

**INCOME DIVERSIFICATIONS AMONG SMALL-SCALE FARMERS IN BOKI LOCAL GOVERNMENT AREA, CROSS RIVER STATE, NIGERIA.**

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**ABSTRACT**

The main purpose of this study was to assess income diversifications among small scale farmers in Boki Local Government Area, Cross River State, Nigeria. Specifically, the study identified the socio-economic characteristics of respondents in the study area, identified various sources of income diversification, ascertained extent of income diversification, identified benefits of income diversifications and the various off-farm sources of income among small scale farmers in the study area. Sample size comprised, 100 small scale farmers drawn from the study population and were administered with well structured questionnaires, to elicit data for the study. Data obtained were analyzed using descriptive statistics such as frequency counts, percentages and mean scores. The results of the analysis of socio-economic characteristics of the respondents showed that majority (53.30%) of the respondents were males. The respondents were aged between 20-40 years (41.33%). They cultivated less than one hectare of land and had primary school education (92.67% and 28.00%) respectively. Majority of the respondents had 6-10 years of farming experience (47.33%) and earned about N40,000-60,000 per annum (34.33%). On source of income of respondents, the results revealed that majority (93.33%) derived income through sales of crops produced, involvement in co-operative societies, associations and club contributions (OSUSU) (91.33%), involvement in civil service programmes/activities like teaching (80.00%) and trading business (72.67%). The study also showed the extent of diversifications such as; sales of crops produced ( $\bar{X} = 2.87$ , 1<sup>st</sup>), involvement in civil services ( $\bar{X} = 2.99$ , 2<sup>nd</sup>) and rearing of various classes of livestock-goats, poultry and pig ranked ( $\bar{X} = 2.94$  3<sup>rd</sup>), while serving as middlemen to other farmers, obtaining loans/grants from banks and private money lenders, and donations by family/friends were outrightly rejected and were not preferred by small scale farmers as sources of income diversifications. The respondents derived benefits from generating funds to solve problems, payment for social infrastructural amenities, bills and financial/food security. Results on the various sources of off-farm income revealed that making of egg-roll, meat pie and fish pie ranked 1<sup>st</sup> (44.00%) followed by making of cake (26.67%), public transport (26.00%) selling of food and newspapers (vendors

(17.33%) and designing of hats and fabrics (7.33%) and were highly preferred as an off-farm source of income diversification among small scale farmers in the study area. The study therefore recommended that human capital development (capacity building) through investment in qualitative education, vocational training, skill acquisitions and empowerment programmes should be strengthened by government at all levels of governance, most especially at the grassroot levels to enhance income diversification among the farmers.

**Key words:** Income, diversification, small-scale, farmers and Boki.

**INTRODUCTION**

The number of poor people in Nigeria and in many developing countries across the globe has continued to be on the increase within the past two or three decades. This problem is attributed to the economic, socio-political and religious instability experienced in these countries. (Ersado, 2003). This situation is further aggravated by the declining and irregular income, low rate of capital accumulation and declining agricultural output due to the rapidly changing climatic conditions and subsequent isolation and marginalization of rural areas interms of social infrastructural amenities where about 75% of the agricultural labour workforce resides. (Akpabio, 2005). The desire to increase household income and insure against agricultural production risk has led rural households to increasingly diversify and source alternative income sources (Effiong, Ijioma and Effiong, 2016). The failure of current farming patterns and practices to effectively sustain farmers financially has informed the growing desire to diversify income. Poverty and underdevelopment are very characteristic of rural farming communities while farmers especially small scale farmers have continued to struggle to sustain themselves and their immediate families (Effiong *et al*, 2016). Farmers financial frustrations are even compounded by low crop yield, declining processing/storage systems and poor marketing infrastructures. Minot, (2006); Aboh and Akpabio (2008) asserted that most rural households adopts multiple income and other factors to meet up with household consumption needs. Income diversification by small scale farmers into off-farm activities has greatly assisted them during tough times by providing alternative sources of income in the event that the original source dries up, stops growing or the farm is

hit by new competitors, disasters or pests. Klisch (2002); Aboh and Akpabio (2008); Effiong *et al.* (2016) asserted that income diversification among small scale farmers in a risk management and coping strategy whereby farmers widens their scope of specialization by engaging in off-farm activities in order to cushion the effect of economic hardship and shock, changes in agricultural commodities prices, reduce poverty and income inequality as well as maintain consumption stability and standard of living of the farmer's household. The Federal Government of Nigeria (FGN) have since 1970's embarked on many agricultural intervention programmes (AIPs) aimed at improving food security and improve, income level of farmers and the living standard of people. The programmes include: the Operation Feed the Nation (OFN) in 1976, the Green Revolution Programme (GRP) in 1980, National Accelerated Food Production Programme (NAFPP) in 1976, National Directorate of Employment (NDE) in 1980 and Family Support Programme (FSP) in 1987 among many others. However, it is sad to note that these enviable and lofty programmes have over the years had very little or no impact on the lives of Nigerians due to Bureaucratic bottlenecks like bureaucratic red tapism, bribery, massive embezzlement and diversion of programmes funds for personal use. Furthermore, there is a growing consensus among researchers and experts that if the implementations of these programmes are transparent and accessible to the poor small scale farmers in Nigeria, it will enhance their income diversification and generation strategies or options hence reducing rural poverty and low standard of living of farming populations in the rural communities (Akpabio, 2005).

### RESEARCH METHODOLOGY

The study was conducted in Boki Local Government Area, Cross River State. Boki is located in the Ikom Agricultural Zone. It occupies an estimated area of 70km<sup>2</sup>, bounded on the East by the Republic of Cameroon, on the West by Ogoja Local Government Area, on the North by Obudu/Obanliku/Bekwarra Local Government Area and on the South by Etung Local Government Area of the state. Boki inhabitants are predominantly farmers in rural settlements with an estimated population of 386,000 persons (NPC, 2006) who are engaged mainly in the production of yam, cocoa, oil palm, plantain, maize, banana, bush mango, *irvingia gabonensis*, cassava, cocoyam, melon, kolanut and vegetables. Their main cultural activity is the Boki New Yam Festival Celebrated on the 18<sup>th</sup> of August annually.

The population of the study was obtained from registered small scale farmers in the department of agriculture, Boki Local Government Council. A multi-stage sampling technique was used to select

respondents. At first stage, purposive sampling technique was used to select Boki as a block from Ikom Agricultural Zone. The second stage was the purposive selection of 10 cells from the block. In the third stage, 15 respondents were randomly selected from each of the selected cells. This produced a sample size of 150 respondents used for the study. Primary data were elicited with the aid of structured questionnaire, while secondary data were obtained from relevant literatures and publications. Descriptive statistics were used to analyze data collected for the study. These included frequency, percentage, means and ranks.

### RESULTS AND DISCUSSION

Table 1, showed the socio-economic characteristics of the respondents in the study area. The table revealed that (53.33%) of the respondents were males. They were aged between 20-40 years. These results showed that farming operations in the area were performed by the youth and middle aged farmers, they are people who still possess the strength and energy to adopt agricultural innovations and technologies for better productivity. This result corroborates the assertions of Aboh *et al.* (2008) who stated that farmers between 20-40 years possess enough strength to work. Majority (47.33%) had 6-10 years farming experience, (34.67%) earned between N40,000 – N60,000 income per annum.

Results of Table 2, on sources of income diversifications among small scale farmers revealed that (93.33%) diversified income through sales of crops produced (91.33%), involvement in co-operative societies/association (91.33%) and (7.33%) through loans and grants from commercial banks. This result corroborates with the findings of (Ben, 2011) who opined that farmers rarely get financial support from banks due to astronomical increase in interest rates and lack of collateral security as well as lack of information of farmers on the availability and accessibility of the loans/grants.

Results on the extent of income diversification among small scale farmers as shown in Table 3, revealed that sales of crops produced ranked (1<sup>st</sup>,  $\bar{X}$  = 3.93), this is because farmers obtained income from sales of garri, fufu or akpu, flour, cassava/yam tubers and cassava stems cuttings etc. while involvement in cooperative societies/associations ranked (2<sup>nd</sup>,  $\bar{X}$  = 3.87) and involvement in civil services like teaching ranked (3<sup>rd</sup>,  $\bar{X}$  = 3.59).

Results on the benefits of income diversification as shown in Table 4, showed that generation of income to solve basic family problems ranked (1<sup>st</sup>,  $\bar{X}$  = 3.92), provision of alternative source of income ranked (2<sup>nd</sup>,  $\bar{X}$  = 3.77) and production of sufficient, quality and nutritious food for family

consumption ranked (3<sup>rd</sup>,  $\bar{X} = 3.73$ ). This result is in line with the submissions of (Effiong *et al.* (2016) and Joshi, (2012) who opined that income diversification is significantly related to physical, financial, economic, social, emotional and spiritual wellbeing of parents and children in the family and community/society at large.

Result on the various sources of off-farm income generating activities is shown in Table 5, the Table showed that making of egg roll, meat-pie and fish pie (44.67%), making of cake (26.67%), hair

dressing (26.00%), selling of food in restaurants (17.33%) were considered the major sources of off-farm income generating activities for livelihood diversifications, while production/sale of bottle water (0.00%), baking of bread (0.00%) provision shops (0.67%), shoe making (1.33%) and sales of plantain chips (1.33%) were considered as the minor sources of off-farm income generating activities for livelihood diversification in the study area.

**Table 1: Distribution of respondents according to their Socio-economic characteristics**

Variables	Frequency	Percentage
<b>(Gender)</b>		
Male	80	53.33
Female	70	46.67
<b>Total</b>	<b>150</b>	<b>100</b>
<b>(Age)</b>		
<20 yrs	18	12.00
20-40 yrs	62	41.33
41-60 yrs	58	38.62
61 and above	12	8.00
<b>Total</b>	<b>150</b>	<b>100</b>
<b>(Marital status)</b>		
Single	43	28.67
Married	87	58.00
Divorced	6	4.00
Widowed	14	9.33
<b>Total</b>	<b>150</b>	<b>100</b>
<b>(Farm size)</b>		
< 1 hectare	139	92.67
1-2 hectare	9	6.00
2-4 hectare	2	1.33
3-5 and above	0	0.00
<b>Total</b>	<b>150</b>	<b>100</b>
<b>(Household size)</b>		
1-5	63	42.00
6-10	76	50.67
11 and above	11	7.33
<b>Total</b>	<b>150</b>	<b>100</b>
<b>(Level of education)</b>		
No formal education	28	18.67
Primary school	42	28.00
Secondary school	69	46.00
Tertiary	11	6.91
<b>Total</b>	<b>150</b>	<b>100</b>
<b>(Farming experience)</b>		
1-5 years	50	33.33
6-10 years	71	47.33
11 and above	29	19.33
<b>Total</b>	<b>150</b>	<b>100</b>
<b>(Annual income ₦)</b>		
<10,000	4	2.67
10,001-20,000	17	11.33
20,001-40,000	46	30.67
40,001-60,000	52	34.67

60,001-80,000	15	10.00
80,001-100,000	13	8.67
>100,001	3	2.00
<b>Total</b>	<b>150</b>	<b>100</b>
<b>(Extension contact)</b>		
Yes	21	14.00
No	129	86.00
<b>Total</b>	<b>150</b>	<b>100</b>

Source: Field survey, 2017.

**Table 2: Distribution of respondents by source of income**

S/N	Variables	Frequency	Percentage (%)
1	Sales of crops produced	140	93.33
2.	Sales of livestock	70	46.67
3.	Loan/grant from banks	11	7.33
4.	Grants from private money lenders	48	32.00
5.	Donations by friends/family	15	10.00
6.	Providing manual labour for pay	63	42.00
7.	Rearing of different classes of livestock	80	53.33
8.	Giving out land on lease	27	18.00
9.	Renting out farms	100	66.67
10.	Involvement in civil services (teaching)	120	80.00
11.	Fishing/hunting	59	39.33
12.	Trading/business	109	72.67
13.	Involvement in cooperatives/associations/clubs	137	91.33
14.	Rendering community services for pay	19	12.67
15.	Serving as middle man to other farmers	41	27.33
16.	Involvement in political activities for money	36	24.00
17.	Distribution of agro-inputs (e.g fertilizer, Seeds) to farmers	93	62.00

Source: Field survey, 2017

**Table 3: Distribution of respondents by extent of income diversification**

Variables	Extent of Diversifications				Σfx	$\bar{X}$	Rmk
	(4) Very high extent	(3) High Extent	(2) Low extent	(1) Very low extent			
1. Sales of crops produced	140(560)	9(27)	1(2)	-	589	3.93	**
2. Sales of livestock	92(368)	20(60)	5(10)	3	441	2.94	**
3. Loan/grant from banks	2(8)	-	8(16)	140(140)	164	1.09	*
4. Grants from private money lenders	-	-	10(20)	140(140)	160	1.07	*
5. Donations by friends/family	31(124)	47(141)	60(120)	12(12)	397	2.65	**
6. Providing manual labour for pay	72(288)	50(150)	20(40)	8(8)	486	3.24	**
7. Rearing of different classes of livestock	91(364)	52(156)	7(14)	-	534	3.56	**
8. Giving out land on lease	62(248)	59(177)	9(18)	20(20)	463	3.09	**
9. Renting of farms	77(308)	70(210)	-	3(3)	521	3.47	**
10. Involvement in civil services (teaching)	100(400)	40(120)	8(10)	2(2)	538	3.59	**
11. Fishing/hunting	104(416)	27(81)	13(26)	6(6)	529	3.53	**
12. Trading/business	84(336)	60(180)	6(12)	-	528	3.52	**
13. Involvement in cooperatives/associations/clubs	131(524)	19(57)	-	-	581	3.87	**
14. Rendering community services for pay	17(68)	30(90)	26(52)	77(77)	287	1.91	*
15. Serving as middle man to other farmers	63(252)	59(177)	18(36)	10(10)	475	3.17	**
16. Involvement in political activities for money	20(80)	31(93)	46(92)	53(53)	318	2.12	*
17. Distribution of agro-inputs (e.g	70(280)	67(201)	10(20)	3(3)	504	3.36	**

fertilizer, Seeds) to farmers

**Source:** Field survey, 2017; N=150; decision rule =  $\bar{X} = 2.50$

\*\* High extent

\* Low extent

**Table 4: Mean distribution of benefits of income**

Variables	Extend of Diversifications				$\bar{X}$	Rmk
	(4) SA	(3) A	(2) D	(1) SD		
1. Generate enough money to solve problems	140(560)	10(30)	-	-	3.93	**
2. Produce enough food for family consumption	121(484)	20(60)	7(14)	2(2)	3.73	**
3. Payment of social amenities bills (electricity, water, hospital etc) with ease	97(388)	50(158)	-	3(3)	3.61	**
4. Give money to people instead of borrowing form them	71(284)	62(186)	11(22)	6(6)	3.32	**
5. Can pay school fees with ease	62(248)	47(141)	21(42)	20(20)	3.01	**
6. Have acquired many assets/properties because of multiple sources of income	79(316)	56(168)	5(10)	10(10)	3.36	**
7. Highly respected in the community	58(232)	90(270)	-	2(2)	3.36	**
8. Have financial and food security	99(396)	32(06)	11(22)	8(16)	3.63	**
9. If one fails, I can rely on others	119(476)	27(81)	4(8)	-	3.77	**
10. Have acquired different traditional titles	60(240)	45(135)	39(78)	6(6)	3.06	**
11. Use money from one stream to improved others	48(182)	83(248)	13(26)	6(6)	3.15	**
12. Cannot run out of money or be poor	72(288)	58(174)	9(18)	11(11)	3.27	**

**Source:** Field survey, 2017. N=150; decision rule =  $\bar{X} = 2.50$

**Table 5: Distribution of respondents by off-farm income generating activities**

S/N	Variables	Frequency	Percentage
1.	Making of cake	40	26.67
2.	Making of egg-roll, meat-pie, fish pie etc	67	44.67
3.	Designing of hats, fabrics etc	11	7.33
4.	Tailoring	9	6.00
5.	Shoes making	2	1.33
6.	Hair dressing	39	26.00
7.	Public transport	7	4.67
8.	Selling of food (vendor)	26	17.33
9.	Restaurant business	3	2.00
10.	Baking of bread	0	0.00
11.	Plantain chips	2	1.33
12.	Pure/bottle water preparation and sale	0	0.00
13.	Provision shops	1	0.67
14.	Preparation of washing/bathing soap	3	2.00
15.	Popcorn preparation	10	6.67
16.	Barbing	5	3.33

**Source:** Field survey, 2017.

## CONCLUSION

Farming as a primary source of income has failed to guarantee sufficient livelihood for most farming households in Nigeria. Agricultural intervention programmes and development policies established has largely been marred by lack of political will on the part of the government to continue its fundings and implementations; bribery, corruption and bureaucratic red-tapism during inputs acquisition by

farmers. Hence, diversification into off-farm activities has been the norm and is inevitable. The study has shown that small-scale farmers have multiple sources of income both on-farm and off-farm sources.

## RECOMMENDATIONS

Based on the findings of the study, the following policy recommendations were preferred.

- Human capital development (capacity building) through investment in qualitative education, research, vocational training/skills acquisition and social welfare/ empowerment programmes should be strengthened by government at all levels of governance especially at the grassroots where about 75% of small scale farmers resides. This will improve their skills in different income generating activities.
- Agricultural extension service delivery system should be funded and equipped with proper logistics support to enable change agents perform their duties (education, training and supply of inputs to farmers as well as technology/innovation dissemination).
- Government and private sector should collaborate to provide vocational training to farmers to improve their skills and capabilities to engage in different income generating activities.
- Adequate credit facilities especially free or low-interest financial aids should be given to farmers to boost their production capacities and enable them set-up new income generating outlets.
- Farmer field schools should be introduced in farming communities in the area to train farmers with a view to improving their level of education, since majority of the farmers in the area had low level of education.

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