

# Factors Influencing Food Scarcity and Their Implication on Economic Sustainability in Nigeria

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DOI: <https://dx.doi.org/10.47772/IJRISS.2025.905000233>

Received: 29 April 2025; Accepted: 04 May 2025; Published: 07 June 2025

## ABSTRACT

The study focuses on the factors that influence food scarcity and their implication on economic sustainability in Nigeria. The study sought to determine the effect of climate variability and social vices. on crop production. The study is anchored on Anthropogenic Global Warming (AGW) hypothesis and the Broken windows theory. The research design adopted for the study was survey research. A questionnaire was randomly administered to 354 respondents. The instrument was validated using content face to face validity. The findings revealed that climate change, bandit activities as well as social vices, which included but not limited to drought, kidnapping/abduction of victims for ransom, and inter-tribal wars, affected agricultural productivity with serious implications for food scarcity in terms of food availability, food accessibility, food sustainability and food utilization. It was concluded that food scarcity retards the economic activities of a nation and therefore, recommended the urgency for international cooperation approach towards mitigation and adaptation mechanism to issues of climate change. The study also recommended that government at all levels should declare war against bandits. The study, further recommended that national insecurity and the problem of unemployment must be of high consideration in ensuring Nigeria economic sustainability.

**Keyword:** Food Scarcity; Economic Sustainability; Social vices; Bandit activities; climate change.

## INTRODUCTION

Food security in Nigeria is presently in horrible strait owing to several factors, such as skyrocketing energy prices, climate change, and terrorism. Citizens are not sure about what will happen the next hour in terms of food security. There are cases of hunger and starvation in the country. However, food scarcity is not a healthy situation for an economic growth and sustainability of any nation. Food security is crucial to the achievement of the United Nations Sustainable Development Goals (SDGs) (Mollier et al., 2017; FAO et al., 2021). This is because well-nourished and healthy people are the primary focus of sustainable development. Food security is attained when all people at all times have physical, social, and economic access to sufficient, safe, and nutritious food, that meets their dietary needs and food preferences for an active and healthy life (FAO, 1996) In other words, the availability of food in terms of production, distribution and consumption, is the ideal situation. It is a collective responsibility to foster this ideal situation. Thus, any factor or agent that is found militating against food production and distribution should be considered a threat to human life and her social and economic sustainability.

## Statement of the Problem

In Nigeria, there is high level of food insecurity for the past four decades as a result of neglect in food production when oil has become the major export product and because of the withdrawal of government from economic activities. Majorly, flooding and drought as well as banditry, have also contributed to food insecurity in Nigeria.

The different dimensions of food security are mostly affected by climate change (FAO. WFP and IFAD, 2012; Mbow et al., 2019). Climate change is already affecting food availability through its impact on crop yields, and the negative impacts have generally been greater than the positive impacts (Pachauri et al., 2014; Harvey et al., 2018). Reduced food supplies lead to increased food prices which would then reduce the purchasing power of many households (FEWS NET, 2022). Globally, between 720 and 811 million people face hunger, while 3 billion people are unable to access a healthy diet as a result of rising prices, burgeoning poverty, and income inequalities. Furthermore, malnutrition in children is a serious challenge in both Africa and Asia (FAO et al., 2021).

Climate change has also impacted the livelihoods of arable crop farmers in Nigeria (Abiona et al., 2016; Ifeanyi-obi et al., 2016; Onyeneke et al., 2018). Eze (2017) reported that high temperature stress, variability in humidity and frequent floods have been major risk factors in the production of cassava in Ebonyi State, Nigeria. Furthermore, conflicts and insurgencies are negatively affecting agriculture, especially in the North East and North Central parts of the country.

Similarly, the Boko Haram insurgency which started in 2009 in the north-east of the country has led to the displacement of several households in the area, thereby impairing their access to their farmlands. This has resulted in a reduction in food production and ultimately in food insecurity (Ojo, 2020; Ladan and Badaru, 2021). There has been a long-standing conflict over land and water resources in the North Central geopolitical zone between farmers and herdsmen. These, and other social vices, in other parts of the country, have led to the destruction of crops on farmlands by the cattle of the herdsmen, the death of farmers and herdsmen, the displacement of communities, unemployment, and food insecurity (Kah, 2017; Udosen, 2021; FEWS NET, 2022). The appalling security situation in Nigeria at large, limits the opportunities for households to earn an income, while the shortage of supplies results in increased food prices, thereby reducing the population's access to food (Shittu et al., 2017). Sustainability in economic growth is depending on achievement of food security.

## Study area:

The geographical coverage of this work is Otukpo LGA, in Benue State, Nigeria. .Otukpo is one of the 4 districts that make up Otukpo local government area located in the Middle Belt Region of Nigeria. It is also the eponymous name of a subgroup of the Idoma people. In addition to metropolitan Otukpo has a tropical savanna climate. It is warm every month with both a wet and dry season. The average annual temperature for Otukpo is 34° degrees and there is about 244 inch of rain in a year.

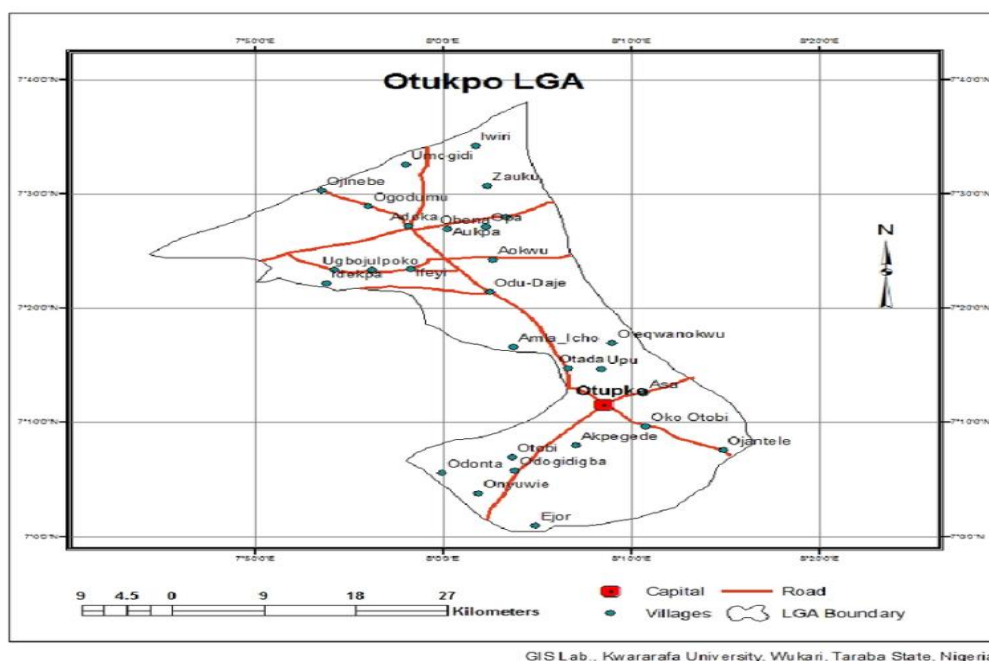


Fig. 1 Map of Otukpo Local Government Area, Benue State

Source: <https://www.google.com/search?client=opera&q=map+of+otukpo+LGA%2C+Benue+state%2C+Nigeria&sourceid=28/05/2024>.

## Aim

The aim of this work is to ascertain the factors that influence food scarcity and their implication on economic sustainability in Nigeria. The study is specifically set to achieve the following objectives:

## Theoretical Framework

Anthropogenic Global Warming (AGW) hypothesis and the Broken windows theory are two theoretical perspectives that are relevant to this study. The AGW hypothesis contends that human emissions of greenhouse gases, principally carbon dioxide (CO<sub>2</sub>), methane, and nitrous oxide, are causing a catastrophic rise in global temperatures. The mechanism whereby this happens is called the enhanced greenhouse effect. Energy from the sun travels through space and reaches the earth. The earth's atmosphere is mostly transparent to the incoming sunlight, allowing it to reach the planet's surface where some of it is absorbed and some is reflected back as heat into the atmosphere. Certain gases in the atmosphere, called "green-house gases," absorb the outgoing reflected or internal thermal radiation, resulting in earth's atmosphere becoming warmer than it otherwise might be. Water vapor is the major greenhouse gas, responsible for about 36-90% of the greenhouse effect, followed by CO<sub>2</sub>, methane, and ozone. During the past century, human activities such as burning of wood and fossil fuels as well as burning of forests are thought to have increased the concentration of CO<sub>2</sub> in the atmosphere by approximately 50%. Proponents of the AGW theory believe that man-made CO<sub>2</sub> emission is responsible for floods, droughts, severe weather, crop failures, species extinctions, spread of diseases, ocean coral bleaching, famines, and literally hundreds of other catastrophes. According to them, all these disasters will become more frequent and more severe as temperatures continue to rise so that only large and rapid reductions in human emissions will save the planet from these catastrophic events.

The "Broken windows" theory developed by Wilson and Kelling (1980), assume that ignoring minor crimes inevitably, would pave ways for manifestations of greater crimes of varying dimensions and intensity. In other words, each crime, no matter how infinitesimal it might purport to be, invariably would degenerate to greater and more complex crimes in an environment if not frontally tackled at the onset. People would develop negative attitudes in such environment. On the other hand, in an environment where issues are tackled promptly with their specific merits inhabitants would cultivate social and positive responses in a cooperative manner that would engender sanity and decorum.

These theories are relevant to the this work for because of its natural (climate change) and Man-made (banditry and social vices) dimensions.

## METHODOLOGY

Survey research design was adopted for the study. Primary and secondary sources of data collection method were employed for the study The sampled population was obtained using judgmental sampling method, obtaining a sample of 378. Data collected were presented with tables, charts and graphs. Descriptive statistical techniques like mean, simple percentages, standard deviation were employed to analyze the data for the study.

## RESULT AND DISCUSSION OF FINDINGS

Table 1 Quantity of yam tubas produced between 2020 and 2024

Year	Otukpo dist	Ugboju	Adoka distri	Akpa dist
2020	20,000	30,000	20,000	25,000
2021	19,000	20,000	18,000	20,000

2022	17,000	16,000	15,000	17,000
2023	14,000	13,000	14,000	13,000

Source: Fieldwork, 2024

Table 1 shows that there have been steady reduction in the quantity of Yam tubas that were being harvested in the study areas, within the period under investigation. This shows that production is being affected on yearly basis.

Further investigation revealed that steady and consistent attacks and bush burnings by Herdsmen, kidnappings for ransom, contributed highly to the drastic reduction of farm produce in the study area.

Table 2: Number of reported crimes between 2020 and 2023

Crime	2020	2021	2022	2023
Stealing	50	58	65	72
Kidnapping	28	38	50	70
Rapping	25	30	34	45
Murder	10	17	29	40
Fighting	50	58	80	120
Armed robbery	15	20	30	52

Source: Fieldwork, 2024 ( NPF: Otukpo Station)

It will be observed from Table 2 that crime cases are on the increase as the year goes by. Further investigation revealed that hunger and unhappiness were major causes of the unrest within the period under review in the study area. This crime rate increase as revealed, also caused obvious distractions from agricultural activities. Invariably, the number of active farmers was negatively affected.

Table 3: Farmer's opinion on climate change

Year	Normal weather is experienced	High temperature	Unanticipated rainfall
2021	240 (67.80%)	90 (25.42%)	24 (6.77%)
2022	188 (53.11%)	139 (39.27%)	27 (7.62%)
2023	150 (42.37%)	146 (41.29%)	58 (16.38)

Source: Fieldwork, 2024

The study also investigated the opinions of farmers regarding climate change in the area. Information on Table 3 shows that 240 (67.80%) of the respondents were of the opinion that the climate was normal for agricultural activity in 2021, 90 (25.42%) believed that the temperature was high while 24 (6.77%) of the respondents upheld that what they experienced in 2021 was unanticipated rainfall. The table further shows that in subsequent years, namely, 2022 and 2023, the respondents who affirmed that the weather was normal for farm work were dropping whereas those who responded that the study area experienced high temperature and unanticipated rainfalls which do not favour agricultural production, were on the increase. This shows that “yields” in the study area were

negatively affected, year after year either due to high temperature or unanticipated rainfalls. The situation leads to shortage in food production.

Further investigation revealed that this situation of food scarcity results to high price in food item and the effect is hunger and starvation, malnutrition, hardship and so on. Invariably, a nation's economy cannot grow and cannot be sustained when her citizens are hungry. High price on food items because of food scarcity, leads to inflation which does not favour any economy.

## CONCLUSION AND RECOMMENDATION

The study sought to examine the influence of food scarcity on economic sustainability of our country using Otukpo L.G.A of Benue State, as a case study. It was discovered that activities of bandits which include murder, rape kidnapping and other social vices threatened the efforts of farmers and as such, negatively affected the volume of food production. In the same vein climate variability /change was discovered to have worsen the issue of food security. It is a fact that agriculture in Nigeria is largely rain-fed and climate variability negatively impacts crop productivity by decreasing crop yield and soil fertility, limiting the availability of soil water, increasing soil erosion and contributing to the spread of pest which attack food crops. These factors, as it were, had substantial impacts in food crop production. The findings from the study, point to the urgent need for both government and the citizens to collaborate and fight these menace to a stop, in order to guarantee food security of the nation for sustainable economic growth.

It is hereby recommended that government of Nigeria in all her wisdom should sought for international cooperation for mitigating the issues of climate variability. In addition, banditry at all level should be identified and fought against; and finally, insecurity challenges and youths' employment issues must be of high consideration by the government. This is because if the youths of this community are meaningfully engaged, social vice issues and activities of bandits will be drastically controlled.

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