THE IMPACT OF THE HERDSMEN-CROP FARMERS CONFLICT ON THE PRODUCTIVITY OF YAM FARMERS IN LOGO LOCAL GOVERNMENT AREA OF BENUE STATE

Dr. Dennis Terpase Nomor1 & Fidelis Ityoyongu Ikyoyer2

[1]Benue State University, Makurdi
[2]National Open University, Makurdi Study Centre, Makurdi

ABSTRACT

Conflict between herdsmen and crop farmers has become a regular component of West African economic livelihood. This ugly incidence has become persistent in Nigeria and has decimated many states in the middle belt, including Benue State. The Logo Local Government Area is one of the local governments that are most hit by this conflict. This study, therefore, was carried out to determine the impact of this conflict on the productivity of yam farmers in the local government. The data for this study was primary and gotten from a structured questionnaire that was administered to 400 households that were affected by the herdsmen-farmers' conflict in the local government. The data were analyzed using frequency tables, simple percentages, the t-test, and the logit regression model. The study revealed that herdsmen-crop farmers' conflict has a negative impact on the productivity of yam farmers in Logo Local Government Area of Benue State. The study recommended that, the national government should promote cultural, economic, social, religious, and political understandings capable of uniting Tiv farmers in Logo LGA and Nigeria's various tribes, including nomads. Again, all stakeholders and relevant government agencies or institutions, civil society groups, and individuals, as well as non-governmental organizations, should make all possible efforts to resettle the Fulani nomadic people who have occupied arable land to allow access to land by farmers. The study also recommended that the government should provide easy access to finance for farmers who are affected by this conflict to enable them recover their lost farm capital.

Keywords: *Herdsmen-crop farmers' conflict, agriculture productivity, Logit Regression, Farm households.*

JEL: A10, C21, C83, D01, D13, D21, D60, H56, I31

1. INTRODUCTION

It is unequivocally stated that a crisis or conflict is unavoidable. Conflict arises when various parties or groups coexist in a society or universe. The entire universe experienced a crisis over a number of centuries, hence the First World War (1914–1918), the Second World War (1939–1945), and also a series of uncountable cold wars. These world wars cut across all the continents, including Africa. The African continent has been and continues to be embroiled in one conflict after another. Nearly 70 African countries, or roughly 40% of Sub-Saharan Africa (SSA), including Nigeria, have experienced at least one period of civil war in the last 40 years (Elbadawi and Sambarus, 2000).

According to Tonah (2006), conflict between herders and crop farmers is a regular component of West African economic livelihood. The Fulani Cattle Herders have highlighted land usage conflicts as the most serious difficulty they face in their occupation. Farmers want land for cultivation, whereas herders require an area for grazing. In many places in Nigeria, this has resulted in competition for arable land, resulting in major hostilities and social friction between the two user groups. According to Amao, Adeagbo, Olojede, Ogunleye, and Ogundoyin, (2018), farmers-herdsmen disputes have been the most prevalent resource-use conflict in Nigeria. This conflict has shown a significant potential to increase insecurity and food crisis, particularly in rural areas where the conflict is most hit, with nationwide repercussions.

Herdsmen-crop farmers' conflict in Benue State has decimated most rural communities, robbing people of their farmlands and ancestral houses, and causing them to lose their livelihoods. The kidnapping, raping and killing of innocent people is the most concerning aspect of current events,

with women and children being the most vulnerable and most affected (Mbah, Jiriko and Amah, 2020). According to Kazeem (2018), an attack on villages in Benue state on January 1, 2018 in Guma local government killed 73 people, razed communities, and damaged houses, while the state emergency department claims 40,000 people were injured. According to Musa and Shabu (2014), Ijirshar, Ker and Terlumun, (2015), Apenda, (2016) and Kwaghtser, (2019), herdsmen-farmers conflict has negative effect on Benue farmers output resulting from reduction in crop yield and income of the Benue farmers; displacement of farmers, loss of lives and properties, loss of products in storage and destruction of public and private facilities.

The herdsmen-farmers conflict has inflicted havoc on fourteen of Benue's 23 local governments, including Guma, Gwer-West, Gwer-East, Agatu, Ado, Ogbadibo, Ohimini, Katsina-Ala, Logo, Kwande, Ukum, Tarka, Buruku, and the northern part of Makurdi (Apenda, 2016). In the Logo Local Government Area of Benue State, there have been multiple incidences of conflict between transhumant pastoralist Fulani herders and sedentary farmers. For instance, on January 30th, 2014, the Fulani herdsmen attacked five villages in Logo LGA, killing nine people. On April 10, 2014, over 100 herdsmen attacked four villages in Ukemberagya Tswarev Ward, Logo LGA, killing people and properties like animals, stored food, motor cycles, generators, etc. were lost; in another attack on May 24th, 2015, 100 people were killed in villages and refugee camps at Ukura, Gafa, Pev, and Tse-Gusa in Logo LGA; on March 9th, 2016, eight people were killed in Ngorukgan, Tse-Chia, Deghkia, and Nhumbe in Logo LGA; on May 8th and 13th, 2017, three people were killed respectively; and on June 20th, 2018, the transhumant terrorists attacked Gabo-Nenzev, Ugondo, and Turan in Logo LGA and killed 59 people. The latest of the callous and

inhuman atrocities came on the morning of November 13, 2021, when some gunmen invaded a community in Mbayatyo, Mbater council ward of Logo LGA, killing scores of mourners at a wake for one of their departed relatives (Ameh, 2018 and Duru, 2021).

Even though the act has been condemned by many Nigerians and the International Community, many people are still taking refuge in LGEA Central primary school, Ugba, and N K S T upgraded science primary school, Anyiin Logo LGA of Benue State, demanding that the Federal Government (or President) arrest and prosecute the herdsmen involved in this form of terrorism. This conflict has now escalated to the point where the previously peaceful relationship between herders and farmers has devolved into carnage, attracting widespread attention because it has had a significant impact on agricultural productivity in the local government area and the state as a whole. Recent studies (Musa and Shabu, 2014; Ijirshar, et al 2015; Apenda, 2016 and Kwaghtser, 2019) into this topic has raised a number of difficulties, including the need for increased public awareness campaigns to minimize the current prevalence, which has overrun numerous local government areas in Benue State, most notably the Logo Local Government Area. However, literature on the magnitude of this crisis on agricultural productivity is scarcely available. According to Verter and Becvarova (2014), yam production is the primary crop for 64% of farmers in the Logo Local Government Area. Therefore, the study is necessary to establish the relationship between herdsmen- crop farmer clashes and the productivity of yam farmers in the Logo Local Government Area of Benue State.

2.0 REVIEW OF RELATED LITERATURE

2.1 Conceptual Clarification

Conflict, as defined by Gurr (1980), Gyong (2007), and Folger, Poole & Stutman (2009), among others, is an interaction between two groups (whether tribal, ethnic, linguistic, religious, socio-economic, political, or others) in which the involved participants engage in mutually opposing actions and use coercive behaviour to destroy, injure, thwart, or otherwise control their opponents. Herdsmen-crop farmer's conflict is, therefore, the interaction between the Fulani herders and farmers in which they engage in mutually opposing actions and use coercive behaviour to destroy, injure, and even kill their opponents. According to Okoro (2018), herdsmen- crop farmers' conflict is a conflict occurring between peasant farmers or subsistence cultivators and nomadic or transhumant live-stock keepers.

The phenomenon of agricultural productivity has been defined by various authorities. According to Johston and Jones (2004), agricultural productivity is the output of agriculture in terms of the inputs such as capital and labour. Therefore, as a fairly general comment, this could be defined as the efficiency of the farm. Liverpool-Tesie, Kuku, and Ajibola (2011) defined agricultural productivity as the output produced by a given level of input (s) in the agricultural sector of a given economy. More formally, it can be defined as "the ratio of the value of total farm outputs to the value of total inputs used in farm production."

According to Aicha, Peter and Cachia (2017), agricultural productivity is commonly defined as a ratio of a volume measure of output to a volume measure of input use. At its most fundamental level, agricultural productivity measures the amount produced by a target group (country, industry, sector, farm, or almost any group) given a set of resources and inputs. They continue that productivity can be measured for a single entity (farm commodity) or a group of farms,

at any geographical scale. According to Iwala (2013), agricultural productivity is the ratio of the value of total farms outputs to the value of total inputs used in farm production. It is measured in a number of ways, including labor productivity, which is output per unit of labour employed; land productivity, which is output per unit of area cultivated; and gross profit, which is the difference between total revenue and total cost.

The concept of agricultural productivity engaged the attention of many economists at the 23rd Annual Conference of the Indian Society of Agricultural Economics. Some economists suggest that the yield per acre should be considered to indicate agricultural productivity. A number of objections were raised against this view because it considered only land, which is just one factor of production. It was suggested that, for instance, productivity could also be measured in terms of per unit labour and different regions compared on that bias. It was also pointed out that the average returns per unit of scarce resource do not accurately depict the situation, and that instead, the marginal returns per unit of scarce resource should be considered. This definition appears to be more meaningful than others, but it gives rise to a lot of practical difficulties. After a thorough discussion, it was generally observed that the yield per acre be considered to represent the agricultural productivity in a particular region and that all other factors be considered as the possible causes of the variation while comparing it with other regions (Hanumanthappa, 2014). This study therefore defines and measures agricultural productivity as output per unit of land area cultivated, expressed in output per hectare in monetary terms.

2.2 Theoretical and Empirical Review

The study employed two theories: the "Structural Conflicts Theory" and the "Frustration-Aggression Theory." These theories aptly capture the circumstances surrounding resources such as land, pasture, or grassland and water. The structural conflict theorist sees incompatible interests based on competition for resources, which in most cases are assumed to be scarce, as being responsible for social conflicts. Structural theory attempts to explain conflict as a product of the tension that arises when groups compete for scarce resources. The central argument in this sociological theory is that conflict is built into the particular ways in which a society is structured or organized. It describes the condition of a society and how such conditions or environments can create conflict. Structural conflict theory identifies conditions such as social exclusion, deprivation, class inequalities, injustice, political marginalization, gender imbalances, racial segregation, economic exploitation, and the like, that often lead to conflict.

The Frustration-Aggression Theory posits that frustration always precedes aggression, and aggression is the sure consequence of frustration. This theory contends that the rationale for the display of aggression by people is the feeling of not being able to get what they actually deserve. In other words, when people get something that is lower than their expectations, it results in conflict. The Structural Conflict Theory and the Frustrations-Aggression Theory have been selected as the basis of analysis in this study due to their abilities to explain the sources of communal conflict and show how both positive and negative consequences flow from conflicts.

Studies on herdsmen-crop framers conflict and agricultural productivity have shown that conflict has a negative impact on agricultural productivity. For instance, Mbah, Jerikoh, and Amah (2020) conducted a study on the socio-economic impacts of conflicts between farmers and cattle herdsmen in rural

households of Benue State, Nigeria. The study found out that the major effects of conflict between farmers and cattle herdsmen on agricultural production were named socio-economic, loss of lives and property-related, and shortage of food-related factors. Kwaghtser (2019) examined a link between the conflict and food production in Benue State. In particular, the result of the study showed that, there was a 56% reduction in food production as a result of the conflict. Also, the researcher found a 62% negative impact on the income of farmers and their standard of living as a result of the conflict.

Amao et al. (2018) also undertook research on the effects of Fulani herdsmen conflict on the productivity of arable crop farmers in the Ibarapa Areas of Oyo State. The study found that the herdsmen effect has a negative significant influence (-1.7366) on farmers' productivity at 1%, while farm size (0.2442) and educational level (0.2289) have a positive influence on farmers' productivity at 1% and 5%, respectively. The t-value was 16.8757 and is significant at 1%, which implies that there is a significant difference in the productivity of non-affected and affected farmers. In their study, Olobatoke and Omowumi (2017) also found a significant reduction in the quantity and value of money on crops produced before and after communal crises.

Again, Musa and Shabu (2014) assessed the conflict between herdsmen and farmers in Guma local government area of Benue State using 160 heads of farming households and 40 herdsmen from areas that have experienced farmer-herder conflict, which were purposively selected. The study revealed that both farmers and herdsmen agreed that herdsmen were not accepted by their host communities. The study revealed that the role of traditional rulers, destruction of crops and farmland, contamination of water and harassment of herdsmen by host communities were the major causes of conflict between farmers and herdsmen. The study found displacement of both farmers and herdsmen, loss of lives and properties, and a decrease in output as the major effects of conflicts between farmers and herdsmen in the area. The study recommended the establishment of grazing reserves to allow herders to transit from traditional to modern methods of animal husbandry as a solution to this conflict.

On the Impact of the Farmers and Herdsmen Conflict on Food Security: Focus on Taraba State, Solomon (2010) discovered that the rising number of farmers-herders conflict has resulted in widespread destruction of food, lives, and property, as well as an entrenched atmosphere of fairness and insecurity in rural communities. This has greatly affected crop farming and grazing activities, resulting in low productivity, food insecurity, low food utilization, food inaccessibility, and inadequate availability of food in Taraba state. Rukwe, Abdullahi, Faruk, and Nwaeze (2019), Ijirshar, et al (2015), Adepoju, Oladeebo, and Sanusi (2018), and Yakubu, Musa, Bamidele, Ali, Bappah, and Manuwa, (2021), also undertook various studies on the impact of herdsmen-farmer conflict in the agricultural sector. Their studies found that the conflict has a significant negative impact on food security, agricultural productivity, income of farmers, poverty status of farmers, produce of farmers in storage, residents, farm households' properties, as well as farm labour.

3.0 RESEARCH METHODOLOGY

3.1 Research Design

The study adopted a survey design (quasi-experimental design) technique via a cross-sectional approach that involves field and sample surveys. The study adopted purposive and random sampling techniques in order to

select yam farmers that were affected by Fulani herdsmen attacks in the study area. A sample size of 400 yam farmers in Logo Local Government Area were chosen based on those affected by Fulani herdsmen attack. Data were collected through an open-ended and structured questionnaire, Oral interview, personal observations and Focused group discussion (FGDs) because, the study was aimed at eliciting both qualitative and quantitative information pertaining the effect of the conflict on the productivity of yam farmers in Logo Local Government Area of Benue State.

3.2 Population of the Study

The population of this study is yam farmers in Logo Local Government Area of Benue State. According to the International Food Policy Research Institute (IFPRI; 2015), about 70% of the rural population are farmers. The projected population of Logo Local Government Area of Benue State as at 2016 is 228,900. Therefore, the population of farmers becomes 70/100 x 228,900 = 160,230. According to Verter and Becvarova (2014), yam production is the primary crop for 64% of farmers in the Logo Local Government Area. Therefore, the population of yam farmers is 64/100*160,230 = 102, 547. It is from this population of yam farmers that the sample size for the study is determined.

3.3 Sample Size Determination

This study adopt Taro Yemen (1967) formula to determine the sample size.

The formula stated as below;

$n = N / (1 + N(e)^2)$

Where,
n = the required sample size
N = the total population size
E = the level of significance, i.e 5%.

Therefore, from this population of study,
N = 160,230
E = 0.05, but n is unknown

Substituting in to the formula stated above;
$n = 102{,}547 / (1+1102{,}547(0.05)^2)$
n= 399.9, Approximately 400

3.4 Method of Data Analysis

The data were analysed using descriptive statistics and regression analysis. Descriptive statistics, including frequency distributions, tables, charts, percentages, and means, were used to analyse the socio-economic characteristics of the respondents. A Paired t-test was used to ascertain the differences in the productivity of yam farmers before and after the Fulani attacks, and a Logit regression technique was used to ascertain the impact of herdsmen attacks on the productivity of yam farmers in Logo Local Government Area of Benue State. The formula for computing the t-test of an independent sample is as follows:

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{S^2 P \left(\frac{1}{n_1}+\frac{1}{n_2}\right)}}$$

Where;

$\bar{x}_1$ = the mean of yam output of farmers before the attack

$\bar{x}_2$ = the mean of yam output of farmers after the attack

n_1 or n_2 = the sample size

S^2p = the pooled estimate of the population variance defined as;

$$S^2 p = \frac{(n_1 - 1)S_1^2 + (n_2 - 1)S_1^2}{n_1 + n_2 - 2}$$

3.5 Model Specification

A Logit regression technique was used to ascertain the impact of herdsmen attacks on the productivity of yam farmers in Logo Local Government Area of Benue State. In a logistic model, the endogenous variable is a dichotomous or dummy variable. The general form of the model is given as:

$$ln\left[\frac{P_i}{1-P_i}\right] = Z = \alpha + \beta X_i + \mu \text{ ----------------- 1}$$

Z = Denotes the dichotomy qualitative variable, significant change/insignificant change;

X_i = Denotes the characteristic vector(s) of farm households; and

μ = is the error term.

For the purpose of this study, a model by Ijirshar et al (2015) was adopted and modified in logit form. The logit model is specified as follows;

cY= f(NOD, NAF, HEA, FMLS, LEED, FMEX, HSTA,TECH, NMHC, FU)---------- 2

Where,

cY = Change in output as a result of herdsmen attacks (1; if the percentage change in output is greater or equal to 50 and 0; if otherwise).

f= Functional notation

NOD= Number of Deaths Recorded by a household as a result of Fulani Attacks

NAF = Number of attacks by the Fulani herdsmen

HEA = expenses incurred from treating injuries gotten by family members from herdsmen attacks.

FMLS = Family size

LEEDS = Level of education of respondent. (0 = no formal education, 1 = primary education, 2 = secondary education, and 4 = post-secondary education).

FMEX = the number of years that the farmer has practiced yam farming

HSTA = Health status of the respondent, (1; if healthy and 0; if otherwise)

TECH = Technology (1; if used mechanized or modern system and 0; if otherwise)

NMHC = Number of hectares cultivated per annum

FU = fertility used. (1; fertilizer is used and 0; if otherwise)

Thus, the specific form of the model stochastically presented as:

$FOUT=Bo+B_1NOD+B_2NAF+B_3HEA+B_4FMLS+B_5LEED+B_6FMEX+B_7HSTA+B_8TECH+B_9NMHC+B_{10}LNDF+Ui$ ------------------- 3

Where;

U = Error term.

3.6 Apriori Expectation

In this study, B_1-B_3 are expected to be positively signed, implying that these parameters will increase the probability of farmers' output changing with herdsmen attacks, while B_4-B_{10} are expected to be negatively signed, implying that the parameters will reduce the chance of the productivity of yam farmers changing with herdsmen attacks.

4.0 ANALYSIS OF RESULTS

4.1 Socio-Economic Characteristics of the Affected Households.

The socio-economic characteristics of respondents is presented in the table below;

Table 1: The Socio-Economic Characteristics of Respondents

Variables	Frequency	Percentage
Gender		
Male	269	67.3
Female	131	33.7
Age (years)		
<20	16	4.0
21 – 40	150	37.5
41 – 60	126	31.5
>60	108	27.0
Marital status		
Single	24	6.0
Married	289	72.3
Widows/widowers	87	21.7
Household size		
<5	30	7.5
6-10	84	21.0
11-15	254	63.5
>15	32	8.0
Farm size (ha)		
<1	90	22.5
1 – 2	170	42.5
3 – 4	92	23.0
>5	48	12.0
Educational level		
No formal education	99	24.8
Primary education	122	30.5
Secondary education	138	34.5
Tertiary education	41	10.2

Source: Field survey, 2021

Results on socioeconomic characteristics of yam farmers in the study area as shown in Table 1 indicate that 67.3% of the affected farmers were males. This means that female coverage in this research is limited, which implies that men are more proactive in responding to the activities of the conflict than women. The majority (67.0%) of the affected farmers fell within 21–60 years of age, with a mean age of 35 years, indicating that the farmers are still in their active and productive years. Consequently, they are energetic and may respond violently to conflict or aggression from herdsmen. The majority (73.5%) were married, with an average household size of 11 people. Rural farmers have a large household size, which may have resulted from the need for family labour with the consequence of more dependent family members.

The majority of the farmers are mostly small-scale farmers, with an average farm size of 2.75 ha. This may be because they acquire land for farming mainly by inheritance and may indicate the practice of an individual system of land ownership. It is in agreement with the study of Dimelu *et al.* (2017) who reported that the respondents are subsistence farmers with an average farm size of 2.9 ha. With respect to education, about 75.2% of the sampled farmers had formal education. Though the farmers are literate, the educational level they have attained is relatively low. Only 10.2% had a higher qualification. This could negatively affect the farmers' perception of conflict situations and, subsequently, their behavior and altitude towards conflict. This might be one of the reasons why farmer-herders' conflict has remained unabated and is a regular phenomenon in Benue State.

4.2 Analysis of the Productivity of Yam Farmers

The analysis of the productivity of yam farmers' output before and after the attacks are presented in table 4.2 and 4.3 below.

Table 4.2 Farmer's Output before and after Herdsmen Attacks

Qty	Before		After	
	Freq.	Percentage	Freq.	Percentage
<1000	40		204	
1000-2000	48		100	
2000-3000	108		60	
3000-4000	150		34	
>4000	54		2	
Total	400		400	

Source: Field survey, 2021

Table 4.3: T-test result

Indicator	Before	After	Difference	T-value	Prob.
Yam Output	4,217	3,196	1,021	16.889	0.0001

Source: Researchers' computation.

The figures in table 4.2 above showed output per hectare before and after herdsmen attacks. The result showed a higher number of respondents producing more output per hectare before the herdsmen attacks, and a lower number of respondents producing less output per hectare after the herdsmen attacks. This implies that herdsmen attacks have reduced the productivity of yam farmers in the study area. Results from focus group discussions with farmers in the study area revealed that inadequate access to land, reduction in farm labour and destruction of yam seeds were the major factors that caused the reduction in the productivity of yam farmers in the study area. They argued that, many farmers have not yet accessed their farmlands in the remote areas because the land has been occupied by Fulani nomadic people. Again, young men who come from other local governments to work on their farms no longer come because of fear of being attacked by herdsmen. The paired t-test result on table 4.3 showed a value of 16.889 and is statistically significant at a level of 5%, which implies that herdsmen attacks significantly reduced the productivity of yam farmers in the study area.

4.3 Regression Result

The result of the Logit regression is presented in table 4.4 below

Table 4.4 Logit Regression Results

Variables	Coefficient	Standard Error	z-statistic	Prob.
NOD	31.247	4.126	7.573	0.009
NAF	2.356	1.157	2.036	0.040
HEA	-8.838	5.698	-1.551	0.129
FMIS	-2.440	1.888	-1.293	0.291
LEED	-0.626	1.092	-0.573	0.574
FMEX	-3.226	1.785	-1.807	0.047
HSTA	-4.063	1.839	-2.209	0.042
TECH	5.358	2.332	2.298	0.034
NMHC	-2.976	2.111	-1.410	0.159
FU	-5.246	3.179	-1.650	0.099
C	15.708	5.699	2.756	0.027

Mac Fadden R-Squared 0.723, Akaike Infor Criterion 1.102718, Prob. (LR Statistics) 0.004192

The result of the logit regression model shows that the number of deaths recorded by households as a result of Fulani attacks (NOD), the number of attacks by the Fulani herdsmen (NAF) and technology (TECH) were positive and statistically significant at 5% critical level. The results for NOD and NAF agreed with a priori expectations. This means that killing people during the conflict and attacks by Fulani herdsmen reduces the labor force, destroys farmers' inputs, and instills terror in farmers, causing them to abandon agriculture operations in that area, resulting in a significant drop in the productivity of yam. This result agreed with the result by Ijirshar et al. (2019), who also found out that killing human beings in the course of the conflict

and the attacks by the Fulani herdsmen turned to reducing the labor force, creating fear in farmers and serving as a deterrent to other energetic people to withdraw from the farm production in that area, resulting in a great reduction in the output. The outcome for TECH, on the other hand, did not agree with a priori expectation. This could be because the farming households in the study area are poor and do not have enough capital to make use of machines for farming.

The result also showed that family size (FMLS), the number of years that the farmer practiced farming (FMEX), and health status (HSTA) were negative and statistically significant at 5% critical level. The results for the level of education (LEED), expenses incurred from treating injuries gotten by family members from herdsmen attacks (HEA), land area cultivated (NMHC) and fertilizer use (FU) were negative but statistically insignificant at 5% level of significance. This showed that family size, years of farming practice, and health status significantly reduced the chance of the productivity of farmers reducing significantly as a result of herdsmen attacks in the study area. The level of education, land area cultivated, and fertilizer use did not affect the reduction significantly. The costs of treating family members, on the other hand, did not agree with a priori expectation. This could be as a result of the low poverty status of farm households in the study area.

The result also shows the Mac Fadden R^2 value of 0.576, meaning that the explanatory variables included in the model explain the changes in market access by 54.04%. The Akaeke and Schwarz statistics are relatively low, suggesting that the model performs well. The LR statistics are significant at a 5% level of significance, suggesting elements of joint effect by the explanatory variables of the model. The results of all the criteria perform well and imply that all the s are significantly different from zero.

5.0 Conclusion And Recommendations

The study was carried out to investigate the impact of herdsmen-crop farmers' conflict on the productivity of yam farmers in Logo Local Government Area of Benue State. Results from the study showed that this conflict has a negative and significant effect on the productivity of yam farmers in the study area. The herdsmen-crop farmers' conflict is destructive and has far-reaching consequences for agricultural productivity and the people of Logo LGA, as well as Benue State. There is no doubt that these conflicts have depleted resources, displaced farmers, resulted in the loss of properties, farms, and revenue, increased unemployment, slowed economic, cultural, social, political, educational, and religious activities in the region, and increased rural-urban migration of people, particularly youth, resulting in a higher poverty rate in the region, including food and social insecurity.s

The situation therefore calls for quick intervention from the nation's leadership to promote cultural, economic, social, religious, and political understandings capable of uniting the Tiv farmers in Logo LGA and the various tribes in Nigeria, including the nomads. Again, all stakeholders and relevant government agencies or institutions, civil society groups, and individuals, as well as non-governmental organizations, should make all possible efforts to resettle the Fulani nomadic people who have occupied farm land to allow access to farm land by farmers. Finally, the government should provide easy access to finance for farmers who are affected by this conflict to enable them to recover their lost farm capital.

REFERENCE

Aicha, M., Peter, L. & Chachia, F. (2017) Productivity and efficiency measurement in agricultureliterature review and gaps analysis. Technical Report Series GO-19-2017. Retrieved from File:///C:/Users/TERPAS~1/AppData/Local/Temp/productivity-and-efficiency-measurement-in-agriculture.pdf.

Amao O., Adeagbo T. A., Olojede M. O, Ogunleye B. T & Ogundoyin C. O. (2018) Effects of fulani herdsmen conflict on productivity of arable crop farmers in Ibarapa Areas of Oyo State. *International Journal for Research in Social Science and Humanities,* 4(7), 1-12.

Ameh, C. G. (2018). Herdsmen killings: Benue Governmentt releases timeline of attacks. Retrieved from https://dailypost.ng/2018/02/06/herdsmen-killings-benue-govt-releases-timeline-attacks/

Apenda, I. T. (2016). An Assessment of the impact of farmers' herder's conflict on food
security in Benue State, Nigeria. *International Journal of Development Strategies in Humanities, Management and Social Sciences.* 6(2), 187-200.

Dimelu, M. U. Salifu, E. D., Chah, J. M., Enwelu, I. A. & Igbokwe, E. M. (2017). Livelihood issues in herdsmen-farmers' conflict among farming communities in Kogi State, Nigeria. *African journal of agricultural research,* 12(24), 2105-2115.

Duru, P. (2021). 1,773 killed by armed herdsmen in Benue, LG chiefs, tribal leaders cry out. Retrieved from https://www.vanguardngr.com/2021/11/1773-killed-by-armed-herdsmen-in-benue-lg-chiefs-tribal-leaders-cry-out/

Elbadawi, E & Sambanis, N. (2000). Why are there so many civil wars in Africa? Understanding and preventing violent conflict, *Journal of African Economies*, 9(3), 244-269.

Folger J. P., Poole M. S. & Stutman, R. K. (2009). *Working through Conflict Strategies for Relationships, Group and Organizations*. USA: Pearson Education, Inc.

Gurr, T. (1980). *Hand book of political conflict, theory & research*. New York: The Free Press.

Gyong, J. (2007). *The structure of communication in peace and conflict resolution, identity, crisis and development in Africa*. Lagos: Malhouse Press.Retrieved fromhttp://www.academicjournals.org/AJAR.

Hanumanthapa, K.M. (2014). A clarification of the concept of agricultural productivity in Karnataka. *International Journal of innovative research and development*, 3(7), 395-397.

International Food Policy Research Institute (2015). Global nutrition report 2015. Actions and accountability to advance nutrition and stainable development. Washington, DC. Retrieved from https://www.ifpri.org/publication/global-nutrition-report-2015

Ijirshar V. U, Ker G. and Terlumun Y. C. (2015) "Socio-economic effects of farmers- Fulani herdsmen's conflict on farmers output in Benue, Nigeria" In Bakpo F S and F E Ugbeda (2015) Eds. *Proceeding of An International Academic Conference of the International Multidisciplinary Research and Academic Society*, Obudu, Cross River State: Nigeria.

Iwala .O.S (2013). The measurement of productive and technical efficieny of cassava farmers in the North-Central, Zone of Nigeria. *Research Journal of Agruclture and Environmental .Management,* 2(10), 323-331.

Kazeem, Y. (2018). A new wave of brazen attacks by herdsmen in Nigeria is sparking fears of genocide. Retrieved from https://qz.com/africa/1178371/benue-killing-nigerias-fulani-herdsmenattacks-have-over-surpassed-boko-haram/

Kwghtser, P. A. (2019) Impact of the conflict between farmers and herdsmen on food production in the agro-ecological Zone-B of Benue State, Nigeria. *Ianna Journal of Interdisciplinary Studies,* 1(1), 56-64.

Liverpool-Tesie, K. Kuku, O. & Ajibola, A. (2011). A Review of literature on agricultural productivity, social capital and food security in Nigeria NSSP Working Paper 21. International Food Policy research Institute.

Mbah, E. N., Jiriko, R. K. & Amah, N.E. (2020).Socio-Economic impacts of conflicts between farmers and cattle herdsmen in rural households of Benue State, Nigeria. *Journal of Agriculture and Sustainability.* 13(13), 1-12.

Musa S. D and Shabu M. I. (2014). Resource use conflict between farmers and fulani herdsmen in Guma Local Government Area of Benue State, Nigeria. *International Journal of Sciences: Basic and Applied Research* (IJSBAR), 4(1), Researchgate.

National Population Commission of Nigeria (2016). Logo Local Government Area in Nigeria. Retrieved from https://citypopulation.de/php/nigeria-admin.php?adm2id=NGA007012.

Okoro, J. P. (2018). Herdsmen/farmers conflict and its effects on socio-economic development in Nigeria. *Journal of Peace, Security, and Development.* 4(1), 143-158.

Olobatoke, R., & Omowumi, A. (2017). Effect of fulani herders' intrusion on the economic livelihood of crop farmers in Yagba East Local Government Area of Kogi State, Nigeria. *International Journal of Agricultural Policy and Research, 5*(3), 80-85. Retrieved from https://www.journalissues.org/IJAPR

Rukwe D. T., Abdullahi Y. M., Faruk A. U. & Nwaeze U. (2019). The effects of farmers-herders conflict on farming households in Southern Taraba State, Nigeria. *South Asian Research Journal of Agriculture and Fisheries,* 1(3), 106-111.

Solomon, B. L. (2021) Impact of the farmers and herdsmen conflict on food security; focus on Taraba State. *International Journal of Research and Innovation in Social Science,* 5(3), 565-573. Retrieved from www.rsisinternational.org Page 569.

Tonah, S. (2000). State policies, local prejudices, and cattle rustling along the Ghana-Burkina Faso border. *Africa,* 70(4):55.

Verter, N. & Becvarova, V. (2014). Yam production as pillar of food security in Logo Local Government Area of Benue State, Nigeria. *European Scientific Journal*, 10(31), 27-42.

Yakubu, S.M., Musa, M. W., Bamidele, T. E. Ali, M. B., Bappah, M. T. Munir, R. T. & Manuwa, A. (2019) Effects of farmer-herder conflicts on rural households food security in Gombe State. *Nigeria. Journal of Agricultural Extension*, 25(1), 11-20.