



Empirical Examination of The Perceived Effects of Fulani Herdsmen and Farmers' Crises on Food Security in Kogi State

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ABSTRACT

The study examined the perceived effects of Fulani herdsmen and farmers' crises on food security in Kogi State. Descriptive survey design was adopted for the study. The population of the proposed study is 4,750,115, which is made up of 2,422,559 males and 2,327,557 females (Nigerian Investment Promotion Commission, 2021). The sample size of the proposed study will be 400. Taro Yamane (1967) sampling formula was used in determining the sample size. Multistage sampling technique was adopted for the study. self-constructed structured questionnaire and core household food security module developed by the United States Department of Agriculture were the two major instrument for data collection. Mean and standard deviation were used for data analysis. The findings showed that, majority of households in Kogi State are experiencing food insecurity. These households also experienced anxiety and uncertainty, insufficient quality, and insufficient food intake and its physical consequences. Fulani herdsmen and farmer crisis have contributed greatly to household food insecurity in Kogi State. The study recommended that, government should deploy security agents to crisis prone communities in the state; a joint committee of herdsmen and rural farmers should be established aimed at conflict resolution; state government should sign and proactively implement anti open grazing laws; rural residents should be discouraged from killing herdsmen's cow, local vigilante should cooperate with state security agent; security agents should take proactive measures to prevent herdsmen attacks on rural communities; rural farmers should always report cases of farm destruction to the police or their community leader instead of taking laws into their hands; and rural communities should arrest any farmer or resident that kills Fulani's cow.

Keywords: Fulani-herdsmen, Farmers, Crises, Food Security, Food Insecurity,

INTRODUCTION

Household food security exists when all members, at all times, have access to enough food for an active, healthy life. The emotional, physical and psychological effect of house hold food security on the children and adults cannot be over emphasized, because food increases the working of the body, the brain and

even our organs need food to function well. The world faces the fundamental challenge of ensuring that millions of households living in poverty have access to enough food to maintain a healthy life. Over the years, Africa has been looking for ways to solve the food insecurity problem (Omotesho, Adewumi & Fadimula 2017). According to Fabiya, Danladi, Akande and Mahmood (2017), in most developing countries, which include Nigeria agriculture is an essential sector considered as the backbone of rural areas which many people rely upon for survival and food security. According to Mkwambisi, Fraser, and Dougill (2017), despite persistent economic growth around the world, food insecurity remains as a pressing problem in many parts of Africa. According to Musotsi, Sigot and Onyango (2018), malnutrition has been identified as primarily being caused by food insecurity while poverty has been shown to be one of the underlying causes of food insecurity.

Food security is the measure of the availability of food and individual's accessibility to it, where accessibility includes affordability. Food security have been a major concern for a long period, Ancient china and even the biblical ancient Egypt have being known to release food society, national food security, household food security and so on depending on the prism one is viewing it from. At the household level, food security implies the ability of a family to afford and make available the food and other nutritional diets needed for the day-to-day healthy living. FAO (2010) opines that, household are food secured when they have yea-round access to the amount and variety of safe foods their members need to live active and healthy lives. Household food security exists when all members, at all times, have access to enough food for an active, healthy life. The emotional, physical and psychological effect of house hold food security on the children and adult cannot be over emphasized.

Food security is the availability at all times of adequate world food supplies of basic foodstuffs to sustain a steady expansion of food consumption and to offset fluctuations in production and price (Food Agriculture Organization [FAO], 2021). The United State Department of Agriculture (USDA) in 2018 describes food insecurity as a situation in which regular access to adequate food is limited by lack of money and other necessary resources. Food security also means that household, at all times, have both physical, social and economic access to the basic, sufficient, safe, and nutritious food that meets their food preferences and dietary needs for an active and healthy life (United Nations' Committee on World Food Security, 2020).

Households are said to be food secure when they possess the ability and enablement to access an affordable, quality and the right quantity of food items needed for their livelihoods (Deligios, Aswani, Pramanick & Bhanu, 2017). Household are food secured when they have year-round access to the amount and variety of safe foods their members need to live active and healthy lives. Food insecurity affects both rural and urban households and thus becomes a problem since rural households are characterised by having a larger number of members than urban households (FAO, 2021). Food insecurity remains a challenge and reducing it continues to be a major public policy in Nigeria. Over 14% of the population are undernourished (FAO, 2019). Many more suffer from micronutrient deficiencies, and the absolute numbers tend to increase further (FAO, 2018).

In an empirical study, Bhullar (2020) reported that there is hunger and malnourishment among vast majority of people in developing countries (Nigeria inclusive) and over half a billion of the global population suffer from chronic food insecurity. In Nigeria, food insecurity has been attributed to economic recession, Fulani herdsmen attacks on farmers, bandits and the recent COVID-19 pandemic has also increased food insecurity in Nigeria (Oladele, et al., 2020). According to Natala, Sule and Izumah (2018), the present economic recession, Fulani herdsmen attacks on farmers and the fall of the naira in the country have escalated the prices of food items, thus, making the income of most families inadequate to sustain their households. According to Huho and Muriuki (2021) food production will have to increase by 70% in order to meet the average daily calorie requirement of the world's population and for food security to be actualized. Research carried out by Onunka and Olumba (2017) revealed that majority of the households studied in Enugu State are food insecure. Similarly, study by Onunka, IHEMEZIE, and Olumba (2018) revealed that majority of the households studied in Enugu State are food insecure.

The need to produce enough food for the Nigerian teeming population is of major importance to the Federal Government of Nigeria (FGN), which has with the Food and Agricultural Organisation (FAO) instituted a Unilateral Trust Fund (UTF) for a National special programme for Food Security (Rammohan, Pritchard & Dibley, 2019). The collective impact of global high food price crisis and the subsequent high price volatility in commodities such as food, fuel, fodder and fertiliser has exacerbated hunger and poverty among urban and rural dwellers in Nigeria (FAO, 2019).

In the past, the nomads have often come into conflicts with local farmers using cutlass and sticks but in recent time, the nature of attack have changed as it is often contained in news reports that Fulani Herdsman now allegedly use firearms. This new form of attack has created fear among residence, most especially the farmers who are now afraid of going to the farm alone. This might have effect of farmers' productivity which may in turn effect the level of availability and affordability of food in Kogi State. Thus, there is need to empirically examine the perceptions of residence on the effects of Fulani herdsmen and farmers' crises on food security in Kogi State. There is no known comprehensive study to the best knowledge of the researchers. This is the gap in literature that the proposed study seeks to fill.

Purpose of The Study

The main purpose of the study is to empirically examine the perceived effects of Fulani herdsmen and farmers' crises on food security in Kogi State. Specifically, the study seeks to:

1. Examine the level of house-hold food security among residence of Kogi State.
2. Ascertain the perceived effect of Fulani herdsmen and farmers' crises on house-hold food security among residence of Kogi State.
3. Proffer strategies to enhance the availability and affordability of food in Kogi State.

Research Questions

The following research questions guided the study:

1. What is the level of household food security among residence of Kogi State?
2. What are the perceived effects of Fulani herdsmen and farmers' crises on house-hold food security among residence of Kogi State?
3. What are the strategies to enhance household food security in Kogi State?

RESEARCH METHODS

The study adopted descriptive survey. Descriptive survey is a research design that seeks to establish a consensus of opinions from the representative sample of the population. This design according to Nworgu (2015) aims at collecting data on a particular research topic and describing in a systematic manner, the characteristics, features or facts about a given population. The descriptive survey was considered appropriate because the proposed study seeks to empirically collect, describe and summarize data on the perceived effects of Fulani herdsmen and farmers' crises on food security in Kogi State. The population of the proposed study is 4,750,115, which is made up of 2,422,559 males and 2,327,557 females (Nigerian Investment Promotion Commission, 2021). The sample size of the proposed study will be 400. Taro Yemane (1967) sampling formula was used in determining the sample size.

Where $n = \frac{N}{1 + N(e)^2}$

In the formular above:

n is the required sample size from the population that is under study.

N is the whole population that is under

e is the precision or sampling error is 0.05

Where

$$N = 4,750,115$$

$$e = 0.05$$

$$\frac{4,750,115}{1 + 4,750,115 (0.05)^2}$$

$$4,750,115$$

$$1+ 4,750,115 (0.0025)$$

$$\frac{4,750,115}{1+ 11,875.2875}$$

$$\frac{4,750,115}{11876.2875}$$

n = 400

The study used self-constructed questionnaire developed by the researcher and core household food security module developed by the United States Department of Agriculture. The structured questionnaire was used to elicit responses on the level of availability and affordability of food among the residence in Kogi State, while the adopted core house-hold food security module developed by the United States Department of Agriculture was used to ascertain the current state of house-hold food security in Kogi State. Data collected was analyzed using frequency, percentage, mean and standard deviation. The decision rule for acceptance or rejection of the idea covered by an item, on the basis of the mean score of respondents was a benchmark of ‘2.50’. This implies that a respondents’ mean score of 2.49 and below in an item, indicates disagreement/rejection of the view of an item, while a mean score of ‘2.50’ and above implied acceptance of the said item.

RESULTS

This section focuses on data presentation and analysis. The presentation is done in tables based on the research questions that guided the study. Out of 400 copies of questionnaire distributed to the sample respondents, a total of 387 representing 96.8% return rate which was considered high for the analysis.

Research Question 1: *What is the level of household food security among residents of Kogi State?*

Table 1: Household Food Insecurity Access Status Indicators

Variables	Percentage (%)
Household food insecurity access-related conditions	76.4
Household food insecurity access-related domains	42.3
Household food insecurity access scale score	19.8
Household Food Insecurity Access Prevalence	
Food secure Household	9.8
Mild Food Insecure Household	23.8
Moderate Food Insecure Household	41.2
Severely Food Insecurity Household	25.2

Table 1 presents household food insecurity access status indicators. Majority (76.4%) of the households experienced food insecurity access-related conditions, some (42.3%) of the households experienced food insecurity access-related domains while the household food insecurity access scale score is (19.8%) which shows high food insecurity (access) experienced by the households. Households (41.2%) are moderately food insecure, severely food insecurity (25.2%), mild food insecure (23.8%) while only (9.8%) of the household are food secure.

Research Question 2: *What are the perceived effects of Fulani herdsmen and farmers' crises on house-hold food security among residents of Kogi State?*

Table 2: Mean Response on the Perceived Effects of Fulani Herdsmen and Farmers' Crises on Household Food Security among Residence of Kogi State

S/N	Items Statement	N	Mean	St. D	Decision
1	Displacement of Persons and Animals during crisis leads to food insecurity	387	3.76	0.58	Accepted
2	Destruction of farmer's crops leads to scarcity of food	387	3.73	0.57	Accepted
3	Grazing on farm crops leads to scarcity of food	387	3.72	0.58	Accepted
4	Killing of farmers in their farm have discourages many farming from going to the farm which have reduced crop production	387	3.69	0.56	Accepted
5	Attacking farmers at their farms reduces access to agricultural products at the farm	387	3.61	0.64	Accepted
6	Destruction of farms leads to increased price of agricultural products	387	3.60	0.66	Accepted
7	Reduces the income of rural farmers	387	3.56	0.59	Accepted
8	Regular destruction of farms discourages young people from investing in agriculture	387	3.55	0.68	Accepted
9	Loss of crops reduces farmer's productivity which leads to food scarcity	387	3.51	0.72	Accepted
10	Fulani herdsmen attacks discourages investors to buy from farmers	387	3.50	0.75	Accepted
Grand Mean		387	3.62	0.63	Accepted

Data from table 2 shows that the major effects of Fulani herdsmen and farmers' crises on household food security among residents of Kogi State are: displacement of persons and animals during crisis leads to food insecurity, destruction of farmer's crops leads to scarcity of food grazing on farm crops leads to scarcity of food, killing of farmers in their farm have discourages many farming from going to the farm which have reduced crop production, attacking farmers at their farms reduces access to agricultural products at the farm, Destruction of farms leads to increased price of agricultural products, and reduces the income of rural farmers with mean of 3.76, 3.73, 3.72, 3.69, 3.61, 3.60 and 3.56 respectively ranked 1st to 7th according to the mean obtained by each of the item.

Research Question 3: *What are the strategies to enhance household food security in Kogi State?*

Table 3: Mean Response on the Strategies to enhance Household Food Security in Kogi State

S/N	Items statement	N	Mean	St. D	Decision
1	The government should deploy security agents to crisis prone communities	387	3.88	0.32	Accepted
2	A joint committee of herdsmen and rural farmers should be established aimed at conflict resolution	387	3.85	0.40	Accepted
3	State government should sign and proactively implement anti open grazing laws	387	3.81	0.52	Accepted
4	Rural residents should be discouraged from killing herdsmen's cow	387	3.66	0.48	Accepted
5	Local vigilante should cooperate with state security agent	387	3.66	0.48	Accepted
6	Security agents should take proactive measures to prevent herdsmen attacks on rural communities	387	3.66	0.48	Accepted
7	Rural farmers should always report cases of farm destruction to the police or their community leader instead of taking laws into their hands	387	3.54	0.64	Accepted
8	Rural communities should arrest any farmer or resident that kills Fulani's cow	387	3.37	0.76	Accepted
Grand Mean		387	3.68	0.51	Accepted

Data from Table 3 shows that the major strategies to enhance household food security in Kogi State are the government should deploy security agents to crisis prone communities, a joint committee of herdsmen and rural farmers should be established aimed at conflict resolution, state government should sign and proactively implement anti open grazing laws, rural residents should be discouraged from killing herdsmen's cow, local vigilante should cooperate with state security agent, and security agents should take proactive measures to prevent herdsmen attacks on rural communities, with mean of 3.88, 3.85, 3.81, 3.66, 3.66, and 3.66 respectively, and ranked 1st to 4th respectively according to the mean obtained by the items

DISCUSSION OF THE FINDINGS

The findings of the study revealed that majority of households in Kogi State are experiencing food insecurity. Majority of the households experienced anxiety and uncertainty, insufficient quality, and insufficient food intake and its physical consequences. Also, the household food insecurity access scale score is high, which implies that that the household with food insecurity is much. This is in accordance with that of Bhullar (2020) who reported that there is hunger and malnourishment among vast majority of people in developing countries (Nigeria inclusive) and over half a billion of the global population suffer from chronic food insecurity. Similarly, the finding is also in accordance with that of Onunka and Olumba (2017) who revealed that majority of the households studied in Enugu State are food insecure. Similarly, study by Onunka, IHEMEZIE, and Olumba (2018) revealed that majority of the households studied in Enugu State are food insecure. Kogi and Enugu shares common boundaries, this might be responsible for the similarity in the results from both states.

The findings of the study revealed that, major effects of Fulani herdsmen and farmers' crises on household food security among residence of Kogi State are displacement of persons and animals during crisis leads to food insecurity, destruction of farmer's crops leads to scarcity of food grazing on farm crops leads to scarcity of food, killing of farmers in their farm have discourages many farming from going to the farm which have reduced crop production, attacking farmers at their farms reduces access to agricultural products at the farm, Destruction of farms leads to increased price of agricultural products, and reduces the income of rural farmers. This is in accordance with that of Oladele, et al., (2020) who found out that, in Nigeria, food insecurity has been attributed to Fulani herdsmen attacks on farmers, bandits and the recent COVID-19 pandemic has also increased food insecurity in Nigeria. The findings also correspond with that of Natala, Sule and Izumah (2018) who found out that, the regular Fulani herdsmen attacks on farmers and the fall of the naira in the country have escalated the prices of food items, thus, making the income of most families inadequate to sustain their households.

The findings of the study revealed that, the major strategies to enhance household food security in Kogi State are the government should deploy security agents to crisis prone communities, a joint committee of herdsmen and rural farmers should be established aimed at conflict resolution, state government should sign and proactively implement anti open grazing laws, rural residents should be discouraged from killing herdsmen's cow, local vigilante should cooperate with state security agent, and security agents should take proactive measures to prevent herdsmen attacks on rural communities. This is in accordance with that of Oladele, et al., (2020) who suggested that security agents should be proactive in preventing herdsmen attacks on rural farmers.

CONCLUSION

The study examined the perceived effects of Fulani herdsmen and farmers' crises on food security in Kogi State. Based on the findings, the study concluded that, majority of households in Kogi State are experiencing food insecurity. These households also experienced anxiety and uncertainty, insufficient quality, and insufficient food intake and its physical consequences. This is not surprising as Fulani herdsmen have attacked many communities in Kogi State over the past decade which have discouraged farmers from visiting their farmers and many others displaced from their homes. Fulani herdsmen and farmer crisis have contributed to household food insecurity in Kogi State.

RECOMMENDATIONS

The following recommendations were suggested by the researchers:

1. Government should deploy security agents to crisis prone communities in the state,
2. A joint committee of herdsmen and rural farmers should be established aimed at conflict resolution,
3. State government should sign and proactively implement anti open grazing laws, rural residents should be discouraged from killing herdsmen's cow,
4. Local vigilante should cooperate with state security agent,
5. Security agents should take proactive measures to prevent herdsmen attacks on rural communities
6. Rural farmers should always report cases of farm destruction to the police or their community leader instead of taking laws into their hands
7. Rural communities should arrest any farmer or resident that kills Fulani's cow

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