



Socio-economic and environmental factors influencing herdsmen and crop farmers conflicts and solutions for their co-existence in South-East Zone, Nigeria.

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ABSTRACT

This study was on the socioeconomic and environmental factors influencing herdsmen and farmers conflicts and solutions for co-existence in South-East Zone, Nigeria. A combination of purposive and simple random sampling techniques were employed in the selection of 184 respondents (180 farmers and 24 herdsmen). Primary data were sourced through field survey with the aid of a well-structured questionnaire and interview schedule. Descriptive statistics were employed in data analysis. The result of data analysis showed that destruction of the farmers' crops by cattle was the greatest source of conflict (89.4%) followed by contamination of sources of potable water (66.3%). Other activities of herdsmen that caused conflict as perceived by the crop farmers were plucking of fruits, cutting of bamboo for their tent making and defecation along the road and play grounds. Based on the herdsmen, the major causes were hitting of the cattle by farmers (100%), followed by injuring and killing of the cattle (87.5%). However, raping of Fulani girls or women was not experienced by the Fulani community in the area. Other sources were abusing and cursing of Fulani herdsmen and blocking of roads by crop farmers. Identified consensus intervention options for sustainable peaceful coexistence among the farmers and herders included encouraging herdsmen to learn the custom of their host community, compensation of aggrieved farmers and herders, punishment of the offenders, educating farmers and herdsmen on their inter-dependence and institution of a regular meeting of herdsmen and community leaders' committee/forum. The study concluded that the institution of stake holders to oversee the compensation of the aggrieved was very necessary. It also concluded that compensation of the aggrieved herders or farmers and punishment of the offenders should be an imperative coexistence measure. Recommendations such as restricting herdsmen to their own communities, provision of grazing reserves, as well as restricting herdsmen to particular locations were made, among others.

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1.0 Introduction

The quest for protection and preservation of secured economic resources of livelihood appears to be the bane for continued conflicts between herdsmen and farmers in different places. In West Africa, conflicts between farmers and herders have been a common feature of economic activities for ages (Tonah, 2006). The northern region of Ghana has recently experienced increased clashes between the two groups over access to land resources. (Olaniyan, Francis & Okeke-Uzodike, 2015). The struggle for the use of agricultural land for planting and grazing is becoming fiercer and increasingly widespread in Nigeria, largely due to intensification of production activities that

are necessitated by rising human population (Fasona & Omojola, 2005). Prior to 20th century, cattle rearing was prevalent in the Guinea, Sudan, and Sahel savanna belts where crop production was carried out on small scale only during the short rainy season. This gave the cattle herders access to a vast area of grass land. However the introduction of irrigated farming in the savanna belt of Nigeria and the increased withering of pasture during dry season has made pasture less available for cattle. The herdsmen had to move Southwards to the coastal zone where rainy season is longer and the soil retains moisture for long in search of greener pasture and fresh water for their cattle (4) (Ofuoku

& Isife, 2009). As the herders migrate southwards where the grass is much lush and often intrude into spaces long claimed or cultivated by settled farmers, conflicts usually ensued. These conflicts are believed to have existed since the beginning of agriculture and either increased or decreased in intensity or frequency, depending on economic, environmental and other factors (Aliyu, 2015). In many places, herders have clashed with farmers and their host communities over destruction of crops, farmers encroachment on grazing reserves and indiscriminate bush burning by nomads which normally lead to loss of crops (Ofem & Inyang 2014,). The seeming boldness of the perpetrators and mystery surrounding the real cause has continued to attract mixed perceptions. While many perceive it as a mere farming, grazing land and water dispute, others see it as a reprisals in defense of livestock from banditry in farming communities (Eyekpimi 2016; Mikailu, 2016). In recent times, there have been prevalent cases of herders-farmers clashes in Nigeria. Ofuoku and Isife (2009) noted that in Densina, Adamawa state, 28 people were killed, while about 2,500 farmers were displaced and rendered homeless in a clash between them, similarly, Idowu (2017) submits that the violence has displaced more than 100,000 people in Benue and Enugu states and left them under the care of relatives or in makeshift internally displaced persons (IDPs) while many are still struggling to rebuild their lives. The resultant effects are usually loss of lives and crops, destruction of properties, displacement of persons, decline in income/savings, as well as threat to food and national security. Besides the Global Terrorism Index (GTI) recently placed the Nigeria's Fulani herdsmen as the world's fourth deadliest militant group for

having accounted for about 1,229 deaths in 2014. While Boko Haram was associated with about 330 casualties in the first quarter of 2016, the herdsmen accounted for nearly 500 deaths and have shown no sign of slowing down. As such, it has been predicted that the herdsmen might well surpass Boko Haram as Nigeria's most dangerous group (Burton, 2016).

1.1 Objectives of the Study

The broad objective of the study was to analyze Herdsmen-Crop farmers conflicts and food production in South-East, Nigeria. While the specific objectives were to;

1. identify the socioeconomic and environmental factors influencing crop farmers and herdsmen conflicts
2. analyze intervention options for sustainable coexistence

2.0 Methodology

The study was conducted in South-East Geo-political zone of Nigeria. The choice of this region was due to reports of herdsmen and crop farmers conflicts in the zone. In addition, the zone is at the centre of the oil belt in Nigeria. The South-East zone is located between latitudes $04^{\circ} 15'$ and $7^{\circ} 25'$ north and longitudes $05^{\circ} 50'$ and $09^{\circ} 30'$ east (Obi, 2013). The South-East region is bordered on the East and South-east by Cross-River and Akwa-ibom states, on the south by Rivers state, on the north by Kogi and Benue states (Come to Nigeria, 2011). The zone covers a land area of 109,524qkm which is about 11.9% of the total area in Nigeria Multi-stage sampling techniques were used in selection of the respond-

Table 1.: Results of Factor Analysis on Socioeconomic and Environmental Factors that Influence Herdsmen and Farmers Conflicts in the study area

S/N	Factor	Social	Economic	Environmental
I	Curriculum of nomadic education does not include the sustainability of ecosystem	0.312	0.329	0.737
Ii	Herdsmen do not have knowledge of the custom of host community	0.685	0.257	0.339
Iii	Change in climate condition	0.217	0.346	0.813
Iv	Water pollution	0.333	0.294	0.748
V	Environmental degradation	0.241	0.226	0.703
Vi	Resource depletion	0.198	0.673	0.294
Vii	Over grazing of farmland	0.206	0.312	0.688
Viii	Cattle defecates in bodies of drinking water	0.214	0.293	0.744
Ix	Depletion of arable land for farming	0.303	0.349	0.652
X	Lack of economic will to tackle the challenges	0.247	0.653	0.219
Xi	Increased availability of modern weapons	0.746	0.195	0.318
Xii	Interpreting conflict as religious or political	0.615	0.274	0.185
Xiii	Unwillingness of government to accept the scale of conflicts	0.708	0.193	0.206
Xiv	Judicial commission held subsequent to conflicts do not result in effective action	0.633	0.216	0.184
Xv	Destruction of crops by cattle	0.229	0.789	0.216
Xvi	Indiscriminate burning of farmlands	0.341	0.218	0.739
Xvii	Increasing rate of cattle theft	0.306	0.219	0.748
Xviii	Antagonistic perceptions and beliefs among herdsmen and farmers	0.729	0.341	0.283
Xix	Lack of access to water points	0.512	0.189	0.226
Xx	Pollution of water points	0.311	0.238	0.743
Xxi	Female harassment	0.603	0.187	0.214
Xxii	Cattle rustling	0.216	0.802	0.175
Xxiii	Harassment of herdsmen by host communities	0.493	0.213	0.229
Xxiv	Increased population pressure	0.218	0.196	0.773
Xxv	Food insecurity	0.317	0.708	0.188
xxvi	Overall economic crisis	0.274	0.644	0.239

Source: Field survey, 2018

ents. Three states namely Abia, Ebonyi, and Enugu out of five states were purposively selected because of the endemic reports of farmers and herders conflicts in the states. In the first stage, three states Abia, Ebonyi and Enugu were purposively selected out of the five states of South-East geopolitical zone because farming and rearing activities take place there. In the second stage, two agricultural zones were purposively selected from each of the three states because of the reports of herdsmen and farmers conflicts in these areas of the zone.

The Agricultural zones selected were Umahia and Ohafia zones in Abia state, Ebonyi north and Ebonyi central zones in Ebonyi state, and Agbani and Nsukka Zones in Enugu state. In the third stage, two extension blocks were purposively selected from each of the six agricultural zones on the basis of their high level of involvement in farmers and herders conflicts. In stage five, 5 circles were proportionately selected from the blocks to make 8 circles selected in Abia, 28 circles selected in Enugu and 16 circles selected in Ebonyi states. From the circles, 8 farmers were selected from Abia, 32 were selected from Ebonyi and 140 selected from Enugu to give a total of 180 farmers. On the part of the herders, 8 herders were randomly selected from the three states each to make a total of 24 herders. Thus a total of 204 respondents were used for the study. Primary data were sourced by the use of structured questionnaire and interview schedule. Descriptive statistics such as frequency counts, percentages and means scores derived from 4 points Likert type scale with decision point of 2.5 were employed in data analysis. Focus group discussion (FGD) was also conducted to compliment and affirm the findings from data analysis with qualitative information.

The result in table 1 above shows that the factors were classified as, social, economic and environmental factors. However, after careful examination of the factors, the following variables were considered as social factors. Herdsmen do not have knowledge of the customs of host community (0.685) increased availability of modern weapons, (0.7467), interpreting conflicts as religious or political (0.615), unwillingness of government to accept the scale of conflicts (0.708), judicial commissions held subsequent to conflicts do not result in effective action, (0.633), antagonistic perceptions and beliefs

among herdsmen and farmers (0.729), lack of access to water points (0.512), female harassment by herdsmen and (0.603) harassment of herdsmen by host communities (0.493).

Resource depletion (0.673), lack of economic will to tackle the challenges (0.653), destruction of crops (0.789), cattle rustling (0.802), food insecurity (0.708) and overall economic crisis (0.644) loaded high under economic factors.

Curriculum of nomadic education does not include the sustainability of ecosystems (0.737), change in climate condition (0.813), water pollution (0.748), environmental degradation (0.703), overgrazing of farmland (0.688), cattle defecates in bodies of drinking water (0.744), Depleting arable land for farming (0.652), indiscriminate burning of farmland (0.739), increased rate of cattle theft (0.748), pollution of water points (0.743) and increased population pressure (0.773) recorded high numerical values under environmental factors.

Variables that loaded high in two or more factors or did not load up to 0.40 were discarded. The implication of this findings is that various social, economic and environmental factors affect herdsmen and farmers conflicts in South-East, Nigeria.

2.1 Intervention options for sustainable coexistence of Crop Farmers-Herdsmen Conflicts

Intervention option for sustainable resolution of crop farmers-herdsmen conflicts was determined by mean score obtained from 4-point likert scale. The result of data analysis is shown in Tables 2 and 3.

Source: Field Survey, 2018.

Note: SA – Strongly Agreed, A – Agreed, D- Disagreed, SD –Strongly Disagreed

Result presented in Table 2 showed that almost all the intervention options for sustainable resolution of crop farmers-herdsmen conflicts were accepted by the respondents. This is confirmed by the fact that the mean score obtained from the respondents (crop farmers) were higher than or equal to 2.5 in accordance with the decision rule. The result indicated that punishment of the offenders had the highest mean score of (X

Table 2: Arable Crop Farmers’ Perceived Intervention Options for Sustainable Resolution of Crop Farmers-Herdsmen Conflicts in the Study Area

Intervention Options	SA	A	D	SD	X	Decision
Each community to provide adequate grazing reserves for Herdsmen.	36	27	47	50	2.3	Rejected
Herdsmen to rear their cattle along federal Roads only.	46	22	34	58	2.5	Accepted
Restricting the number of cattle to the carrying capacity of host community grassland.	36	63	42	19	3.4	Accepted
Curriculum of nomadic education to include the sustainability of ecosystem farmland.	72	55	25	8	3.2	Accepted
Encourage Fulani to learn the custom of the host community	79	48	18	15	3.1	Accepted
Legislation to confine cattle to particular locations.	56	72	20	12	3.2	Accepted
Compensation of aggrieved farmers and herders.	86	50	16	8	3.4	Accepted
Punishment of the offenders.	89	57	4	10	3.5	Accepted
Educating farmers and herdsmen on their Inter-independence	88	62	8	2	3.5	Accepted
Institution of and regular meeting of herdsmen community leaders’ committee forum.	77	59	12	12	3.3	Accepted
Leasing out grazing land by the community to herdsmen.	36	30	33	61	2.3	Rejected

= 3.5) and closely followed by educating farmers and herdsmen on their interdependence

Note: SA – Strongly Agreed, A – Agreed, D- Disagreed, SD –Strongly Disagreed

Analysis presented in Table 3 shows that respondents (herdsmen) accepted some of the intervention options and rejected others. The result indicated that leasing out grazing land by the community to herdsmen recorded the highest by restricting the number of cattle to the carrying capacity of host community grassland (X=3.4) and compensation of

Table 3: Herdsmen Perceived Intervention options for Sustainable Resolution of Crop farmers-Herdsmen Conflicts in the Study Area

Intervention Options	SA	A	D	SD	X	Decision
Each community to provide adequate grazing reserves for Herdsmen.	4	4	6	2	2.7	Accepted
Herdsmen to rear their cattle along federal roads only.	0	2	9	5	1.8	Rejected
Restricting the number of cattle to the carrying capacity of host community grassland.	0	0	4	12	1.3	Rejected
Curriculum of nomadic education to include the sustainability of ecosystem farmland.	0	4	7	5	2.0	Rejected
Encourage Fulani to learn the custom of the host community.	2	8	3	3	3.0	Accepted
Legislation to confine cattle to particular locations.	0	0	4	12	1.3	Rejected
Compensation of aggrieved farmers and herders.	6	10	0	0	3.4	Accepted
Punishment of the offenders.	5	5	2	4	2.8	Accepted
Educating farmers and herdsmen on their Inter-dependence.	4	8	2	2	2.9	Accepted
Institutions of and regular meeting of herdsmen community leaders' committee/forum.	2	9	2	3	2.7	Accepted
Leasing out grazing land by the community to herdsmen.	10	2	2	2	3.5	Accepted

Source: Field Survey, 2018

aggrieved farmers and herders (X=3.4). The respondents (farmers) rejected two options as means of resolving crop farmers-herdsmen conflicts. The options were each community to provide adequate grazing reserves for herdsmen (X=2.3) and leasing out grazing land by the community to herdsmen (X=2.3). Mean score of 3.5 and closely followed by compensation of aggrieved farmers and herders (X = 3.4). Other acceptable options include encouraging Fulani herdsmen to learn the customs of the host community (X = 3.0), educating farmers and herdsmen on their interdependence (X= 2.8) and institution of and regular meeting of herdsmen community leaders committee/forum (X= 2.7). However, the rejected intervention options were; restricting the number of cattle to the carrying capacity of host community grassland (X=1.3), legislation to confine cattle to particular locations (X=1.3), herdsmen to rear cattle along federal roads only (X=1.8) and curriculum of nomadic education to include the sustainability of ecosystem/farmland (X =2.0).

3.0 Conclusion

The study identified the major causes of conflicts between the herdsmen and food-crop farmers as both social and economic in nature. The economic perspective to the conflict included destruction of farmers' crops by the Fulani cattle, stealing and non-payment or incomplete payment of cattle by the host community. Violation of women and the customs of the farm community by the herdsmen and blocking of roads by the farmers thereby denying herders and their cattle access through the community. These constituted the major social challenge for peaceful co-existence of the Fulani herders and the farmers. Consensus measures for sustainable resolution of herders-farmers conflicts in the area included the institution of stakeholders' forum made up of both groups to supervise, oversee and resolve issues affecting the farmers and herders, compensation of aggrieved herders or farmers and punishment of the offenders as well as educating farmers and herdsmen on their inter-dependence. Unless these issues are handled, conflicts will continue.

Recommendations

Based on the findings of the study, the following recommendations were added to the consensus measures for sustainable and peaceful coexistence among the Herders and the farmers.;

1. Access to land resources is a major cause of herder-farmer conflicts in South-East zone of Nigeria that leads to crop

destruction, government should ensure that there is equity and accessibility to arable and grazing land to avert constant conflicts.

2. Enforcement and restriction of the number of animals (cattle) to the carrying capacity of the grassland of a given area should be enacted in order to avoid over-grazing and destruction of ecosystem in South-East zone of Nigeria.

3. Government at all levels should provide grazing reserves to accommodate the interest of herdsmen since cattle is one of the major source of protein (meat) in Nigerian markets,

4. The leaders of nomadic Fulani should encourage their community to learn the customs guiding their host community to avoid violation which often leads to conflict,

5. The Livestock Transformation Committee already set up by Federal Governments should transform the rearing pattern of the herders to be the same with that of the developed countries

(6) Herdsmen should be properly educated or re-oriented on the sanctity of human lives and better ways of handling grievances

7) Establishment of stake holders committee that will be made up of leaders of the host community and herders to reconcile the aggrieved, to ensure and decide on adequate compensation of victims

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