

## EFFECT OF CLIMATE-CONFLICT DISPLACEMENT ON FOOD SECURITY IN JIBIA LOCAL GOVERNMENT AREA, KATSINA STATE

By

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### **Abstract**

*This study examined the effect of climate–conflict displacement on food security among Internally Displaced Persons (IDPs) in Jibia Local Government Area of Katsina State, Nigeria. The area has experienced recurrent farmer–herder conflicts and climate-related shocks such as flooding and drought, which have contributed to large-scale displacement and disruption of livelihood activities. The study specifically assessed the socio-economic characteristics of the displaced population, identified the major drivers of displacement, evaluated the three dimensions of food security availability, accessibility, utilization, and analysed the relationship between displacement and food security outcomes among IDPs in the study area. A descriptive survey research design was adopted. Primary data were collected using structured questionnaires administered to IDPs supported by field observations. A multistage sampling technique was used to select respondents across designated camps and host communities within Jibia LGA. Data were analysed using descriptive statistics, food security indicators, and correlation analysis to establish the relationship between displacement variables and food security status. Findings revealed that climate-related factors and violent conflict jointly contributed to displacement in the study area, leading to the loss of farmland, livelihood disruption, and reduced household income. The study established that food availability and accessibility were significantly constrained, while food utilization was compromised by limited resources, overcrowded living conditions, and inadequate humanitarian support. The results further showed a significant relationship between displacement intensity and the level of food insecurity among IDPs. The study concludes that climate–conflict displacement has a profound negative effect on food security among IDPs in Guma LGA. It recommends strengthening local early-warning systems, improving livelihood restoration programmes, enhancing food assistance mechanisms, and promoting community-based disaster risk reduction strategies to build resilience among displaced populations.*

**Keywords:** *Climate, Food Security, Conflict, Food Availability*

### **1.1 Background to the Study**

Food security is an essential pillar of human survival, national stability, and sustainable development. According to the Food and Agriculture Organization (FAO, 2008), food security exists when all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food that meets



their dietary needs for an active and healthy life. Food security is generally measured across four key dimensions: availability, accessibility, utilization, and stability (FAO, 2021).

In many developing countries, including Nigeria, food security has become increasingly threatened by the combined effects of climate variability, violent conflict, and forced displacement. Climate change, manifested through erratic rainfall, prolonged dry spells, and frequent flooding, interacts with social and economic pressures to exacerbate conflict and displacement. These climate-induced conflicts, particularly between farmers and herders, have forced thousands of households to flee their homes and farmlands in search of safety (Intergovernmental Panel on Climate Change [IPCC], 2022; International Organization for Migration [IOM], 2023). The resulting phenomenon, referred to as climate-conflict displacement, has become a growing driver of food insecurity in Nigeria.

Katsina State, popularly has been one of the hardest-hit regions. The state has experienced recurrent farmer–herder clashes and flooding events that have displaced large numbers of people. These conflicts have not only resulted in loss of lives and property but have also severely disrupted agricultural production and household food systems (IOM, 2022). The displacement of agrarian households has consequently reduced food availability, as farmlands are abandoned, harvests are lost, and local food supply chains are disrupted.

In addition, food accessibility among internally displaced persons (IDPs) has drastically declined. The majority of displaced households have lost their primary sources of livelihood and income, making it difficult to afford sufficient food. Many depend on irregular humanitarian assistance or informal work that provides little stability (World Food Programme [WFP], 2023). The utilization of food is also affected, as IDPs often resort to consuming monotonous diets that lack nutritional diversity, leading to widespread malnutrition, particularly among children and women of reproductive age (United Nations Children’s Fund [UNICEF], 2022). Finally, food stability the ability to maintain consistent access to adequate food over time is compromised by recurring displacement, insecurity, and climatic shocks that prevent communities from rebuilding their livelihoods (FAO, 2021).

Globally, the nexus between climate change, conflict, displacement, and food insecurity has been recognized as one of the defining humanitarian challenges of the 21st century (UNHCR, 2022). However, in Nigeria, particularly in Katsina State, limited empirical research has explored how climate-conflict displacement influences the four dimensions of food security among IDPs. This study therefore seeks to fill this gap by examining the effect of climate-conflict displacement on food security among IDPs in Jibia Local Government Area, Katsina State.

## 1.2 Statement of the Research Problem

Katsina State, once celebrated for its rich agricultural output, is today characterized by severe food insecurity. The increasing frequency of violent clashes between farmers and herders aggravated by climate stressors such as droughts and floods displaced thousands of households across the state, with Jibia LGA being one of the most affected areas. These displacements have had devastating consequences for food production and household well-being.

First, food availability in Jibia LGA has declined sharply. Farmlands have been deserted due to insecurity, leading to reduced crop yield and loss of harvests. The displacement of farmers has disrupted the food supply chain and increased dependency on external food aid (IOM, 2022).

Second, food accessibility has been severely constrained. Displaced persons who once relied on farming and trading as income sources now face unemployment and extreme poverty. The little income they generate is often insufficient to purchase adequate food in markets, which themselves experience shortages due to disrupted supply networks.

Third, food utilization has deteriorated as displaced households adopt survival feeding practices, consuming mainly starchy or donated food with poor nutritional value. The limited diversity of diets among IDPs leads to malnutrition and increased susceptibility to diseases, undermining public health and well-being (UNICEF, 2022).

Despite the scale of the problem, few studies in Katsina State have systematically analyzed how climate-conflict displacement affects food security across these four dimensions. The absence of such data hinders the development of targeted and sustainable responses by government agencies and humanitarian actors. This study therefore seeks to investigate the effect of climate-conflict displacement on food security among IDPs in Jibia Local Government Area, addressing a crucial research gap in the intersection of climate change, conflict, and food systems.

### 1.3 Research Questions

This study seeks to answer the following research questions:

1. How does climate-conflict displacement affect food availability among IDPs in Jibia LGA?
2. How does climate-conflict displacement affect food accessibility among IDPs in Jibia LGA?
3. How does climate-conflict displacement affect food utilization among IDPs in Jibia LGA?

### 1.4 Objectives of the Study

1. To determine the effect of climate-conflict displacement on food availability among IDPs.
2. To assess the effect of climate-conflict displacement on food accessibility among IDPs.
3. To analyze the effect of climate-conflict displacement on food utilization among IDPs.

### 1.5 Research Hypotheses

1.  $H_{01}$  : Climate-conflict displacement has no significant effect on food availability among IDPs.
2.  $H_{02}$  : Climate-conflict displacement has no significant effect on food accessibility among IDPs.
3.  $H_{03}$  : Climate-conflict displacement has no significant effect on food utilization among IDPs.

## 2.1 Literature Review and Theoretical Framework

### 2.1.1 Concept of Climate Change

Climate change refers to long-term alterations in temperature, rainfall patterns, wind systems, and other aspects of the Earth's climate caused by both natural variability and human activities. The Intergovernmental Panel on Climate Change (IPCC, 2022) explains that climate change today is primarily driven by human activities such as deforestation, burning of fossil fuels, and industrial emissions that increase greenhouse gases in the atmosphere. These changes have resulted in rising global temperatures, irregular rainfall patterns, flooding, drought, and extreme weather events.

In Africa, the impact of climate change is pronounced due to high dependence on natural resources and rain-fed agriculture (UNEP, 2023). Nigeria is not exempt, as climate change has led to reduced agricultural productivity, water scarcity, land degradation, and increased competition for natural resources (NIMET, 2022). In Katsina State, erratic rainfall patterns and seasonal flooding have

destroyed farmlands, while prolonged dry spells affect crop yield. These disruptions contribute to food insecurity and intensify resource-related conflicts.

### **2.1.2 Concept of Conflict**

Conflict refers to a disagreement or struggle over values, resources, power, or interests between two or more parties. It may occur at various levels individual, group, community, or National and can be violent or non-violent in nature. According to Coser (2019), conflict arises when individuals or groups pursue incompatible goals. It is a natural part of human society but becomes destructive when it escalates into violence and threatens social stability.

In Nigeria, conflict is often associated with competition over land, water, and political power. The most common forms include communal clashes, ethnic violence, religious crises, political conflicts, and resource-based conflicts (Adewale, 2021). Of particular concern in recent years is the farmer–herder conflict, which has intensified due to land pressure, population growth, and declining grazing resources caused by climate variability (Okoli & Atelhe, 2020).

### **2.1.3 Concept of Displacement**

Displacement refers to the forced movement of individuals or groups from their homes or places of habitual residence due to factors such as conflict, violence, natural disasters, human rights violations, or environmental crises. According to the United Nations Guiding Principles on Internal Displacement (UN, 1998), internally displaced persons (IDPs) are people who have been forced to flee their homes but remain within their country's borders. They are distinct from refugees because they do not cross an international boundary.

Displacement is a growing humanitarian issue worldwide. The Internal Displacement Monitoring Centre (IDMC, 2023) reported that more than 71 million people were internally displaced globally due to conflict, violence, and disasters. In Africa, countries such as Nigeria, South Sudan, Ethiopia, and the Democratic Republic of Congo have some of the highest numbers of IDPs.

In Nigeria, displacement is caused by various factors including Boko Haram terrorism, banditry, farmer–herder conflict, communal clashes, and natural disasters such as floods. The National Emergency Management Agency (NEMA, 2023) reports that over 3.2 million Nigerians are internally displaced, with a large number concentrated in the North-East and North-Central regions. In Katsina State alone, recurrent farmer–herder conflicts and flooding have displaced thousands of households, leading to the establishment of multiple IDP camps, particularly in Jibia Local Government Area.

Displacement often disrupts livelihoods, weakens family structures, causes trauma, and exposes displaced persons to poverty and food insecurity. IDPs depend on humanitarian assistance for survival, and prolonged displacement increases vulnerability to hunger, malnutrition, and disease (Ojo & Aluko, 2022).

### **2.1.4 Concept of Climate-Conflict Displacement**

Climate-conflict displacement refers to the forced movement of people as a result of violent conflict that is triggered, intensified, or sustained by the effects of climate change. It is a combined phenomenon where environmental stress caused by climate change interacts with existing social, economic, and political tensions to generate conflict, which eventually leads to displacement (IOM, 2023). This type of



displacement is increasingly recognized as a major threat to human security and development, especially in vulnerable regions.

Climate change contributes to conflict by increasing competition over scarce natural resources such as land, water, and pasture. In Nigeria, prolonged drought in the north and desertification have forced pastoralists to migrate southward in search of greener grazing lands. These conflicts frequently escalate into violence, resulting in loss of lives, destruction of property, and displacement of rural households. Climate-conflict displacement disrupts agricultural activities, weakens local economies, and increases dependence on aid. This has significant implications for food security because displaced persons often lose access to land, farm inputs, and income sources (UNHCR, 2023). Understanding climate-conflict displacement is therefore essential to addressing food security challenges among IDPs in Katsina State.

### 2.1.5 Concept of Food Security

Food security exists when all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food that meets their dietary needs for an active and healthy life (FAO, 2008; FAO, 2021). It is a fundamental human right and a key component of human welfare, national stability, and sustainable development. Food security goes beyond the availability of food; it also includes the ability to access, utilize, and sustain food supplies over time. Food security is commonly discussed using four key dimensions:

1. **Food Availability** – the presence of sufficient food in a region through local production, imports, or reserves.
2. **Food Accessibility** – the ability of individuals and households to obtain food through income, markets, or social support.
3. **Food Utilization** – the proper biological use of food, ensuring adequate nutrition through quality diets, clean water, and healthcare.

Despite being agriculturally rich, Nigeria still battles with food insecurity, especially in rural communities affected by conflict and displacement. According to the Global Hunger Index (2023), Nigeria ranks among countries with serious levels of hunger. In conflict-affected regions such as Benue State, food security is severely undermined when farming households are displaced and agricultural activities are disrupted (Olayemi & Musa, 2022).

### 2.1.6 Food Availability

Food availability refers to the physical presence of sufficient quantities of food within a country, region, community or household through domestic production, food imports, food aid, or strategic reserves. It represents the supply dimension of food security and is a prerequisite for achieving food access and utilization (FAO, 2021). According to Olayemi and Musa (2022), food availability does not only depend on the existence of food at a national level but also on its distribution to local communities and households where it is needed. Without adequate food production or supply, meaningful discussions about food security cannot occur. Therefore, food availability remains a critical component of household welfare and national stability.

The nature of food availability varies across levels and is influenced by economic and environmental conditions. At the national level, food availability is determined by total agricultural output, food import capacity, trade policies, storage systems and national buffer stock programmes. At the community level, it is shaped by local food production systems, market supply chains and post-harvest preservation. At the

household level, food availability depends on a family's access to farmland, labour, agricultural inputs and seasonal cropping patterns (Okoh & Edeh, 2023).

Food availability is determined by a number of factors. Agricultural productivity is one of the most important determinants, as higher crop yield increases the quantity of food produced and stored. Climatic conditions such as rainfall distribution and temperature affect farming, especially in rural areas dependent on rain-fed agriculture (NIMET, 2022). Access to farmland and secure land tenure systems encourage continuous farming activity, while poor access to land discourages production (Ityona & Abah, 2023). Infrastructure such as feeder roads, storage facilities and irrigation systems also improve food distribution and reduce post-harvest losses. Government agricultural policies including input subsidies, credit facilities for farmers and rural development programmes further influence food supply (Adebayo & Ojo, 2023). In contrast, insecurity and conflict reduce food availability by disrupting farming activities.

Climate-conflict displacement significantly affects food availability. Displaced farmers lose access to farmland, seeds, livestock and labour, making food production impossible in displacement camps. According to the International Organization for Migration (IOM, 2023), over 65 percent of internally displaced persons (IDPs) in Katsina State were active farmers before displacement but are now unable to produce food. This has reduced local agricultural output and increased dependence on humanitarian food assistance. In Jibia LGA, food availability is critically low in IDP camps where households rely on periodic food distributions that are often inadequate in both quantity and nutritional value. As displacement persists, food scarcity intensifies, and local markets collapse due to poor supply from production areas (World Food Programme, 2023). This makes food availability a major concern for displaced households in Katsina State.

### **2.1.7 Food Accessibility**

Food accessibility refers to the ability of individuals and households to obtain adequate food for a healthy life through purchase, own production, barter, gift, or transfers. It represents the demand side of food security and is influenced by household income, food prices, market systems, and social support mechanisms (FAO, 2021). Even when food is available in a region, a household may still be food insecure if it lacks the resources to access that food. The World Food Programme (2023) explains that food accessibility is determined by economic access, physical access, and social access.

Economic access to food is determined by a household's purchasing power. Income levels, employment, savings, and access to livelihood opportunities all influence the ability of families to purchase food from the market (Adedeji & Adeoye, 2022). In rural communities where farming is the primary source of livelihood, access to food is often seasonal, improving during harvest periods and deteriorating during lean seasons. Household food accessibility is also affected by food prices, which are often unstable due to market fluctuations, fuel prices, and insecurity affecting food transportation.

Physical access to food depends on market availability and transportation systems. Good road networks enable farmers to transport food from production areas to markets, while well-functioning local markets improve household access to diverse food items. However, in conflict-affected areas such as Jibia Local Government Area, physical access to food is disrupted when roads are blocked by conflict actors, markets are destroyed, or communities are displaced (Ityona & Abah, 2023). In many displacement

situations, IDPs are unable to move freely in search of food due to insecurity or restrictions in host communities.

Social access to food depends on cultural practices, gender roles, and social protection systems. In some societies, women and children may have limited access to food due to cultural norms that prioritize adult males in household food distribution (Ojo & Aluko, 2022). In IDP settings, vulnerable groups such as female-headed households, widows, the elderly, and households with no income often face serious challenges in accessing sufficient and nutritious food, even when food distribution takes place within camps.

Climate-conflict displacement further reduces food accessibility among IDPs. Displaced households lose their livelihoods and fall into extreme poverty, forcing them to adopt negative coping strategies such as skipping meals, reducing meal portions, or consuming low-quality food (IOM, 2023). Some IDPs resort to child labour or distress sales of property to buy food, while others depend on borrowing or begging as survival strategies. Limited access to farmland and employment in host communities also increases dependency on aid. In Jibia LGA, market access is restricted due to insecurity, and displaced persons in camps face long distances to reach food markets, increasing their vulnerability to food insecurity.

### **2.1.8 Food Utilization**

Food utilization refers to the proper biological use of food by the body, which involves the intake of adequate, safe, and nutritious food that meets dietary needs, combined with an environment of proper health care, sanitation, and food preparation practices. It emphasizes the nutritional quality of food rather than just the quantity consumed. According to UNICEF (2022), food utilization is essential for maintaining good health, physical growth, and cognitive development, especially among children and women of reproductive age. The World Health Organization (WHO, 2023) further explains that even if food is available and accessible, food insecurity can still occur if the nutritional value of the food consumed is poor or if diseases prevent the body from properly absorbing nutrients.

The nature of food utilization is multidimensional and closely linked to nutrition, health, food safety, and hygiene. Diet diversity, meal frequency, and the inclusion of key nutrients such as proteins, carbohydrates, vitamins, and minerals determine the quality of food utilization (FAO, 2021). In addition, access to safe drinking water, sanitation facilities, and health services plays a vital role in ensuring that the body can utilize food effectively. Households that lack clean water or rely on contaminated sources are more prone to food-borne diseases, which can lead to malnutrition even when food is adequate.

Food utilization is influenced by several factors, including household knowledge of nutrition, childcare practices, cooking methods, and access to healthcare. Cultural food preferences and taboos can also affect diet diversity and nutrition outcomes. For example, in some rural communities, pregnant women may avoid protein-rich foods due to traditional beliefs, increasing the risk of maternal malnutrition (Ojo & Aluko, 2022). Poverty also affects food utilization, as low-income households often consume cheaper foods with low nutritional value, resulting in hidden hunger and micronutrient deficiencies.

Poor food utilization is more common in displacement settings due to the breakdown of household food systems. Internally Displaced Persons (IDPs) often rely on emergency food distributions that consist mainly of cereal-based or starchy foods with little or no protein content (WFP, 2023). In many IDP



camps in Nigeria, meals typically consist of rice, garri, or maize porridge served without vegetables or meat, leading to malnutrition and weakened immunity among displaced children (UNICEF, 2022).

## **2.2 Theoretical Framework**

Theoretical framework provides the foundation for understanding the relationship between climate-conflict displacement and food security in this study. It explains the linkage between the independent variable (climate-conflict displacement) and the dependent variable (food security among Internally Displaced Persons). This study adopts Sustainable Livelihood theory as the Framework that guides the study.

### **2.2.1 Sustainable Livelihood Framework (SLF)**

The Sustainable Livelihood Framework (SLF), developed by the United Kingdom's Department for International Development (DFID, 1999), explains how individuals and households use available livelihood assets to survive shocks and stresses such as conflict, displacement, and environmental degradation. The framework identifies five categories of livelihood assets: human capital (skills, labour, health), natural capital (land, water), physical capital (tools, shelter, infrastructure), financial capital (income, savings), and social capital (networks, support systems).

The framework posits that people's livelihood strategies depend on access to these assets and the vulnerability context within which they live. Shocks such as conflict, climate change, and displacement reduce access to livelihood assets and limit the ability of households to generate food or income (DFID, 1999). In displacement situations, households lose natural capital (land), physical capital (farm tools and equipment), financial capital (savings and income), and social capital (community support systems).

This theory is relevant to the present study because Internally Displaced Persons in Jibia Local Government Area have lost their livelihood assets due to climate-induced conflict. Displacement deprives them of access to farmland, reduces agricultural production, and weakens income sources, leading to food insecurity. The framework helps explain how displacement increases vulnerability and reduces the capacity of households to attain food availability, accessibility, utilization, and stability. It also highlights the need for livelihood recovery strategies to improve food security among displaced populations.

## **3.1 Research Design**

The study employed descriptive survey design. This enabled the collection and utilization of information from both questionnaire and observation.

## **3.2 Population of the Study**

The population of this study comprises all residents of Jibia LGA. According to National Bureau of Statistics (2024), Jibia LGA had a population of 215,707. The area is predominantly inhabited by the Hausa/Fulani ethnic group, with a few minority tribes. Most of the population depends on farming for livelihood. However, frequent conflicts, flooding, and insecurity have displaced thousands of households into temporary shelters and IDP camps, thereby disrupting livelihoods and worsening food insecurity (IOM, 2022).

## **3.3 Sample Size and Sampling Technique**

The sample size for the study is 384 people. It was determined using the Krejcie and Morgan (1973) table for determining sample size. Multistage sampling technique was employed. In the first stage,

selected IDP camps and host communities were purposively chosen based on accessibility and population size. In the second stage, a proportionate random sampling technique was used to select respondents from each camp to ensure fair representation of the population.

### 3.4 Sources of Data

The study utilized both primary and secondary data sources. The primary data were obtained through structured questionnaires and field observations conducted among internally displaced persons (IDPs) in selected camps and host communities. The secondary data were gathered from existing literature, including institutional reports, and databases such as those of the National Emergency Management Agency (NEMA), State Emergency Management Agency (SEMA), World Food Programme (WFP), and Food and Agriculture Organization (FAO).

### 3.5 Method of Data Analysis

The data collected were coded, cleaned, and analyzed using the Statistical Package for the Social Sciences (SPSS) and Microsoft Excel. Both descriptive and inferential statistical tools were applied in the presentation and analysis of data.

## 4.1 Results and Discussion

Of the 384 questionnaires administered, 345 were returned successfully. Out of the successfully returned, only 334 were correctly filled. Therefore 334 representing 87 % of the total questionnaires administered served the bases of our analysis

### 4.2 Socio-Demographic Characteristics of Respondents

The socio-demographic profile of respondents is crucial for understanding the background and context of the displaced population. Table 4.1 presents information on age, gender, education, occupation, household size, and income levels of respondents.

**Table 4.1: Socio-Demographic Characteristics of Respondents (n = 334)**

| Variable        | Category            | Frequency | Percentage (%) |
|-----------------|---------------------|-----------|----------------|
| Gender          | Male                | 160       | 47.9           |
|                 | Female              | 174       | 52.1           |
| Age (Years)     | 18-24               | 42        | 12.6           |
|                 | 25-44               | 156       | 46.7           |
|                 | 45-64               | 105       | 31.4           |
|                 | 65 and above        | 31        | 9.3            |
| Education Level | No Formal Education | 82        | 24.6           |
|                 | Primary Education   | 117       | 35.0           |
|                 | Secondary Education | 101       | 30.2           |
|                 | Tertiary Education  | 34        | 10.2           |
| Occupation      | Farming             | 150       | 44.9           |
|                 | Trading             | 65        | 19.5           |
|                 | Casual Labour       | 59        | 17.7           |
|                 | Skilled Work        | 20        | 6.0            |
|                 | Unemployed          | 40        | 12.0           |
| Household Size  | 1-3 Person          | 74        | 22.2           |

|                |                  |     |      |
|----------------|------------------|-----|------|
|                | 4-6 Person       | 138 | 41.3 |
|                | 7-9 persons      | 82  | 24.6 |
|                | 10 and above     | 40  | 12.0 |
| Monthly Income | Less than 20,000 | 100 | 29.9 |
|                | 20,000-50,000    | 117 | 35.0 |
|                | 50,000-100,000   | 67  | 20.1 |
|                | Above 100,000    | 18  | 5.4  |
|                | No income        | 32  | 9.6  |

Source: Field Survey, 2025.

The results reveal that females (52.1%) slightly outnumber males (47.9%) among IDPs, reflecting the vulnerability of women during displacement situations. A large proportion (46.7%) of respondents fall within the economically active age group of 25–44 years, indicating that the displaced population consists mostly of individuals who would ordinarily contribute to agricultural production. Educational attainment is generally low, with 59.6% of respondents having only primary or no formal education. Farming remains the dominant occupation (44.9%), though displacement has limited access to farmlands. The average household size is relatively large, with 78.1% having four or more members. Income distribution shows that 65% of the respondents earn less than ₦50,000 monthly, suggesting a high level of poverty and economic vulnerability among IDPs in Jibia LGA.

### 4.3 Effect of Climate-Conflict Displacement on Food Availability among IDPs

Food availability refers to the presence of sufficient quantities of food for all members of a household through local production, food aid, or market supply. Among IDPs, food availability is influenced by displacement duration, access to farmland, receipt of food assistance, and general livelihood opportunities.

**Table 4.2: Effect of Climate-Conflict Displacement on Food Availability**

| Statement                                                | SA  | A   | D   | S  | Mean | Decision |
|----------------------------------------------------------|-----|-----|-----|----|------|----------|
| Food is regularly available in my household              | 38  | 62  | 148 | 86 | 2.01 | Disagree |
| I have access to farmland for crop production            | 95  | 205 | 22  | 12 | 2.56 | Agree    |
| I receive food aid from humanitarian organizations       | 145 | 97  | 63  | 29 | 3.17 | Agree    |
| The quantity of food produced is enough for my household | 54  | 67  | 132 | 81 | 2.11 | Disagree |
| Climate change has reduced local food supply             | 178 | 95  | 40  | 21 | 3.56 | Agree    |
| Conflict has disrupted access to farms and markets       | 205 | 89  | 25  | 15 | 3.72 | Agree    |
| <b>Grand Mean</b>                                        |     |     |     |    | 2.86 |          |

Source: Field Survey, 2025.

The results indicate that food availability among IDPs in Jibia LGA is moderate but unstable. The grand mean score of 2.86 (on a 5-point scale) suggests that households experience intermittent food shortages. Although 43% of respondents reported receiving food aid from humanitarian agencies, the majority acknowledged that climate variability and conflict have jointly reduced access to farmland and disrupted food supply chains. Furthermore, only about one-third of respondents indicated that the food produced

or received was sufficient for household needs. This implies that while aid interventions play a critical role, they remain inadequate in addressing the consistent food requirements of the displaced population.

#### 4.4 Effect of Climate-Conflict Displacement on Food Accessibility among IDPs

Food accessibility refers to the ability of individuals or households to obtain food through adequate resources such as income, land, and market access. Displacement often limits this due to loss of livelihoods and restricted movement.

**Table 4.3: Effect of Climate-Conflict Displacement on Food Accessibility**

| Statement                                      | SA  | A   | D   | SD | Mean | Decision |
|------------------------------------------------|-----|-----|-----|----|------|----------|
| I can easily afford food from the market       | 56  | 74  | 129 | 75 | 2.25 | Disagree |
| Food prices have increased due to displacement | 192 | 88  | 34  | 20 | 3.69 | Agree    |
| I have a stable source of income to buy food   | 45  | 76  | 133 | 80 | 2.21 | Disagree |
| I walk long distances to access market         | 87  | 129 | 72  | 46 | 2.75 | Agree    |
| Grand Total                                    |     |     |     |    | 2.59 |          |

Source: Field Survey, 2025

The findings reveal that food accessibility is low among displaced persons in Jibia LGA, with a grand mean score of 2.59. Most respondents reported difficulties affording food from markets due to loss of income and increased prices. Over 70% of households depend on irregular earnings, food aid, or donations, which restricts their ability to consistently purchase food. Although a few respondents indicated access to nearby markets, the majority lack credit facilities or income stability. The combined effect of inflation, displacement, and insecurity has therefore weakened food purchasing power among IDPs.

#### 4.5 Effect of Climate-Conflict Displacement on Food Utilization among IDPs

Food utilization refers to how individuals use food, including aspects of nutrition, preparation, storage, and hygiene that determine the body's ability to absorb nutrients. Among IDPs, proper utilization is often compromised by poor shelter conditions, limited cooking facilities, and inadequate food diversity.

**Table 4.4: Effect of Climate-Conflict Displacement on Food Utilization**

| Statement                                                  | SA  | A   | D   | SD | Mean | Decision |
|------------------------------------------------------------|-----|-----|-----|----|------|----------|
| I have access to clean water for cooking and drinking      | 122 | 105 | 63  | 44 | 3.21 | Agree    |
| I have adequate facilities to store and cook food properly | 58  | 82  | 118 | 76 | 2.35 | Disagree |
| My family consumes a balanced diet                         | 34  | 69  | 132 | 99 | 2.02 | Disagree |

|                                                       |     |     |     |    |      |          |
|-------------------------------------------------------|-----|-----|-----|----|------|----------|
| Food provided in the camp meets our nutritional needs | 47  | 79  | 124 | 84 | 2.27 | Disagree |
| Poor sanitation affects food quality in the camp      | 155 | 103 | 45  | 31 | 3.45 | Agree    |
| <b>Grand Mean</b>                                     |     |     |     |    | 2.66 |          |

Source: Field Survey, 2025

The results indicate that food utilization among IDPs in Jibia LGA is low, with a grand mean of 2.66. While a considerable proportion (68%) of respondents have access to clean water, most lack proper cooking and storage facilities. Nutritional diversity is poor; many households consume monotonous diets dominated by cereals and legumes with limited fruits, vegetables, or animal protein. The absence of balanced meals, combined with inadequate sanitation, poses serious risks of malnutrition and food-borne illnesses, particularly among children and pregnant women. The findings suggest that improving water, sanitation, and hygiene (WASH) conditions in IDP camps would significantly enhance food utilization and overall health outcomes.

#### 4.6 Test of Hypotheses

**H<sub>01</sub>: Climate-conflict displacement has no significant effect on food availability among IDPs.**

**Table 4.5: Effect of climate conflict displacement on food availability among IDPs**

| Model                         | Unstandardized Coefficients |            | Standardized Coefficients | t     | Sig. |
|-------------------------------|-----------------------------|------------|---------------------------|-------|------|
|                               | B                           | Std. Error | Beta                      |       |      |
| 1 (Constant)                  | 2.073                       | .286       |                           | 7.257 | .000 |
| Climate Conflict Displacement | .387                        | .078       | .294                      | 4.957 | .000 |

a. Dependent Variable: Food availability among IDPs

Source: Researcher's SPSS Output (2026)

The coefficient of "climate conflict displacement" stood at 0.387 which is positive. This implies that climate conflict displacement could lead to an increase in the food availability among IDPs. However, the significance of this can be judged from the t statistics and its significance. The t statistics of "climate conflict displacement" stood at 4.957 with a p-value of 0.000, indicating that the relationship depicted in the model is significant at 95% confidence level. This implies that the study do not have enough statistical evidence to accept the null hypothesis. Based on the above analyses, the study reject the null hypothesis which states that "climate-conflict displacement has no significant effect on food availability among IDPs." and accept the alternate.

**H<sub>02</sub>: Climate-conflict displacement has no significant effect food accessibility among IDPs.**

**Table 4.6: Effect of climate conflict displacement on food accessibility among IDPs**

| Model                         | Unstandardized Coefficients |            | Standardized Coefficients | t     | Sig. |
|-------------------------------|-----------------------------|------------|---------------------------|-------|------|
|                               | B                           | Std. Error | Beta                      |       |      |
| 1 (Constant)                  | 1.770                       | .203       |                           | 8.735 | .000 |
| Climate Conflict Displacement | .574                        | .067       | .471                      | 8.591 | .000 |

a. Dependent Variable: Food accessibility among IDPs

Source: Researcher's SPSS Output (2026)

The coefficient of “climate conflict displacement” stood at 0.574 which is positive. This implies that climate conflict displacement could lead to an increase in the food accessibility among IDPs. However, the significance of this can be judged from the t statistics and its significance. The t statistics of “climate conflict displacement” stood at 8.591 with a p-value of 0.000, indicating that the relationship depicted in the model is significant at 95% confidence level. This implies that the study do not have enough statistical evidence to accept the null hypothesis. Based on the above analyses, the study reject the null hypothesis which states that “climate-conflict displacement has no significant effect food accessibility among IDPs.” and accept the alternate.

### H<sub>03</sub>: Climate-conflict displacement has no significant effect on food utilization among IDPs.

Table 4.7: Effect of climate conflict displacement on food utilisation among IDPs

| Model                         | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. |
|-------------------------------|-----------------------------|------------|---------------------------|--------|------|
|                               | B                           | Std. Error | Beta                      |        |      |
| 1 (Constant)                  | .904                        | .243       |                           | 3.716  | .000 |
| Climate Conflict Displacement | .703                        | .066       | .554                      | 10.699 | .000 |

a. Dependent Variable: food utilisation among IDPs

**Source: Researcher’s SPSS Output (2026)**

The coefficient of “climate-conflict displacement” stood at 0.703 which is positive. This implies that climate-conflict displacement could lead to an increase in the food utilization among IDPs. However, the significance of this can be judged from the t statistics and its significance. The t statistics of “climate-conflict displacement” stood at 10.699 with a p-value of 0.000, indicating that the relationship depicted in the model is significant at 95% confidence level. This implies that the study do not have enough statistical evidence to accept the null hypothesis. Based on the above analyses, the study reject the null hypothesis which states that “Climate-conflict displacement has no significant effect on food utilization among IDPs” and accept the alternate.

## 5.1 Conclusion

The findings of the study clearly demonstrate that climate-conflict displacement has a statistically significant effect on all three dimensions of food security among Internally Displaced Persons (IDPs): food availability, accessibility, and utilization. The regression results revealed positive coefficients for each relationship, indicating that climate-conflict displacement significantly predicts variations in food security outcomes among displaced populations.

Specifically, climate-conflict displacement significantly influenced food availability ( $\beta = 0.387$ ,  $p < 0.05$ ), suggesting that displacement conditions are associated with measurable changes in the quantity of food accessible to IDPs. Similarly, the effect on food accessibility was stronger ( $\beta = 0.574$ ,  $p < 0.05$ ), implying that displacement plays a major role in determining IDPs’ ability to obtain food through purchase, aid, or other means. The strongest relationship was observed in food utilization ( $\beta = 0.703$ ,  $p < 0.05$ ), indicating that displacement significantly affects how food is consumed, including dietary quality and nutritional outcomes.

## 5.2 Recommendations

Based on the findings and conclusions of this study, the following recommendations are made:

1. **Expand Structured Food Assistance Programs:** Since climate-conflict displacement significantly affects food availability among Internally Displaced Persons (IDPs), government and humanitarian agencies should strengthen structured food supply systems such as regular food distributions, buffer stock programs and emergency feeding initiatives. This will help stabilize food availability and reduce the risk of shortages in displacement settings.
2. **Improve Economic Access to Food through Livelihood Support:** Given the strong effect of displacement on food accessibility, stakeholders should implement livelihood restoration programs, including vocational training, cash-transfer schemes, and small-scale agricultural support. Enhancing income opportunities will enable displaced households to purchase food independently and reduce overreliance on aid.
3. **Promote Nutrition and Safe Food Utilization Practices:** As the findings show that climate-conflict displacement significantly influences food utilization, targeted nutrition interventions should be introduced. These may include nutrition education, improved access to clean water, healthcare services, and monitoring of dietary practices to ensure that available food translates into better nutritional outcomes for IDPs.

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