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RESEARCH ARTICLE

Conflicts between Cassava Farmers and Cattle Herdsmen in Ndokwa West Local Government Area of Delta State, Nigeria

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ABSTRACT

This paper studied the conflicts between cassava farmers and cattle herdsmen in Ndokwa West Local Government Area of Delta State, Nigeria. Six farmers each from the six communities that make up the local government were selected using random sampling techniques, and this gave a total sample size of 36 respondents. Interview schedule was used for data collection, and descriptive statistics such as frequency, mean score, and standard deviation were used in analyzing the data. The results showed that 78.1% of the respondents were male and the mean age was 43 years. However, 63.5% of the respondents were married while the majority (84.4%) of the respondents was full-time farmers. Destruction of crop with a mean score (2.94), raping of farmers (2.87), killing and wounding of farmers (2.81), burning of rangeland (2.75), blockage of routes by farmer (2.72), blockage of water point by farmers (2.72), environmental pollution (2.66), and killing of cattle by farmers (2.28) were seen as the cause of conflict while the use of bamboo fence with a mean score (2.94), help from the village youths (2.88), increase of farm size (2.81), staying late in the farm (2.53), supplementary occupation (2.41), and temporary relocation of farmers from home were used by the farmers as coping strategies for conflict management.

Key words: Cassava farmers, cattle herdsmen, conflicts

INTRODUCTION

Production of arable crops is essentially the prominent feature of agricultural activities in Nigeria. Almost all farmers in Nigeria cultivated one or more arable crops for food and income.[1] According to Fayinka (2004),[2] Nigerian agricultural production is dominated by rural-based small-scale arable crop producers who account for 80% of the total food requirement. Lambrou and Lambrou (2006)[3] opined that 75% of food consumed today came from 12 arable crops and five animal species, with just three arable crops such as cassava, maize, and rice which accounted for about 60% of the calories and proteins obtained from plant.

Fulani indisputably represent a significant component of the Nigerian economy. They constitute the major breeders of cattle, the main source of meat, and the most available and cheap source of animal protein consumed by Nigerians.[4] Fulani own over 90% of nation's livestock population which account for one-third of agricultural gross domestic product (GDP) and 3.2% of the nation's GDP.[5]

Conflicts between pastoralists and farmers have existed since the beginnings of agriculture. The increased or decreased intensity and frequency depend on economic, environmental, and other factors.[4] Social and economic factors continue to escalate violent conflicts among the cattle herdsmen and farmers in Ndokwa West Local Government Area (L.G.A) in Delta State. These conflicts have constituted a serious threat to the means of survival and livelihoods of both the farmers and cattle herdsmen.

Increase in the herd size due to improved conditions of cattle compelled the pastoralists to seek for pasture beyond their limited range. Climate change has also constituted a great threat by putting great pressures on the land, thus

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provoking conflicts between them. However, improvements in human health and population have enhanced a much greater pressure on land.[4] The competition between these two agricultural land user groups, therefore, has often times turned into serious concealed and unconcealed manifestation of hostilities and social frictions in many communities of Ndokwa West L.G of Delta State.

In view of the above, Alhassan (2013)[4] stated the major causes of herdsmen–farmers' conflicts as follows: (a) Destruction of crops by cattle and other valuable properties (reservoirs, irrigation facilities, and infrastructures) by the herdsmen themselves, (b) burning of rangeland and blockage of stock routs and water points by crop farmers, (c) increasing rate of cattle thieved by farmers, and (d) antagonistic perceptions and beliefs among farmers and herdsmen.

Nigerian government believes in resolving conflicts using force. The international communities have gone beyond the level of brute force. Conflict management cannot be achieved in that way. The method could, sometimes, bring conflicts to equanimity and later retrogress it to a certain stage that could not be controlled by government anymore.[6] Therefore, an attempt made to resolve these conflicts by government agency calms the conflicts but could not provide lasting solutions to the conflicts and that necessitated this study. In response to the above problems, the overall objective of this study was to examine the conflicts between cassava farmers and cattle herdsmen in Ndokwa West L.G.A in Delta State, Nigeria. The specific objectives of this study were (a) to determine socioeconomic characteristics of farmers (b) determine the causes of the conflicts, and (c) ascertain the coping strategies used by the farmers.

METHODOLOGY

The study area was Ndokwa West L.G.A in Delta State, Nigeria. The local government has her headquarters at Kwale. It lies on the latitudes of 50 48 ^{1}N, 50 60 ^{1}N and latitudes of 60 08 ^{1}E and 60 32 ^{1}E (http://nigeriazipcodes.com/60441). The local government has a land area of 816 km^{2} (http:en.m.wikipedia.org/wiki/ndokwa-west). The estimated population of the local government in the last population census is 150,024.[7] The local government is of six communities, and they are as follows: Utagba Ogbe, Emu, Ogume, Abbi, Utagbe Uno, and Onitsha Ukwuani. Farming and fishery are the major occupation of the people in the area. Types of crops grown are cassava, yam, maize, okra, melon, watermelon, and pineapple, among others. In this study, all the communities in Ndokwa West were selected based on their conflict effect. Six farmers each from a community were selected using random sampling techniques, and this gave a total sample size of 36 respondents.

To determine the causes of the conflict, three-point Likert-type scales were used. To achieve this, farmers were asked to select from the variables in the questionnaire that could cause conflicts. Their response categories were very high (3), high (2), and not high (1). The values were added to have 6 which when divided by 3 to get a mean score of 2. Variables with a mean score <2 were not high while variables with a mean score ≥2 were regarded as "very high." More so, for the coping strategies used by the farmers, three-point Likert-type scale was used. Farmers were asked to indicate the levels of their usage with the listed variables in the questionnaire. Their response categories were: Always use (3), use (2), and not use (1). The values were added to obtain a value of 6 which when divided by 3 to get a mean score of 2. Variables with a mean score <2 were regarded as "not used," while the variables with a mean score 2 were regarded as "always used" as a coping strategies for the management of conflicts by the farmers. Data were collected through a structured interview schedule. Of the 36 questionnaires distributed, only 32 were retrieved and used for data analysis. Data collected for this study were analyzed using descriptive statistics.

RESULTS AND DISCUSSION

Results in Table 1a showed that 78.1% of the farmers were male, while 21.9% of the farmers were female. More so, 62.5% of the respondents were married, while 12.5% of the respondents were single. Since majority of the respondents were married, this could increase the release of family labor, thus making more hands available for production. The mean age was 43.3 years. This indicates that young people of economic active age dominated the study area. This result is in line with Rashid (2012)[7] who found that farmers in Taraba State were in their active productive age.

The average mean household size of the respondents was 5.0. However, 62.5% grown

Table 1a: Percentage distribution of farmers according to socioeconomic characteristics

Variable	Frequency (%)	Mean [M]
Male	25 (78.10)	
Female	7 (21.90)	
Marital status		
Single	4 (12.5)	
Married	20 (62.5)	
Widow	3 (9.4)	
Divorce	2 (6.3)	
Separated	3 (9.4)	
Age		
21–30	4 (12.5)	
31–40	13 (40.6)	43.3
41–50	7 (21.9)	
51–60	8 (25.0)	
Household size		
1–2	10 (31.3)	
3–4	16 (50.0)	
5–6	5 (15.6)	5.0
7–8	1 (3.1)	
Farm size		
<1 ha	7 (21.9)	
1–2 ha	20 (62.5)	1.9
3–4 ha	5 (15.6)	
Crop grown		
Cassava	20 (62.5)	
Cassava, yam	15 (46.9)	
Okro, cassava, yam	13 (40.6)	
Cassava, watermelon	10 (31.3)	
Source of farmland		
Rented	28 (87.5)	
Inherited	1 (3.1)	
Borrowed	3 (9.4)	
Source of labor		
Family	3 (9.4)	
Hired	29 (90.6)	
Source of agroinput		
Input dealers	3 (3.4)	
Fellow farmers	21 (65.6)	
Friends/neigbors	8 (25)	
Occupation		
Full-time farming	27 (84.4)	
Trading	3 (9.4)	
Civil servant	2 (6.3)	

Source: Field survey, 2015

Table 1b: Percentage distribution of farmers according to socioeconomic characteristic

Variable	Frequency (%)	Mean [M]
Educational level		
Non-formal education	4 (12.5)	
Primary school attempted	2 (6.3)	
Primary school completed	16 (50.0)	
Secondary school attempted	5 (15.6)	
Secondary school completed	4 (12.5)	
OND/NCE	1 (3.1)	
Farming experience (years)		
1–10	18 (56.3)	
11–20	4 (12.5)	15.0
21–30	6 (18.8)	
31–40	4 (12.5)	
Access to credit		
Yes	5 (15.6)	
No	27 (84.4)	
Access to extension agent		
Yes	7 (21.9)	
No	25 (78.1)	
Estimated crop lost (kg)		
0–1 bags	1 (3.1)	
2–3 bags	12 (37.5)	
4–5 bags	8 (25.0)	6.0
6–7 bag	2 (6.3)	
8–9 bag	3 (9.4)	
10–11 bag	6 (18.8)	

Source: Field survey, 2015

cassava while 46.9% grown cassava and yam. Majority (87.5%) of the respondents sourced land by renting, while 90.6% of the respondents used hired labor as their source of labor. Use majorities (84.4%) of the respondents were into full farming while 9.4% of the respondents engaged in trading. Similarly, 62.5% of the respondents cultivated 1–2 ha, while 21.9% of the respondents also cultivated <1 ha. The average farm size cultivated by farmers was 1.9 ha. This finding is in line with Udemezue (2014)[8] who said that farmers in Anambra state were small-scale farmers. About 65.6% of the farmers used fellow farmers as their major source of agro-input, while 25% of the farmers also used friends and neighbors as another source of agroinput.

Entry in Table 1b shows that majority (50%) of the farmers completed primary school while 15.6% of the farmers attempted secondary school. The high literate people among the farming population show that the majorities of the farmers are in a better position to express themselves in English language and also can adopt better-coping strategies with respect to the effect of the conflicts. The mean years of farming experience were 17 years. This implies that farmer has had a long period of farming experience and thus will increase their knowledge and experience on farming activities. About 84.4% of the respondents have no access to credit, while 15.6% of the respondents have access

to credit. Similarly, 78.1% of the respondents did not have access to extension agent, while the average estimated crop lost by farmer due to the conflicts was six bags.

Figures in Table 2 showed the perceived causes of conflict between farmers and cattle herdsmen, in Ndokwa West LG of Delta State. The perceived causes were categorized into very high (3), high (2), and not high (1) and later ranked in descending order of the perceived causes. Destruction of crops by cattle was ranked first with a weighted mean score of 2.94, raping of farmers with weighted mean score of 2.87, killing of farmers by cattle herdsmen with a weighted mean score of 2.72, blockage of water point by farmers with a weighted mean score of 2.72, environmental pollution with a weighted mean score of 2.66, and killing of cattle by farmers with a weighted mean score of 2.28 were perceived as the major causes of the conflicts between cattle herdsmen and farmers in Ndokwa West L.G.A in Delta State. This finding is in line with Alhassan (2013)[4] who stated the major causes of herdsmen–farmers' conflicts as the destruction of crops by cattle and burning of rangeland by the farmers.

Table 2: Perceived causes of conflicts

Variables	Mean±SD
Crop damages	2.94±0.246
Raping of farmers	2.87±0.421
Killing and wounding of farmers	2.81±0.535
Burning of rangeland by farmers	2.75±0.440
Blockage of stock routes by farmers	2.72±0.581
Blockage of water point by farmers	2.72±0.634
Environmental pollution	2.66±0.653
Killing of cattle by farmers	2.28±0.457
Resources scarcity	1.63±0.793
Incompatibility of their goal	1.53±0.803
Inequitable access to land	1.09±0.296

Source: Field survey, 2015, Cut-off point = 2 and above. SD: Standard deviation

Table 3: Coping strategies used by farmers

Variables	Mean (M)±SD
Use of bamboo fence	2.94±0.354
Help from the village youths	2.88±0.421
Increase of farm size	2.81±0.535
Staying late in the farm	2.53±0.621
Use of supplementary occupation	2.41±0.756
Temporary relocation of farmers from home	2.25±0.762
Use of government force	1.75±0.842
Early harvesting method	1.75±0.718
Setting up panels of inquiries	1.59±0.665
Use of traditional rulers	1.52±0.724
Relocation of farm	1.39±0.715
Use of court order	1.00±0.00

Source: Field survey, 2015, Cutoff point = 2 and above. SD: Standard deviation

Figures in Table 3 indicated the coping strategies used by farmers in Ndokwa West L.G.A of Delta State. The coping strategies were grouped into always, sometime, and not at all, respectively. The use of bamboo fence with a weighted mean score of 2.94, help from the village youth with a weighted mean score 2.88, increase of farm size with a weighted mean score 2.81, staying late in the farm with a weighted mean score 2.53, use of supplementary occupation with a weighted mean score 2.41, and temporary relocation of farmers from their home with a weighted mean score 2.25 were adopted by the farmers as the best option for managing the conflicts between them and cattle herdsmen in the study area. In the light of the above, this finding, therefore, disagreed with Rashid (2012)[7] who said that the most commonly used coping strategies by farmers in Kwara state were seeking help from friends and relations. All in all, the standard deviation values were <1 in all the variables. This implies that the responses of the respondents on these variables did not vary much from the mean and thus can be useful in policy formulation.

CONCLUSION AND RECOMMENDATIONS

This paper concluded that the perceived causes of conflicts between cassava farmers and cattle herdsmen were of eight-fold, destruction of farmers' crops by cattle, raping of farmers, killing of farmers, burning of rangeland by farmers, blockage of stock routs by farmers, blockage of water point by farmers, environmental pollution, and killing of cattle by farmers. However, this study also held that the use of bamboo fence by the farmers, help from the village youths, increase of farm size, staying late in the farm, use of supplementary occupation, and temporary relocation of farmers from their present abode are the best options to resolve the conflicts in the study area. Farmers in the study area rejected the use of policemen for conflict resolution because they accused policemen of being corrupt, detain people, and delay cases unduly.

In view of the above, this paper, therefore, recommends that for a lasting peace to exist, government should make policies that designed

to enhance the cattle herdsmen by ensuring that they secure rights to land use to reduce insecurity and ameliorate the spate of conflicts. More so, traditional and local leaders should be well involved in finding solutions to herdsmen–farmer conflicts. There should be a deliberate design to enlighten and mobilize the parties in conflict to understand the ecology and the resources available in the localities. State government should make law on the grazing land adherent to farmers and other leaders in the communities involved. Finally, financial institutions, such as rural development, microfinance banks, and agricultural insurance companies, should give financial assistance to the victims of farmer herdsmen conflicts.

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