



## **ANALYSIS OF EFFECTS OF INSURGENCY ON COWPEA PRODUCTION IN POTISKUM LOCAL GOVERNMENT AREA OF YOBE STATE, NIGERIA**

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### **ABSTRACT**

This study analysed the effects of insurgency on cowpea production in Potiskum local government area of Yobe State, Nigeria. A sample of 120 cowpea farmers were randomly interviewed using structured questionnaire. Data were analyzed using descriptive and inferential statistics. The results show that 35% of the respondents fell within the age bracket of 28-33 years; males constituted 55% and 42% had primary education. The findings further showed that 77.50% of the farmers perceived the effect of insurgency on their livelihood. Majority 70.80% of the respondent perceived increase in poverty and job loses. The result shows that majority (52.5%) of the respondents affected by the conflicts, children (21.7%), women (13.3%) and adult men (8.3%), lost their houses (32.50%), lost their livestock (29.20%), and 16.70% and 13.30% lost their crops and sustained body injury, respectively. Majority (67.50%) of the respondents proffered all the methods in resolving the insurgency, military action (16.70%), negotiation (6.70%), 5.0% and 4.20% suggested state of emergency and amnesty, respectively. Furthermore, regression analysis reveals that 74% variation of the effects of the insurgency on cowpea output was accounted by the independent variables in the model. However, educational level, sex and income were significant at  $p < 0.001$ , while household size, farm size and distance from farm to homestead were significant at  $p < 0.05$ . Chi-square analysis reveals that the variables included in the model such as sex, educational level, age, income and distance from farmlands to homestead were significant at  $p < 0.05$ , with the exception of farm size, marital status and farming experience. The study concluded that insurgency do exist in the study area and the effects include loss of lives, crops, and destruction of infrastructures, such as schools, telecommunication mast, mosques, churches, markets and houses. The study recommended that education and employment opportunities be provided to the youths in the study area.

**Keywords:** Analysis, Effect, Cowpea, Insurgency, Production.

### **INTRODUCTION**

Cowpea (*Vigna unguiculata*) originated from Africa South of the Sahara. There are two likely places of origination which are East and West Africa. They have quite a number of species, but the important ones are three: *Vigna unguiculata*, *Vigna sesquipedalis* and *Vigna catjan*. The term cowpea is a common name for *Vigna unguiculata*, an annual crop of the pea family (Leguminosea), which is mainly planted for its edible beans, which are taking both dry and in the green pods by both humans and animals (livestock). Cowpea is widely grown as subsistence crop for home and for exports, usually in many African countries South of Sahara. They are also grown extensively in Latin America and South East Asia. The major producing countries are: Nigeria, India and Tanzania (Anyanwu, 2001).

Bujra (2002) states that, conflict is a violent armed confrontation and struggle between groups, between the State and one or more groups, and between two or more States. In such confrontation and struggle some of those involved are injured, killed or rendered homeless.



Such conflict can be short lived or can last for a decade. Conflict is also having a significant effect on economy because some sectors of activity flourish, while others suffer. For understanding structural problems in developing countries and designing appropriate post-conflict reconstruction policies, it is essential to understand in what ways conflict affects the structure of the economy. Conflict reduces the share of the manufacturing sector in the Gross Domestic Product (GDP), increases the exploitation of some simple natural resources and reduces the production of crops. Conflict affects the manufacturing sector; industries that are more institutional intensive are the ones that suffer most in conflictive societies. Labour intensive sectors are also negatively affected by conflict. It is also found that exporting industries and sectors requiring external financing suffer more during conflict (Ernesto and Pedro, 2011).

Potiskum Local Government Area (LGA) was one of the peaceful local governments in Nigeria, where various ethnic groups have been living together without any fear or conflict. Potiskum was known to be a commercial centre of cowpea production and processing in North Eastern Nigeria, but as a result of insurgency, most of the commercial and agricultural activities were significantly crippled, especially the production and processing of cowpea.

Cowpea is the most important food grain legume which serves as a very cheap source of protein. Potiskum grain market was estimated in 2008 to have sold 500 bags of grain on market days. The market is one of the largest grain markets in North Eastern Nigeria ((Yobe State Diary, 2011). However, insurgencies may affect its production, processing as well as its marketing pattern. The study objectives were to; describe the socio-economic characteristics of cowpea farmers in the study area; determine the influences of socio-economic factors on cowpea farmers output; examine the perceived effect of conflict on the livelihood of cowpea farmers; and ascertain the losses due to effect of conflicts on cowpea farmers.

## **MATERIALS AND METHODS**

A multi-stage sampling technique was used for the study. In the first stage, Potiskum (LGA) was purposively selected because it was one of the LGA affected by insurgency. In the second stage; five wards were randomly selected out of the 10 wards, by the use of flip papers with the names of each ward written and folded on the paper and put into container and thoroughly mixed. Therefore, five wards were picked without biased. Finally, a total of 120 cowpea farmers were randomly selected based on proportionate allocation techniques. The research used primary and secondary data which were collected from 120 cowpea farmers by the use of structured questionnaires. The questionnaires were divided into four sections, the first section asked questions on socio-economic characteristics of cowpea farmers, the second section was on cowpea farmers' perceptions on output, and the third section was on the perceived effects of conflicts on their livelihood, while the fourth section was on suggestions of possible solutions on the perceived effects of conflicts. The data collected were analysed using descriptive. Descriptive statistics (frequency, percentage and tables) and inferential statistics (regression, Chi-square) were used in analysing objective of the study.

## **RESULTS AND DISCUSSION**

### **Socio-economic characteristics of the respondents**

The results in Table 1 shows that, most 80.80% of the respondents fell within the age bracket of 18-33 years, while 19.20% were above 34 years. The result implies that most of the respondents were in their active age and are expected to be energetic. This result is closely similar with that of Pur *et al.* (2006) who related that, majority of the respondents interviewed were between the ages of 35 and below. The results also reveal that males constituted the



highest percentage (55.00%) than their female counterparts (45.00%). According to Sulaiman and Ja'afar-Furo (2010), 79.00% of the farmers interviewed in Bauchi state were males. The result further revealed that majority 65.00% of the respondents were married, 45.00% were single. It was earlier observed that early marriage is common in this part of the country (Peter, 2002). About 93% of the respondents had attended formal education at different levels, 4.20% never been to school and 3.30% non-formal education. This result is consistent with Pur *et al.* (2006) where 97.00% of the respondents were literate.

**Table 1:** Distribution of Respondents according to Socio-economic Characteristics

Parameters	Frequency	Percentage
<b>Age (years)</b>		
18-23	25	20.80
24-27	30	25.00
28-33	42	35.00
34- years above	23	19.20
<b>Sex:</b>		
Male	66	55.00
Female	54	45.00
<b>Marital status</b>		
Married	65	54.20
Single	55	45.80
<b>Level of Education</b>		
Never been to school	5	4.20
Non formal	4	3.30
Primary education	13	10.80
Secondary education	51	42.50
Tertiary education	47	39.20
<b>Farm size: (ha)</b>		
0.5 – 1	35	29.20
1.5 – 2	28	23.30
2.5 – 3	25	20.80
3.5 – 4	18	15.00
4.5 – 5	14	11.70
<b>Total</b>	<b>120</b>	<b>100.00</b>

Source: Field Survey Data, 2013

The result in Table 1 further reveals that most 88.3% of the respondents had 0.5-4.0 hectares and only 11.70% of the respondents cultivated 4.5 - 5 hectares of farmland. This showed that, majority of the farmers are small scale farmers. This is in line with Okunade (2007) who revealed that majority of the farmers in Osun State had farm size between 1 and 5 hectares.

#### **Effects of insurgency in the Study Area**

Table 2 showed that 77.50% of respondent's exposure to conflicts occurrence, 22.50% of the respondents had no exposure to conflicts. This implied that, majority of the respondents had a bad experience of conflicts by either hearing bomb blast or gun shots. Olabode and Ajibade (2011) stated that, conflict in Nigeria arises from religious, ethnic and political differences or combination of all.



**Table 2:** Distribution of Respondents according to Exposure to Insurgency

Exposure to Insurgency	Frequency	Percentage
Yes	93	77.50
No	27	22.50
<b>Total</b>	<b>120</b>	<b>100.00</b>

Source: Field Survey Data, 2013.

### **Perceived nature of the effects of conflicts on livelihood**

Table 3 showed that majority 37.50% of the respondent perceived increase in poverty, 33.30% of the respondents lost their jobs while 16.70% and 12.50% of the respondents had fear of uncertainties as well as food insecurity respectively. Conflict affects the manufacturing sector; industries that are more institutional intensive are the ones that suffer most in conflictive societies. Labour intensive sectors are also negatively affected by conflict. It is also found that exporting industries and sectors requiring external financing suffer more during conflict (Ernesto and Pedro, 2011).

**Table 3:** Distribution of Respondents according to Perceived Nature of the Effects of Conflicts

Effects	Frequency	Percentage
Increase in poverty	45	37.50
Loss of job	40	33.30
Food insecurity	15	12.50
Fear and uncertainties	20	16.70
<b>Total</b>	<b>120</b>	<b>100.00</b>

Source: Field Survey Data, 2013.

### **Category of people affected by conflicts**

Table 4 showed that the youth formed the majority 52.5% of the respondents affected by the conflicts, then children 21.7%, women 13.3% and adult men 8.3%, while old aged accounted for 4.7% of the respondents. This might be connected to the fact that, the insurgents were recruiting youth to become part of their army; they also used children as child-soldiers and suicide bombers, they used women as cooks and sex slaves. Table 8 showed that 32.50% of the respondents lost their houses, 29.20% lost their livestock, and 16.70% and 13.30% lost their crops and sustained body injury respectively, while only 8.30% of the respondents reported loss of lives. The table revealed that majority of the respondents suffered various kind of loss as a result of conflicts. This is in conformity with (Nnenna, 2013) that half of the shops and stalls in the markets were said to have been abandoned by traders who have fled the cities. Many houses were burnt down, Banks and their customers are also said to be operating under difficult situation and have reduced their business hours to guard against being attacked by members of the sect.



**Table 4:** Distribution of Respondents according to Category of People affected by Conflicts

Category	Frequency	Percentage
Women	16	13.30
Children	26	21.70
Youth	63	52.50
Adult men	10	8.30
Old age	05	4.70
<b>Total</b>	<b>120</b>	<b>100.00</b>

Source: Field Survey Data, 2013.

#### **Perceived effects of the conflicts on livelihood**

Table 5 categorized respondents' perception based on whether there was an effect of conflicts on their livelihood or not. The results showed that majority 77.50% of the respondents reported that the conflicts had effect on their livelihood while 22.50% reported that conflicts had no effect on their livelihood. This implied that, majority of the respondents day to day activities were negatively affected by conflicts.

**Table 5:** Distribution of Respondents according to their Perceived Effects of Conflicts on their Livelihood

Effects	Frequency	Percentage
Yes	93	77.50
No	27	22.50
<b>Total</b>	<b>120</b>	<b>100.00</b>

Source: Field Survey Data, 2013.

#### **Influence of Socio-economic characteristics on cowpea farmers' output**

Table 6 showed the regression analysis which revealed an  $R^2$  value of 0.74. This implies that, 74.00% variation on output is as a result of independent variables included in the model and it was confirmed by F- statistic (22.251) and significant at  $p < 0.001$ . However, sex, educational level and income of the farmers were significant at  $p < 0.001$ . Furthermore, household size, farm size and distance from farm to homestead significantly  $p < 0.05$  influence output. The implication is that, any increase in those independent variables will increase output. On the other hand, the coefficient of age of the farmers was negative and significant  $p < 0.05$ , implying that, the age of the farmer has an inverse effect on output. As the age of the farmer increases the output decreases.

#### **Perceived effects of conflict on selected socio-economic characteristics**

The study in Table 7 revealed that, there was significant ( $p < 0.05$ ) relationship between perceived effects of conflicts and some selected socio-economic variables of the respondents (sex, marital status, educational level, income and distance from homestead). This indicated that, the null hypothesis is rejected in favour of the alternative. This implies that, the socio-economic variables of the respondents had influence on farmers' perceived effects of conflicts. This is probably because socio-economic variables play a vital role in a farmer's life. Furthermore, the result shows that there was a significant ( $\chi^2 = 56.246$ ,  $p < 0.05$ ) relationship between farmer's perceived effects of conflicts and sex. Men are believed to be affected by conflicts than women. The relationship between farmer's perceived effects of conflicts and age of the respondents was significant ( $\chi^2 = 77.658$ ,  $p < 0.05$ ). The Chi-square





analysis result further revealed that there was significant ( $\chi^2 = 97.155$ ,  $p < 0.05$ ) relationship between farmer's perceived effects of conflict and educational levels. This means that farmers with higher educational level were prone to insurgents' attacks than illiterate farmers.

**Table 6:** Influence of Socio-economic Characteristics on Output of Cowpea Farmers

Variables	Coefficients	Std. Error	t-value
Constant	4.116	0.426	9.671***
Sex (X <sub>1</sub> )	0.365	0.107	3.400***
Years of education (X <sub>2</sub> )	0.035	0.011	3.263***
Age (X <sub>3</sub> )	0.210	0.485	-2.314**
House hold size (X <sub>4</sub> )	0.047	0.017	2.767**
Farming experience (X <sub>5</sub> )	0.020	0.025	0.793 <sup>NS</sup>
Income (X <sub>6</sub> )	0.039	0.010	3.990***
Farm size (X <sub>7</sub> )	0.216	0.091	2.378**
Marital status (X <sub>8</sub> )	0.027	0.044	0.621 <sup>NS</sup>
Distance from homestead (X <sub>9</sub> )	0.026	0.013	2.062**
R <sup>2</sup>	0.74		
F- statistic	22.251***		

\*\*\*significant at  $p < 0.001$ ; \*\*significant at  $p < 0.01$  and NS= Not significant.

Source: Field Survey Data, 2013.

**Table 7:** Relationship between Perceived Effects of Conflict on the Livelihood of Cowpea Farmers and Selected Socio-economic Variables

Variables	Chi-value	P Value	DF	Decision
Sex	56.246	0.030	19	S
Education level	97.155	0.011	76	S
Age	77.658	0.025	57	S
Farm size	1.374	0.721	95	NS
Income	85.807	0.026	39	S
Marital status	4.534	0.955	38	NS
Distance to homestead	91.503	0.014	95	S
Farming experience	1.346	0.775	98	NS

NS – Not Significant S – Significant level 0.5%

Source: Field Survey Data, 2013.

### Losses incurred as a result of conflicts

Table 8 showed that 32.50% of the respondents lost their houses, 29.20% lost their livestock, and 16.70% and 13.30% lost their crops and sustained body injury, respectively, while only 8.30% of the respondents reported loss of lives. The table revealed that majority of the respondents suffered various kind of loss as a result of conflicts. This is in conformity with (Nnenna, 2013) that half of the shops and stalls in the markets were said to have been abandoned by traders who have fled the cities. Many houses were burnt down, Banks and their customers are also said to be operating under difficult situation and have reduced their business hours to guard against being attacked by members of the sect.

### Respondents according to possible solutions on insurgency

Table 9 showed that majority 67.50% of the respondents suggested all the methods, 16.70% suggested military action, 6.70% negotiation, 5.0% and 4.20% of the respondents suggested state of emergency and amnesty, respectively.



**Table 8:** Distribution of Respondents due to Losses Incurred as a Result of Conflicts

Loss incurred	Frequency	Percentage
Loss of lives	10	8.30
Loss of livestock	35	29.20
Loss of crops	20	16.70
Destruction of houses	39	32.50
Body injury	16	13.30
<b>Total</b>	<b>120</b>	<b>100.00</b>

Source: Field Survey Data, 2013.

**Table 9:** Distributions of Respondents according to Possible Solutions on Insurgency

Solutions	Frequency	Percentage
Negotiation	8	6.70
Amnesty	5	4.20
Military action	20	16.70
State of emergency	6	5.00
All of the above	81	67.50
<b>Total</b>	<b>120</b>	<b>100.00</b>

Source: Field Survey Data, 2013

## CONCLUSION AND RECOMMENDATIONS

The study concluded that insurgency do exist in the study area and the effects include loss of lives, crops, and destruction of infrastructures, such as schools, telecommunication mast, mosques, churches, markets and houses. Also, men were believed to be affected by conflicts than women. The study further concludes that farmer's perceived effects of conflicts and age of the respondents was significant ( $\chi^2 = 77.658$ ,  $p < 0.05$ ). The study recommended that education and employment opportunities be provided to the youths in the study area. This will go a long way in creating awareness of occurrence and prevention of insurgency in the study area.

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