

The Effect of Internal Displacement and Variation in Crop Production in Barkin Ladi Local Government Area of Plateau State

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Abstract

The study examined internal displacement and variation in crop production in Barkin Ladi Local Government Area of Plateau State. The method of random sampling technique was used to select two wards from each of the five districts in the area and a purposive sampling was used to select 160 representative farmers in the sampled area which were administered questionnaires. Data were collected and analyzed descriptively using tables, charts and Chi-square test. The study revealed that there is a significant difference in the quantity of crop production before and after displacement. Result indicated a level of decrease in quantity of crop production, which as a result of the number of hour's farmers now spent on their farms, and also inadequate labour supply that is less than what was before the displacement. It shows that there's a significant difference in the type of crops produce before and after displacement and the reason is mainly for security. The study concluded by highlighting the urgency of the need for the various stakeholders to act in curbing the menace if the goals of food security were to be achieved. Recommendations were made on the responsibility of government at the federal, state and local levels as well as private and traditional institutions which is to establish all-inclusive processes of dialoging with worrying parties.

Keywords: internal, displacement, crop, production

1.Introduction

Internal displacement has become the norm in far too many countries, often in places with some of the lowest development indicators and the highest levels of violence. In many places it is fuelled and perpetuated by unresolved inter-ethnic, religious or political tensions. Displacement affects food security, also provides fertile ground for human rights abuses including torture, rape, killings, as well as forced evictions and loss of heritage.

Internal displacement is a common consequence of Nigerian inter-communal and political violence, flooding and forced evictions (Internal Displacement Monitoring Center -IDMC, 2013). In other words, internal displacement of persons could be triggered by natural disasters or human-induced conflict which leads to violent clashes. Irrespective of the cause of the displacement, the phenomenon always leaves negative socioeconomic footprints on millions of people worldwide. A serious source of concern however lies with internal displacement of persons arising from human-induced violent clashes and conflicts in recent times. Internally displaced persons (IDPs) arising from violent clashes are victims of various kind of injustices or violence confrontations, perpetrated against them by their own government or agents of communal clashes, riots, terrorism, natural disasters, religious conflicts, among others (Hamzat, 2013).

The Internal Displacement Monitoring Center (IDMC) accounted that in 1982, only 1.2 million people were IDPs in 11 countries; however, by 1995, there were 20 to 25 million in more than 40 countries, almost twice as many as refugees. At the end of 2008, there were 26 million people worldwide who had been internally displaced by conflict, general violence or violations of human rights. This figure rose to 27.1 million at the end of 2009 and 27.5 million at the end of 2010 (IDMC, 2013). The estimated figure at the end of 2012 was 28.8 million indicating that additional 6.5 million people were newly displaced, nearly twice as many as the 3.5 million during 2011 (IDMC, 2013). IDPs suffer emotional problems which are characterized by memory of fearful events and nightmare (Durosaro and Ajiboye, 2011), loss of livelihoods, frustrations, abuses, threats of assaults etc. (Mazo, 2011). The misery of displaced persons has in recent years become a formidable problem of global significance and implications (Ladan, 2001). The causal factors of internally displacement of persons in Nigeria has been linked to many unfortunate developments over unfounded arguments on religious beliefs, under-development, poverty, unequal distribution of wealth, ethnic tensions, unemployment, political and economic subjugation of minorities, absence of democratic procedures, intolerance, and many other factors.

Nigeria is a country with great potential to increase their agricultural production. However, it has recently experienced severe episodes of internal conflict, which have negatively influenced agricultural productivity and investment. Conflict can adversely affect agriculture in several ways. For example, conflict can disrupt the supply and distribution of inputs and outputs create price shocks and cause massive displacement of

labor. These compounding challenges make agricultural investments difficult to maintain in politically volatile environments.

In recent times, Barkin Ladi LGA has been plunged into series of communal clashes springing flashes of armed attacks and silent killings at different locations within the area. Suffice not to say the LGA is largely a rural settlement, whose occupation is mainly Agriculture, where houses exist in isolation provides a fertile ground for these systematic attacks to thrive. Insecurity has impeded the basic right of freedom of movement of people within the area. Unsuspecting villagers are attacked on their way to farm, isolated houses are besieged and burn to ashes living the people homeless.

The present study is to examine internal displacement and variation in crop production in Barkin Ladi Local Government Area of Plateau State. The following hypotheses will be tested:

Hypothesis One

H₀: There is no significant difference in the quantity of food production before and after displacement.

H₁: There is a significant difference in the quantity of food production before and after displacement.

Hypothesis Two

H₀: There is no significant difference in the type of crops produced before and after displacement

H₁: There is a significant difference in the type of crops produced before and after displacement

2. The Study Area Method of Study

2.1 The study area

Barkin Ladi Local Government Area of Plateau State was created in 1976 by the Gen. Murtala Mohammed regime. It has five districts for administrative convenience and a landmass of about 41sqkm. The area is located in the Northern senatorial zone of the state with coordinates: 9°34'0"N 8°55'0"E/ 09.567°N 8.917°E. Barkin Ladi has a population of 179605 (NPC 2006).

Barkin Ladi is a miniature Local Government with people from various parts of the country including foreign nationals. This is because it is one of the most mined areas during the reign of Tin mining on the Plateau. Part of the land has already been highly devastated by mining activities while its soil has been eroded consequently making farm lands a dire asset.

The soils are characterized by low nitrogen, phosphorus deficiency and low calcium. Exchangeable potassium, magnesium and micro nutrients elements (Cu, Zn and B) deficiencies do occur but are not general. Oluwolafe and Dung (2010) states that Entisols, Inceptisols, Alfisols are the major soils found in biotic-granite areas of the Jos Plateau.

The study area is located within the area with tropical ferruginous soils characterized by hard pans in some areas called laterites, but due to variations in micro topography and drainage, alluvial deposits of clay to silt are also present. About 45% of the areas liable to flood especially along stream channels. About 45% of the area is richly endowed with sporadic silt-loams and loamy soils that are deeply weathered, with high moisture retention capacity.

The study area experiences a tropical continental climate characterized by rainy and dry seasons. The rainy season starts from April to October, while the dry season begins in November and ends in March. Generally speaking temperatures are high with annual average of 30°c. Temperature could fall to as low as 5°c during the Harmattan period (December/January) while maximum temperature may rise to 35°c in March/April.

The area experiences the effects of both Tropical Continental Air Mass and the Tropical Maritime Air Mass. The rainfall here is characterized by Double Maxima, with a peak in July/August. The mean annual rainfall total ranges from 1130mm to 1120mm, (Udo, 1981). There is extreme concentration of rainfall in three months of July, August and September.

2.2 Method of study

The study area has five districts namely; Fan, Foron, Heipang, Ropp and Gashish. All of which were visited several times during the time of reconnaissance survey in order to; familiarize with the terrain of the area, identify villages that have been displaced, identify refugee camps, to ascertain the distances of such camps from their farmlands, to establish their occupation, to identify the sizes of farm and livestock and assess the cause of displacement and its rationale.

Field observation was necessary to observe extend of displacement, resettled areas, their predominant occupation, types of crops grown, distance from the new settlement to their farmlands. Direct field observation was carried out to confirm some responses given by respondents on the questionnaire that will be administered. Thus, discussion also took place between the respondents and the researcher to create a conducive atmosphere for correct responses.

The major instrument of data collection for this research is the questionnaire.

The chi-square technique is used because of the nature of data. The chi-square is a non-parametric statistical technique used to determine if the distribution of observed frequencies differs from the theoretical expected

frequency. It is used on nominal and ordinal scales.

The chi-square model is given by:

$$X^2 = n \sum_{i=1} \frac{(O_i - E_i)^2}{E_i}$$

Where X^2 = Chi-square
 \sum = Summation
 O_i = Observed frequency
 E_i = Expected or theoretical frequency

Administration of Questionnaires across Districts

Table 1.

	Frequency	Percent
Fan	30	19.9
Foron	31	20.5
Gashish	32	21.2
Heipang	28	18.5
Ropp	30	19.9
Total	151	100

Source: Fieldwork 2015

Table 1 shows the distribution of questionnaires across the five sampled district in the LGA. Gashish has the highest number of respondents 21.2%, closely followed by Foron with 20.5% then, Fan and Ropp with 19.9% each, the least among them is Heipang which has 18.5%.

3. Result and Discussion

Table 2. Cause of Displacement

	Frequency	Valid Percent	Cumulative Percent
Natural disaster	0	0	0
Attacks by gun men	148	98.0	98
Sitting a project in the area	3	2.0	0
Occupational transfer	0	0	0
Voluntary	0	0	0
Total	151	100	100

Source: Fieldwork 2015.

The data obtained in table 2 shows that 148 respondents were displaced as a result of deadly attacks by gunmen in the study area killing any one they find, only 3 respondents say their displacement is actually as a result of sitting a project in their area for that they needed to relocate to a convenient settlement. No respondent was displaced because of natural disaster, occupational transfer and on voluntary grounds.

In most cases, perpetrator of such attacks have used looting and destruction of property as a tool to discourage return, while in other areas there are examples of local authorities actively guarding property until the IDPs return. Unfortunately, several participants indicated that such solidarity is on the decline (Global IDP Project, 2003).

Table 3. Quantity before Displacement

Variables	Frequency	Valid Percent	Cumulative Percent
Less than 10 bags	3	2.0	2.0
10-15 bags	49	32.5	34.4
15-20 bags	53	35.1	69.5
Over 20 bags	46	30.5	100.0
Total	151	100.0	

Source: Fieldwork 2015

The data captured in table 3 show the quantity of farmer's production before the displacement. It shows that; 3 respondents harvest less than 10 bags, 49 respondents harvest 10-15 bags, 53 respondents harvest 15- 20 bags and 46 respondents harvest over 20 bags. it shows that 35.1% of farmers in the area of study harvest 15-20 bags while the least category are those less than 10 bags that make up 2% of the sample size.

Table 4. Quantity after Displacement

	Frequency	Valid Percent	Cumulative Percent
Less than 10 bags	102	68.9	68.9
10-15 bags	41	27.7	96.6
15-20 bags	3	2.0	98.6
Over 20 bags	2	1.4	100.0
Total	148	100.0	
No Response	3		
Total	151		

Source: Fieldwork 2015

The data captured in table 4 also show the quantity of farmer's production after the displacement. It shows that; 102 respondents harvest less than 10 bags, 41 respondents harvest 10-15 bags, 3 respondents harvest 15- 20 bags and 2 respondents harvest over 20 bags. It shows that 68.9% of farmers in the area of study harvest less than 10 bags after the displacement while only 1.4% harvest over 20 bags of the sample size.



Source: Author's Table 3&4 2015

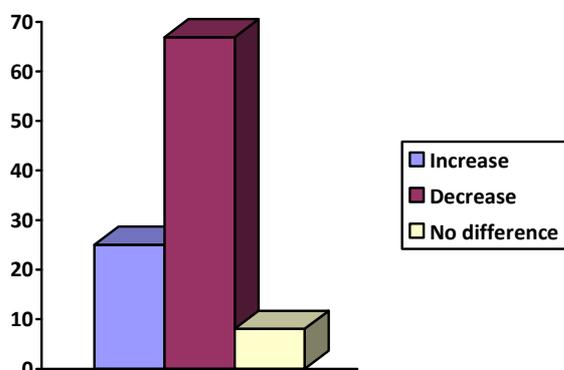
Fig 1: Linking Quantity Produced Before and After Displacement.

The graph shows the relationship of quantity harvested before and after displacement, it reveals that a greater percent of respondents harvest over 20 bags with just 2% that harvest less than 10 bags before displacement but after the displacement, 68.9% harvest less than 10 bags and 1.4% harvest over 20 bags as oppose the relationship before displacement.

Table 5. Variation in Production

	Frequency	Valid Percent	Cumulative Percent
Increase	37	25.0	25.0
Decrease	99	66.9	91.9
No difference	12	8.1	100.0
Total	148	100.0	
No Response	3		
Total	151		

Source: Fieldwork 2015



Source: Author's Table 21 2015

Fig2: Variation in Food Production.

Table 5 shows the number of farmers that agrees that there is a change in what they produce before and after the displacement. 37 respondents say there is an increase in the quantity they produced after the

displacement, 99 indicated a decrease in their production, 12 respondents say there's no difference want so ever in their production after the displacement while 3 respondents declined the question. The finding has revealed that there is a change in the quantity of food produced as number of farmers that harvest over 10 bags hitherto was 98% but has dropped to 30.5% and on the other hand the 2% of farmers that harvest less than 10 bags before the displacement has risen to overwhelming 68.9%. Suggesting that majority of farmers in the area no longer harvest what they normally do before the displacement. The average yield is low when compared to the world average of 4.3 tonnes/ha (Food and Agriculture Organization 2009). This was further established when 66.9% farmers reaffirmed that there is decrease in their production capacity. There is growing concern among economists and practitioners that economic conditions prevailing in farmer's lives presently may have a persistent effect on their health and socioeconomic outcomes in life generally (Strauss and Thomas, 1998; Verwimp et al, 2010).

Table 6. Reason for the Variation

	Frequency	Valid Percent	Cumulative Percent
Low fertilizer input	5	3.4	3.4
Inadequate labour supply	26	17.8	21.2
Climate change	9	6.2	27.4
Infestation of pest and disease	2	1.4	28.8
Hours spent on the farm	103	70.5	99.3
Others	1	.7	100.0
Total	146	100.0	
No Response	5		
Total	151		

Source: Fieldwork 2015

Table 6 shows the causes of the changes in food production in the study area; 5 respondents said low fertilizer input is responsible for their poor harvest, 26 respondent said it is inadequate labour supply that caused the poor harvest, some 9 respondents said climate change is the cause of poor harvest, 2 respondents agreed on infestation of pest and disease, 103 said is the number of hours they spent on the farm that is responsible for the poor yield, 1 person said is one other factor beside the one's mention that is responsible, 5 respondents declined to answer the question. The table therefore suggests that an overwhelming 70% agreed that poor yield in the area is caused by the number of hours spent on the farm by farmers and that infestation of pest and disease is the least cause of poor harvest in the study area.

Hypothesis One

H₀: There is no significant difference in the quantity of food production before and after displacement.

H₁: There is a significant difference in the quantity of food production before and after displacement.

Table 7: Chi-square for food production before and after displacement

	Observed N	Expected N	Chi-square (x ²)	df	p-value
Increase	37	49.3			
Decrease	99	49.3	81.338	2	0.0005
No difference	12	49.3			
Total	148				

Source: Fieldwork 2015

The result revealed that there is a significant difference in food production before the displacement and after the displacement, $x^2 = 81.338$, $df = 2$, $p = 0.0005$. Since the calculated value is greater than the table value at alpha levels 0.01 and 0.05, we therefore accept the null hypothesis. Thus there is a significant difference in the quantity of food production in the study area before and after the displacement.

Hypothesis Two

H₀: There is no significant difference in the type of crops produced before and after displacement

H₁: There is a significant difference in the type of crops produced before and after displacement

Table 8: Chi-square for difference in types of crops produced before and after the displacement

Difference in crop produced before & after	Observed N	Expected N	Chi-square (x ²)	p-value
Yes	115	72.5		
No	30	72.5	49.828	
Total	145			

Results show that there is a significant difference in the type of crops produced before and after the displacement $x^2 = 49.858$, $df = 1$, $p = 0.0005$ ($p < .05$); with the greater number of respondents indicating a difference in crop produced after displacement. The null hypothesis is rejected and the alternate accepted.

4. Conclusion

The study has shown that the causes of displacement in the area are attacks by gunmen sending hundreds to their early graves, many fatally injured and thousands rendered homeless. And that many don't have access to their farms and so have resorted to other options like changing from one crop type to the other also that farmers have relocated to camps and to towns. Agriculture provides a primary means of employment for Nigerians and account for about 60% of the country's Gross Domestic Product (GDP). In an economy that seeks to diversify every sector and with high rate of youth unemployment, there's an urgent need to arrest the situation before it gets out of hand. For this reason the prospects of providing an enabling ground for sustainable growth and development requires and immediate attention.

5. Recommendation

1. The government should at all levels, develop clear return and resettlement strategies that are in line with international guiding principles.
2. There is need for viable NGOs on farmer-herdsmen conflict management, especially in the areas of awareness, education, prevention, and amelioration. Furthermore, nongovernmental organizations should support livestock-centered livelihoods including cattle herding, not only in conflict mitigation but also in the support of grassroots innovations and in influencing favourable national policies.
3. A multi-stage conflict management framework is required to curb the danger posed by farmer-herdsmen conflict. The proposed framework should be statutory committees at community, local, state, and federal government levels. It should also include the relevant occupational unions.
4. Traditional and local leaders should be well involved in finding solutions to farmer herdsman conflict. The committees proposed above must have representatives of the local leadership. Change existing traditional land practices through the enforcement of the Constitutional provision on ownership of property, to increase land ownership by women and female participation in the sector as well as engender greater commitment to farming.
5. Education among the two parties should be realistically encouraged. This would not only lead to better perception but also create better opportunity for awareness of realistic coping strategies.
6. The processes of reconciliation should be consolidated by ensuring that perpetrators of the violence are identified, including members of the security forces, and brought to justice.
7. The government should seek technical support and training for improved emergency preparedness and response to conflict- induced displacement at both national and state level.

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