and determined rustlers from gaining access to the cattle.

Furthermore, the result showed that majority (85.2%) of the farmers do not have paid security. Most of the farmers studied were poor and might not have been able to afford the services of paid security. What rather obtains is a situation where farmers watch in turns over the cattle in order to alert others if there is a possible attack.

Table 2: Description of cattle rustlers and their operational strategies and security measures employed by farmers to protect their cattle (n=108)

Variables	Frequency	Percentage
Identity of rustlers		
Could not identify	57	52.9
Farmers	28	25.7
Herders	23	21.4
Community membership		
Non members	80	74.1
Members	28	25.9
Number of Rustlers		
1-5	71	65.7
6-10	26	24.1
Do not know	11	10.2
Types of Ammunitions used by Rustlers		
Long knives and cudgels	50	46.3
Locally made shotguns	29	26.9
Ak-47 riffles	16	14.8
Charms and ropes	13	12.1
Times of Attack		
Night	95	87.9
Day	13	12.1
Transport system used by the Rustlers		
Foot	100	92.6
Motorbike	5	4.6
Motorcar	2	1.9
Housing security used by farmers		
Fenced pole	78	73.2
Tied outside the house	14	12.0
Block fence	12	11.1
Fenced wire	4	3.7
Paid security Agents by farmers		
No	92	85.2
Yes	16	14.8

Examination of the factors that determine loss of income to cattle rustling by the farmers

The result of linear regression presented in Table 3 shows that the coefficient of multiple determination (R^{-2}) was 48.3%. This implies that the variables in the model were able to explain up to 48.3% of the variation. This implies that the model gave a relatively good fit, which implies that there is a significant relationship between the probability of cattle rustling and the explanatory variables included in the model. Eight variables were included in model; however, three were statistically significant. One of the variables (Paid Security) included in the model had negative sign implying that it is inversely related to the respondent's loss of income to cattle rustling. It further implies that a unit increase in the number of paid security would lead to a decrease in the possibility of cattle rustling and loss of income.

The result in Table 3 shows that age as a variable has a direct relationship with loss of income to cattle rustling and is statistically significant ($P < 0.01$). This implies that as the age of respondent increases, loss of income to cattle rustling also increases. The *a priori* expectation being that the older or longer the farmer lives, the more chances that he could be attacked by cattle rustlers and thereby suffer loss of income.

This quantity of cattle owned has a direct relationship with cattle rustling and loss of income and is statistically significant ($P < 0.01$). This implies that as a farmer cattle increases in number, the possibility to be attacked by cattle rustlers and loss of income increases. The *a priori* expectation is that the more herds' of cattle increase the more the farmer would increase in income. However, what was eminent was that as a farmer records increase in number of cattle, it becomes more difficult to provide adequate security and this might likely make the farmer be susceptible to cattle rustling.

The result in Table 3 showed that paid security variable has a significant ($P < 0.05$) inverse relationship with cattle rustling and loss of income. This implies that a unit increase in the number of paid security would lead to a decrease in the possibility of cattle rustling and loss of income. This has serious implication for security policies.

Table 3: Analysis of factors that determine loss of income to cattle rustling by farmers

Model	Coefficients	Standard Error	t-value
(Constant)	744037.658	442342.529	1.682
Age	25912.479	6129.429	4.228***
Education	23349.131	10079.449	2.317
Marital Status	-206458.468	117002.268	-1.765
Quantity owned	7931.336	1425.881	5.562***
Paid Security	-356376.244	132142.420	-2.697**
Type of arms	-10844.956	20015.216	-.542
Quantity stolen	2809.334	3689.458	.761
Lives lost	123387.826	5334.984	-2.230
R^2	**0.483**		
$\bar{R}^2$	**0.442**		
F Value	**11.580**		

***P<0.01 **P<0.05

CONCLUSION AND RECOMMENDATIONS

Findings from the study showed that cattle rustling is a major threat to the livelihood of farmers that keep livestock as additional sources of income. It was shown that the youths are the most affected by cattle rustling. The educational level of farmers studied was low. Quantity of cattle owned, paid security and age of farmers were significant factors that affected their income.

The following are recommended;

1. Law enforcement agencies should be drafted to cover flashpoint areas particularly at night hours when rustlers usually take advantage of the peace and tranquillity to unleash terror and havoc on unsuspecting and innocent farmers.
2. The study found that cattle rustling activities brought about loss of income to farmers, therefore, it is recommended that the Nigeria Agricultural Insurance Company (NAIC) and other similar institutions should provide enabling platforms for farmers to insure their cattle against possible theft and loss of income.
3. The National and State Houses of Assembly should review and reform the laws covering the possession of firearms by illicit persons. It is recommended that only properly registered individuals should be allowed to carry arms. Again, it is recommended that the penalty governing cattle rustling should be made more drastic to discourage perpetrators from engaging in cattle rustling.
4. Most of the grazing reserves have become dilapidated and the lands encroached upon. In other to curb the malignant problems associated with farmer-herder conflict and in recent times the merchandise in cattle rustling,

it is recommended that the existing laws and policies be reviewed and strengthened by the Federal Government, National Assembly, State Governments as well as State Houses of Assemblies.

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