

EFFECTS OF FARM LAND DISPUTES ON FOOD SECURITY IN NASARAWA STATE, NIGERIA

By

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Abstract

This study examines the effects of farm land disputes on food security in Nasarawa State. Survey design is used given the population of the study that is relatively large. The population of the study comprises of all the adults within eighteen (18) years and above, male and female in Nasarawa State. A stratified sampling method is used to select one local government area from each of the three senatorial zones that made up the state. Furthermore, a judgmental sampling technique is used to select local government from each of these zones with the highest agricultural produce. Then, a convenient sampling method is used to select fifty (50) respondents from each of the three local government selected from each of the three senatorial zones in the state. Thus, these local governments are selected from each of these zones. Nasarawa South (Awe), Nasarawa North (Nassarawa Eggon), and Nasarawa West (Toto). This makes a total of one hundred and fifty (150) respondents selected for the study. Ordinary Least Squares Method of Regression (OLS) is used and finds out that, widow and late husband's family dispute and land grabbing dispute are significantly negatively related to food security in Nasarawa State. However, insignificant negative effect of junior and senior family members' dispute on food security is found. It is recommended among others that, Nasarawa State Government should pay attention in resolving farm land disputes in the state by partnering with traditional rulers.

Keywords: *Farm Land Disputes, Food Security, Nasarawa State, Nigeria*

1. Introduction

Land remains an important natural capital for every nation and individuals and thus not unusual for incessant land conflicts across the world, especially in developing nations where a huge population depends on agriculture for their livelihood (Wehrmann, 2008; Kairaba, 2000). In most African countries, land conflict commonly arise at the countries' boarder level, district boarder, among ethnic groups, in the community over common land, between individuals over boundary (Mamo, 2006). Land conflict between individuals is the most common type of conflict in the rural community, and yet in many cases, conflict at this level lacked big attention from the authority. On the other hand, countries' boarder conflict, district and inter-ethnic land conflict received major response, which tends to result into immediate solution due to political dimension involved (Mamo, 2006). Because of lack of attention by the authorities over land conflict at the rural community, some vulnerable people like women and orphans have continued to lose their rights to land to the greedy people. Some people have lost their lives due to land fight and some incidences of land conflict creates hatreds among the parties involved which goes on from generation to another. Moreover, the individuals who lose their rights to land due to conflict find themselves in deep poverty, due to decline in productivity, food insecurity and a fall on the income level.

The land conflict level between pastoralists and farmers is on the rise, and conflict has turn out to be the main threat to farmers (UNLP, 2013). Land conflict reduces agricultural productivity, but

fortunately, the government has of recent realized the economic and political impacts of such conflict on the country's agricultural production capacity (Kairaba, 2002). Francis and Tomoya (2013) found that land conflict could reduce agricultural productivity on plots by 17%. Unfortunately, this affects vulnerable groups like female-headed households and widows (Deininger & Castagnini, 2004). The lack of attention to women's land right has continuously made it difficult for women to avoid "inheritance land related conflict" (Deininger & Castagnini, 2004). The unequal relation between men and women over land has been well documented. Studies have shown that rural women are primary smallholder producers in agriculture and yet they continuously gain access to land only through their husbands, and it's the male counterparts who reap the benefits (Davison, 1998; Croll, 1986). Despite such high contribution to the agricultural sector and the country's food security, women's access to land and other productive resources remains low and a great challenge to them (Okonya & Kroschel, 2014).

For several decades, in Nasarawa State, land conflicts amongst individuals and communities have been common with little concern or intervention by the government. It is just of recent that the government developed some interest in settling local land disputes with limited focus on the root causes of land conflict, yet such conflict can erupt into civil strife within the local community. As a result of such reluctance by the government in addressing the local land disputes, both local and national authorities have faced criticisms from the local community as more people continue to lose their land and become poorer due to reduced farming land size. In some cases, people have lost their lives in fighting for land, leading to permanent hatred between actors in the community. Similarly, women in the state have continued to lose their rights to access and control over land since their rights to use land depend highly on their relationship with men they are married to. Economically, this is a threat to the local community development and the state by extension.

Land conflicts create insecurity over accessed land and hence impede land improvement, which translates into low agriculture output per hectare (Deininger & Castagnini, 2006). In addition to its effect on the agriculture sector performance, small-scale land conflicts can escalate into widespread civil strife that may threaten national security. Studies have suggested that land scarcity and land conflicts, mainly between ethnic groups, fuelled most of the crisis in sub-Saharan African countries (Renner, 1997; Andre & Platteau, 1998).

Despite the increasing incidence of land-related conflicts and their undisputable effects on agriculture performance and national security, empirical studies on the determinants and consequences of such conflicts are scanty. For instance, no empirical study has examined the relationship between land disputes and agricultural productivity and national security in spite of the poor agricultural produce in the state in recent times.

Land conflict becomes the dominant conflict in the Sub-Sahara Africa countries over the last 50 years and has been disturbed by it (Sekeris, 2010). Since 2000, 48 percent of land conflicts have taken place in Africa (Wiley, 2009). The author noted that, 55 of the 70 conflicts underway in 2009 are located in developing agrarian economies. From the intra-state conflict occurred in Africa since 1990, natural resources contributed at least 40 percent and from the 30 and above intra-state conflicts occurred, land contributed a vital role in all except three i.e. more than 90 percent of natural resource conflicts are contributed by land (Sekeris, 2010). Land conflict is not only affecting farmers' income but also trouble the whole development of a country. Whenever there is land conflict among farmers it is obvious that their agricultural productivity decreases from time to time, which constitute a serious threat for their livelihood. Agricultural productivities hampered highly and shrink by the farm land conflicts (Sekeris, 2010).

Although researches abound, however, were mostly done abroad. For instance, the work of Deininger and Castagnini (2004) in Uganda shows that farm land conflict has a negative impact

on the productivity of farmers through consuming more time to attempt resolving the land conflict which otherwise could have been used in productive activities and reduces land related investment not only by local farmers but also by outside investors. Thus, farm land conflict will be associated with significant economic losses (Ibid). Moreover, the finding of Yasmi et al. (2010) in Cambodia indicates that many farmers experienced high costs, both financially and in terms of the time because of farm land conflict. Their research indicates that the community spent more than US\$2,000 during the conflict to cover transportation and accommodation of other necessary expenditures. Furthermore, farm land conflict impedes the social relationships in profound ways (Huggins et al., 2005). Land conflict is not only challenge to agricultural productivity but also it represents an increasingly serious social problem that undermines both the faith of people in the system and their ability to achieve sustainable livelihoods (Yamano & Deininger, 2005; Sovannarith et al., 2001). Others are Mwesigye and Matsumoto (2013); Auma (2016).

Worthy to note is that, most of the studies conducted in this country only gave credence to some part of the country (Conroy, 2015; Adelakun, Adurogbangba & Akinbile, 2015), as attention was not given to Nasarawa State in spite of the incessant land related crisis evidence in the state. Furthermore, the studies conducted in this area made use of either contain analysis or frequency distribution analysis. This study intends to expand the frontier by applying more sophisticated analytical tool (regression) alongside simple percentages used in previous works for robust results. Thus, this study will stand out as it intends to examine the effects of agricultural land disputes in terms of junior and senior family members, widows and members of their late husbands' families disputes, land grabbing by neighbouring families or villages, selling family land without permission, disputes between land-owners and squatters, and disputes related to gifting and other unrecorded transfer of ownership on food security in Nasarawa State. This was not being given attention by previous researchers in the area.

2. Literature Review

2.1 Conceptual Clarifications

2.1.1 Land Disputes

Land conflict is defined as a “social fact in which at least two parties are involved, the roots of which are different interests over the property rights to land; the right to use the land, to manage the land, to generate income from the land, to exclude others from the land, to transfer it and the right to compensation for it” (Wehrmann, 2008:9). In other words, it is a disagreement over land and occurs when specific individual or collective interests relating to land are in conflict (Herrera & Guglielma da Passano, 2006). A land conflict therefore, can be understood as a misuse, restriction or conflict over land rights (Wehrmann, 2008). Yasmi et al. (2010) explain that, land conflict is usually viewed as a negative phenomenon, a force that disrupts the status quo and generates hostility, distrust, and hatred.

2.1.2 Food Security

The concept of food security has been seriously contended within the academic domain and that of the specialists within international organizations. According to World Food Forum (2001), food security refers to the people's right to define their own policies and strategies for sustainable production, distribution and consumption of food that guarantees the right to food for the entire population, on the basis of small and medium-sized production, respecting their own cultures and diversity of peasants, fishing and indigenous forms of agricultural production, marketing and management of rural areas in which women play a fundamental role. In the conception of Food

and Agricultural Organization (FAO) (1996) and Johnson (2009), food security is the situation when all people at all times have physical or economic access to sufficient safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.

2.2 Empirical Review

2.2.1 Land Disputes and Food Security

Adelakun, Adurogbangba and Akinbile (2015) examined the socio-economic effect of farmer-pastoralist conflict on family farming in Oyo State, Nigeria. Multi-stage sampling technique was used to select 60 farmers and 60 pastoralists for the research and were interviewed with structured questionnaire. Results showed that a little above half (52.6%) were between the ages of 30-50 years. The majority (63.3%) had household size of 5-9 members. Crop damage (63.3%) and indiscriminate bush burning (46.7%) were considered the most common causes of conflict between farmers and pastoralists. The majority (71%) of farmers suffer economic losses from farmer-pastoralist conflicts. About seventy five percent of farmers used more of problem-oriented (e.g. early harvesting/stock disposal) coping strategies while the majority of herdsmen (73%) used more of emotion-oriented strategies (e.g. use of charms/Vengeance. There was a significant difference ($p=0.000$) in socioeconomic losses among farmers and pastoralists. Farmers are the worst hit of Farmer-pastoralist conflicts as it affects their family farming. This study is specific to farmer-pastoralist conflict in Oyo state in 2014. Thus credence was not given to other forms of land disputes and the study is limited to 2014 in which case inferences cannot be made for any generalization in other part of the country.

Mwesigye and Matsumoto (2013) assessed community and household data with plot-level information to explore the determinants of different forms of land conflicts and the conflicts' impact on agricultural productivity in Uganda. Tracing rural-rural migration patterns, the study found that communities that received/hosted more immigrants (and thus have many coexisting tribes) tend to have more land conflicts than those sending migrants out. Unbundling conflicts by type reveals that the number of tribes and being in a 'receiving' community are associated with a higher probability of eviction conflicts than 'sending' communities and those with fewer tribes. In the case of the conflict impact, the study found that plots with conflicts have 17% lower yield than those without conflicts. Moreover, breaking down conflicts by type revealed that plots with eviction conflicts have 36% lower yield than those with inheritance conflicts. The results suggested that rural-rural migration weakens community-specific informal land arrangements and conflict resolution mechanisms, which, in the absence of formal institutions, result in eviction conflicts that, in turn, hurt productivity. This study was conducted in Uganda far back in 2012. Furthermore, the study made use of only frequency distribution as against regression analysis that this study intends to use. In the case of the time frame, the findings of the study cannot be infer for any generalization given the contemporary reality.

Deininger and Castagnini (2006) the study found that the probability of female-headed households to be affected by land conflicts was 3% points higher than male-headed households. In Uganda, traditionally, women were not allowed to inherit land, claiming that they belonged to the household they married into. Though abolished by the 1995 Constitution and the Land Act of 1998, many societies still follow their traditions of not bequeathing land to their daughters and widows. This has raised conflicts over land occupied by women. Secondly, women, being one of the vulnerable groups, are looked down and it is common for neighbouring farmers to trespass and claim part of their land, which raises disputes. The study also noted the higher likelihood of conflicts on parcels under Mailo tenure and private customary compared with those on communal customary tenure. Mailo tenure arrangements grant rights to both owners and tenants, and this has increased

insecurity and friction over the same land between tenants and landlords. This study is limited to a timeframe that can be said to be outdated.

Siyum, Kassa, Sisay and Gebremedhin (2015) attempted to explore the main causes of farm land conflicts and its socio-economic consequences on the rural residents. The study assessed the causes and socio-economic consequences of farm land conflict in the study area. The study explored the agricultural productivity loss and socio-economic costs by using 175 rural farm household respondents. Moreover, focus group discussions and interview were also employed to collect qualitative data. The main causes of farm land conflicts are building extension on private land, population growth, fragmented land and drainage. Moreover, scarce farm land, high demand for land, inheritance problem and land grabbing are other causes of farm land conflicts. Disputant farmers do not invite or support each other in the social association and organizations. Therefore, farm land conflict terminates the social interaction of the community. Furthermore, the study finds that in average one farm household respondent waste more than one month and birr 2445.72 annually to execute his/her case when the farm land conflict went to the court. Moreover, farmers loss 18.8 percent to 23.2 percent agricultural productivity because of farm land conflict. Farm land conflict hampers local and national development by mainly affecting rural agricultural productivity. The large proportion of caseloads handled by the woreda court is farm land conflicts and more than half of farm land conflicts reach to the woreda court while few proportion address in the local area. This study was conducted in Ethiopia in 2014, which cannot be inferred to Nigerian reality given its peculiarity. The timeframe can also be said to be out of date that new study is required to capture the current reality.

Auma (2016) explored the extent and causes of land conflict at the local community level. The study also investigated genders aspects in relation to women position in land holding, transaction and inheritance, and winners and losers in the conflict. Furthermore, the study highlighted vulnerable groups that often fall victim of land conflict at the local community and assessed the impacts of such conflicts on the agricultural production, on the social wellbeing of men and women and its effects on the general community. In addition, the study looked for local community perception on what could be sustainable solutions to land conflict at the rural community. The results showed that land conflict at the local community level is serious and rising which requires action from the authorities to change the situation. The conflict cuts across genders and the vulnerable groups that often fall victim are children born outside marriage especially male children, orphans, widows, divorced and unmarried women. The driving factors for land conflict at the local community are multiple and diverse, ranging from cultural inheritance systems of land holding, self-driven factors such as greed for materials and some weaknesses in the national government. Also, the result indicated that women's position in land holding and inheritance is gradually improving but their power over land transactions is still greatly low. The finding showed that Children often lose their rights to land due to culture that hinders them from challenging their elders and such instances are attributed to land grabbing. Women often become losers in divorce cases but in genuine cases, where conflict is between a man and woman, and especially when it is attributed to land grabbing, women win the case. The impacts of land conflict can be sighted on the victims through reduced farming land size, declining productivity level and unpleasant life. The impact extends to the general community through increase in dependency level, decline in food security status of the community and rise in illegal practices such as stealing of non-harvested crops. The study concludes that although local practices are blamed for increase incidences of land conflict, some weaknesses in the national government are to a large extent responsible for outbreak of land conflict and that improving women's access to land will require deep cultural revision with great support from the national government through strong land laws in favour of both gender, coupled with women's education and economic empowerment. This study was conducted in Uganda that cannot be inferred for any generalization in the Nigerian context, given their

peculiarities. Furthermore, the study was done in 2015 which can be argued to be outdated given the contemporary reality.

Arias, Ibanez and Zambrano (2013) examined the effect of conflict on agricultural production of small-farmers. The study developed an inter-temporal model of agricultural production in which the impact of conflict is transmitted through two channels: violent shocks and uncertainty brought by conflict. The model showed how conflict induces sub-optimal agricultural decisions in terms of land use and investment. The study tested the model using a unique household survey applied to 4,800 households in four micro-regions of Colombia. The researcher collected detailed information on households' economic conditions, incidence of violent shocks, and presence of non-state armed actors. The results showed that conflict affects agricultural production through different channels. In regions with an intense conflict, households reduce land allocated to perennial crops, increase production of seasonal crops and pasture, and cut back investments. Households seem to learn to live amidst conflict. Recent presence of non-state armed actors induces farmers to cut-back strongly land use on perennial crops, pasture and investments. As presence is more prolonged, farmer increase land use on perennial crops and pasture, and investments rebound. However, total agricultural production might be lower because shocks and presence result in more land being idle land. Households habituate to conflict, yet in a lower equilibrium. The study was conducted outside the shows of Nigeria that cannot be used for any generalization given their peculiarities. Furthermore, the study was done in 2012 that current study that will capture recent reality will extent the frontier.

Muyanga and Gitau (2011) in their CEEPA study from Kenya showed that land conflicts have a significant impact on the livelihoods of small-hold farmers. Farmers who face such disputes are reluctant to apply long-term land improvement measures and shy away from the use of profitable perennial crops. The study found that disputes reduce land productivity by about 13%, while concerns about future disputes reduce land productivity by about 9%. This study only made use of simple percentages for analysis of the data as against regression analysis that this study intends to use for robust results. The study also was conducted outside the shows of Nigeria that could be inferred for reasonable generalization in Nigeria given its peculiarity. The study was done in 2010 which can arguably be said to be outdated.

Flores (2004) examined food security in the context of conflict in West Africa. The analysis developed in the study recognises the importance of defining conflict type and the trends in conflict so that conflict and post-conflict policies may be implemented. The relationship between food security and conflict is analysed. Whilst conflict exacerbates food security, food insecurity can itself fuel conflict. Strategies designed to assist in post-war rehabilitation need to address key dimensions of food security: availability, access and stability. It is argued in this study that, consideration of these three dimensions are necessary joint conditions in moving towards a reduction in the numbers of hungry. The cases of Sierra Leone and Liberia are examined to consider the nature of conflict and how food security is being addresses and the necessary policy implications after prolonged violent conflict. Ghana is examined as an analytical contrast to show that the absence of conflict is not a sufficient condition for growth and reduced hunger. This is a cross country study done in West Africa and is particular to Sierra Leone, Liberia and Ghana. Credence was not given to Nigeria for any inferences to be made. Furthermore, the time period can be said to be out of date since the study was conducted far back in 2003.

Antwi (2018) examined the impact of farmer–herder conflict on food security in Ghana using Kwahu East District as a case study. A qualitative method was employed for data collection and respondents included farmers, herders, traditional rulers, security officers, local government officials, agriculture and veterinary officers. In addition to individual interviews, group interviews were carried out with farmers and herders. Also, nineteen household heads were interviewed to

ascertain the impact of the conflict on household food security. Semi-structured questions were used to obtain the data from the respondents. Direct observation was also used to gain a better understanding of the issues. The study showed that the major cause of the conflict is competition over arable lands for farming and grazing, especially in the dry season. Other triggers of the conflict reported were crop destructions, stealing and killing of cattle, violence against women, pollution of water bodies, burning of grass, spraying weedicide and pesticide, farming close to grazing lands. The conflict has caused displacement of families and individuals, injuries, loss of lives and negatively affected agriculture production. The study revealed that affected farmers are unable to access their farms which have caused food shortage and hunger in such households. To seek to manage and resolve the conflict, measures used by the government include Operation Cow Leg, the creation of fodder banks to limit the movement of cattle and registration of cattle owners and their cattle. Government interventions to ensure food security have mainly involved support to crop farmers and farming communities and left out pastoralists, and as such appear one-sided. Although the study is current but it was conducted in Ghana, and attention was given to only herders and farmers land conflict.

Messer, Cohen, and Marchione (2001) assessed the impact of conflict on food availability. The argued that, the cumulative decline in food production and growth rate is attributable to land conflict between 1970 and 1994. The study used the same methodology and extending the analysis through 1997 and across regions, the Food and Agriculture Organization of the United Nations (FAO) found that, during 1970 to 1997, the developing world experienced conflict induced losses of agricultural output of \$121 billion in real terms. In Sub-Saharan Africa, the losses in the 1980s and 1990s accounted for more than 50 percent of all aid received and far exceeded foreign investment inflows (FAO 2000).

2.3 Theoretical Framework

This study is grounded on the Marxist theory which has its roots from the works of Karl Marx and his friend Frederick Engels. The starting point for the analysis of the society is determined mainly by social production. That is what is produced, how it is produced and how the product is shared. The theory therefore insists that society is composed of contradictions and conflicts over scarce resources by the various competing groups. These contradictions are as a result of the competition and struggle for power and economic resources. This competition and struggle over resources have made conflict inevitable in the society. Marxist theory emphasizes interest rather than norms and values as been central in the discussion of conflict in society. This conflict is seen as normal aspect of society life rather than abnormal occurrence. Competition over resources is often the source of conflict.

3. Methodology

This study makes use of survey design given the population of the study that is relatively large. The population of the study comprises of all the adults within eighteen (18) years and above, male and female in Nasarawa State. A stratified sampling method is used to select one local government area from each of the three senatorial zones that made up the state. Furthermore, a judgmental sampling technique is used to select local government from each of these zones with the highest agricultural produce. Then, a convenient sampling method is used to select fifty (50) respondents from each of the three local government selected from each of the three senatorial zones in the state. Thus, these local governments are selected from each of these zones. Nasarawa South (Awe), Nasarawa North (Nassarawa Eggon), and Nasarawa West (Toto). This makes a total of one hundred and fifty (150) respondents selected for the study. The researcher insists on only those that have land disputes issues to be the subject of interest. This is because they are more likely to

have knowledge about the subject matter than the other people who are not directly affected by the problem.

The data for this study are collected from primary sources. Primary sources involved going to the field to obtain data from the respondents and conducting interview. The questionnaire is carefully designed with both close ended of 4 point likert format, and a few open ended questions to seek the opinion of the respondents on the subject matter. The questionnaire contains two Sections, A and B. Section A contains information on Farm Land Disputes while section B, on Food Security in Nasarawa State. This is designed to elicit information covering the objectives of the study. In-depth interviews are conducted on the Traditional Rulers and some key communities members in the selected areas in line with the objectives of the study.

Reliability and Validity

The reliability was insured by testing the instruments for the reliability of values (Alpha values) as recommended by Cronbach, (1946). Cronbach recommends analysis for Alpha values for each variable under study. According to Sekaran 2001 Alpha values for each variable under study should not be less than 0.6 for the statements in the instruments to be deemed reliable. Consequently, all the statements under each variable were subjected to this test and were proven to be above 0.6. The validity of the data collection instruments was done with the help of Questionnaires.

Scale Reliability of Variables

Variables	Cronbach's Alpha
Junior and Senior Family Members' Dispute	0.94
Widow and Late Husband's Family Dispute	0.86
Land Grabbing Dispute	0.89
Food Security	0.93

Source: Researcher's Computation (2019)

The above table reveals that all the variables have Alpha Values above 0.6 mark recommended by Sekaran. Therefore all the variables in the instrument are deemed reliable.

Ordinary Least Squares Method of Regression is used with the aid of Statistical Package for Social Sciences (SPSS) to determine and analyze the effects of farm land disputes on food security in Nasarawa State. The independent variable is the farm land disputes in terms of junior and senior family members, widows and members of their late husbands' families' disputes, and land grabbing by neighbouring families or villages, while food security is the dependent variable. In line with the fulfilment of the regression assumptions, the study runs the descriptive statistics to describe the characteristics of the data, as well as know the direction of the normality. Furthermore, correlation matrix is run to know the individual relationship between the variables, as Variance Inflation Factor (VIF) is used for the test of Multicollinearity of the explanatory variables.

Regression Model:

$FS = f(JSFMD, WLHFD, LGD)$

$FS_i = \alpha + \beta_1JSFMD_i + \beta_2WLHFD_i + \beta_3LGD_i + \mu_i$

Where: FS = Food Security; JSFMD = Junior and Senior Family Members' Dispute; WLHFD = Widow and Late Husband's Family Dispute; LGD = Land Grabbing Dispute; α = Intercept or Constant; β = Slope of the regression line with respect to the independent variables; μ = error term; i denotes cross-sectional dimension.

4. Results and Discussions

Descriptive Statistics

	Mean	Std. Deviation	N
FS	3.3933	1.00933	150
JSFMD	2.3867	1.10391	150
WLHFD	1.9267	1.06875	150
LGD	2.0867	.77664	150

The above table presents a statistics table in relation to Junior and senior family members' dispute (JSFMD), wife and late husband family dispute (WLHFD), and land grabbing dispute (LGD). Number of valid observations is 300. The mean is scores are 3.3933, 2.3867, 1.9267, & 2.0867 for FS, JSFMD, WLHFD, and LGD respectively.

Correlations

		FS	JSFMD	WLHFD	LGD
Pearson Correlation	FS	1.000	-.728	-.825	-.797
	JSFMD	-.728	1.000	.872	.861
	WLHFD	-.825	.872	1.000	.841
	LGD	-.797	.861	.841	1.000
Sig. (1-tailed)	FS	.	.000	.000	.000
	JSFMD	.000	.	.000	.000
	WLHFD	.000	.000	.	.000
	LGD	.000	.000	.000	.
N	FS	150	150	150	150
	JSFMD	150	150	150	150
	WLHFD	150	150	150	150
	LGD	150	150	150	150

The above table is a correlation table on FS, JSFMD, WLHFD, and LGD. It indicates a strong negative correlation between all the variables. The result depicts that WLHFD is higher, follow by LGD, then JSFMD.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.852 ^a	.725	.720	.53448	.182

a. Predictors: (Constant), LGD, WLHFD, JSFMD

b. Dependent Variable: FS

The above table presents the overall association of the variables and the proportion of the food security that is explained by JSFMD, WLHFD, and LGD. It is evident that about 73% of variation on food security can be explained by JSFMD, WLHFD, and LGD.

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	110.085	3	36.695	128.450	.000 ^b
	Residual	41.708	146	.286		
	Total	151.793	149			

- a. Dependent Variable: FS
b. Predictors: (Constant), LGD, WLHFD, JSFMD

The above table is the ANOVA table. It depicts that the model is fit given by high F-statistics of 128.450 with its corresponding P-value of 0.000.

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	5.296	.131		40.420	.000		
1 JSFMD	-.184	.092	-.201	1.990	.058	.184	5.433
WLHFD	-.596	.090	-.631	-6.644	.000	.209	4.792
LGD	-.572	.119	-.440	-4.813	.000	.225	4.442

- a. Dependent Variable: FS

The coefficient table presents the negative and significant effects of WLHFD and LGD on FS in Nigeria. This is given by the P-values of 0.000 & 0.000 for WLHFD and LGD respectively. However, insignificant negative effect of JSFMD on FS is found. The Variance Inflation Factor (VIF) of 5.433, 4.792 & 4.442 depict absence of autocorrelation.

Discussion of Findings

It is evident in the above result and analysis that, WLHFD and LGD have significant negative effects on FS. This implies that, FS decreases significantly with increase in both WLHFD and LGD. This finding is consistent with the findings in the previous studies such as Arias, Ibanez and Zambrano (2013); Siyum, Kassa, Sisay and Gebremedhin (2015); Auma (2016); and more recently, Antwi (2018), and tallies with the theory of Marxist. In the case of JSFMD, an insignificant negative effect on FS is found. This means that, FS decreases insignificantly with increase in JSFMD. This finding supports the earlier findings in the previous works of Deininger and Castagnini (2006); Adelakun, Adurogbangba and Akinbile (2015).

5. Conclusions and Recommendations

Based on the significant negative effects of widow and late husband's family dispute on food security in Nigeria, the study concludes that, conflict amongst widows and late husbands' families adversely affect food production in Nasarawa State, Nigeria. It is also concluded that increase in level of dispute on land grabbing serious affect adversely the production of food in the state. This conclusion is reached in line with the significant negative effect of land grabbing dispute on food security. Finally, the study concludes with respect to insignificant negative effect of junior and senior family members' dispute on food security that, conflict between junior and senior family members' can easily be resolved. Thus, not capable of affecting food production significantly.

In the light of these findings and conclusions, the study recommends that, all farm land disputes should be address effectively and efficiently in order to boost food production in the state (Nasarawa). The state should learn to ensure that attention is given seriously to farm land disputes across the state. The state should come in partnership with traditional rulers in order to redress incessant cases of land dispute in the state.

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