



# Evaluation of the Impacts of Conflicts on Farmers' and Pastoralists' Livelihood in Benue State, Nigeria

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Abstract

Original Research Article

The study looks at the ongoing confrontations between Nigeria's Benue State's farmers and pastoralists. Using Krejcie and Morgan's methodology, the sample size for the survey was 245 farmers and 82 pastoralists, while six of the most affected communities were chosen from three LGAs using the purposeful sampling technique. The study employed percentages, arithmetic means, and the Relative Importance Index to assess the data. The findings showed that the majority of farmers and pastoralists in Benue State were men, accounting for 70% and 85% of the total population, respectively. Approximately 75% of all respondents in Benue State stated that assaults including the use of weapons were the predominant type of conflict. According to farmers and pastoralists, the land tenure system and cattle's damage of crops were the main causes of conflicts ( $\bar{x}=3.30$  R1, 2.58 R1). Conflicts between crop farmers and pastoralists were mostly influenced by changes in livelihood activities (Mean RII = 0.83, R1), insecurity (Mean RII = 0.80, R2), and an increase in crop loss and animal death (Mean RII = 0.77, R3) in the research area. The study found that the socioeconomic circumstances of the residents of the study area had been adversely affected by the increase in crop loss and animal mortality. Therefore, clearly defined government policies and an implementation framework that would lessen excessive crises, improve conflict management, and encourage investment in non-farm activities would significantly improve the tense relationship between farmers and pastoralists in the study area.

**Keywords:** Pastoralists, Farmers, Conflict.

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## 1. Introduction

The recurring resource conflicts between farmers and pastoralists in Africa, and particularly in Nigeria, have resulted in fatalities and property damage over the years. Over time, scholars have characterized conflict in a variety of ways. Incompatibility or disagreements between two actors (individuals, groups, organizations, or nations) in their interactions over issues like priorities, spaces, positions, scarce resources, values, beliefs, emotions, and goals are some descriptions of it.

Conflicts between Nigerian farmers and pastoralists have worsened and spread during the

past 10 years, putting the nation's survival and integration at risk. Ajibo, Onuoha, Obi-Keguna, and Okafor (2018) claim that a long-running cycle of murders and destruction has destroyed communities, killed thousands of people, and cost many farmers and pastoralists their lives and property. This cycle is not only destroying livelihoods but also jeopardizing national unity.

It has become increasingly clear in recent years that population pressures on natural resources are gravely degrading Nigeria's ecosystem. Poor adaptability to changing climatic conditions, rural banditry, and cattle rustling, among other things, can lead to community crises and



population displacement/mobility in quest of more agriculturally viable lands. For the rural farmers in Benue, this is particularly true. Mostly in Nigeria and throughout Africa, conflicts between farmers and pastoralists have led to the wanton destruction of people and property over time. Natural resource disputes have become much more frequent in Nigeria since the early 1990s. The escalating conflicts between farmers and pastoralists, especially in the wetland areas of Northwestern Nigeria and the middle belt, have recently raised concerns (Adisa, 2011).

Thus, this study looks at how conflicts impact the livelihoods of farmers and pastoralists in Benue State with the following specific objectives in mind. The demographic and socioeconomic characteristics of Benue State's farmers and pastoralists are determined, the nature of the conflicts between them is examined, the causes of the conflicts are perceived by the farmers and

pastoralists in the study area, and the effects of the conflicts on their livelihoods are investigated.

## 2. STUDY AREA AND METHODOLOGY

### 2.1 Study Area

Situated in Nigeria's central belt between latitudes 6°29' N and 8°7' North of the equator and longitudes 7°44' E and 9°55' East of the Greenwich meridian, Benue State is estimated to be 30,955 km<sup>2</sup>. Nasarawa State borders Benue State to the north, Taraba State borders it to the east, Cross-Rivers State borders it to the southeast, Enugu borders it to the southwest, and Kogi borders it to the west. Furthermore, the southeast of the State shares a boundary with the Republic of Cameroun (see Figure 1). In addition, the 202-kilometer Katsina-Ala River flows through its interior, and a 280-kilometer stretch of the River Benue borders it on the north (Abaa, 2004). Benue State is divided into twenty-three (23) Local Government Areas.

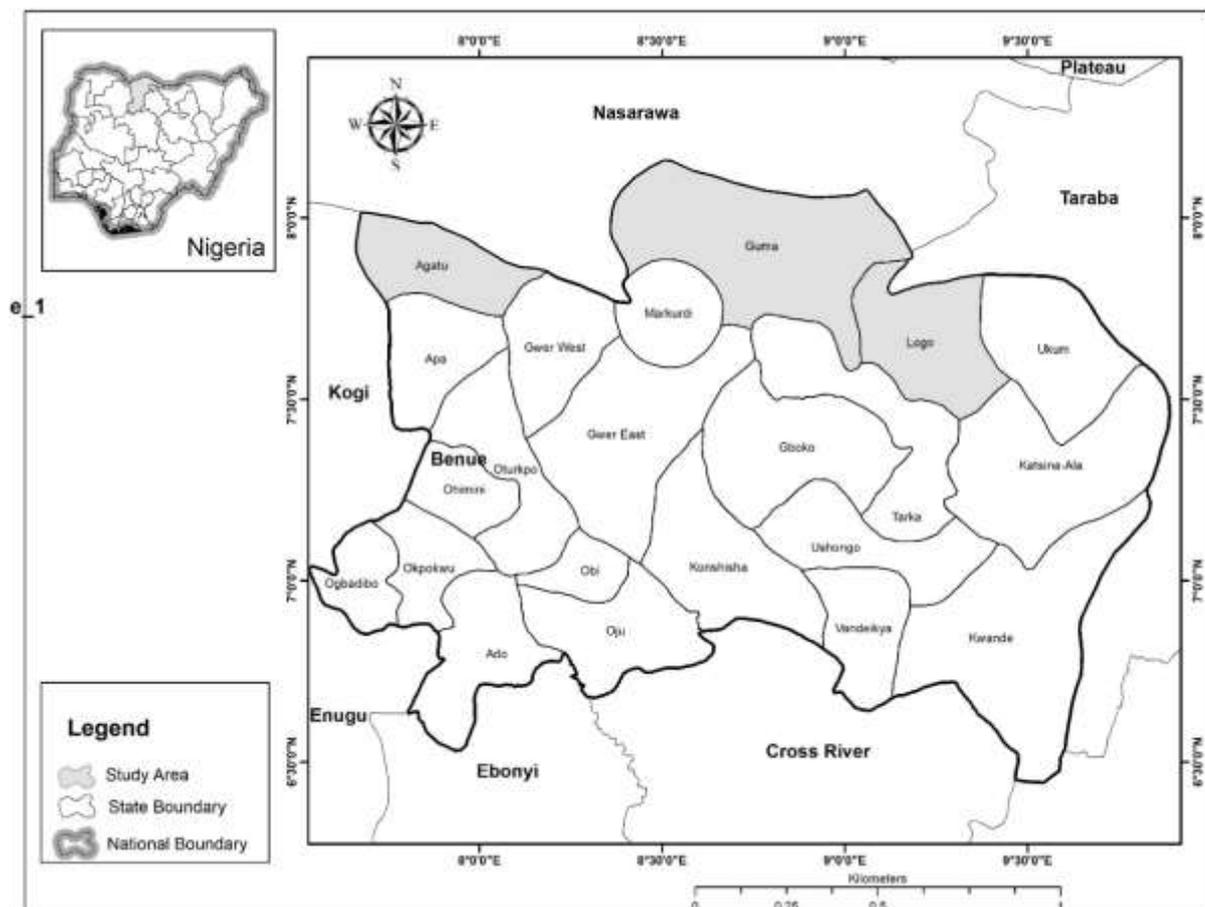


Figure 1: The study area's location map (Benue State)  
Source: Adopted from Benue State's administrative map.

**2.2 Methodology**

**2.2.1 Analysis of Data**

The statistical technique used to analyze each of the study's objectives was listed below

Identification of farmers/ pastoralists' socio-economic characteristics using frequencies and percentages for analyzing categorical variables, such as socio-demographic profile of respondents. Investigation of the nature and frequency of conflicts by employing Frequencies and Percentages to analyze the nature and frequency of conflicts

Investigation of farmers/ pastoralists' perception of the causes of conflicts using Likert Scale to work out the Farmers/Pastoralists' perception of causes of conflicts. Assessment of the effects of conflicts on farmers/ pastoralists' livelihood by

employing Relative Importance Index (RII) for coding and ranking of the perceived impacts of conflicts on farmers/Pastoralists socio economic activities in terms of their severity.

**3. RESULTS AND DISCUSSION**

The population of Benue State's LGAs that are most vulnerable to crises affecting farmers and pastoralists serves as the study's sample box. Six communities were chosen using the purposeful sample technique from three LGAs with higher rates of disputes between farmers and pastoralists in the research area. Guma, Agatu, and Logo are these local governments (Table 1). Six (6) villages in the most impacted Local Government districts were selected based on data availability and physical accessibility (Table 1).

Table 1: Respondents Distribution in the Selected LGAs

State	Sampled LGAs	Communities Selected	1991 Population	Population Projected 2024	Number of Respondents		
					Farmers	Pastoralists	Total
Benue	Logo	Logo	680	1497	64	28	92
		Mbagher	352	775	33	15	48
	Guma	Umanger	276	608	26	11	37
		Gbajimba	435	958	45	14	59
	Agatu	Odugbeho	692	1524	73	21	94
		Okokolo	203	447	24	3	27
<b>Total</b>	<b>3</b>	<b>6</b>	<b>2638</b>	<b>5809</b>	<b>265</b>	<b>92</b>	<b>357</b>

Source: Author's Compilation, 2024

The sample size for the investigation was determined using Krejcie and Morgan's (1970) necessary sample size. According to Krejcie and Morgan (1970), the population, which was 5,809 as of 2024, is within the range of 5,000 to 5,999; hence, at a 95% confidence level and a 5% sampling error margin, the research region might

have a sample size of 357. Because the population of LGAs was divided into localities based on the 1991 census, the 1991 census figures were predicted for 2023. Because the 1991 census divided the population of LGAs into localities, the 1991 census figures were predicted for 2024.  $Pt+n = Pter*n$  was used to project the

population of the sampled localities based on the 3.018% population growth rate of Benue State. Here,  $P_{t+n}$  represents the future population (2024),  $P_t$  represents the base year (1991),  $e$  is exponential,  $r$  is the growth rate (3.018 and 3.2%), and  $n$  is the interval between the future population and the base year population (2024-1991=31 years). Each community's number of responders was determined by dividing the projected population by the number of responses.

#### 4.1 Demographic and Socio- Economic Characteristics of Respondents

Farmers and pastoralists in the research area were given 357 copies of the questionnaire. With 327 copies returned, the response rate was

91.6%, which is very good for analysis. Table 2 shows the grouping of respondents by sex, age, occupation, and income status. reveals that the majority of pastoralists (34.7%) in Benue State were in the 35–44 age range, but just 26.0% of farmers were in this age range. Furthermore, the data indicates that the respondents are within the productive and economic age range. This is consistent with a study conducted by Okunlola (2016), who examined pastoral activities in Oyo State, Nigeria. The study's findings were validated and showed that a higher proportion of crop farmers (62 and 100, respectively) and nomads were also men. The aforementioned highlights the fact that the physical demands of farming and pastoral work may be too great for most women to handle.

Table 2: Respondents' Socioeconomic and Demographic Features

Variables	Farmers		Pastoralists	
	Frequency	%	Frequency	%
<b>Sex:</b>				
Male and	235	90	51	76
Female	24	10	17	24
<b>Age</b>				
< 15	22	8.9	8	12.5
15-24	31	13.6	6	9.7
25-34	45	19.1	19	26.4
35-44	60	26.0	26	34.7
45-54	31	13.6	6	6.9
55-64	25	11.1	6	5.6
<b>Profession</b>				
Arable Agriculture	140	60.0	13	16.7
Farming Animal	34	14.9	52	70.8
Trading	31	13.2	4	5.6
Civil servants	23	9.8	2	2.8
<b>Level of income</b>				
<50,000	35	15.3	3	2.8
51,000- 100,000	45	19.1	3	4.2
101,000-150,000	81	34.5	43	59.7
151,000-200,000	52	22.6	16	20.8
<b>Size of household</b>				
<5	19	8.1	7	9.7
6-14	45	19.1	23	31.9
15-24	125	53.2	21	29.2
25-34	28	11.9	12	16.7
<b>Size of farm (ha.)/livestock</b>				
< 5/20	17	7.2	8	11.1
6-10/20-30	87	37.4	6	6.9
11-21/31-41	121	51.5	15	20.8
22-32/42-52	5	2.1	31	43.1
Over 32/52	4	1.7	13	18.1

Source: Fieldwork, 2024.

According to Table 2, most farmers and pastoralists were between the ages of 35 and 44 (26% and 34%). Thirty-three percent of the study sample consisted of respondents who were older than 44. This suggests that the study area's farmers and pastoralists were in their prime growing years. Having engaged with numerous individuals and those who have observed conflicts in the research region at various points in time. Kehinde (2001) supports this inquiry in his research on the variables affecting disputes between farmers and pastoralists in Kogi State's Kabba-Bunu Local Government region.

Furthermore, Table 2 findings indicate that 71% of pastoralists worked in animal husbandry, whereas 60% of farmers farmed arable crops. The majority of villages in Benue State are agrarian, according to the findings of the earlier study.

Large tracts of fadama land resources that are suited for crop growth are the reason why arable agricultural activities predominate in the research area Terwase, Gyuse, and Abawua (2011)

Additionally, Table 2 revealed that pastoralists and agricultural farmers are diversifying their sources of income. More and more pastoralists are engaged in both farming and non-farm pursuits, while farmers also combine agricultural and livestock production as a failsafe measure. Homewood (2008) confirmed the previously mentioned assertion that some pastoralists do combine livestock-focused jobs with complementary livelihood activities such as farming, fishing, hunting, and gathering, as well as the processing of natural resources for sale, artisanal work, wage labor, and investment in non-pastoral trade and enterprises.

According to Table 2, a higher proportion of farmers (40%) and around three-fifths of pastoralists in the study area earned between N101,000 and N150,000 per year. According to the aforementioned analysis, the research area's farmers and pastoralists both have modest economic bases. The average daily income of the respondents was below the \$2 USD global poverty line. The results of Tsegaye and Moe (2013), who verified that every pastoralist household in Afar, Ethiopia, fell below the world

poverty criterion of \$2 USD per day, are corroborated by this study.

In terms of household size, Table 3 showed that two-sevenths (29.2%) of pastoralists and more than half (53.2%) of farmers had a family of 15–24 people. It follows that both pastoralists and farmers have sizable households. More hands to work on the farm and assist with shepherding, as well as more people to feed, would result from this. This is consistent with research by Adelakun, Adurogbangba, and Akinbile (2015), who found that additional laborers are needed to assist with farming and shepherding in larger households.

Additionally, Table 2 shows how much land farmers cultivate and how much land pastoralists use for grazing. Table 2 shows that the majority of farmers (51.5%) had farms that were between 11 and 21 hectares in size. The majority of pastoralists (43.1%), however, owned herds of 42–52 animals. This implies that pastoralists maintained a moderate animal population while farmers in the study area had access to a large area of land for cultivating crops. This suggests that farmers and pastoralists in Benue State are doing well financially. This is because a farm's size and quantity of cattle have a favorable effect on income and productivity when everything else is equal. Therefore, the commercialization and adoption of innovation were significantly hampered by the unavailability of large tracts of land for women farmers in Abia State (Odoemelam, Osahon, & Nwokocha, 2014). But when comparing farm sizes within nations, Douglas (2018) emphasized that the idea that farm size and production in developing nations are inversely correlated has long been supported by literature.

#### 4.2 Types of the farmers/pastoralists' conflicts

More than three-quarters of all respondents in the research area said that the nature of the disagreements is assault with the use of weapons, according to data in Table 3. This implies that the encounters are usually violent since weapons are employed. This result is due to the fact that these rural producer groups have access to local weaponry, such as farm equipment and sticks,

which they use to control their livestock, making them more likely to use weapons during confrontations. These results are in line with recent studies (Abubakar, 2012; Idoma,

Abdulrashid, and Abdullahi, 2018) that found advanced weapons were used in violent clashes between Nigerian farmers and pastoralists.

Table 3: Types of Conflicts between Farmers and Pastoralists

Types of Conflicts	Frequency of Farmers		Frequency of Pastoralists	
	Frequency	%	Frequency	%
Verbal Assault	30	12	14	19
Attack involving the use arms	205	81	51	68
Riot	10	4	6	8
Protest	7	3	4	5
Total	252	100	75	100

Source: Fieldwork, 2024.

#### 4.5. Pastoralists and Farmers perception of the reasons behind conflicts between farmers and pastoralists.

According to data collected from respondents regarding their perceptions of the reasons behind conflicts between farmers and pastoralists in Benue State, farmers ranked the destruction of crops by cattle as the main cause of conflicts in Benue State, while pastoralists ranked the land tenure system as the main cause of conflicts ( $\bar{x}=2.42$  R3). According to Blench (2010), the primary causes of conflict between sedentary farmers and nomadic cattle herders in Nigeria are

unlawful farm invasions and livestock devastation of crops, particularly during the planting season and immediately following harvest. This work supports that claim. Similar to this, Abubakar (2012) confirmed that the ownership of land or the land tenure system was also thought to be a contributing factor to disputes between farmers and pastoralists. He further emphasized that pastoralists are considered the landless population, who do not own land to utilize and reside on, whereas farmers are considered the landowners and hence control how the land is used in the majority of Nigerian societies.

Table 4: Farmers and Pastoralists Perceptions of the Causes of the Conflicts in Benue State

S/N	CAUSES OF CONFLICTS	Farmers				Pastoralists				Total	
		% of A	% of D	$\bar{x}$	R	% of A	% of D	$\bar{x}$	R	F	P
1	Blockage of grazing routes	60	40	2.80	6	58	42	2.30	6	245	82
2	Cattle destroying crops	92	8	3.31	1	45	53	2.53	2	245	82
3	Drinking water contamination	55	45	2.88	5	51	49	2.36	5	245	82
4	Inadequate access to pasture	63	37	2.56	8	65	35	2.14	8	245	82
5	Inadequate access to potable water	54	47	2.67	7	54	46	2.42	3	245	82
6	Law enforcement officials' carelessness	81	19	3.21	4	57	43	2.18	7	245	82

7	Depletion of Pasture	87	13	3.24	3	54	46	2.40	4	245	82
8	Land tenure system	85	15	3.25	2	44	56	2.58	1	245	82

Source: Fieldwork, 2024

Note: A=Agreed, D=Disagreed,  $\bar{x}$  = Mean, R= Ranking, F=Farmers and P=Pastoralists ( $\bar{x} \geq 2.5$ )

#### 4.6 Conflicts' Impact on the Livelihoods of Farmers and Pastoralists

According to the findings in Table 5, the primary effect of conflict on the livelihood activities of farmers and pastoralists in Benue State is a

change in those activities (Mean Relative Importance Index = 0.83, R1). Then comes insecurity (Mean RII = 0.80, R2), followed by a rise in crop loss and animal death (Mean RII = 0.77, R3).

**Table 5: Farmers and Pastoralists' Perception of the Impacts of Conflicts on their Livelihood Activities**

Impacts	Farmers	Pastoralists	Over all	
	RII	RII	Mean RII	Rank
Loss of lives and properties	0.91	0.58	0.75	5
Destruction of Farms	0.94	0.49	0.72	9
Shift in livelihood activities	0.97	0.69	0.83	1
Reduction in both animal and crop productivity	0.82	0.66	0.74	6
Forced migration	0.80	0.65	0.73	7
Increase in the cost of living	0.88	0.63	0.76	4
Increase in animal mortality and crop loss	0.91	0.62	0.77	3
Reduction in income	0.84	0.61	0.73	7
Insecurity	0.91	0.68	0.80	2

Source: Fieldwork, 2024.

#### 5.0 CONCLUSION AND RECOMMENDATIONS

One of the main issues affecting Nigeria's peace and security is the conflict between farmers and pastoralists. Food crises and insecurity have been made worse by this, especially in rural areas where the majority of these disputes are localized and have far-reaching effects. The study's findings demonstrated how conflict affects the primary occupations of crop farmers and pastoralists as well as additional sources of income that depend on their peaceful coexistence. The majority of participants and responders in the focus group discussions (FGDs) across all LGAs, along with Key

Informants, believed that the rainfall pattern had become more unpredictable, with shorter rainy days leading to agricultural drought and more intense windstorms causing flooding.

The results indicated that the obstruction of grazing paths, cattle damage to crops, drinking water contamination, lack of pasture access, pasture depletion, and land tenure system are among the respondents' perceived reasons of conflicts that have been scientifically established. They are aware of the potential consequences of conflicts on farmers and pastoralists, including farm destruction, changes in livelihoods, decreased productivity of both crops and animals, forced migration, rising



living expenses, increased crop loss and animal mortality, and decreased income. This is because they have had years of experience with their immediate surroundings, which has allowed them to quickly identify some environmental changes.

## 5.1 RECOMMENDATIONS

The study made the following recommendations in light of its findings.

- i. The main causes of conflicts, which impact both farmers and pastoralists, are crop destruction and limited access to pasture and water. Therefore, governments at all levels should figure out ways to encourage ranching in order to stop crop destruction and avoid these ongoing disputes between these two groups. To avoid either party's indiscriminate intrusion and subsequent conflicts, there should be a clear demarcation of operations and operating environments for both sides.
- ii. Improving climate information forecasting and dissemination: It will be crucial to raise farmers' and pastoralists' awareness of potential climate-induced hazards as well as the proper mechanisms to mitigate such risks, since adaptive capacity is influenced in part by knowledge (including local knowledge) and awareness of climate change threats. Organizing awareness meetings, mainstreaming climate change themes into other trainings, and running local awareness campaigns could all help achieve this. Reducing climatic threats that lead to disputes can also be achieved by giving accurate weather forecasts and information to potential consumers.
- iii. The difficulties in accessing and using land caused by the dominant method of obtaining land for their economic activities made land tenure favorably significant. To prevent needless competition between various stakeholders, the land tenure structure should be loosened to make it simpler for farmers to acquire land and grow their farms by producing more food crops.
- iv. Regular town hall seminars and media jingles (in local languages, among others) are

ways that the government at all levels of government in the local, state, and federal sensitizes stakeholders, including farmers and pastoralists, to the need for peaceful coexistence. This would lessen the likelihood of opportunistic violence and unnecessary provocation.

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