

Farmers-Herdsmen Conflicts and Food Security in North Central Geo-Political Zone of Nigeria

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Abstract

The nexus between farmers-herdsmen conflicts and food security is complex and dynamic. Overtime, the relationship among socio-economic, ethnic groups in Nigeria especially farmers and herdsmen have resulted in hostility and violent conflicts due to climate change, induced competition for scarce resources, and other environmental factors. The conflicts between farmers and herdsmen in Nigeria and perennial civil unrests are exacerbating food insecurity for several millions of people in the country. This paper examines the effect of farmers-herdsmen conflicts on food production in the North-Central geo-political zone of Nigeria. To address the problem, the empirical method was used. The population of this study was drawn from the Kogi, Benue, Plateau, Nasarawa, Niger, Kwara and Federal Capital Territory, Abuja. The purposive sampling method was used to select a sample size of 400 respondents from the study population. The questionnaire was administered in two formats that addressed questions related to farmers-herdsmen conflicts and food security in North Central, Nigeria. Data collected from the respondents who are farmers, villagers, traditional rulers and NGOs across the North Central Zone of Nigeria were tested and verified using mean, simple percentages, correlation and regression. The study reveals that there is a significant relationship between the availability of food and insecurity; stability of food supply and displacement of people as well as the availability of food and disability and death in North Central Zone, Nigeria. The study recommends among others that Nigerian Government should make policies that will stop herdsmen by monitoring and checkmating their activities to ensure availability of food, the stability of food supply and accessibility of food in different parts of Nigeria.

Keyword: *Farmers-herdsmen conflicts, Food Security, Insecurity, Disability and Death, Displaced People*

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Background to the Study

The manifestation of conflicts is one major problem confronting world peace today in different dimensions. From America to Europe, Asia to Africa, conflicts are common phenomena (Jeong, 2008). Conflict has ever been a recurring decimal in the history of mankind. More often than not, this is as a result of competition for scarce resources in human society (Ikezue & Ezeah, 2017). Nigeria has experienced and is still experiencing conflicts of grave proportions among several ethnic and religious communities across the states. This is because of all resources, the land has remained an overwhelming source of conflicts among various user groups as well as individuals at varying thresholds. These conflicts significantly vary in dimension, process and the groups involved. The current and most severe insecurity challenge facing Nigeria today is Boko-Hara insurgency and farmers-herdsmen conflicts (Ahmed-Gamgum, 2018).

Farmer-herders conflicts have since the 20th century become widespread in the coastal countries of West Africa (Tonah, 2006). The conflict remains a major issue in Nigeria. It has assumed very dangerous dimensions with unimaginable consequences for food security (Nnamani, Orjinta & Ihejirika, 2018). As a result, Nigeria has experienced and is still experiencing farmers-herders conflicts of grave proportions in different parts of the country especially in the North Central. The reason being that most of the communities particularly in Nassarawa and Benue states survive on farming. However, all the states in this zone have experienced on the form of attack or the other resulting in poor food production. For instance, Adams, Atelhe & Emmanuel (2017) in their study states that the conflicts in Agatu in Benue state have degenerated to the mass movement of people from their original homes abandoning their farming activities. Similar Nasarawa, Plateau, Kogi and Niger States are experiencing the menace of farmers-herders conflicts. The implication of these conflicts in all these communities is that economic activities including the production of food are often threatened to result in widespread hunger and malnutrition (Okoli & Atelhe, 2013). Farmers-herdsmen conflict as observes by Adisa (2012) remained the most preponderant resource-use conflict in Nigeria. These conflicts are common in nearly every part of Nigeria.

Today, farmer-herdsmen conflicts have taken heightened dimension as casualties have continued to rise. These conflicts have also constituted severe threats to the means of survival and livelihoods of both the farmers and herdsmen. These conflicts as observes by Eje, Angai, Abdullahi, Eje, Wudaba, & Ishaku (2017) have demonstrated high potential to exacerbate the insecurity and food crisis particularly in rural communities where most of the conflicts are localized, with reverberating consequences nationwide. Farmer-herders conflict in Nigeria has persisted and stands out a threat to national food security, livestock production and eradication of poverty wssith farmers often regarded as the most vulnerable (Dimelu, Salifu, Enwelu & Igbokwe, 2017). It is a formidable challenge to economic development, threat to food security and sustainable livelihood of the agrarian communities (Ukamaka, Danjuma, Mbolle, Achonam & Mbadiwe, 2017). The implication of the conflicts resulted in the insecurity, displacement, disability and death, poor food production, widespread hunger and malnutrition in the North-Central geo-political zone of Nigeria.

Statement of the Problem

Farmer-herdsmen conflicts have increased tremendously in recent time in Nigeria, especially in the North-Central geo-political zone and Southern zones of the country. The causes of the conflicts have been traceable to the policy gaps and underdevelopment of grazing lands, land ownership and utilization, increase in production due to the increase in population, climate change, induced competition for resources, and other environmental factors. This causes by implication resulting in internal displacement, loss of life and properties, hunger and insecurity, destruction of farm crops, cattle rustling and killings of cows (Fasona, Fabusoro, Sodiya, Adedayo, & Olunfemi, 2016). However, the Nigerian government has made several attempts to mitigate this problem from the root in several parts of the country, but the government's response to the violence revolves the use of military force and mediation by eminent persons at a crisis point. Neither the military nor mediation panels have been able to address the conflicts. In most cases where military forces are deployed to curtail the violence, it aggravates the incidents especially in the treatment of the civil population which itself has become a critical political and security challenges (Hoffman, 2014). The duo efforts have failed as clashes have continued unabated over the years.

Incessant farmer-herders conflicts in Nigeria have claimed many lives and properties (Adeoye, 2017). In spite of the efforts of the Federal government to curb incessant conflicts between farmers and the herdsmen, the conflicts remain unabated (Al-Chukwuma & Atelhe, 2014). The farmers/herdsmen conflicts in Nigeria have demonstrated a high potential to exacerbate insecurity and food crisis. The bloody clashes between the herdsmen and farmers continue to occur in several parts of the country. The invasion of north-central states by herdsmen have forced farmers to abandon their fertile farmlands, rendering several communities deserted and reduced farmers to tenants in internally displaced persons (IDPs) camps. Nweze (2005) noted that many farmers and herders have lost their lives and herds, while others have experienced declining productivity in their herds. This according to Olobatoke & Omowunmi (2017) implies food security in Nigeria. A number of works have been done on the prevalence of farmers-herdsmen conflicts in Nigeria (Gyuse & Ajene, 2006; Alubo, 2008; Okolie & Ugwu, 2011; Abbas, 2012; Nchi, 2013), while numerous studies have been conducted on the socio-economic, financial and political implications of farmers-herdsmen conflicts on national development in Nigeria. Also, there exist some works on food security in Nigeria, such as Nwalie (2017), Okolo & Obidigbo (2015), Otaha (2013), Ojo & Adebayo (2012) etc. These works are plausible in their own merits, while the discourse on farmers-herdsmen conflicts in Nigeria has largely been done without giving adequate emphasis on its implication on food security. This study, therefore, focuses on the consequences of the farmers-herdsmen conflicts on food security in terms availability of food, the stability of food and accessibility to food in the North Central geo-political zone of Nigeria.

Objectives of the Study

The main objective of this study is to examine the influence of farmers-herdsmen conflicts on foods security in Nigeria with specific reference to North Central geo-political zone. The other specific objectives are to:

1. Assess the extent of insecurity on the availability of food in North Central geo-political zone.
2. Examine the effects of displacement of people and livestock on the stability of food supply in North Central geo-political zone.
3. Analyze the extent of disability and death on accessibility to food in North Central geo-political zone.

Research Questions

The study attempts to beam searchlight on the following research questions

1. Does insecurity affect the availability of food in North Central geo-political zone?
2. Would displacement of people and livestock influence the stability of food supply in North Central geo-political zone?
3. Would disability and death influence accessibility to food in North Central geo-political zone?

Research Hypotheses

1. H_{01} : Insecurity does not affect the availability of food in North Central geo-political zone of Nigeria
2. H_{02} : Displacement of people and livestock would not influence the stability of food supply in North Central geo-political zone of Nigeria
3. H_{03} : Disability and death would not influence accessibility to food in North Central geo-political zone of Nigeria.

Literature Review

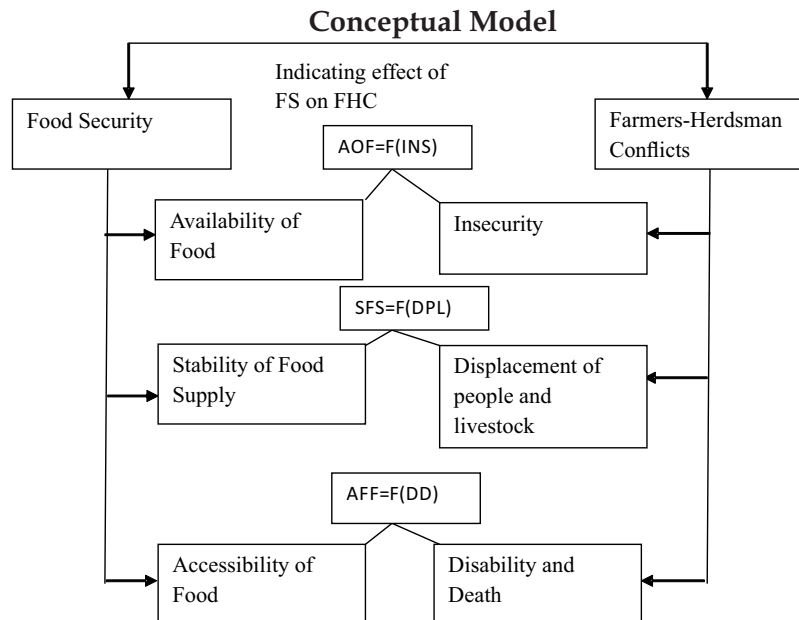
Conceptualizing Food Security

Food security is a broad concept which cuts across many dimensions. It means access to adequate food for a healthy life. Food security according to World Bank (1986) is the condition in which all have access to sufficient food to live healthy and productive lives. To Pottier (1999) food security involves interconnected domains, with questions of agriculture, society, environment, employment and income, marketing, health and nutrition, and public policy.

United States Agency for International Development (USAID) Bureau for Africa, (1986) (cited in Eme, Onyishi, Uche, & Uche, 2014) defined food security as a situation "When all people at all times have physical, social and economic access to sufficient food to meet their dietary needs for a productive and healthy life". World Bank (2007), food security is of three folds, these are food availability, food accessibility and food affordability. Food availability for farming households means ensuring sufficient food for the households through production. The above definitions, no doubt, point to at least two parts of this complex concept: access to available food and adequate nutrient intake for sustainable health.

Conceptual Model

The conceptual model below was developed for the study to operationalize farmer-herdsmen conflicts in Nigeria.



Source: Developed by the Authors

This model was conceptualised by the researchers to explain the variables used in this study since the previous work did not conceptualised the model like this one. The model tries to look at the relationship between herdsmen conflict and food security. This implies that herdsmen conflict can be linked to availability of food, stability as well as accessibility to food supply.

Insecurity and Availability of food in North Central Nigeria

Farmer-herdsmen conflict is widespread and a formidable challenge to food security in Nigeria. Herder-farmer conflicts not only have a direct impact on the lives and livelihoods of those involved, but they also disrupt and threaten the sustainability of agricultural and pastoral production and invariably the sustainability of livelihoods of rural communities (Ukamaka, Danjuma, Mbolle, Achonam & Mbadiwe, 2017; Moritz, 2010).

Farmer-herdsmen conflicts have a direct impact on the lives and livelihood of the people by disrupting and threatening the sustainability of pastoral production and agriculture. These conflicts reinforce circles of extreme poverty and hunger, and destroy social status, food security and affect mostly the most marginalized groups that include women and children (Ikezue & Ezeah, 2017). The livelihood structure, food security and wellbeing of farmers are threatened and compromised which contribute to poverty, food and nutrition insecurity and poor health of farming communities, and further escalation of conflicts. The instability caused by the incessant conflict, will likely lead to food shortages for the

communities that depend on subsistence farming.

Ibrahim, Abdurrahman, Belel & Umar (2015) observe further that the farmers herdsman conflicts have caused a sharp and substantial increase in prices for crucial northern agricultural crop exports such as cowpeas, maize, millet, rice and sorghum, to the rest of Nigeria, Niger and Cameroon. This rise in prices is mainly due to a decrease in agricultural, output, uncertainties in markets and an increase in transportation costs.

Displacement, Disability and Death and Food Stability in North Central

The farmer-herders conflict in Nigeria has become so pervasive and has led to the loss of lives and properties. These conflicts according to Adams, Atelhe & Emmanuel (2017) are considered as a negative phenomenon which often led to the loss of many lives and properties. Adebayo & Olaniyi, (2008) noted that the impact of the herders-farmers conflict had been observed to lead to the displacement of the farmers from their places of origin. They have thus become Internally Displaced Persons (IDPs) with a far-reaching impact on farming activities. As observed by Olabode & Ajibade (2010) farmers-herder conflicts lead to widespread displacement of farmers from their farms following the destruction of farms by the invading pastoralist and subsequently a fall in farm yield as farmers abandoned their more fertile farmland in avoidance of conflict. This shows that Herdsmen-farmers' conflict leads to forced relocation of farmers, increased number of widows and orphan, migration to marginal areas and unsafe environment for farming (Ukamaka, Danjuma, Mbolle, Achonam & Mbadiwe, 2017). Similarly, Goodhead (2001) (cited in Abass, 2012), state that one of the most devastating effects of war or conflicts is a scarcity of food item which often led to poverty and disease.

Empirical Review

Fasona & Omojola (2005) study showed that there appears to be a “very strong correlation” between the patterns of the clashes and human security. Blench (2006) attributes farmers-herders conflict to competition over natural resources and access to grazing and water resources and suggests that, because herders now farm and farmers have herds, competition for the same natural resources has increased. Rashih & Oluwasegun (2010) investigate the variables associated with farmer-herdsmen conflicts from the perspectives of farmers in Kwara State, Nigeria. The study outcome revealed that socioeconomic, production, institutional, and situational factors resulted in conflicts between farmers-herdsmen conflicts in the North Central geo-political zone. Sulaiman & Ja`afar-Furo (2010) examine the economic effects of farmer-herdsmen conflicts in the fadama areas of Bauchi State in Nigeria. An empirical method was used, and data were collected from fadama farmers and pastoralists from the area using structured questionnaire administered through individual personal interviews. The outcome revealed that farmers experienced a reduction in farm production, increased poverty within and among the communities', social insecurity, inadequate food supply for the family, interruption of education of children and reduction in healthcare provision of the family represented relatively lower proportions.

Oti, Onyia & Umoinyang (2017) examine the implications of the perennial conflict between farmers and Hausa/Fulani herdsmen on food security in Nigeria. The study utilised primary data collected from 210 farm households from seven villages in southeast Nigeria where herdsmen attack farm households. The result showed that the food security status of farm households was significantly affected by sex, marital status, size of farmlands destroyed, attack on farmers' homes by herdsmen and migration of people away from communities. Olobatoke & Omowumi (2017) investigate the effect of Fulani cattle herders' intrusion on the economic livelihood of crop farmers in Yagba East Local Government Area of Kogi State. Both purposive and random sampling techniques were used to select the villages and 120 respondents from the Local Government Area. The primary data were generated through the administration of structured questionnaires and was analyzed with the use of descriptive statistics and Ordinary Least Square regression. Results showed that the intrusions of cattle herders into crop farms have a significant effect in term of negative effects on the crop farmer's output/income.

Patience (2009) (cited in Ahmed-Gamgum (2018) examined the cause and effect of Farmers-Herdsmen Conflict in the North Central Region of Nigeria. It was conducted with the used of quantitative research methodology. This research found out that state failure, poor local governance and ineffective mechanisms for conflict resolution and management among others are the primary causes of the conflict. Effects of the conflict as the Researchers also found out include the loss of lives and properties, as well as the growing cases of humanitarian crises, are part of the significant effects of the conflict.

Theoretical Foundation

Theories help us to arrive at a better understanding of the phenomena that we study theoretically or empirically. Theory is of fundamental importance in research as it tied the current study to the pertinent body of literature. This according to Lehnert, Meyer, Wang, Miehe, Thies, Reudenbach & Bendix (2015) improves the overall understanding of the phenomena under study. The study under review can be viewed from group theory, the theory of deprivation, system theory and conflict theory. This study adopts the eclectic approach. It is anchored on eco-violence theory and resource access theory.

The Eco-violence Theory

The theory was developed in 1999 by Homer-Dixon. The theory is useful to understand the rising conflicts between farmers and herdsmen. Homer-Dixon focuses on population variables. He views population pressure as closely linked to the potential scarcity of renewable resources. While he argues that resource scarcities can cause violent intrastate conflict under unfavourable conditions. Homer-Dixon (1999) asserts that large populations in many developing countries are highly dependent on four key environmental resources that are fundamental to their livelihood: fresh water, cropland, forests and fish. Scarcity or shrinking of these resources as a result of misuse, over-use or degradation, population growth, climate change and resource access lead to competition over the scarce ecological resources among groups, and may under certain circumstances trigger off conflicts.

The theory assumes that competition over scarce ecological resources engenders violent conflict. This trend has been aggravated in contemporary times owing to the impacts of climate change, which has exacerbated ecological scarcity across the world (Onuoha, 2007). The theory contends that conflicts have been driven by the desperation of the affected groups to protect and advance their livelihood interests in the context of ever-shrinking ecological space, characterised by resource-scarcity, a livelihood crisis, population explosion, and resource competition. The theorist argued that resource scarcity forces groups in society into resource capture or competition, which in turn causes ecological marginalization and violent conflicts among groups.

The theory believes that population growth, a decrease in the quality and quantity of renewable resources, and resource access act singly or in various combinations to increase the scarcity, for certain population groups, of cropland, water, forests, and fish (Adeoye, 2017). The desperate quest for survival by groups in a competitive and resource-scarce ecological sphere is likely to precipitate violent conflict. The rising wave of militancy among the Fulani herdsmen in Nigeria is principally driven by a dire struggle for survival in an environment that is competitive and hostile to their collective sustainable livelihood. Eco-violence theory is based on the assumption that competition over scarce ecological resources engenders violent conflicts

In relation to this study, farmer-herdsmen conflicts have been driven by the scarcity of land, and competition between the farmers and herdsmen to ensure their viability in the area. The scarcity of land is due to the degradation and shrinking ecological space, human and cattle population explosion, and resource depletion. Therefore, the farmers need the land for cultivation, while the herdsmen need the land for grazing and rearing of cattle. The ultimate cause of the conflicts between farmers and herdsmen lie in the general degradation of resources and the increased competition for access and resources capture (Tonah, 2006). Critics have argued that though the fundamental theoretical assumption of the theory is that resource scarcity is the product of an insufficient supply that forces some sector of a society into a condition of deprivation, the nature of the farmer-herdsmen conflicts in the North Central. Despite the criticisms, the theory of eco-violence offers insights into the nature and dynamics of the herdsmen/ farmers conflicts in Nigeria.

Resource Access Theory

The theory which originated in 1970s was propounded by Jeffrey Pfeffer and Gerald R. Sananak believes that conflict has ever been a recurring decimal in the history of humanity. More often than not, this is as a result of competition for scarce resources in human society. Sikor & Lund (2009) make an important observation that access to natural resources is often contested and rife with conflicts at many levels. The need for people to legitimize their rights and access to natural resources has remained central in competition and contestation for natural resources.

According to the theorist, resource ownership and utilisation have directly and indirectly defined the dimensions of most conflicts involving man since time immemorial. Of all

resources, however, the land has remained an overwhelming source of conflicts among various user groups as well as individuals at varying threshold.

The theory also helps us to have a better understanding of the prevalence herders and farmers conflicts in Nigeria. The inability of the Fulani herdsmen to have unhindered access to grazing areas/reserves is to a significant extent responsible for why they often go into conflict with host communities and farmers in Nigeria. The theory sees access to a resource as the main cause of conflict and violence (Ikezue & Ezeah, 2017). Due to restricted access, the herdsmen resorted to taking the laws into their hands by forcing their animals into people's farmlands thereby destroying farm produce in the process. The herdsmen believed that they should have unhindered access to grazing routes which they see as their God's given right and any attempt to deny them this right will be challenged. On the other hand, farmers may not be willing to allow the herdsmen access to their farmlands and may always resort to violence to challenge the excesses of the herdsmen.

In relation to this study, farmer-herdsmen conflicts in the use of agricultural land are becoming fiercer and increasingly widespread in Nigeria, largely due to 'intensification and extensification' of production activities that are necessitated by increasing human population (Adisa & Adekunle, 2010). However, in spite of the contributions of the resource access theory to the understanding of herdsmen and farmers conflict, numerous aspects of the theory have been questioned. It has been criticized for lack of focus on the individual. Lastly, the theory fails to explain why certain feelings of deprivation or denied access to resources are transformed into collective action, whereas in some similar situations, no collective effort is made to reshape society. In spite of the shortcomings of the resource access theory, the theory is still useful in explaining herdsmen/farmers conflict in Nigeria.

Study Area

There are six states in the North Central geo-political zone, which include Niger, Kogi, Kwara, Nasarawa, Benue and Plateau. The focus on the North Central is as a result of the fact that the zone is regarded as the food basket of the nation. More than sixty percent (60%) of food supply in Nigeria is produced from the zone. Four of the six states are known to have experienced violent conflicts. Agriculturally, the States are significant for food production in Nigeria because of their rich soil that supports the cultivation of many crops. Similarly, the state have abundant livestock that comprises of cattle, goats and sheep.

Methodology

Survey research design is employed in this study with the aid of structured questionnaire administered to farmers, traditional rulers, NGOs groups across North Central, Nigeria. The population of this study is determined based on the number of questionnaire administered to the respondents since an adequate number of farmers that are affected cannot be determined. The researchers used both purposive and accidental sampling techniques to select participants for the study. A sample of 400 respondents was selected

for the study on the basis of 57 respondents from each of the six states and Federal Capital Territory (FCT). The questionnaire was designed in five points Likert scale.

The study used all the states including FCT, Abuja since recently there are farmers-herdsmen conflicts in virtually all the states in the North Central Zone of the country. The neighbouring states that farmers-herdsmen conflicts have not reached now have ideas or knowledge of the problems in the areas. The questionnaire was administered in two formats that addressed questions related to farmers-herdsmen conflicts and food security in North Central, Nigeria. It was realized that the respondents returned their copies of the questionnaire and 317 copies of questionnaire were returned by the respondents across North Central, Nigeria. Data collected from the respondents who are the farmers, villagers, traditional rulers and NGOs across the North Central Zone of Nigeria were tested and verified using mean, simple percentages, correlation and regression.

Regression is used to determine the cause and effect relationship variables while correlation was used to determine the degree of the relationship between variables. The study tested for t-statistic and f-statistic, p-statistic, coefficient of determination. The f-statistic indicates the overall significance of the variables on the dependent variable. The mathematical model is stated below

$$Y = a + bx \text{ -----1}$$

y = dependent variable (food security)
a = intercept or constant,
b = coefficient
x = independent variable (farmers-herdsmen conflicts).

However, due to error that may occur since we may not be efficient, the introduction of statistical model was set in this study. Therefore statistical model of regression was stated below:

$$\begin{aligned} \text{INS} &= \alpha + \beta_1 \text{AF} + \mu \text{ (1)} \\ \text{DPL} &= \alpha + \beta_1 \text{SFS} + \mu \text{ (2)} \\ \text{DD} &= \alpha + \beta_1 \text{ACF} + \mu \text{ (2)} \end{aligned}$$

Where:

- INS = insecurity
- AF = availability of foods
- DPL = displacement of people and livestock
- SFS = stability of foods supply
- DD = disability and death
- ACF = accessibility to food
- α = Intercept,
- β = Coefficient
- μ = error term

Copies of the questionnaire were tested to ensure that the questions being answered properly and the table below indicates the reliability value of the variables.

Table 2: Reliability test

Variables	Number of items	Cronbach's Alpha
Insecurity	4	0.88
availability of foods	4	0.82
displacement of people and livestock	5	0.89
stability of foods supply	5	0.92
disability and death	4	0.81
accessibility to food	7	0.99

Source: Researchers' computation (2018)

The above computation revealed that Alpha values are reliable.

Data Presentation and Analysis

Table 3: Characteristics of the respondents

S/NO	Characteristics	Respondents' Category	Frequency	Percent
1.	Sex	Male	153	48.26
		Female		
		Total		
2.	Age	Below 20	78	24.61
		20-29 Years	90	28.39
		30-39Years	92	29.02
		40-49 years	12	3.78
		50 years and above	45	14.19
			Total	317
3.	State	Nassarawa State	42	13.25
		Benue State	41	12.93
		Others	234	73.82
		Total	317	100.00

Source: Field Survey, 2018

From the above analysis it is clear that majority of the respondents that participated in the exercise were female which implies that women underwent farming activities in this region than male. The majority of the people that filled the questionnaire were within 30-39 years age bracket which implies that they still have the strength to do farming work.

Majority of the respondents who participated in the study were from others state such as FCT, Niger, Kogi, Plateau and Kwara. Also, majority of the respondents claimed that their relatives were affected by the activities of farmers herdsmen conflict in North Central, Nigeria which resulted in death, paralysis and serious injuries. Few number of

respondents believe that government took some measures to control herdsmen activities in North Central, Nigeria, however, they were of the opinion that if adequate security measures were in place in the area, it would have reduced the farmers-herdsmen conflicts.

The study also reveals that farmers' herdsmen conflicts affected the production of food in the North Central, Nigeria. Many respondents attributed scarcity of food in the area and Nigeria in general to the perennial conflicts between herders and farmers.

Test of Hypotheses

Hypothesis One

H_{01} : Insecurity does not affect the availability of food in North Central geo-political zone of Nigeria

Correlations

		AF	INS
AF	Pearson Correlation	1	.931**
	Sig. (2-tailed)		.000
	N	317	317
INS	Pearson Correlation	.931**	1
	Sig. (2-tailed)	.000	
	N	317	317

** . Correlation is significant at the 0.01 level (2-tailed).

The table above indicates that there is a positive association between the dependent variable and independent variables in the study. This implies that there is a positive association between insecurity and availability of food in North Central Nigeria

Regression

Model Summary

Model	R	R Square	Adjusted R Square	Std. error of the Estimate
1	.931 ^a	.867	.866	.40587

a. Predictors: (Constant), INS

ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	353.145	1	353.145	2143.782	.000 ^b
	Residual	54.361	330	.165		
	Total	407.506	331			

a. Dependent Variable: AF

b. Predictors: (Constant), INS

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.959	.065		14.802	.000
	INS	.761	.016	.931	46.301	.000

a. Dependent Variable: AF

The analysis indicates that the coefficient of insecurity is positive in enhancing the availability of foods in North Central, Nigeria. This implies that insecurity affects the availability of food in North Central Nigeria. The p-value and t-statistic values of the independent variables are significant at a probability value of 0.00 is significant. However, the f-statistic value of 2143.782 is significant at p statistic value of 0.00; it indicates that the model is a good fit. The $R^2 = 0.86$ indicates that only 86% of variations in insecurity can be explained by the availability of food in North Central, Nigeria but 14% can explained by other factors not noted in the regression model which is referred to as error term. Therefore, we accept the alternative hypothesis that there is a significant relationship between insecurity and availability of food in North Central, Nigeria.

Hypothesis Two

H_{02} : Displacement of people and livestock would not influence the stability of food supply in North Central geo-political zone of Nigeria

Correlations

		SFS	DPL
SFS	Pearson Correlation	1	.954**
	Sig. (2-tailed)		.000
	N	317	317
DPL	Pearson Correlation	.954**	1
	Sig. (2-tailed)	.000	
	N	317	317

** . Correlation is significant at the 0.01 level (2-tailed).

Table 16 indicates that there is a positive association between the dependent variable and independent variables in the study. This implies that there is a positive association between the stability of food supply and displacement of people in North Central Nigeria

Regression (Model Summary)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.954 ^a	.909	.909	.41219

a. Predictors: (Constant), DPL

ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	561.620	1	561.620	3305.589	.000 ^b
	Residual	56.067	314	.170		
	Total	617.687	317			

a. Dependent Variable: SFS

b. Predictors: (Constant), DPL

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.387	.061		6.372	.000
	DPL	.952	.017	.954	57.494	.000

a. Dependent Variable: SFS

The analysis indicates that the coefficient of stability of food supply is positive in reducing displacement of people in North Central, Nigeria. This implies that stability of food supply reduced displacement of people in North Central Nigeria. The p-value and t-statistic value of the independent variable is significant at probability value of 0.00. However, the f-statistic value of 3305.589 is significant at p statistic value of 0.00, it indicates that the model is a good fit. The $R^2 = 0.91$ indicates that only 91% of variations in stability of food supply can be explained by displacement of people in North Central, Nigeria but 14% can be explained by other factors not noted in the regression model which is referred to as error term. Therefore, we accept the alternative hypothesis that there is a significant relationship between the stability of food supply and displacement of people in North Central, Nigeria.

Hypothesis Three

H_{03} : Disability and death would not influence accessibility to food in North Central geo-political zone of Nigeria

Correlations

		AFC	DD
AFC	Pearson Correlation	1	.951**
	Sig. (2-tailed)		.000
	N	317	317
DD	Pearson Correlation	.951**	1
	Sig. (2-tailed)	.000	
	N	317	317

** . Correlation is significant at the 0.01 level (2-tailed).

The table indicates that there is a positive association between the dependent variable and independent variables in the study. This implies that there is a positive association between accessibility to food and disability as well as death in North Central Nigeria

Regression Result (Model Summary)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.951 ^a	.904	.904	.37880

a. Predictors: (Constant), DD

ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	446.536	1	446.536	3111.912	.000 ^b
	Residual	47.353	330	.143		
	Total	493.889	331			

a. Dependent Variable: ACF

b. Predictors: (Constant), DD

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.030	.068		.438	.662
	DD	.955	.017	.951	55.785	.000

a. Dependent Variable: ACF

The analysis indicates that the coefficient of accessibility to food is positive in reducing disability and death in North Central, Nigeria. This implies that accessibility to food reduced disability and death in the area. The p-value and t-statistic value of the independent variable are significant at a probability value of 0.00. However, the f-statistic value of 3111.912 is significant at p statistic value of 0.00, it indicates that the model is a good fit. The $R^2 = 0.90$ indicates that only 90% of variations in accessibility to food can be explained by disability and death in North Central, Nigeria but 14% can be explained by other factors not noted in the regression model which is referred to an error term. Therefore, we accept the alternative hypothesis that there is a significant relationship between accessibility to food and disability and death in North Central, Nigeria.

Discussion of Findings

From the above analysis, it has been established that there is a positive association of availability of food and insecurity; the stability of food supply and displacement of people as well as availability of food and disability and death in North Central Zone, Nigeria. The findings are in tandem with the findings of Oti, Onyia & Umounyang (2017) and Sulaiman & Ja`afar-Furo (2010) who found that the outcome of farmers-herdsmen conflicts have resulted into the reduction in farm production, increased poverty within and among the

communities, social insecurity, inadequate food supply for the family, interruption of education of children and reduction in healthcare provision of the family represented relatively lower proportions. They concluded that farmer-herdsmen conflicts had had negative economic effects on both the families involved and the nation regarding the huge resources lost.

In terms of stability of food supply and displacement of people, Oti, Onyia & Umounyang (2017) and Anyabe, Atelhe & Sunday (2017) argued that farmers-herdsmen conflicts has resulted in food scarcity due to destruction of farmlands, attack on farmers' homes by herdsmen and migration of people away from communities to IDPs camps. They further argued that the killings and destruction of farm land, crops, animal etc. has drastically affected food supply within and outside the region and resulted into a high level of food importation into the country. While Patience (2009) and Anyabe, Atelhe & Sunday (2017) argued that farmers-herdsmen conflicts have resulted in food shortage and disability, loss of lives and properties as well as the growing cases of humanitarian crises due to the destruction of farmlands, and ineffective mechanisms for conflict resolution and management among others by the government.

Conclusion and Recommendations

It is evident from this study that conflicts between farmers and herdsmen hinged on land resource control, which has been heightened by pressure on land from the two conflict actors. This phenomenon of farmer-herdsmen conflicts represents what can be called a 'land resource control conflict', which poses a threat to food security in Nigeria. The incessant farmers-herders conflicts in Nigeria have become a very serious source of concern to Nigerians. This is against the background that such conflicts in recent times are taking a very dangerous dimension which if not nipped in the bud, will eventually metamorphose into more widespread destruction capable of setting the whole nation ablaze.

The study therefore concludes that there is a positive association between availability of food and insecurity; the stability of food supply and displacement of people as well as availability of food and disability and death in North Central Zone, Nigeria. The Federal Government must recognize the agricultural sector contribution to food security, employment generation, gross domestic product as well as overall growth and development of the country.

The study therefore made the following recommendations as panacea to achieving peace in the zone:

1. A strong political will from governments at all levels is fundamental to resolving the herdsmen/farmers conflicts across the country.
2. Nigerian Government should make policies on grazing. There should be the establishment and operation of contemporaray grazing reserves in the affected zones.

3. Government should set up conflict mediation, resolution, reconciliation and peace building mechanisms in rural communities, local government areas and states affected by the conflicts.
4. Law enforcement agencies should be alive to their constitutional roles and government must strengthen the security around the farmers and herders across the country by providing necessary training and state-of-the-art equipment required anytime there is conflict.

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