Boko Haram in Nigeria: Analyzing the Linkages Between Armed Conflict Forced Displacement, and Food Security

Amari Jones
Boko Haram in Nigeria: Analyzing the Linkages Between Armed Conflict Forced Displacement, and Food Security

by

Amari Jones

Under the Direction of Louis-Alexandre Berg, PhD

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of

Master of Arts

in the College of Arts and Sciences

Georgia State University

2024
ABSTRACT

The Council on Foreign Relations reports that between 2011 and 2023, Boko Haram was responsible for the deaths of more than 66,000 Nigerians. More than half of their deaths occurred in Borno. Periods of sustained conflict exacerbate existing and create new issues; for example, millions of children and pregnant women have suffered from malnutrition within the last ten years. More than 2.18 million Nigerians have been displaced to Northern Nigeria due to climate issues in the Lake Chad Basin and Boko Haram’s violence in the region. Mass displacement in fragile states leads to food insecurity because it disrupts the supply chain. Once a state becomes embroiled in conflict, it disrupts agricultural and market norms, which can be felt by the population on different levels: host and displaced population. The empirical findings suggest that IDPs and returnees are more food insecure than hosts after observing a variety of commodities and looking across a number of local government areas in Borno. The qualitative reports build detailed descriptions of the internally displaced persons (IDPs) lives living in government-controlled camps and government policies.

INDEX WORDS: Nigeria, Food Security, Refugees, Conflict
Boko Haram in Nigeria: Analyzing the Linkages Between Armed Conflict, Forced Conflict, and Food Security

by

Amari Jones

Committee Chair: Louis-Alexandre Berg

Committee: Charles Hankla

Syed Naim

Electronic Version Approved:

Office of Graduate Services
College of Arts and Sciences
Georgia State University
May 2024
DEDICATION

I want to start by giving all thanks to God; without him, none of this would be possible. I am dedicating my thesis to my family, the one I was born into and the one God-gifted to me. To my grandparents, I am so glad you all made it to see me walk across the stage again. I will never take that for granted, especially after everything that happened this year. To my parents, Chester and Andrea, thank you for always placing your unwavering support behind my dreams. To my dad, thank you for bringing my love of politics alive and constantly engaging in political debates with me over the years. Because of your love for politics, a fire lit inside of me as well. I believe if you had the chance, you would have chosen the same path I did. To my mom, you are my superhero. I can only achieve success because of how much you have poured into me. You have shown me what it is like to be driven and have grit, even in the face of adversity. I could not have asked for a better mom. Thank you, Mom and Dad, for your sacrifices so that I may achieve my dreams.

My God-gifted family, Kristi and Kylie, have supported my dreams since I was 15. To Kristi, thank you for taking me in as one of your own and a fellow political scientist, showing me that it is okay to have an unpopular opinion and be different from the masses but stand in your truth regardless. You are unapologetically yourself, and I have learned so much from you. I am so thankful that you have supported me through the years. To Kylie, my best friend and biggest cheerleader, thank you for pushing me and believing in my dreams like yours; it means the world to me. Thank you, Kylie, for being there for every phone call, text message, Facetime, and late-night assignment. To my village, anyone who has ever poured into me I truly thank you. If not for you all pouring into me, I would not be able to achieve the success I have today.
ACKNOWLEDGEMENTS

Dr. Salli Vargis, you were the first professor to see something in me that I had not seen in myself. You gave me grace during such a difficult time in my life and helped me prepare to transition from the Perimeter campus to the Atlanta campus. Thank you for your support and for going above and beyond your role as a professor. Without you at the beginning of my collegiate academic career, I would not have even found my love for learning again.

To my thesis chairs, Dr. Berg, Dr. Hankla, and Dr. Naim, in my five years at Georgia State University, I have come across many professors, but you three have had a profound impact on my life inside and outside the classroom. All of you are very distinguished in different ways, yet I have never heard any of you boast or brag. When I reach that level of accomplishment, I strive to carry myself precisely like that. You have all taught me so much, and I will carry those lessons with me for the rest of my life. I could not have asked for a better committee, thank you to my chair and committee members.

Dr. Berg, you never fail to amaze me. On the first day, I took your international politics course, I approached you unsure about the course material because I had never taken an international politics class before, let alone at the master’s level. You said, “I believe in you.” I have the utmost respect for you as a professor, my committee chair, and as a person. This process has been challenging for me, but you still pushed me, and for that, I am grateful. Thank you for lending your expertise and being a part of my thesis from the start.

Dr. Hankla, one of my shortcomings is that the numbers click slower for me than words, especially when you begin adding variables. However, with you as my teacher, it clicked immediately—your willingness to advise whether it is for career, academia, or life. I know I can talk to you about anything. I sincerely thank you for the open-door policy.
Dr. Naim, you have had the largest influence on not only my academic career but also my life. You opened up a whole new window of opportunities I did not consider possible for someone like me, and I sincerely thank you from the bottom of my heart. You opened a voice that laid dormant inside of me for so long. Thank you for initially getting me interested in food security in Model UN in 2022. Thank you for showing me the world, being my mentor, and always coming through whenever I need you.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>IV</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>VIII</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>IX</td>
</tr>
<tr>
<td>LIST OF ABBREVIATIONS</td>
<td>X</td>
</tr>
<tr>
<td>1 INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>2 LITERATURE REVIEW</td>
<td>3</td>
</tr>
<tr>
<td>2.1 Explaining the Linkages Between Conflict and Food Security</td>
<td>4</td>
</tr>
<tr>
<td>2.2 Explaining the Linkages Between Forced Displacement and Food Security</td>
<td>5</td>
</tr>
<tr>
<td>2.3 Nexus of Conflict, Food Security, and Forced Displacement</td>
<td>7</td>
</tr>
<tr>
<td>2.4 Interventions, Resilience, and Coping Strategies by International and Humanitarian Actors</td>
<td>9</td>
</tr>
<tr>
<td>2.5 Conflict-Driven Forced Displacement Casual Relationship with Food Security</td>
<td>10</td>
</tr>
<tr>
<td>3 THEORY</td>
<td>12</td>
</tr>
<tr>
<td>3.1 Hypothesis</td>
<td>13</td>
</tr>
<tr>
<td>3.2 Data Sources</td>
<td>15</td>
</tr>
<tr>
<td>3.2.1 Variable Breakdown</td>
<td>16</td>
</tr>
<tr>
<td>3.2.2 Qualitative Analysis</td>
<td>17</td>
</tr>
<tr>
<td>3.2.3 Quantitative Analysis</td>
<td>17</td>
</tr>
<tr>
<td>3.3 Case Selection: Nigeria</td>
<td>17</td>
</tr>
</tbody>
</table>
### 3.4 Research Design

**EMPIRICAL RESULTS**

- **4 Hypothesis 1: IDPs Increase Food Insecurity**
- **4.2 Hypothesis 2: Food Prices by Group**
- **4.3 Hypothesis 3: Food Consumption by Household Type**
- **4.4 Hypothesis 4: Food Aid by Household Type**
- **4.5 Further Thought and Findings**

**QUALITATIVE ANALYSIS**

- **5 Introduction**
- **5.2 Context for 2018 in Borno**
- **5.3 Post-Survey Review**
- **5.4 Policy Recommendations**

**CONCLUSION**

REFERENCES
LIST OF TABLES

Table 3.1 Variable Matrix .................................................................................................................. 16
Table 4.1 G2 Variable Breakdown .................................................................................................... 22
LIST OF FIGURES

Figure 4.1 Population Analysis LGAs in Borno .............................................................. 20
Figure 4.2 Degree 1 versus Degree 2 Un Simplified ....................................................... 22
Figure 4.3 Mean of Food Insecurity by Group ............................................................... 25
Figure 4.4 Average Price per Commodity by Group ...................................................... 26
Figure 4.5 Food Consumption by Group ........................................................................ 30
Figure 4.6 Comparison of Purchased, Grown, and Gifted Food Commodity ................. 30
LIST OF ABBREVIATIONS

ACLED – Armed Conflict Location and Event Data Project

CSOs – civil society organizations

FAO – Food and Agriculture Organization of the United Nations

FIES – Food Insecurity Experience Scale

IGAD – Intergovernmental Authority on Development

IGOs – intergovernmental organizations

IDP – Internally Displaced Persons

NGOs – non-governmental organizations

NSAG – non state armed group

PoU – Prevalence of Undernourishment

UN – United Nations

UNHCR – United Nations High Commission for Refugees
1 INTRODUCTION

The 2023 Global Report on Food Crises reported that armed conflict caused 117 million people to experience acute food insecurity and was one of the foremost drivers behind 19 countries/territories' incidences of food insecurity.\(^1\) Conflict remains one of the prominent determinants of food insecurity and chronic food insecurity. It is multi-dimensional and affects states in various ways, including economic shocks, disruption of markets and the food chain, exacerbating existing issues, and can lead to mass displacement of individuals.

There are various questions to consider, the most prevalent being whether certain conditions heighten the likelihood of food insecurity or chronic food insecurity and conflict. A determining factor that causes conflict to lead to food insecurity ultimately is forced displacement. Forced displacement usually occurs in countries that are facing significant development challenges.\(^2\) The arrival of internally displaced persons (IDPs) and refugees in host countries already facing severe issues further disrupts economic, political, and agricultural stability. In my research, I will test under what conditions forced displacement affects food insecurity. In learning these conditions, I will seek to answer whether relevant actors, state governments, non-governmental organizations (NGOs), intergovernmental organizations (IGOs), and civil society organizations (CSOs) will be able to enact more preemptive measures to prevent food insecurity in states. Conflict, forced displacement, food insecurity, and chronic food insecurity can trap states in a cycle of instability. The thesis hypothesizes that states experiencing food insecurity due to conflict-induced forced displacement are affected at two primary levels: the host community and the displaced population. The literature review will be divided into the following categories: exploring the linkages between conflict and food security,

---

1 “Global Report on Food Crises 2023 | World Food Programme.”
2 George and Adelaja, “Armed Conflicts, Forced Displacement and Food Security in Host Communities.”
the linkages between forced displacement and conflict, the nexus between conflict, food security, and forced displacement, and interventions, resilience, and coping strategies by international actors.

The empirical analysis shows that in contrast to the hypothesis, IDPs and returnees are the most vulnerable households in Borno. However, all types of households experience a measure of food insecurity. Further empirical evidence breaks it down further by commodity, aid, cultivation, and household spending. The policy recommendations address Nigeria’s government's shortfalls and where they could have improved by enacting more robust policies for government officials who abuse their power and mobilizing social media so the general international community can understand the hunger crisis in Nigeria.
2 LITERATURE REVIEW

Food insecurity, defined by the Food and Agriculture Organization of the United Nations (FAO), is when an individual lacks consistent access to adequate, safe food to foster growth and development. There are varying levels of food insecurity; the indicators used internationally are the Prevalence of Undernourishment (PoU) and the Food Insecurity Experience Scale (FIES). There are a variety of indicators at the individual and regional levels, but the most commonly used are household consumption, food consumption scores, and childhood anthropometrics. Per Upsala Universitet's Department of Peace and Conflict Research, armed conflict can be defined as a "contested incompatibility that concerns government or territory where the use of armed force between two parties, of which at least one is the government of a state, results in at least 25 battle-related deaths in one calendar year."(Uppsala University Department of Peace and Conflict Research n.d.)

Forced displacement can occur within a country or through an international border. Displaced individuals within a country's border are considered internally displaced persons. If an individual’s displacement causes them to migrate over international borders, they are considered refugees. The UN has strict definitions for IDPs and refugees. The UN Guiding Principles on Internal Displacement defines IDPs as individuals who have been forced to flee their residence to avoid the effects of armed conflict, situations of generalized violence, violations of human rights, or natural disasters and have not crossed an internationally recognized state border. 3 The United Nations High Commissioner for Refugees (UNHCR) defines refugees as individuals forced to cross an international border to escape persecution or conflict. 4

---

3 Economic and Social Council, “Guiding Principles on Internal Displacement.”
2.1 Explaining the Linkages Between Conflict and Food Security

Casual mechanisms link the relationship between conflict and food security to political instability and overall fragility. Food insecurity worsens when coupled with conflicts or longstanding bouts of conflict. For example, the rise of Boko Haram compromised, to an alarming extent, the agricultural exports in Nigeria's northeastern states, negatively affecting overall revenue as well as impacting trade with neighboring states of Cameroon, Chad, and Niger. Moreover, when fragile states become engaged in violent conflicts, which historically have a high import rate, households spend more income on the same food, vulnerability increases, and adequate access to food decreases the longer the conflict goes on.

Over time, less economically developed states can become entrapped in a constant conflict and violence cycle, more commonly known as a conflict trap. Conflict traps exacerbate a host of issues. One of the most significant is their role in leading to a breakdown of agricultural and economic markets, thus ushering in an era of chronic food insecurity. Moreover, previous literature has reinforced that there is a direct correlation between conflict and food security. A study was conducted in the 1990s on boys and girls under age 5 to analyze the effects of civil conflict in Rwanda. The study found that boys and girls born in the regions experiencing violence had height-for-age z-scores (HAZ) that were 0.30 and 0.72 standard deviations lower than their counterparts not affected by violence. The study attributed their findings to a consequence of the disruption of the agricultural chain. Furthermore, during Sierra Leone's civil war, to recruit civilian combatants, the Revolutionary United Front (RUF) promised food for the

---

5 Van Den Hoek, “Agricultural Market Activity and Boko Haram Attacks in Northeastern Nigeria.”
6 Hendrix and Brinkman, “Food Insecurity and Conflict Dynamics.”
7 Justino, “Nutrition, Governance and Violence.”
8 Justino.
combatants and their families. According to the 1999 State of Food Insecurity report, almost 43% of Sierra Leone's population (which was approximately 4.3 million) suffered from undernourishment, with 1.8 million people affected. This was during the Sierra Leonean Civil War, which lasted from 1991 to 2002.

2.2 Explaining the Linkages Between Forced Displacement and Food Security

UNHCR reported in 2023 that an estimated 108.4 million people are forcibly displaced. Of those, 62.5 million people are IDPs, and 29.4 million are refugees. Forced displacement is one of the foremost drivers behind food insecurity, typically in states already plagued with development issues. Forced displacement usually occurs in countries that are facing significant development challenges. Further noting, in states where you have forced displacement, there can be both IDPs and refugees that are originating from the same region. When that occurs, the ramifications stress the host states and the areas where refugees migrate. In Colombia during the late 1990s, IDPs were found to be doing worse than the Colombian poor population, which is entirely contradictory to how, in 1995, migrants were offered more welfare than the host population. Justin George and Adesoji Adelaja, prominent academics in the discourse of Nigerian IDP literature, conducted a study investigating the impacts of forced displacement on household-level food security outcomes accounting for ethnic, communal, climate, and Boko Haram-related displacement. The study found that forced displacement can significantly alter commodity and land prices and that IDPs who are displaced due to Boko Haram-related events affect food security more severely than their counterparts displaced from other shocks.

9 Justino.
11 George and Adelaja, “Armed Conflicts, Forced Displacement and Food Security in Host Communities.”
12 Ibáñez and Vélez, “Civil Conflict and Forced Migration.”
13 George and Adelaja, “Armed Conflicts, Forced Displacement and Food Security in Host Communities.”
14 George and Adelaja.
disparity between the migrant and host populations and the disparity within the migrant population furthers the line of thinking from the hypothesis that displacement affects both the host and migrant populations differently.

In Sri Lanka, prolonged decades of conflict from various actors, including Janatha Vimukthi Peramuna (JVP), an armed insurgency group, and between the government and the Liberation Tigers of Tamil Eelam (LTTE), displaced 800,000 people by 2001, and 90,000 were IDPs.\(^\text{15}\) A follow-up report published by the Internal Displacement Monitoring Centre in 2012 stated that IDPs who returned to where they originated did not have adequate access to food, water, or shelter.\(^\text{16}\) Sri Lanka faces high inflation rates, leading to high market prices for essential foods, severe food insecurity, and inadequate access to clean drinking water and sanitation services.\(^\text{17}\) Furthermore, disruptions of water security can have dramatic, far-reaching consequences, for instance, by affecting water prices and further exacerbating preexisting economic inequalities and creating water scarcity. Specifically, a person's water consumption per capita consumption can be disrupted, hindering food production.\(^\text{18}\)

In Nigeria, Boko Haram has disrupted agricultural production, and coupled with debilitating climate effects in the Lake Chad Basin, it has forced 2.18 million individuals to relocate to Northern Nigeria, impacting food security across four dimensions: food availability, access, utilization, and stability.\(^\text{19}\) From 2010 to 2016, Boko Haram killed over 35,000 people, and many of the death tolls were farmers, which resulted in a significantly reduced labor capacity

---

\(^\text{15}\) Siriwardhana and Wickramage, “Conflict, Forced Displacement and Health in Sri Lanka.”
\(^\text{16}\) Internal Displacement Monitoring Centre, “Sri Lanka.”
\(^\text{17}\) International Federation of Red Cross and Red Crescent Societies, “Sri Lanka 2023 IFRC Network Country Plan (MAALK002) - Sri Lanka | ReliefWeb.”
\(^\text{18}\) Bertassello et al., “Food Demand Displaced by Global Refugee Migration Influences Water Use in Already Water Stressed Countries.”
\(^\text{19}\) Adelaja and George, “Terrorism and Land Use in Agriculture”; Adebisi, Azeez, and Oyedeji, “Appraising the Effect of Boko Haram Insurgency on the Agricultural Sector of Nigerian Business Environment.”
in the agricultural sector.\textsuperscript{20} Boko Haram's siege of the region recently has dealt a disastrous impact on the Nigerian business environment.\textsuperscript{21} Additionally, their influence has most heavily impacted the states of Borno, Yobe, and Adamawa, which were significant agriculturally, as they produced items such as cowpeas, rice, millet, sorghum, tomatoes, onions, and corn, as well as fish and livestock.\textsuperscript{22} Unfortunately, from 2009 to 2016, over 30,000 fatalities were recorded in the Armed Conflict Location and Event Data Project (ACLED), which secured Nigeria as the state with the highest civilian casualty rate in the world.\textsuperscript{23} Moreover, the significant and rapid population increase in Northern Nigeria brought international attention and humanitarian assistance to an area not previously serviced. Although overall agriculture production decreased during the migration, an alternative method to a food source was provided. However, this builds the economy's reliance on foreign aid and humanitarian assistance in instances like this.

\subsection*{2.3 Nexus of Conflict, Food Security, and Forced Displacement}

In 2017, the FAO and the International Food Policy Research Institute published a report acknowledging the dangerous interactions between conflict, forced displacement, and food insecurity. The key takeaway from the report is that the number of people who have been forcibly displaced has steadily increased since 2011.\textsuperscript{24} The authors pinpoint the complexities of this number in combination with food security and conflict in rural areas.\textsuperscript{25} Individuals' migration decisions are based on the severity of the conflict and food insecurity.\textsuperscript{26} The interactions of conflict, food security, and forced displacement were subsequently complex to

\begin{thebibliography}{99}
\bibitem{Adebisi20} Adebisi, Azeez, and Oyedeji, “Appraising the Effect of Boko Haram Insurgency on the Agricultural Sector of Nigerian Business Environment.”
\bibitem{Adebisi21} Adebisi, Azeez, and Oyedeji.
\bibitem{Adebisi22} Adebisi, Azeez, and Oyedeji.
\bibitem{VanDenHoek} Van Den Hoek, “Agricultural Market Activity and Boko Haram Attacks in Northeastern Nigeria.”
\bibitem{Vos24} Vos et al., “Conflict, Migration and Food Security: The Role of Agriculture and Rural Development.”
\bibitem{Vos25} Vos et al.
\bibitem{Vos26} Vos et al.
\end{thebibliography}
track in literature; even though the international community has dramatically emphasized them, there is a noticeable gap in academia reinforcing how they are related in some way. Current literature attributes conflict in tandem with other shocks as the reason for migration and food insecurity. For example, rural areas and smallholder farmers are most heavily affected in conflict-affected areas, and they face a high degree of income uncertainty without conflict, such as weather uncertainty. The most significant issue is that the literature separates conflict and food security and conflict and forced migration. Only some authors, for example, Adelaja, George, Justino, and Kah, emphasize the importance of conflict, food security, and forced displacement; in their articles, the authors attribute them to be a causal connection between conflict-induced forced displacement and the ramifications of food security and the agricultural sector.

Moreover, IDPs and refugees are found to be disproportionately poorer than their counterparts in their host communities, which then raises the question of sufficient access to food. However, in the long term, the situation can reverse itself. Although current literature explores the impact of economic and climate and various other shocks on food security or food security and conflict, this paper will only focus on migrants displaced due to conflict and food security and analyze the causal relationships between them. However, there are aspects of the overall migrant relationship to food security that are not investigated in this paper.

Martin-Shields and Stojetz, “Food Security and Conflict.”
2.4 Interventions, Resilience, and Coping Strategies by International and Humanitarian Actors

Past approaches to combat emergency food insecurity combine production and market stabilization efforts with early warning systems and humanitarian response. The United Nations Sustainable Development Goal, SDG 2 Zero Hunger has garnered the international community's support and allowed them to help cultivate a plan in response to the relationship between food security and conflict. However, international organizations often answer food insecurity issues by focusing on the acute symptoms, leaving states with chronic and long-term food insecurity susceptible to still relying on foreign aid, whether from several humanitarian organizations or intergovernmental bodies. For example, in South Sudan, current food insecurity interventions from the Intergovernmental Authority on Development (IGAD) region seem to be geared towards food aid and short-term relief rather than chronic food insecurity. Not pinpointing food security interventions builds reliance and codependency on foreign aid and humanitarian aid, which is not the goal; if a state is experiencing long-term food insecurity, measures should be taken at levels to help mitigate that more effectively. The 2023 Global Food Policy Report raises the issue: by the time the international community involves itself in a conflict where forced migration or food insecurity occurs, whether simultaneously or at stages, it is always after the conflict; lives have already been lost or gravely affected. In the case of Nigeria, the financial importance of the agricultural sector will continue to diminish under the thumb of Boko Haram, but also bringing attention to agriculture creates a pipeline for

29 Lokosang, Ramroop, and Hendriks, “Establishing a Robust Technique for Monitoring and Early Warning of Food Insecurity in Post-Conflict South Sudan Using Ordinal Logistic Regression.”
employment and reducing poverty.\textsuperscript{30} Understanding how farming households can withstand conflict and make land adjustments is essential in identifying applicable policies that build resilience against shocks and comprehensive post-conflict rehabilitation strategies.\textsuperscript{31} The international community needs to build better preemptive and resilience measures.

Uganda conducted a multifaceted operation that navigated the complexities of conflict, food insecurity, and forced migration. The Peace, Recovery, and Development Plan (PRDP) was implemented post-conflict in Northern Uganda and designed as a stabilization and development program. One of the major successes is that the Ugandan government gave a formal policy and rights to IDPs.\textsuperscript{32} However, one of the major criticisms of the PRDP is that it focuses too heavily on reconciliation. For example, livelihood support was given to displaced individuals during the war.\textsuperscript{33} However, it could not be sustained throughout the program.\textsuperscript{34} Since the inception of PRDP in 2007, there has been much discourse on the impacts of conflict and post-conflict recovery programs and the reintegration of IDPs. Furthermore, from 2011 to 2012, in Ancholi, a survey reported a 9.4 percentage point reduction in the proportion of respondents who believed in the continuity of peacetime, from 79.2\% in 2011 to 69.8\% in 2012.\textsuperscript{35}

2.5 Conflict-Driven Forced Displacement Casual Relationship with Food Security

Food insecurity affects millions worldwide and, as the literature demonstrates, can have far-reaching effects when coupled with conflict and forced displacement. There is strong evidence to explain the relationship between conflict and food security; for instance, the

\textsuperscript{30} Adebisi, Azeez, and Oyedeji, “Appraising the Effect of Boko Haram Insurgency on the Agricultural Sector of Nigerian Business Environment.”
\textsuperscript{31} Adelaja and George, “Terrorism and Land Use in Agriculture.”
\textsuperscript{33} Ogwang, “Rethinking Peace, Post Conflict Reconstruction and Development Interventions in Northern Uganda: Opportunities and Challenges.”
\textsuperscript{34} Ogwang.
\textsuperscript{35} International Alert, “Monitoring the Impact of the PRDP on Peace and Conflict in Northern Uganda.”
disruption of the supply chain and the stress it places on a state’s exports and neighbors. Once a state becomes embroiled in conflict, it affects overall agricultural production, which can be felt by the population, as demonstrated in Rwanda by the differing HAZ scores and in Sierra Leone by the RUF leveraging off individuals’ desperation for food. Additionally, it is imperative to note that forced displacement and mass migration of individuals can exacerbate existing issues, especially in states already facing economic and development challenges, as demonstrated in Sri Lanka, Nigeria, and Colombia. Even after focusing on the follow-up on Sri Lanka, it was challenging to find concrete statistics on the number of IDPs who were food insecure directly following the conflicts and upon returning. There is a substantial gap in the literature to help explain the stress migrants add to the food insecurity of host areas, and it is challenging to find data on the separate groups within the community.

Many international organizations and reports emphasized the detrimental relationship between conflict, food security, and forced displacement and its interactions in the realm of practicum and CSO-based research. However, academia and literature favored a different approach and attributed third-party stressors as an alternative reason. Furthermore, strategies by CSOs and other relevant actors have been in place on a prevention scale and are enacted after conflict occurs. There is room for further research on the relationship between conflict-driven forced displacement and food security. This paper will seek to further argue that conflict-related forced displacement is more harmful to host communities because of ineffective aid strategies.
3 THEORY

The armed conflict that causes the displacement of individuals can have dire consequences on host communities, IDPs, and refugee communities. It can also lead to chronic food insecurity. Since the number of IDPs has more than doubled since 2019, there are growing concerns from the international community about the ramifications of spillover effects of shocks on economic development and related outcomes in host communities.\(^\text{36}\) George and Adelaja observed that in areas with incidents of large-scale armed conflict, a sizable percentage of the population is affected, causing strain on the food supply chain.\(^\text{37}\) Moreover, refugees and IDPs live in deplorable conditions without protections and assistance from national governments and humanitarian aid organizations, which can bring forth more economic challenges.\(^\text{38}\) The sentiments regarding forced migration's impact on food security were echoed by the Consultative Group on International Agricultural Research, discussing the double-edged sword of forced migration as it presents both challenges and opportunities for development.\(^\text{39}\) This paper examines the causal relationship between conflict-related forced displacement and food security among different community groups: IDPs, returnees, and hosts. Current literature gaps leave questions about the extent to which conflict-forced displacement influences food security and its impact on other structures and relationships in the community.

The literature review revealed differential effects on food security amongst different groups within a community. As the original inhabitants, the host community is first affected by the migrant and returnee population. The sudden population increase with IDPs disrupts hosts' normal eating and purchase patterns. The arrival of IDPs involves humanitarian aid organizations...

---

\(^{36}\) George and Adelaja, “Armed Conflicts, Forced Displacement and Food Security in Host Communities.”

\(^{37}\) George and Adelaja.


\(^{39}\) Institute (IFPRI), *Global Food Policy Report 2023.*
and national aid agencies altering current market prices. Once returnees migrate back, the government grants them their land back and access to migrant resources, giving them an advantage over the host population. The migrant population, both returnees and IDPs, are given priority by humanitarian aid agencies, which puts hosts at a significant disadvantage. For the data and LGA we are observing, in Borno, owning land is viewed as an asset because the primary workforce is through agriculture. Testing the interactions across community groups and food security indicators will determine whether a causal relationship exists between conflict-related forced displacement and food security between different community groups that attract migrants.

3.1 Hypothesis

The overall hypothesis explores under what conditions conflict-induced forced displacement affects food security across community groups and how; however, it can be further broken down into five hypotheses. The independent variable will remain constant with household type.

- **Hypothesis 1**: Host households will be the most food-insecure group, followed by IDP households, and returnee households will be the least. The unit of analysis is individual

  - Dependent variable: Food insecurity

The justification for hypothesis 1 is due to hosts' reliance on purchased food and based on the assumption that they are consuming the least amount of food aid. Considering the economic state of Borno in 2018, they would be the most food-insecure group. IDP households would be the second most food insecure group, as they rely on food aid and are less likely to cultivate crops and livestock than host and returnee households. Returnee households are anticipated to
have the highest food security of all the household groups, as they can develop land and livestock upon being eligible to receive their land back and qualify for food aid. Hypothesis 1 will be observed from the household level and based on the local government areas (LGAs).

- **Hypothesis 2: Host households, on average, spend more per commodity than IDP and returnee households. The unit of analysis is also individual.**
  - Dependent variable: Amount of naira spent per commodity

  The logic behind hypothesis 2 is that migrants entering a fragile area disrupt the food supply chain, leading to higher food costs. This disruption could be due to various factors, such as manipulation and intervention from different sources like foreign humanitarian aid and government agencies, which causes different prices across the three household types: hosts, IDPs, and returnees. Returnee and IDP households are eligible to receive more humanitarian assistance and aid, while hosts receive it at a much lower rate, causing them to spend more on average. This disruption could be due to various factors, such as manipulation and intervention from different sources like foreign humanitarian aid and government agencies, which causes different prices across the three household types: hosts, IDPs, and returnees. Returnee and IDP households are eligible to receive more humanitarian assistance and aid, whereas hosts receive it at a much lower rate, causing them to spend more on average.

- **Hypothesis 3: Returnee households have the highest food consumption of all household types, followed by IDP and host households. The unit of analysis is individual.**
  - Dependent variable: Food consumption

  The theory behind hypothesis 3 is that returnee households will consume the most food due to their eligibility to receive their land back. Therefore, they can cultivate their food and
qualify for humanitarian aid based on their classification. IDP households are proposed to consume less food than returnee households but more than host households, as their eligibility to receive humanitarian assistance alters their food consumption. Host households will have the lowest food consumption because they receive food assistance at the lowest rate and rely on purchased food.

- **Hypothesis 4**: IDP households consume the most food aid, followed by returnee households, while host households have the lowest consumption of food aid. The unit of analysis is individual.

  - Dependent variable: Food aid

  The logic behind hypothesis 4 is that IDPs will consume the most aid of the household types due to IDPs' official status notated by the government, which is desirable to aid-providing organizations. Returnee households will consume the second highest amount of food aid due to their “special” status returnees hold in Borno and their eligibility to consume aid. Host households will consume the least food aid, as they are less likely to receive food aid and vouchers but more likely to grow food and buy food from the markets.

  It is important to note that these hypotheses only apply to states experiencing fragility and development concerns before migration and conflict occur. The effects of armed conflict on food security are far more pronounced in impoverished populations. They are further exemplified in vulnerable populations within the host area, women, children, and ethnic minorities.

### 3.2 Data Sources

The dataset used is the UN FAO’s Nigeria—Resilience Index Measurement and Analysis 2018, quantitative personal assessment survey data from Borno.
### 3.2.1 Variable Breakdown

For hypotheses 1 through 4, household classification, x, will be the independent variable that classifies the households into three categories: host, returnee, or IDP.

For hypotheses 1, the dependent variable, food security, y, will be measured by the survey question: *In the past seven days, if there have been times when you did not have enough food or money to buy food, how often (days) has your household had to [coping strategy]?* The unit of analysis for hypothesis 1 is individual-year.

For hypothesis 2, the dependent variable, y, will be measured by the average price of a food item in naira. The unit of analysis is individual-year. To get y, *the total amount spent will be divided by the total amount consumed*; thus, the dependent variable is the average price per commodity.

For hypothesis 3, the dependent variable is food consumption, y, which will be measured by the survey question: *over the past one week (seven days), how much [quantity] have you or any member of your household consumed?* The unit of analysis is individual-year.

For hypothesis 4, the dependent variable, y, will be measured by the survey question and observing the proportion of food aid: *How much in total did your household consume in the past seven days of [FOOD ITEM] from gifts/food assistance/other source?* The unit of analysis is individual-year.

The table below provides a breakdown of each hypothesis and its corresponding variable alongside their unit of analysis.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>x variable</th>
<th>y variable</th>
<th>Unit of Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesis 1</td>
<td>Household type</td>
<td>Coping strategies</td>
<td>Individual-year</td>
</tr>
<tr>
<td>Hypothesis 2</td>
<td>Household type</td>
<td>Average price spent per item</td>
<td>Individual-year</td>
</tr>
<tr>
<td>-------------</td>
<td>----------------</td>
<td>-------------------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Hypothesis 3</td>
<td>Household type</td>
<td>Average kg of each food group and/or commodity</td>
<td>Individual-year</td>
</tr>
<tr>
<td>Hypothesis 4</td>
<td>Household type</td>
<td>Total kg of food aid consumed</td>
<td>Individual-year</td>
</tr>
</tbody>
</table>

### 3.2.2 Qualitative Analysis

The qualitative analysis will build a profile of an IDP’s experience in Nigeria before the survey was conducted in 2018 and after highlighting whether there have been any significant changes to help secure the betterment of nutritious food for IDPs and hosts in Northeast Nigeria. The United Nations has a report in tandem with the dataset. The qualitative analysis also compiles primary reports, interviews, and press reports from various sources, such as the United Nations Office for the Coordination of Humanitarian Affairs, Human Rights Watch, and Amnesty International.

### 3.2.3 Quantitative Analysis

The quantitative analysis will utilize the data in the Nigeria Resilience dataset. The dataset provides comprehensive household information on their experiences living in Borno, which is assessed through survey questions testing for resilience.

### 3.3 Case Selection: Nigeria

We will analyze Nigeria's IDP crisis to test the theory. Nigeria has a unique position in the IDP crisis as they are facing climate-related migrants and conflict-related migrants. Moreover, the World Bank reported Nigeria as the ninth-highest state for IDPs displaced by conflict and violence. However, they have the highest civilian casualty rate in the world.\(^{40}\) Boko

---

\(^{40}\) Van Den Hoek, “Agricultural Market Activity and Boko Haram Attacks in Northeastern Nigeria.”
Haram (BH) vehemently opposes Western-based cultural influence through education, which they believe threatens traditional values, customs, and lifestyles among Muslims in northeastern Nigeria. BH was initially formed in the early 2000s in Borno; however, the government could no longer ignore their actions in 2009, and a considerable conflict ensued. BH and the Nigerian government tensions boiled over, which resulted in the Nigerian government killing the BH founder and over 700 members. Thus, the armed conflict between the two parties was officially beginning. Since January 2014, the World Food Programme (WFP) reported that Borno and Yobe States have experienced sporadic periods of critical acute food insecurity; it was further noted in May 2017 that 5.2 million people between Borno, Yobe, and Adamawa were food insecure. Borno State has been at the center of the violence, witnessing over 54% of Boko Haram incidences since their first attack. The quantitative analysis will be observing Borno State in 2018. The qualitative analysis will be observing Nigeria from 2016 to 2024.

3.4 Research Design

The research design will consist of two parts. Part I will quantitatively utilize the Nigeria—Resilience Index Measurement and Analysis 2018. Part II will qualitatively explore Nigeria's actions and policies before and after the survey and compare them, highlighting the challenges IDPs faced in their daily life. To illustrate the relationships in Part I, graphs and figures will be used to observe the bivariate relationships.

Regarding the gaps in the literature, very little research addresses the issue in this manner, highlighting the need for further study. I aim to explore a methodology, comparing different inputs from the dataset to observe the impact of IDPs, returnees, and hosts’ food

---

41 Adelaja and George, “Terrorism and Land Use in Agriculture.”
42 Van Den Hoek, “Agricultural Market Activity and Boko Haram Attacks in Northeastern Nigeria.”
43 Van Den Hoek.
security and relevant indicators while living together in a fragile community. The methodology aims to reveal specific patterns and cycles that Nigerian states with high concentrations of IDPs displaced due to Boko Haram-related events' experience revolving around food security. The analyses will explain some of the background of conflict traps and whether a negative relationship between food security and forced displacement due to armed conflict leads to conflict traps or other related issues.

Moreover, the qualitative analysis will complete the picture of the IDP and lived life experience in Borno while observing exacerbated issues like infrastructure and access to water not covered in the quantitative analysis. This analysis will help shed light on a convoluted situation involving armed conflict, forced displacement, and food insecurity and reveal whether aid strategies are conducted effectively. Hopefully, emerging trends will help build long-lasting resilience around Nigeria's agricultural sector and economic development.

The limitation of the methodology and dataset is that it does not account for climate-related IDPs displaced from the Lake Chad Basin. Also, academia and the international community have addressed IDPs displaced due to Boko Haram in Nigeria, and they group Boko Haram and their different factions even though they have slightly different missions and actions, as well as grouping in Fulani herders who attack agricultural Christian communities. It would be remiss not to discuss the impact of the different ethnicities and tribal clashes when comparing hosts, IDPs, and returnee households; however, the dataset does not account for it.
4 EMPIRICAL RESULTS

The empirical results were surprising, and some of the results directly opposed a few of the hypotheses. The hypotheses explored the complex relationship between migration, supply chain disruptions, and food security in Borno State, Nigeria. The empirical results help unearth migration's nuanced impacts on food insecurity, expenditure patterns on different commodities, and food consumption among IDPs, hosts, and returnee households. Critically examining hypotheses and observing the graphs helps promote a deeper understanding of the multifaceted nature of food insecurity in conflict-affected regions. It highlights the importance of context-specific approaches to addressing these challenges.

4.1 Hypothesis 1: IDPs Increase Food Insecurity

Hypothesis 1 expects host households to be the most food insecure group, followed by IDP households, and returnee households will be the least food insecure group. The corresponding survey question: In the past seven days, if there have been times when you did not have enough food or money to buy food, how often (days) has your household had to [coping strategy]? The explanation for hypothesis 1 is that hosts will purchase the most food based on the assumption that they consume the least amount of food aid. Returnee households are anticipated to have the highest food security of the household groups because they can receive their land back, cultivate land and livestock, and qualify for food aid—figure 4.1 answers hypothesis 1 regarding the most food-insecure household. Hypothesis 1 was incorrect, as IDPs are more food insecure than hosts and returnees. The expected outcome was that host households would be the most food-insecure group. In the less-moderate indicator, IDPs experience them 0.09 times more frequently than hosts.
Additionally, there was a significant gap in moderate to severe indicators, as IDPs are 0.12 times more likely to experience them than hosts. Returnees and IDPs are experiencing moderate-severe indicators at a similar rate. It is expected that if IDPs are not receiving the aid or the aid they are getting is not sufficient, they will be the most food insecure group, and the root causes, like not enough food aid or consumption, will be observed in the later hypotheses.

The less-to-moderate and moderate-to-severe variables are an aggregated measure of the different coping strategies to increase the readability and understanding of the graph. The dataset included 14 different variables measuring varying levels of coping strategies. These variables were then used to conceptualize food security and sorted by less-to-moderate and moderate-to-severe food security. Table 4.1 gives you the context to interpret Figures 4.1, 4.3, and 4.4.

Hypothesis 1 could be further broken down and sorted by LGA. The LGA breakdown establishes a deeper understanding of each sample community’s breakdown. The proposed outcome is that hosts will experience more food insecurity than IDPs by LGA. In Figure 4.2, a population analysis shows the breakdown of each group: IDPs, hosts, and returnee households in each local government area (LGA). It is interesting to note that the outliers of LGAs in Borno are Ngala, Monguno, Kwaya Kusar, and Bama. In Ngala, the population majorly consists of returnees; however, in Monguno, the population primarily consists of IDPs. The difference in Bama was that there was a higher population of IDPs and returnees than hosts. In Kwaya Kusar, the population primarily consists of the host population. However, it is interesting to note that Ngala shows a small amount of IDPs in the population based on Figure 4.2. Although the
Sampling method was randomized, Ngala was significantly populated with IDPs during 2018, when the survey was conducted, which raises the question of incorrect sampling.

Table 4.1 G2 Variable Breakdown

<table>
<thead>
<tr>
<th></th>
<th>G2 Variables</th>
<th>Less-to-moderate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Rely on less preferred or less expensive food</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Borrow food, or rely on help from a friend or relative</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>Purchase food on credit</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>Gather wild food, hunt, or harvest immature crops</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>Consume seed stock that will be needed for next season</td>
<td>12</td>
</tr>
<tr>
<td>6</td>
<td>Send household member to eat elsewhere</td>
<td>13</td>
</tr>
<tr>
<td>7</td>
<td>Send household members to beg</td>
<td>Moderate-to-severe</td>
</tr>
<tr>
<td>8</td>
<td>Limit portion size at mealtimes</td>
<td>4</td>
</tr>
<tr>
<td>9</td>
<td>Restrict consumption by adults in order for small children to eat</td>
<td>5</td>
</tr>
<tr>
<td>10</td>
<td>Reduce number of meals eaten in a day</td>
<td>7</td>
</tr>
<tr>
<td>11</td>
<td>Skip entire days without eating</td>
<td>9</td>
</tr>
<tr>
<td>12</td>
<td>Mortgage valuable assets for food exchange</td>
<td>10</td>
</tr>
<tr>
<td>13</td>
<td>Sell crops in advance</td>
<td>11</td>
</tr>
<tr>
<td>14</td>
<td>Scavenge for food</td>
<td>14</td>
</tr>
</tbody>
</table>

Figure 4.1 Mean of Food Insecurity by Household
Figure 4.3 explains the grouping Degree 1: less-to-moderate incidences of food security, except for Kwaya Kusar and Ngala, households are experiencing coping strategy indicator 1 more than any other less-to-moderate food security indicator. It indicates that several households, regardless of their classification—IDP, returnee, or host across several LGAs, most frequently relied on the least expensive foods they could source, in addition to other indicators they were also facing simultaneously. However, IDPs and returnee households across several LGAs also experienced coping strategies indicators 2 and 6 more than host households in most LGAs except for Mafa and Monguno. Coping strategy 2 is defined as household members borrowing food, and coping strategy 6 involves sending household members to eat elsewhere.

Figure 4.4 explains the grouping for Degree 2: moderate to severe food insecurity incidences. IDP households experience more Degree 2 indicators than other households in 4 of the 8 LGAs: Bama, Jere, Kala, and Mafa. In Kondungu and Monguno, returnee households experience more indicators than any other household group. Coping strategy indicator 10 is defined as reducing the number of times eaten and is the most frequently occurring moderate-to-
severe indicator. Coping strategy indicator 9 describes adults restricting the number of daily meals so the children in a household can eat. It was the second most frequently occurring Degree 2 coping strategy.

*Figure 4.3 Degree 1: Incidences of Less to Moderate Food Insecurity*

*Figure 4.4 Incidences of Moderate to Severe Food Insecurity*
Overall, returnees and IDP households experience most markers across Degrees 1 and 2 of food insecurity over the majority of the LGAs surveyed in Borno, painting a picture of extreme food insecurity for migrants. Based upon Figures 4.3 and 4.4, host households may still be food insecure; however, they are not experiencing Degree 1 and Degree 2 at the same magnitude as returnee and IDP households.

*Figure 4.5 Mean of Food Insecurity by Group*

Figure 4.5 answers hypothesis 1 from a disaggregated perspective as to whether, across LGAs in Borno State, host households experience more food insecurity than returnee and IDP households. Hypothesis 1 was incorrect, and IDP households across LGAs are found to be more food insecure than hosts and returnees. However, returnee households are more food insecure than hosts. More specifically, in less-to-moderate indicators, host households experience them less frequently than their counterparts in 5 of the 8 LGAs. The outlier of the data and the only evidence supporting the hypothesis is that in Damboa, host households have higher food security.
indicators experienced than returnee and IDP households. Surprisingly, returnees and IDPs are experiencing moderate to indicators at a similar rate due to the aggregated nature of less to moderate and moderate to severe variables; the descriptive nature of the coping strategy variables is a tradeoff for the increasing understanding of the graph.

Initially, the results were puzzling because the hypothesis was framed around logic. IDP and returnee households, in theory, should not have been the least food insecure due to more aid opportunities and land grant eligibility. Also, it is interesting to note that in Monguno, returnee households are experiencing the highest level of food insecurity indicators. However, Monguno has the highest reported IDP population by the survey data, which adds to the incorrect hypothesis. Several factors could have contributed to a higher level of IDP food insecurity, including a lack of coordination of humanitarian aid and development programs, as well as there were pockets of Borno where it was difficult to distribute aid because they were in insurgent-controlled areas. The theory behind hypothesis 1 was that a high percentage of IDPs causes a lack of aid to be unavailable for the host community.

That was an idealistic way of approaching the hypothesis, as the reality is that most IDPs were in camps with inadequate access to healthy, nutritious food for each household member. Thus, "household" is a catch-all possibly referring to IDPs’ temporary living quarters within a camp. There are some extreme measures of food insecurity, such as coping indicator 14, skipping entire days without eating, which was a universal experience across every LGA except for Ngala. Moreover, most households are simultaneously experiencing less-to-moderate and moderate-to-severe indicators at a rate very frequently regardless of LGA location, and it would make any household uncomfortable, especially one already vulnerable to shocks. The hypothesis did not factor in that the Borno State government was not equipped with the infrastructure to
handle the massive amount of IDPs across LGAs, especially since our sample indicated a concentration within a few LGAs. Moreover, it did not fathom the extent of malnutrition the sample population experienced.

4.2 **Hypothesis 2: Food Prices by Group**

Hypothesis 2 states that an increase in migrants disrupts the supply chain, which causes food prices to alter based on the community group. Based on this premise, the expected outcome is that hosts spend more per commodity than IDPs and returnees due to external factors not accounted for in this hypothesis, such as humanitarian aid and cultivated crops. The commodities observed in Figure 4.6 were cassava, sorghum, beans, maize, maize flour, rice, and red meat. Each commodity was chosen with respect for its importance to the Nigerian diet. Sorghum and maize flour can be used to make many low-cost recipes. Sorghum and maize flour are often used to make variations of *tuwo*, a thick porridge, and *kumu orogi*, a flour paste cooked into thin porridge.\(^{44}\) Cassava is not a food that can be consumed raw, and in fact, if not appropriately prepared, cyanide poisoning can occur. Due to other items needed to consume raw cassava, IDPs consume a cheaper alternative, *garri*, ground cassava flour, called *drinking garri*.\(^{45}\)

The hypothesis was not entirely wrong, but it did not hold true for every commodity, as host households, on average, only sometimes had the highest average spending per commodity. Of the seven commodities observed in Figure 4.6, host households, on average, had more spending for five of the seven commodities, including cassava, sorghum, beans, maize, and rice. From observing cassava, sorghum, and maize flour, IDP households, on average, pay the least for sorghum and cassava. However, IDP households, on average, pay the most for maize flour,

---

\(^{44}\) Ahmad Yahaya et al., “Sorghum Production in Nigeria.”

\(^{45}\) Raji et al., “North-Eastern Nigeria.”
which leads one to assume they are consuming more maize flour than cassava and sorghum. This could possibly be attributed to the availability or the methods by which cassava and sorghum have to be cooked. However, returnee households spend more on sorghum than IDP households on average. Surprisingly, returnees spent more on average on red meat than IDP households and host households.

Overall, the average price per commodity varied by the commodity measured and did not give a better understanding of the overall food insecurity. However, it did establish that certain groups, on average, consume more of a commodity, depicting their diet and whether they could spend more on food based on their household type. Further investigation is needed to decide whether the other factors not considered, like accessibility to markets based on LGA, the feasibility of trading between neighboring LGAs, and insurgent-controlled areas or incidences, as markets were targets for BH, alter the findings. Moreover, are those commodities available to households because they are directly near the market, or is the affordability due to aid or other factors?

The initial disruption of the supply chain begins with the onset of conflict, and in the case of BH, they began the disruption with their terroristic activities. However, the influx of migrants exacerbates the deterioration of the infrastructure around the supply chain. With the varying averages across commodities, it is safe to a certain degree to assume BH initially caused the supply-chain breakdown. However, the large surge of migrants into host communities caused further issues. Figure 4.6 fully answers hypothesis 2 on whether host households, on average, spend more per commodity than other households, and they spend more, on average, for five of the seven commodities, deeming this hypothesis partially correct.
Hypothesis 3: Food Consumption by Household Type

Hypothesis 3 proposes that returnee households have the highest food consumption of all household types, followed by IDP households, and then host households. The theory framing hypothesis 3 is that returnee households will have the highest food consumption due to their land eligibility, ability to cultivate their own food, and eligibility to qualify for humanitarian aid. The corresponding survey: over the past one week (seven days), how much [quantity] have you or any member of your household consumed? The output will be measured by how many kg of food aid is consumed. Host households will have the lowest food consumption because their group is not a priority for humanitarian aid and relies on purchased food.

Figure 4.7 displays average cereal consumption by group, and upon immediate observation, a few things are clear; hypothesis 3 posited that returnee households would have the highest rate of food consumption, followed by IDP households, then host households. Hypothesis 3 is incorrect, as hosts were, on average, consuming the most cereal commodities.
followed by IDPs, then returnees. Returnee households, on average, had the lowest cereal commodity food consumption. All household groups consume sorghum and maize flour more frequently than maize and wheat flour. However, maize is particularly interesting because, before the rise of BH, maize was the agricultural staple of the Northern Nigerian states. Figure 4.6 is also helpful in interpreting Figure 4.7 because in three of the four cereals observed in Figure 4.6, maize, rice, and sorghum, host households had higher spending, which served as a precursor for heightened consumption.

4.4 Hypothesis 4: Food Aid by Household Type

Hypothesis 4 expects that IDP households consume the most food aid, followed by returnee households. Host households are expected to have the lowest consumption of food aid. The theory behind Hypothesis 4 is that IDP households will consume due to their migrant status, and host households will consume the least amount of food aid, as they are the least likely to receive food aid and vouchers but more likely to grow food and buy food from the markets. The
corresponding survey question: *How much in total did your household consume in the past seven days of [FOOD ITEM] from gifts/food assistance/other source?*

Figure 4.8 shows several different commodities and compares them by group, whether purchased, grown, or gifted. Aid was less prevalent than expected and was only given on a limited number of commodities; the largest aid was received on sorghum. The highest recipient was returnees, followed by IDPs, then hosts. Also, for all of the commodities shown in Figure 4.8: maize flour, sorghum, tomato, onion, rice, red meat, beans, and maize, all three household groups purchased more than they grew. Specifically, the only two commodities being grown or raised are rice and cattle (red meat.) However, IDP and returnee households received a large amount of sorghum aid compared to the other commodities. This could indicate that is what the government is providing or that it is easily accessible to international organizations.

*Figure 4.8 Comparison of Purchased, Grown, and Gifted Food Commodity*

Figure 4.9 displays an aggregated measure of household cereal consumption, rendering hypothesis 4 incorrect. IDP households receive the highest proportion of cereal food aid at
42.93%, followed by returnee households at 38.84%, and host households receive the least food aid at 32.06% relative to the amount each household group is purchasing and growing.

Hypothesis 4 could be incorrect because returnee and IDP households are experiencing more food insecurity generally. However, it is quite puzzling that despite receiving the highest proportion of food aid, IDP households are the most food insecure.

**Figure 4.9 Cereal Consumption by Household**

4.5 Further Thought and Findings

The findings defy the hypotheses and show that IDPs experienced the most food insecurity of any household. However, comparatively, Borno was massively food insecure, and households were at a disadvantage due to the conflict because it took a massive toll on agriculture and farmers. The overall takeaway is that even though household groups are receiving aid, it is either not being received effectively or only focusing on the acute symptoms of food security, not building resilience and self-sufficiency. Hypothesis 1 was analyzed from both an individual and LGA perspective; the trend that emerged was that hosts were found to be the most food secure. However, they were still experiencing many less-to-moderate indicators within a given week. In
correlation, hypothesis 3 observed food consumption, of which hosts had the largest total kgs of commodities consumed in a week.

Furthermore, hypothesis 2 analyzed the average amount spent per commodity, and in five of the seven commodities, host households had a higher average spending than their counterparts. Hypothesis 4 further observed the proportion of aid relative to purchased and grown cereal for each household group, and IDPs received the highest proportion of aid. However, referring to Figure 4.8, IDP households were gifted sorghum more than anything else, which has little nutritional value. If international organizations’ main goal were to build food security resilience, there would have been a higher proportion of cereals grown by household groups, as Borno is a primarily agricultural state, except for the capital.

In Figure 4.2, the population analysis of Borno in Ngala shows that the number of IDPs sampled is minute. However, that is not reflective of the Ngala population in 2018. The situation in Ngala was dire, and IDPs far outnumbered hosts, around 50,000 IDPs. The methodology that was employed to obtain the data was two randomized sampling procedures; first, primary sampling units were randomly selected.\(^{46}\) In the second stage, they employed random selection to the number of households using the probability proportional to size (PPS) to ensure proper sampling.\(^{47}\)

The qualitative analysis will seek to fill in the gaps of why aid is building resilience or why it could be conducted more effectively, especially if it is targeted towards the IDP population.

\(^{46}\) FAO, “Resilience Analysis in Borno State, Nigeria.”

\(^{47}\) FAO.
5 QUALITATIVE ANALYSIS

5.1 Introduction

Several humanitarian aid organizations tried their best to help alleviate the pain and suffering caused by BH, but their actions were not enough to prevent the widespread damage. The qualitative reports help provide a detailed picture of the brutalities experienced—that empirical results do not, from IDP’s lived experiences and Borno's current food security crisis. The Nigerian government and its strategic partners launched a full-on war against BH. However, they would have rather had dead Boko Haram members than safe IDPs, and that is where their energy and focus shifted.

5.2 Context for 2018 in Borno

In 2018, Borno was recovering from some of the worst of Boko Haram’s attacks. From 2016 to 2017, there were several abducted girls forced to become suicide bombers. BH also used suicide bombers to target markets, universities, and displacement camps, as well as ambush highway convoys and raid and loot villages.\textsuperscript{48} In August of 2017, the United States sold $593 million worth of military equipment to Nigeria; the sale was repeatedly stalled due to human rights concerns. It included 12 A-29 Super Tucano light attack aircrafts, laser-guided rockets, unguided rockets, and other equipment.\textsuperscript{49} In January 2018, the Nigerian government ordered an airstrike in Rann, Borno State at an IDP settlement thought to be harboring BH fighters, however the intel was not credible, and they were responsible for 234 death and the injuries of 100 more.\textsuperscript{50}

\textsuperscript{48} Human Rights Watch, World Report 2018 | Human Rights Watch.
\textsuperscript{49} Human Rights Watch.
\textsuperscript{50} Human Rights Watch.
An interview conducted with a surviving IDP of the bombings detailed life before and after. Muhammad Al-Jarawa was originally displaced from Jarawa by Boko Haram, and they arrived to Rann in March 2016.\textsuperscript{51} He details that more aid was available from organizations like the Red Cross, and they facilitated interventions that brought him a semblance of peace during the difficult times.\textsuperscript{52} Unfortunately, Al-Jarawa sustained injuries on his hand and leg from a bullet, despite staying near a group of soldiers; he also details that aid workers were killed, which massively decreased the availability of aid to him after the attack.\textsuperscript{53} He ends the interview by saying, “I’m hungry.”\textsuperscript{54}

Several international organizations, Council on Foreign Rights and Human Rights Watch, condemned the actions of the government in Rann, and it brought the United States government under scrutiny to strongly consider the altercations of selling the Nigerian government certain types of jets.\textsuperscript{55} BH terrorized Northeastern Nigeria and the Lake Chad Basin region, however, due to government corruption and their heavy-handed tactics, as well as the economic state of Nigeria, it exacerbated incredibly dire and added fuel to an already burning building. From 2011 and 2017, a sudden decline in oil revenues led to GDP falling from 17.7\% to 5.1\%.\textsuperscript{56}

BH caused not only scarcity in the availability of food and mass displacement of individuals and families alike but instigated the breakdown of critical and needed infrastructure. Their presence caused a disruption in child immunization, and Borno State began to have Wild Poliovirus cases. In January 2018, Médecins Sans Frontières (MSF) teams found that among the LGAs actively serviced, access to food, water, shelter, and medical care remained scarce in areas

\begin{itemize}
\item \textsuperscript{51} Eboigbe, “IDP Diaries.”
\item \textsuperscript{52} Eboigbe.
\item \textsuperscript{53} Eboigbe.
\item \textsuperscript{54} Eboigbe.
\item \textsuperscript{55} Campbell, “Nigerian Air Force Mistakenly Bombs IDP Camp.”
\item \textsuperscript{56} Dept International Monetary Fund African, “Nigeria.”
\end{itemize}
like Pulka, Gwoza, Bama, Banki, and Rann, which were under military control at the time. Moreover, a study found children who reside in BH-controlled areas have 35% lower odds of receiving vaccinations. However, this number can increase if a violent event occurs within the first 14 weeks. Additionally, when MSF began operations in Ngala in September 2016, they found an alarming situation where access to food, water, shelter, and medical care was extremely limited, home to an estimated 50,000 IDPs. MSF also reported Noma was prevalent among children in 2018, a disease that mostly affects children under five living in extreme poverty it begins as inflammation of the gums but can have lifelong complications altering the face structure.

Amnesty International published a report titled, *They Betrayed Us*, detailing the horrors female IDPs experienced during the government-operated satellite camps. At the same time, at satellite camps, Giwa Barracks, and Bama Hospital Camp who have been exploited by the government and the Civilian Joint Task Force (CJTF), who should have been protecting them. Amnesty International conducted over 250 individual interviews from June 2016 to April 2018. Their findings of the abhorrent atrocities committed by the CJTF and the Nigerian government included sexual exploitation of starving women, rape, forced marriage and relationships, withholding of resources, and an overall egregious misuse of power. Ten women and girls said that they were forced to become girlfriends of soldiers or CTJF members in Bama Hospital camp during their time there, when people were dying daily from hunger; the death toll was reported 15 to 30 people a day.

57 Médecins Sans Frontières, “Nigeria.”
58 Sato, “Differential Effect of Conflicts on Vaccination.”
59 Médecins Sans Frontières, “Nigeria.”
60 Amnesty International, “‘They Betrayed Us’ Women Who Survived Boko Haram Raped, Starved, and Detained in Nigeria.”
61 Amnesty International.
62 Amnesty International.
Nine women and girls shared instances where women had been raped by soldiers or Civilian JTF members in the satellite camps; five women said they had been raped in Bama Hospital camp when they were on the brink of starvation after either refusing to sex in exchange for preferential treatment or food, or while collecting water. In addition to these horrors inflicted on women, IDPs were also reported not to receive food aid for sustained periods of time while living at camp, the National Emergency Management Agency (NEMA) reported in June 2016 that they had been delivering 24,000 sacks of rice to the Borno state government every two months, however, it was reported that much of the food assistance did not reach the intended beneficiaries. Two women said this about their experience:

“First we had some money which we brought from our village. Then we sold all of our jewellery to buy food. Sometimes we were not given the food [intended for them], you will see they are even selling the food. They would bring a quarter [of the food meant for us] – and sell the rest… If you want anything, they will tell you that you have to offer yourself. They will then give you food, when you offer yourself.”

“In eight months [since I arrived], I didn’t get anything, nothing. I have not gotten any support from anybody. Even the clothes I am wearing were given to me [by other IDPs as charity]. There was nothing. People are dying, [always there is a] burial, burial, burial. I am thinking, maybe one day it will be my own.”

At the same time the Nigeria government was operating their satellite IDP camps, they decided to launch Operation Safe Corridor, the only government-sanctioned rehabilitation program for low-risk, “repentant” Boko Haram fighters. However, it was met with staunch

---

63 Amnesty International.  
64 Amnesty International.  
65 Amnesty International.  
66 Amnesty International.  
criticism and for good reason since it lacked a clear reintegration strategy and the criteria for high-risk and low-risk were not well defined.\textsuperscript{68} Most notably, participants of Operation Safe Corridor seemed to be given more aid from NEMA than IDPs, as they even received Maggi cubes, tomato paste, salt, sugar, and chocolate which IDPs in satellite camps, place 1, place 2 struggled to receive to make their food edible.\textsuperscript{69}

In the years leading to 2018, the year the resilience survey was conducted, there were several factors that contributed to the displacement of individuals in addition to the events taken by BH. Government corruption and exploitation of the IDPs were servicing, as well as partnerships with local militia groups discredited and undermined their efforts in attempting to service them in a humane manner. Additionally, the launch of Operation Safe Corridor was poorly timed, and NEMA distribution was more effective and humane through those programs than the IDPs living in government-run camps. The actions taken and the evidence present a strong case for why NGOs became involved in the humanitarian crisis occurring in Borno.

Prior to the survey being conducted, the Nigerian government placed a higher priority on hunting down members of BH than tending to their citizens who had been displaced. The empirical outcomes, paired with the fact that NEMA dedicated better quality resources to Operation Safe Corridor rather than ensuring IDPs had their basic human needs met, explains why, despite receiving the highest proportion of aid, they were still found to be the most food insecure. Furthermore, the Nigerian government and the CJTF exploited women and forced them to give their bodies for food, which was mismanaged. The food security crisis prior to 2018 speaks more poorly to Nigerian leadership than it reveals about effective humanitarian aid strategies.

\textsuperscript{68} Brechenmacher.  
\textsuperscript{69} Jonathan, “NEMA Provides Food for 800 Repentant Boko Haram Insurgents.”
5.3 Post-Survey Review

On March 6, 2024, during a statement made by Mr. Mohamed Malick Fall, the UN Nigeria Resident Coordinator, that an estimated 4.8 million people—an 11.6% increase since 2023, in Borno, Adamawa and Yobe are at risk of severe hunger during the peak of this year’s lean season, which is from June to August.\(^\text{70}\) During that same statement, Fall issued a statement condemning the abduction of IDPs, in Gwoza and Ngala by members of a non-state armed group (NSAG); this is the second attack in a string of abductions involving IDPs within a week, the first occurring on February 29.\(^\text{71}\) It has not been confirmed whether the NSAG is BH. However, media has suspicions, but currently, dozens of IDPs remain unaccounted for. In July 2023, the government declared a national food emergency and, understanding the severity, rolled out an intervention plan on food security, affordability, and sustainability designed to bolster the revenues and products in the agricultural sector, provide security to small farmers, and even created the National Commodity Board.\(^\text{72}\) The Global Hunger Index reported Nigeria's hunger score in 2023 was 28.3, placing it 109th out of 125 countries assessed.\(^\text{73}\) WFP is an active NGO in North-eastern Nigeria and aims to provide assistance to 1.2 million people on a monthly basis, which includes unconditional food transfers, malnutrition prevention, and treatment.\(^\text{74}\) In their beneficiary breakdown, returnees received the least amount of their services, and hosts received the most.\(^\text{75}\) WFP also expanded partnerships with local NGOs providing support training for best

\(^{70}\) Fall, Mr. Mohamed Malick Fall, Resident and Humanitarian Coordinator in Nigeria.

\(^{71}\) Fall.


\(^{73}\) WFP, “Nigeria Annual Country Report 2023 - Country Strategic Plan 2023 - 2027.”

\(^{74}\) WFP.

\(^{75}\) WFP.
practices against anti-fraud, anti-corruption, and protection from sexual exploitation and abuse.\textsuperscript{76} Local NGOs hold 55\% of partnership field-level agreements with WFP.\textsuperscript{77}

On July 14, 2017, the UN Committee on the Elimination of Discrimination expressed serious concerns against women’s experiences regarding access to justice; female genital mutilation; sexual exploitation in IDP camps; gender-based violence, including domestic violence; trafficking for the purpose of sexual and labor exploitation; and continued abduction, rape, and sexual slavery under BH.\textsuperscript{78} The findings from the UN Committee on the Elimination of Discrimination revealed that the patriarchal system hinders actions seeking justice for human rights violations, however serious strides were made to advocate for women in politics and policy-making roles, also the government expanded support programmes, in partnerships or the creation of, to IDPs who have been affected by Boko Haram; for example, the Victims Support Fund and advertising hotlines who can offer victims specialized care without judgement.\textsuperscript{79}

On the 23 June 2021, in Maiduguri, the state government of Borno and the UN hosted a high-level delegation of key stakeholders to highlight humanitarian and development efforts in Borno.\textsuperscript{80} The outcome of the UN’s high-level delegation led to delegates witnessing the community’s efforts in tandem with UNDP and key AU partners to stabilize the Nigeria-Cameroon border and rebuild critical structure around the Banki IDP camp. More recently, humanitarian organizations have reported a series of NSAG attacks on IDPs and returnees in Gwoza who ventured beyond the safety of camp in search food and employment opportunities. In a separate incident on 14 March, protection partners reported that 23 IDPs, mainly women,

\textsuperscript{76} WFP.
\textsuperscript{77} WFP.
\textsuperscript{78} United Nations High Commissioner for Human Rights, “Committee on the Elimination of Discrimination against Women Examines the Reports of Nigeria.”
\textsuperscript{79} Committee on the Elimination Against Women of Discrimination, “CEDAW/C/NGA/CO/7-8.”
\textsuperscript{80} “Borno State Government and the United Nations Host High-Level Donor Visit in North-East Nigeria.”
girls and children from the Government Secondary School (GSS) IDP camp in Gwoza were abducted by NSAG operatives in February. Seven of those abducted escaped or were released, while 16 of them remained in captivity as of 29 March 2024.

Post-survey, there are some notable differences within humanitarian aid and some governmental changes. On the local level, there seems to be a disconnect between the needs of IDPs and their elected official. Unfortunately, corruption runs deep in the Nigerian government, and that is why large quantities of aid were able to go undistributed. The WFP is the largest active international organization, and they have markers that, if met, will certainly facilitate resilience. There is still room for improvement from a programming direction since they underperformed the amount of beneficiaries served in returnee and IDP populations but overperformed for hosts. They also worked to include local voices and make sure they were adequately trained in anti-fraud and corruption to facilitate correct capacity building. It is puzzling that hosts were the largest beneficiary, however as the food crisis is increasing it is no longer about the differential effects on the population, but the population as a whole.

The key takeaway from the qualitative analysis is that due to the government's actions, they perpetuated an environment that was not conducive to allowing an IDP to build resilience. Also, in terms of the hypotheses, IDPs were the most vulnerable group; through the qualitative analysis, you can ascertain the reason why IDPs are the most vulnerable, as the government lorded their authority over facilities, mismanaged aid and funds, and rolled out insensitive programs. Furthermore, the WFP program servicing more hosts than groups in the community was in direct conflict with the outcomes of the hypotheses. The qualitative analysis revealed that aid was not being conducted effectively at the international level, but it was not solely their fault
because their government did not even allow them the capacity to function properly, in addition to beginning the issues that were detrimental to IDPs.

5.4 Policy Recommendations

After observing the empirical results and the reports from various sources showed that due to mismanagement of funds and the overwhelming number of IDPs and the lack of infrastructure able to accommodate them there are different steps the international community and the government of Nigeria could have put in place to mitigate the damages done by Boko Haram of which the ramifications can be felt today.

During the height of the terror of BH, the Nigerian government was very distrustful of international organizations; for example, they forced UNICEF to suspend operations in 2018.\textsuperscript{81} Eroding trust between the government and humanitarian aid organizations was detrimental, and in the future, states facing security threats similar to Nigeria’s should reduce the scale of operations while conducting an investigation versus halting them altogether. Also, it was interesting to note that while the survey was conducted in 2018 hosts were found to be the most food secure group. However, more recently WFP reported in 2023 that hosts were the highest receiving beneficiary group, and the recent statistics and events do not reflect that IDPs are still in dire need. Moreover, it has been helpful in other countries when failing to meet donation quotas or to bring international attention to humanitarian to launch social media campaigns and it’s been effective in mobilizing medical aid in Sudan. The UN has been launching forums around the role youth and social media play in the discourse of politics and government. Although, the Nigerian government has made more serious strides to eradicate the area of Boko Haram and rebuild the infrastructure, cultural norms hindered progress. Often times, women are

\textsuperscript{81} Amnesty International, “Nigeria.”
ostracized from peace talks and that should not be the case because research has proven when women are included in high-level delegation, peace talks, and politics, it becomes more feasible and sustainable. An example was demonstrated during Liberia’s Second Civil War when women banded together to stop the insane amount of violence perpetuated against them and even facilitated disarmament.

The CJTF and Nigerian government armed presence was needed to protect the wellbeing of Nigerian IDPs while in displacement camps, especially the most vulnerable population women and children. However, members of the CJTF and the army did not do that and instead abused their power, using it as a bargaining chip to get what they want or taking it by force. Rape is a heinous crime, however considering the circumstances of the women is what makes it even more horrifying and due to corruption, the role of patriarchy in Nigeria, and the ostracization of victim’s rapists were able to walk free. The government needs to hold their officers, partners, and humanitarian aid workers to a high standard and code of ethics, and if it shall be violated, they need to face the appropriate consequences.

In order for Nigeria to fully recover economically from Boko Haram and thrive, they need to jumpstart the economy. The WFP supports programs in building resilience, strengthening the public sector, promoting jobs and economic investment, and investing in human capital.
6 CONCLUSION

Conflict-forced displacement is a huge issue in the international community, even more so today. Conflict leads to food insecurity, which ultimately leads to forced displacement. Forced displacement usually occurs in countries facing major development challenges. This issue was especially prevalent in Borno with the onset of BH, however the Nigerian government and the CJTF actions aggravated the situation, exacerbating a dire food security crisis.

There are four hypotheses: it begins with the most food insecure group, which is expected to be host households. However, the other three explore alternative reasonings to explain the most food-insecure group by observing the proportion of aid, food consumption, and the average amount spent by households per commodity. The empirical findings showed that IDPs are the most food-insecure households. Returnees were also found to be vulnerable, just not to the degree that IDP households were. However, all household groups experience both measures of food insecurity, less-to-moderate or moderate-to-severe. Also, the hypotheses varied whether they were correct, incorrect, or partially correct. More empirical evidence furthers it by commodity, aid, cultivation, and the amount spent by household type.

The qualitative analysis provides substantial insight into IDPs’ lives before and after the survey was conducted. Amnesty International’s investigative report into the ‘rape and eat’ practices of the CJTF and the military was a powerful testament to the hardships female IDPs in government-controlled camps faced. The overall takeaway is that the Nigerian government did not provide an accommodating environment for international humanitarian aid organizations to build resilience toward food security effectively. However, the mismanagement of funds and food falls upon NEMA and government officials who disregarded the well-being of IDPs.

82 George and Adelaja, “Armed Conflicts, Forced Displacement and Food Security in Host Communities.”
The policy recommendations analyzed the shortfalls of Nigeria’s government. They encouraged the need to strengthen and uphold laws for those working with vulnerable populations, regardless of their designations, and, most importantly, include more women in the political process. Building resilience in Borno would provide a framework for other states who have experienced conflict-related displacement.
REFERENCES


