

**EFFECTS OF BOKO HARAM INSURGENCY ON LIVELIHOOD RESTORATION ACTIVITIES AMONG FARMERS IN MICHIKA LOCAL GOVERNMENT AREA OF ADAMAWA STATE, NIGERIA**

<sup>1</sup>MAURICE, David Chinda; <sup>2\*</sup>JUDE, Vosen Columba and <sup>3</sup>COLUMBA, Christy

<sup>1</sup>Department of Agricultural Economics, Faculty of Agriculture, Modibbo Adama University Yola, Nigeria.

<sup>2</sup>Department of Agricultural Technology, Taraba State Polytechnic Suntai, Nigeria.

<sup>3</sup>Department of Agricultural Economics, Faculty of Agriculture, Modibbo Adama University Yola, Nigeria.

\*Corresponding Author

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**ABSTRACT**

This study assessed the effects of Boko Haram insurgency on livelihood restoration activities among farmers in Michika LGA, Adamawa State, Nigeria. A random sampling technique was used to select 128 farming households. Data was analysed using descriptive statistics, the Simpson Index of Diversification (SID), Garrett ranking and a paired sample t-test. The findings revealed a significant decline in agricultural production due to insurgency, with significant reductions in crop yields such as; groundnut (-274%), maize (-34.8%) and livestock numbers; sheep (-85%) and poultry (-73.7%). Consequently, the primary income source shifted drastically; agriculture contributed 90% of income pre-insurgency but only 51% afterwards, indicating a forced diversification into non-farm activities. The most common restoration interventions received were asset repair (91.4%) and input distribution (85.2%), while critical support like micro-credit (29.7%) and psychosocial aid (21.9%) was severely lacking. Major constraints identified were insurgency itself, pest attacks and inadequate extension services. The study concluded that the insurgency severely crippled agricultural livelihoods and recovery remain fragile. It recommends that government agencies (Ministry of Agriculture, NEMA) and development partners (NGOs, SMEDAN) move beyond short-term aid. Interventions should prioritise a holistic approach integrating enhanced credit access, extension services, psychosocial support, and a multi-sectoral strategy to improve security and infrastructure for sustainable livelihood restoration.

**Keywords:** Boko Haram, Insurgency, Livelihood Restoration, Farmers, Michika.

## INTRODUCTION

Insurgency is the organized use of subversion and violence to seize, nullify, or challenge political control of a region. Its manifestation includes kidnapping, banditry, hijacking of aero-plane, suicide attack, self-suicide bombing witnessed by the world for a long time now (Umar *et al.*, 2025). The common denominator for most insurgent groups is their objective of gaining control of a population or a particular territory, including its resources. This objective differentiates insurgent groups from purely terrorist organizations. It is important to note that describing a movement as an insurgency does not imply any normative judgement about the legitimacy of the movement or its cause; the term is used descriptively in contemporary doctrine and law to characterise the nature of the conflict (International Committee of the Red Cross [ICRC], 2024). The challenges of insurgency in Nigeria are a multifaceted amalgam of socio-economic frustrations, political elite manipulation, ethnic tensions and constitutional deficits. In recent years, empirical evidence demonstrated how Boko Haram's insurgency has severely undermined economic development, destabilised education and agriculture, exacerbated cross-border cultural fracture and exposed weaknesses in military coordination, creating a perilous escalation of terrorist activity across the region (Daniel & Paul, 2024).

The exact date of Boko Haram's existence has been problematic among scholars. Nevertheless, Okey (2019) maintains that it was established in the early 2000s under the leadership of Muhammad Ali and later Muhammad Yusuf. Boko Haram, which means "Western education is forbidden", rejects western education, ideas and institutions. It is based on this ideology that the sect earned the name, Boko Haram. It is important to note that the sect prefers to be called by its original name, *Jama'atu Ahlisunnah Lidda'awati wal jihad*, meaning "people committed to the propagation of the prophet's teachings and jihad". Its core objective is to overhaul the secular Nigerian state with a regime that strictly adheres to Islamic Sharia law (Adelaja, 2020). The operation of Boko Haram has moved from the sphere of domestic or internal politics to the international domain. Emmanuel (2018) observed that the violent upsurge of Boko Haram not only poses a serious threat to internal security in Nigeria but also threatens stability in West Africa. Boko Haram insurgency has negatively affected the relations between Nigeria and other nations of the world due to the strategies adopted by the sect such as suicide bombing, kidnapping and hostage-taking of foreigners, among others.

The activities of the Boko Haram have created security burden to Nigeria with added negative effects on the economy resulting largely through the dislocation of societies and creating hiccups in the productive chain. This also affected income, education, employment, community safety, and social supports (Akintunde, 2018). Nneka (2015) opines that the spate of violent attacks by Boko Haram in recent times which has been characterized by the abduction and killing of people; destruction of houses, schools, health care centres, churches, mosques and farms has plunged the

country into a chronic state of insecurity. The basics of food, health, shelter, education and protection which constitute security to the human individual primarily have therefore been threatened by the Boko Haram insurgency. Moreover, Olumuyiwa and Titus (2018) asserted that the Boko Haram insurgency in northern Nigeria has posed a multifaceted threat to the nation since 2009. In their view, successive governments have tried all possible measures to curtail it with no significant success recorded.

The most negative effects of the activities of Boko-Haram insurgency to the economy are in the area of agriculture, commerce and shelter. The result is that agricultural product and farm lands were destroyed, livestock has been abandoned family shelters have been lost, some individuals have been killed or injured and properties lost as well (Akoji, 2024). On the other hand, the commercial sector has reduced drastically. The small and medium scale enterprises, local markets, road side shops and stores within the affected states (Borno, Yobe, Adamawa (Mubi) and Kano) have been closed down (Ishaku and Zainab, 2018)

In the height of the Boko Haram insurgency, communities in northern part of Adamawa State sharing borders with Borno State were severely hit by the insurgency. Madagali, Michika and Mubi local government areas in the state were the worst hit (Umar *et al.*, 2025). But with the recent liberation of some of the communities, IDPs camping in Yola and Mubi towns had to return home to cultivate their lands (premium Times News, 2019). In Minchika Local government Area of Adamawa state, the activities of the Boko-Haram insurgency had almost disrupt agricultural activities. It is generally an agrarian region with more than 80% of its citizens engaged in small-scale subsistence farming. The economy of the region is largely driven by agriculture. Food crops such as millet, sorghum, beans, and maize are grown by small-scale farmers while cash crops mainly grown by peasant farmers include groundnut, and Bambara nut (Ajakaiye *et al.* 2018). With the resumption of agricultural production in Michika; a region that was hard hit by the activities of Boho-Haram insurgency, there is therefore the need to determine the livelihood activities as well as restoration strategies farmers are being used to survive the post insurgency era. The specific objectives were to:

- i. describe the socio-economic characteristics of the respondents;
- ii. Identify the farm livelihood and income diversification activities among farmers before and after the era of insurgency;
- iii. Identify livelihood restoration activities among farmers in post insurgency era, and
- iv. Identify constraints to agricultural activities in the study area.

## **METHODOLOGY**

### **The Study Area**

The study was carried out in Michika Local Government Area of Adamawa State, Nigeria. It lies on latitude 10°37'N and longitude 13°23'E of the Greenwich meridian. Created in 1976, it is situated in the northern part of the state, sharing boundaries with the Republic of Cameroon to the east, Madagali to the north, Askira-Uba of Borno State to the west, and Mubi North and Hong LGAs to the south. The area lies in a valley of igneous and sedimentary rocks with fertile sandy-loam to clay soils that support diverse crop production. It records annual rainfall of between 912–1223 mm lasting 5–6 months, making it suitable for agriculture. The Local government Area has a population of 155,238 people as 2006 population census and project to 242,118 as of 2024 based on annual growth rate of 2.5% (NPC, 2006). Michika is predominantly inhabited by the Kamwe people, whose language and traditions dominate the area. Oral tradition traces the founding of Michika to the late 17th century by Kwada Kwakaa, a prince and hunter. The area comprises eight districts, with Ngida Zakawa Kwache serving as the current district head since 2013. Michika is the most populated LGA in Adamawa State and is fairly cosmopolitan, hosting financial institutions, a college of health and technology, a technical college, and several secondary schools, notably the Government Senior Secondary School Michika. The people are largely Christians, with a minority of Muslims and traditional worshippers, and the area consists of about 26 chiefdoms and 84 villages (Iliya, 2016)

Culturally, Michika is renowned for its rich traditions and festivals such as the Yawale, Wasinata, Ngarba, and the Zhitta dance. It also boasts tourist attractions including the Kwandree cold spring water at Dlaka and the Kamale peak at Kamale (Debki, 2009). To preserve and showcase their heritage, the Kamwe elders revived their annual cultural festival in 2017, held every April before the rainy season. However, the town also has a history of insecurity, as it was seized by Boko Haram insurgents in September 2014. The Nigerian military, however, successfully recaptured Michika on 29 January 2015, a development publicly announced by then-President Goodluck Jonathan during his campaign visit to Adamawa State (BBC news, 2016).

### **Sampling procedure and Sample Size**

Random sampling methods were used to collect data for the study. Five hundred and one (501) farming household were selected from 4 out of 8 districts using random sampling method to form the sampling frame for the study. Similarly, 151 (Table 1) respondents representing 30% were randomly selected from the sampling frame as posited by Hair *et al.* (2010). The distribution of the questionnaires includes both crop and livestock farmers in the study area. In the end, 128 questionnaires were correctly cleaned, retrieved and used for data analysis.

**Table 1: Selection of Respondents for the Study**

S/N	Districts	Villages	Total number of farmers	Sample size
1	Bazza	i. Bazza	59	18
		ii. Marghi		
2	Michika	i. Kudzum	34	10
		ii. Anguwan	51	15
		iii. Layi		
3	Nkaffa	i. Michika	62	19
		ii. Bokka	49	15
		iii. Wuro	49	15
		iv. Gayandi		
4	Futu	i. Wula	21	6
		ii. Mboruro	49	15
		iii. Futudu	64	19
		iv. Himike	17	5
		v. Vukague	46	14
Total	4		501	151

Source: Field Survey, 2020

**Method of Data Analysis**

Data generated were analyzed using descriptive statistics, Simpson Index of Diversification, Garrett ranking techniques and paired sample t-test.

**Descriptive Statistics**

This employed the use of percentage, mean and standard deviation to achieve objectives i and iii of the study.

**The Simpson Index of Diversification**

The Simpson Index of Diversification (SID) as adapted from Akwaji and Edu (2017) was used to analyze the livelihood non-farm income diversification in the study area. It is given as;

$$SID = \frac{\sum n(n-1)}{N(N-1)} \dots\dots\dots (1)$$

This is further express as;

$$SID = 1 - \sum P_i^2 \dots\dots\dots (2)$$

Where:

SID= Simpson Index of Diversification

N = Total Household Annual Income (₦)

n= Total Household annual non-farm Income (₦)

Pi= is the proportion of income from source “i”.

If there is just one source of income, Pi = 1 and SID = 0. As the number of income sources increases, the share “Pi” declines as does the sum of the squared shares, so that SID approaches 1. The closer SID is to zero, the more the specialization in farm income generation, and the further it is from zero, the greater the diversification. This was used to achieve objective ii of the study.

**Garrett ranking techniques**

Garrett ranking technique as used by Jimjel *et al.* (2015) was employed to rank the major constraints to agricultural production in the study area (Objective iv). The technique provides the change of orders of constraints and advantages in numeral scores. The prime advantage of this technique over simple frequency distribution is that the constraints are arranged based on their severity from the point of view of respondents. The Garrett’s formula for converting ranks into percentage is;

$$\text{Percent position} = 100 \left( \frac{R_{ij} - 0.5}{N_j} \right) \dots\dots\dots (3)$$

Where;

R<sub>ij</sub>= rank given for i<sup>th</sup> constraints by j<sup>th</sup> individual

N<sub>ij</sub>= number of constraints ranked by j<sup>th</sup> individual

***Paired Sample t-test***

This was used to determine if there are significant differences between mean livelihood activities before and after the era of insurgency in the study area. It was computed using the formula;

$$t = \frac{\sum d}{\sqrt{\frac{n(\sum d^2) - (\sum d)^2}{n-1}}} \dots\dots\dots (4)$$

Where:

t = t-statistic

d= mean deviation of the differences between mean livelihood activities of the respondents before and after the insurgency

d<sup>2</sup>= Standard deviation of the differences

n=number of paired observations

## **RESULTS AND DISCUSSION**

### **Socio- Economic Characteristics of the Respondents**

The socio-economic characteristics of respondents in this Table 2 revealed that the majority were in their youthful and middle age categories, with a mean age of 37 years. This suggests that most of the respondents were in their active and productive stages of life, which is crucial for engaging in agricultural activities and other livelihood ventures. The result conforms with Babagana *et al.* (2018), who reported that youth and young adults are more involved in community dynamics in Yobe State, and also agrees with Adesope *et al.* (2014), who reported that youths are more prominent in conflict and livelihood activities than older adults. Respondents were also relatively experienced in farming, with a mean farming experience of 16.9 years, which implies a good understanding of farm management and coping strategies, supporting Adelokun *et al.* (2015) who argued that experienced farmers are better at managing conflicts. The average household size was 8 persons, signifying large families that could affect food security and household expenditures, in line with WHO (2017) who linked hunger and food insecurity in Sub-Saharan Africa to large family size and climate change. Male respondents dominated the sample (65.6%) compared to females (34.4%), a trend consistent with Adelokun *et al.* (2015) in Southern Nigeria, suggesting that agricultural-related engagements are more male-driven due to their perceived strength and activeness. The marital status results show that half (50%) of the respondents were married, 44.5% were single, while divorced and widowed individuals were relatively few. This indicates that married persons dominate economic activities in the study area, possibly due to the responsibility of providing for their families, a finding that aligns with Babagana *et al.* (2018) who reported higher participation of married individuals in agricultural activities in Yobe State. Education levels revealed a relatively literate population, with 59.4% having attained post-secondary education, while only 10.9% had no formal education. This suggests that most respondents are well-informed and better positioned to adopt innovations, contrasting with findings by Babagana *et al.* (2018), who noted low educational attainment in Yobe State. Access to institutional support was, however, low, as 68.8% of respondents had no access to credit, 66.4% did not belong to associations, and 83.6% lacked access to extension services. This shows structural weaknesses in support systems, as Ibrahim *et al.* (2017) highlighted the low ratio of extension agents to farmers in Nigeria. The lack of access to credit and associations likely restricts opportunities for collective bargaining and financial inclusion, underscoring a major challenge to agricultural and livelihood improvement in the study area.

**Table 2: Socio-economic Characteristics of the Respondent**

<b>Variables</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. deviation</b>
<b>Age (years)</b>	17	72	37	11.753
<b>Farming Experience (years)</b>	1	41	17	9.301
<b>Household size (Number)</b>	2	21	8	3.711
<b>Sex</b>	<b>Frequency</b>	<b>Percentage</b>		
Male	84	65.60		
Female	44	34.40		
Total	128	100		
<b>Marital status</b>	<b>Frequency</b>	<b>Percentage</b>		
Married	64	50.00		
Divorced	6	4.70		
Widowed	1	0.80		
Single	57	44.50		
Total	128	100		
<b>Level of Education</b>	<b>Frequency</b>	<b>Percentage</b>		
No formal education	14	10.90		
Arabic education	2	1.60		
Adult education	4	3.10		
Primary education	13	10.20		
Secondary education	19	14.80		
Post-secondary education	76	59.40		
Total	128	100		
<b>Access to credit</b>	<b>Frequency</b>	<b>Percentage</b>		
Access	40	31.20		
No access	88	68.80		
Total	128	100		
<b>Members of Association</b>	<b>Frequency</b>	<b>Percentage</b>		
Member	43	33.60		
Non-member	85	66.40		
Total	128	100		
<b>Access to Extension</b>	<b>Frequency</b>	<b>Percentage</b>		
Access	21	16.40		
No-access	107	83.60		
Total	128	100		

Source: Field survey, 2020

### **Farm Income Generating Activities among Farmers before and after the Displacement**

The crop production activities for livelihood sustainability of the respondents in Table 3 indicates a drop in cultivable farm land by 46.91%, maize yield by 34.81%, Groundnut yield by 274%, rice yield by 27.88% and vegetable yield by 69.4%. This shows that Boko-Haram insurgency has

brought about a significant reduction in the yield of the major crops produce in the study area. Bello (2022) revealed that with the depreciating value of Naira, terrorist activities have further reduced the paying ability of companies within the northeast rendering even more people poor and the poor, poorer. This has crippled economic activities including agriculture in the areas most affected. The result of the t-statistic reveals a significant ( $p < 0.01$ ) reduction in farm size, yield of maize, groundnut and vegetables due to insurgency. Only reduction in the yield of rice appeared not to be statistically significant

**Table 3: Crop Production Activities Before and After Insurgency**

s/n	Crop production activities	Mean	% change	change	t-value
i	Farm size before (ha)	1.94	46.91	Decrease	16.3104***
	Farm size after(ha)	1.03			
ii	Maize yield/ha before (kg)	2884.38	34.81	Decrease	18.6449***
	Maize yield/ha after(kg)	1880.47			
iii	g/nut yield/ha before(kg)	2180.09	274	Decrease	3.4784***
	g/nut yield/ha after(kg)	581.64			
iv	Rice yield/ha before(kg)	566.02	27.88	Decrease	1.5397NS
	Rice yield/ha after(kg)	408.20			
v	Vegetables yield/ha before(kg)	23.63	69.40	Decrease	3.9492***
	Vegetable yield/ha after(kg)	7.23			

\*\*\*= Significant at 1% level

Similarly, the animal production activities of the respondents show a drastic reduction in production as a result of Boko-Haram insurgency. Table 4 indicated a drop in cattle production by 50.34%, drop in sheep production by 85%, drop in poultry production by 73.67%, drop in pig production by 69.55%, as well as drop in goat production by 67.81%. This shows that the menace of Boko-Haram has also impaired negatively to animal production in the study area as identified Abdullahi *et al.* (2020) who reported that the overall activities of Boko Haram within the north-region crippling economy of the region; farming being one of the sustainable occupations of northerners has been shattered by the fear of farmers toiling the ground for harvests as they are specifically targeted either with IEDs or killed. The result of the t-statistics shows a significant ( $p < 0.01$ ) reduction in the listed animal production activities as a result of Boko-Haram menace.

**Table 4: Animal Production Activities Before and after Insurgency**

S/N	Animal production activities	Mean	% Change	Change	t-value
i	Cattle before (number)	1.41	50.34	Decrease	3.0992***
	Cattle after (number)	0.70			
ii	Sheep before (number)	0.28	85	Decrease	3.0992***
	Sheep after (number)	0.11			
iii	Poultry (number)	6.19	73.67	Decrease	8.8144***
	Poultry after (number)	1.30			
iv	Pigs before(number)	16.85	69.55	Decrease	11.0215***
	Pigs after (number)	5.13			
v	Goat before	4.94	67.81	Decrease	6.2527***
	Goat after	1.59			

\*\*\*=significant at 1% level

The Simpson Index of Diversification (SID) was used to know whether there is more specialization in farm income generation than other income sources of the respondents before insurgency and after insurgency (Table 5). The mean total farm income of the respondents before insurgency was ₦257, 815.39, the mean non-farm income was ₦5231.19, with a total mean annual income of ₦263, 447.18. The SID of 0.1 was estimated. This implies that only 10% of the total income of the respondents was realized from non-farming activities whereas the remaining 90% is from farming activities. By implication, the result shows there is income diversification among the respondents. This shows that agriculture is the major income generating activities for the respondents before insurgency in the study area. This conforms with the survey of FAO (2019) who reported that the agricultural sector has a pivotal role in employment in sub-Saharan Africa, employing more than half of the total workforce.

**Table 5: Farm Income Generating Activities of the Respondents before and After Insurgency**

Variable	Before '000 mean(naira)	After '000 Mean (naira)	Change	t-value
Total farm income	257,815.39	11,403.57	Decrease	14.2315***
	SID=0.10			
Total non-farm income	5,231.79	7,5164.63	Increase	5.6860***
	SID=0.49			
Total	263,047.18	86,563.20		

\*\*\*=significant at 1% level

Table 5 further shows that a mean total of ₦11403.57 farm income was realized by the respondents, while, a mean total of ₦7,5164.64 was realized from non-farming activities. A total ₦86, 563.20 was realized by the respondents. From both farm and non-farm activities after the insurgency, as compared with that of before the insurgency of ₦2 63,047.18. the result of the t-statistics shows a significant ( $p < 0.01$ ) decrease in the total farm income before and after insurgency, and a significant ( $p < 0.001$ ) increase in total non-farm income. The Diversification index of 0.49 was computed for the respondents after insurgency. This shows that 49% of the income realized after the insurgency by the respondents was from non-agricultural activities with agriculture providing the remaining 51%. This indicated that there is drastic reduction of income generating activities of the respondents as a result of Boko-Haram Insurgency as pointed by Bello. (2022).

### **Livelihood Restoration Activities in the Study area**

Livelihood restoration activities of the respondents in Table 6 revealed that a significant majority of respondents (91.4 %) reported that productive assets such as storage facilities and equipment were replaced or repaired. Similarly, cash assistance and cash-for-work programmes (89.1 %) and the distribution of agricultural inputs (85.2 %) provided both immediate financial relief and the means for resuming crop production. Farmland clearance and restoration of safe access (77.3 %) were vital in addressing security constraints, while livestock restocking with veterinary support (64.8 %) and the rehabilitation of markets, feeder roads, and irrigation facilities (58.6 %) signified integrated measures aimed at rebuilding rural economies and strengthening farmers' access to markets. These findings mirror evidence from Adamawa State showing that the provision of agricultural inputs, infrastructure rehabilitation and improved market access are critical in enabling households affected by insurgency to re-establish their livelihoods (Tafida *et al.*, 2023).

In contrast, capacity-building and social-cohesion interventions were less widely implemented. Training, extension services and skills acquisition were reported by 53.9 % of the respondents, whereas cooperative formation (33.6 %), micro-credit schemes (29.7 %), and psychosocial support (21.9 %) were relatively scarce. This suggests that while material recovery was prioritised, the non-material aspects of livelihood restoration such as social capital development, financial inclusion, and trauma healing remain under-addressed despite their importance for long-term resilience. Similar studies in Northern Nigeria have shown that households relying solely on agriculture without diversification into non-farm activities remain vulnerable, whereas those with access to credit and additional income sources are better equipped to withstand future shocks (Gwandi *et al.*, 2024).

**Table 6: Livelihood Restoration Activities in the Study Area (n=128)**

Activities	Frequency (*)	Percentage	Rank
Replacement or repair of productive assets (storage facilities, equipment)	117	91.40	1 <sup>st</sup>
Cash assistance and cash-for-work programmes	114	89.10	2 <sup>nd</sup>
Distribution of agricultural inputs (seeds, fertilizers, farm tools)	109	85.20	3 <sup>rd</sup>
Farmland clearance and restoration of safe access	99	77.30	4 <sup>th</sup>
Livestock restocking and veterinary support	83	64.80	5 <sup>th</sup>
Rehabilitation of markets, feeder roads, and irrigation facilities	75	58.60	6 <sup>th</sup>
Training programmes, agricultural extension services, and skills acquisition	69	53.90	7 <sup>th</sup>
Formation and strengthening of farmer groups/cooperatives	43	33.60	8 <sup>th</sup>
Micro-credit schemes, grants, and small business support	38	29.70	9 <sup>th</sup>
Psychosocial support and community reconciliation activities	28	21.90	10 <sup>th</sup>

Source: Field survey, 2025, NB: \*=multiple response

### **Constraints to Agricultural Production in the study area**

Garrett’s ranking technique was employed to analyse the constraints to agricultural production among farmers in the study area. Respondents were asked to classify their problems into three categories: most important (1), important (2), and less important (3). The percentage positions for each rank were calculated, and their corresponding Garrett table values were obtained as shown in Table 7. For each constraint, a total score was computed by multiplying the number of respondents ranking that factor as 1, 2, or 3 by the respective Garrett table value. The mean score for each constraint was subsequently derived by dividing the total score by the number of respondents (Table 8).

The results revealed that the most severe constraint to agricultural production was the Boko Haram insurgency (mean score = 65.59), underscoring the disruptive effect of insecurity on farming activities. Other critical constraints included disease and pest attacks (60.84), inadequate extension support (60.09), poor road networks (58.65), poor storage facilities (58.16), and inadequate farm inputs (57.13). These findings are consistent with those of Tafida et al. (2023), who reported that insecurity, limited extension services, and poor infrastructure were significant obstacles to livelihood recovery among farmers in insurgency-affected communities of Adamawa State. Similarly, Aliyu and Ismaila (2022) found that post-insurgency farming households in Borno and

Yobe States faced major production challenges related to inadequate inputs, crop pests, and lack of functional storage facilities, which hindered agricultural productivity and food security. Together, these results highlight the need for policies and interventions that address security challenges, strengthen extension delivery systems, and improve rural infrastructure to enable sustained agricultural production.

**Table 7: Percentage position and their corresponding Garrett Table Value**

Rank	Percentage position		Garrett Table Value
1	$100(1-0.5)/3$	16.67	69
2	$100(2-0.5)/3$	50	50
3	$100(3-0.5)/3$	83.33	31

Source: Field Survey, 2020, Percentage position= $100(R_{ij}-0.5)/N_j$

**Table 8: Major Constraints to Agricultural Production in the Study Area**

s/n	Problems	Rank			Total no. of respondent	Total score	Mean	Rank
		1	2	3				
1	Book-Haram insurgency	105	23	0	128	8395	65.59	1 <sup>st</sup>
2	Poor road network	75	32	21	128	7507	58.65	4 <sup>th</sup>
3	Inadequate farm inputs	59	58	11	128	7312	57.13	6 <sup>th</sup>
4	Poor produce price	61	53	14	128	7293	56.78	7 <sup>th</sup>
5	Poor storage facilities	64	55	9	128	7445	58.16	5 <sup>th</sup>
6	Poor processing facilities	45	83	0	128	7255	56.68	8 <sup>th</sup>
7	Inadequate credit	57	57	14	128	7217	56.38	9 <sup>th</sup>
8	Inadequate extension support	68	60	0	128	7692	60.09	3 <sup>rd</sup>
9	Inadequate farm labor supply	29	57	42	128	6153	48.07	11 <sup>th</sup>
10	Diseases and pests attacks	73	55	0	128	7787	60.84	2 <sup>nd</sup>
11	Land tenure	50	20	58	128	6248	48.81	10 <sup>th</sup>

Source: Field Survey, 2020

## **CONCLUSION**

The study conclusively demonstrates that the Boko Haram insurgency had a profoundly devastating impact on the agricultural livelihood activities of farmers in Michika LGA. The conflict resulted in a significant decline in crop and livestock production, forcing a significant and involuntary shift in income sources away from agriculture towards non-farm activities. While post-insurgency restoration efforts have provided crucial immediate support in asset repair and input distribution, the recovery remains fragile and incomplete. Major structural weaknesses, including a severe lack of access to credit, extension services and market infrastructure. Furthermore, the insurgency itself is still perceived as the primary constraint to agricultural revival. Therefore, achieving sustainable livelihood restoration requires moving beyond short-term humanitarian aid to integrated, long-term strategies that address both the socio-economic and psychological scars of the conflict.

## **RECOMMENDATIONS**

It was therefore recommended that;

- i. Adamawa State Ministry of Agriculture and Rural Development (ASMARD) and National Agricultural Extension and Research Liaison Services (NAERLS) should strengthen institutional support by deploying more agricultural extension agents, improving farmers' access to credit facilities, and encouraging participation in cooperative societies.
- ii. Bank of Industry (BOI), Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) & Development Non-Governmental Organisations (NGOs) such as the United Nations Development Programme (UNDP) and CARE International should promote sustainable economic resilience through targeted funding and capacity-building programmes for livelihood diversification and agro-processing enterprises.
- iii. National Emergency Management Agency (NEMA), State Emergency Management Agency (SEMA) & International Humanitarian Organisations such as the International Committee of the Red Cross (ICRC) and United Nations Children's Fund (UNICEF) should integrate psychosocial support services and community reconciliation initiatives with on-going material aid distribution and recovery efforts.

Adamawa State Government (ADSG), Federal Ministry of Agriculture and Food Security (FMAFS), Security Agencies & Federal Ministry of Works (FMW) should adopt a multi-sectoral approach to address major constraints, focusing on sustaining security in farming communities, rehabilitating rural feeder roads and implementing coordinated pest management initiatives.

**REFERENCES**

- [1]. Abdullahi, M., Inusa, M., & Mustapha, U. (2020). Boko Haram Insurgency and Economic Development in North-Eastern Nigeria. *Research Gate*, 80-99.
- [2]. Adelaja, T. (2020). Reuters/HRW. Retrieved from Human Rights Watch: <https://www.hrw.org/world-report/2021/country-chapters/nigeria>
- [3]. Adelakun, O. E., Adurogbangba, B., Akinbile, L. A. (2015). Socio-economic Effects of Farmer-Pastoralist Conflict on Agricultural Extension Service Delivery in Oyo State, Nigeria. *Journal of Agricultural Extension*. 19(2):1-12
- [4]. Adesope, O. M. O., Ifeanyi-Obi, C. C., & Asiabaka, C. C. (2014). Determinants of Climate Change Adaptation Measures Used by Crop and Livestock Farmers in Southern Nigeria. *IOSR Journal of Humanities and Social Science*. 19((9): 61-79
- [5]. Ajakaiye, O., Jerome, A., & Olaniyan, O. (2018). The impact of Boko Haram insurgency on agricultural productivity in northeastern Nigeria. *Journal of Agricultural Economics*, 69(2), 343-355. <https://doi.org/10.1111/1477-9552.12234>
- [6]. Akintunde, A. (2018). *The Aftermath of the British Rule, Lack of Altruism*. Gombe: Flores Africa Press.
- [7]. Akoji, O. R. (2024, September 30). The Effect of Terrorism on National Development: A Study of Boko-Haram Insurgency in Nigeria. *International Journal of Anthropology and Ethnology Research Development*. 5(6). Retrieved from <https://harvardpublications.com/hijaerd/article/view/173>
- [8]. Akwaji, P. I., & Edu, E. A. (2017). Population, Frequency, Density, Abundance and Diversity of Tree Species in Ten Communal Forest of Northern Cross River State, Nigeria. *International Journal of Current Research*. 9(10): 59581-59596
- [9]. Aliyu, S. M., & Ismaila, Y. (2022). Post-insurgency challenges and coping strategies among farming households in Borno and Yobe States, Nigeria. *Journal of Agricultural Extension*, 26(3), 95–107.
- [10]. Babagana, M., M. Ismail, B. G. Mohammed, M. A. Dilala, Hussaini I., I M. Zangoma (2018). Impacts of Boko Haram Insurgency on Agricultural Activities in Gujba Local Government Area, Yobe State, Nigeria. *International Journal of Contemporary Research and Review*. 9(12):11-18
- [11]. BBC News (2016). *Nigeria profile – Timeline*. BBC News. Retrieved from <https://www.bbc.co.uk/news/world-africa-35913016>
- [12]. Bello, H. S. (2022). *An assessment of the socio-economic impact of Boko Haram insurgency in the Northeast of Nigeria* (Master's thesis). T.C. Istanbul Kultur University, Institute of Graduate Studies. PP. 1-98.
- [13]. Daniel, W. & Paul, S. (2024). The Boko Haram Insurgency and Nigeria-Niger's Socio-Cultural Relations. *International Journal of Sociology and Social Policy* 44(15/16). 143-

163. Emerald Publishing Limited 0144-333X
- [14]. Debki, B.V.Z, (2009). History and Culture of Kamwe People. Grace Production Jos. 2009.
- [15]. Emmanuel, J. (2018). The Nigeria Today: Terrorism and its aftermath. Economic Journal for Security and Policies, 10(1), 12-22.
- [16]. Food and Agriculture Organization (FAO) (2019). Statistical Database, Statistical Division. Rome. Retrieved from: <http://www.fao.org/faostat/en/#data/FEWS> NET (2019). "Nigeria food security outlook, February to September 2019: Intense insurgent attacks in Northeast Nigeria led to increased displacement and food needs". Retrieved from: <https://reliefweb.int/report/nigeria/nigeria-food-security-outlook-february-september-2019>
- [17]. Gwandi, O., Adewuyi, A. K., & Dia, Y. Z. (2024). Evaluation of livelihood diversification strategies as a panacea to poverty reduction among rural farming households in Adamawa State, Nigeria. *International Journal of Agriculture and Environmental Research*, 10(2), 230–250. <https://doi.org/10.22004/ag.econ.344371>
- [18]. Hair J. F., Black, W. C., Balin, B. J. & Anderson, R. E. (2010). Multivariate Data Analysis. Maxwell Macmillan International Editions. PP.23-37
- [19]. Ibrahim S. Usman, U.M Bakari, Aliyu Abdullah (2017). Crop Farmers and Herders Conflicts in Girei Local Government Area, Adamawa State, Nigeria: Causes, Repercussions and Resolutions. *Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development*. 17(1):1-6
- [20]. Iliya Y. K. (2016). Kamwe People of Northern Nigeria: Origin, History and Culture. Africa Christian TextbookS (ACTS). ACTS Bookshop, Opposite TCNN Married Quarters PMB 2020, Bukuru 930008, Plateau State, Nigeria. Tel: 0803-589-5328 (General Manager); E-mail: [acts.jos@gmail.com](mailto:acts.jos@gmail.com) Website: [www.africachristiantextbooks.com](http://www.africachristiantextbooks.com). PP. 1-80.
- [21]. International Committee of the Red Cross. (2024, April 16). How is the term "armed conflict" defined in international humanitarian law? (Opinion Paper). ICRC.
- [22]. Ishaku, D. & Zainab, L. K. (2018). The Impact of Boko Haram Insurgency on the Socio - Economic Milieu of North Eastern Nigeria: An Appraisal. *Abuja Journal of Sociological Science*. 5(1):157-171
- [23]. Jimjel, Z., Rakesh S., Madhusudan B., O.P Singh & Dayakar R. (2015). Analysis Of Constraints Influencing Sorghum Farmers Using Garrett's Ranking Technique; A Comparative Study of India and Nigeria. *International Journal of scientific research and management (IJSRM)*. 3(3):2435-2440
- [24]. National Population Commission (NPC) (2006). Nigerian Housing and Population Census, 2006 Report, NPC Abuja.
- [25]. Ndlovu, -G.S.J. (2012). Beyond the Equator, there are no sins: Colonialism and violence in Africa. *Journal of Developing Societies*, 28(4), 419-440.

- [26]. Nneka, S. A. (2015) Impact of Boko Haram Insurgency on Human Security in Nigeria. *Global Journal of Social Sciences*, 14 (1): 35-42.
- [27]. Okey, O. (2019). The Socio-Economic Implications of Book-Haram Activities in Northern Nigeria. *Review of Public Administration & Management*, 1(2), 19, 33.
- [28]. Olumuyiwa, O. F., Titus, O. O. (2018). Socio-Economic Implications of Boko haram Insurgency in Northern Nigeria. *KIU Journal of Social Sciences* 4(2): 213–223.
- [29]. Onuoha, F. O. A. (2014) Danger not only to Nigeria alone Boko Haram's transnational reach and regional response. Friedrich-Ebert-Stiftung, Regional office (2), 6-15.
- [30]. Tafida, A. A., Adebayo, E. F., Onu, J. I., Ndaghu, A. A., & Momodu, J. A. (2023). Households' livelihoods in communities recovering from the effects of insurgency: A case of Northern Zone of Adamawa State, Nigeria. *International Journal of Economics and Development Policy*. Retrieved from <https://gsujournals.com.ng/ijedp/index.php/ijedp/article/view/65>
- [31]. Umar, H. V., Kuso, U., Musa, M. Y. & Ahmed, I. M. (2025). Consequence of insurgency on the livelihood of Michika, Adamawa State, Nigeria. *UDMA Journal of Sciences (FJS)*, 9(4), 177–180.