

## INCOME GENERATION OF YOUTHS FROM AGRICULTURAL AND NON- AGRICULTURAL ACTIVITIES IN NIGER STATE, NIGERIA

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### ABSTRACT

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*This study determines the income generating activities of youths from agricultural and non-agricultural activities in Niger State, Nigeria. Multi-stage sampling technique was used to select 150 respondents from the two Local Government Areas (Wushishi and Shiroro) for the study. Data were collected with the aid of structured questionnaire complimented with an interview schedule. Descriptive and inferential statistics were used to analyse data collected. Result indicated that majority (82.0%) of the respondents were between the age ranges of 26 – 40 years with mean age of 31 years, 84.7% were males, while 89.3% of the respondents acquired formal education. Finding further revealed that agricultural activities practiced by the respondents include crop production (53.3%), animal production (20.0%), fishery (13.3%), forestry and hunting (6.7%) respectively, while non - agricultural activities include tailoring (53.3%) and trading (13.3%) among others. The mean income of the youths realized from agricultural and non – agricultural activities was ₦33,260 and ₦12,700 per month. Furthermore, the result of the z – test (4.96) revealed that there was a significant difference in the income generated from agricultural and non-agricultural activities by the youths in the study area. Major constraints faced by youths' engagement in agricultural activities were pests and diseases problem (100.0%), lack of marketing facilities (63.3%) and lack of fund (54.7%), while that of non – agricultural activities were high cost of equipments (81.3%), distance to market (69.3%) and lack of fund (66.0%). Based on the findings of the study more income was realized by the youth from agricultural activities compared to non – agricultural activities. Establishment of good marketing system and provision of subsidized agricultural inputs and equipments was recommended in order to encourage full participation of youths in livelihood diversification to agricultural and non - agricultural activities for improve income generation in the study area.*

**Keywords:** Income, livelihood, agricultural activities, youth

### INTRODUCTION

Agriculture constitutes a significant sector of Nigeria economy. The sector is significant in terms of employment of labour, contribution to Gross Domestic Product (GDP) and until early 1970; agricultural exports were the main sources of foreign exchange earnings (Amaza and Olayemi, 2002). During the 1960s, the growth of the Nigeria economy was derived mainly from the agricultural sector. However, in more recent years, there has been a marked deterioration in the performance of Nigeria's agriculture. The contribution of agriculture to the GDP stood at an average of 56% in 1960 – 1964, but declined to 47% in 1965 – 1969, and more rapidly to 32% in 1996 – 1998 (Amaza and Olayemi, 2002). Recently, contribution of agricultural sector to GDP stood at 30% (Aikhionbare, 2016). Federal Ministry of Agriculture and Rural Development (2003) estimated that the annual supply of food crops would have to increase at an average annual rate of 5.9% to meet food demand, and reduce food importation significantly. Studies (Amaza and Olayemi, 2002; Kolawole and Ojo, 2007; FAO, 2013) have shown that aggregate food crops productivity in Nigeria has been growing at about 2.5% per annum, while the annual rate of population growth was high at 3.5%. The reality is that Nigeria has not been able to attain self-sufficiency in productivity despite increasing hectares put into production annually, hence constraint to rapid growth of food production seems to be mainly that of low crop yield. Food security exists when all people at all times have access to safe nutritious food to maintain a healthy and active life (FAO, 1996). The main goal of food security is for individuals to be able to obtain adequate food needed at all times, and to be able to utilize the food to meet the body's needs. Food security is multifaceted (Obamiro *et al.*, 2003). Food availability for the farm household means ensuring that sufficient food is available for them through own production. However, due to lack of adequate storage and processing facilities during the harvesting period, households sometimes rely on market purchases during the off-farm season (Obamiro *et al.*, 2003).

Barrette and Reardon (2001) stated that non – agricultural activities refers to those activities that are not primarily agriculture, forestry or fisheries. Some of the non – agricultural activities may include tailoring, vulcanizing, trading, photocopying, mining and handicraft. There is a growing interest in non – agricultural income as researches on rural economics is increasingly showing that rural peoples' livelihoods are derived from diverse sources and are not as overwhelmingly dependent on agriculture as previously stipulated. Moreover, policy makers are turning their attention to reduce rural poverty (Barrett and Reardon, 2001). Olawepo (2010) stated that majority of the rural populace in Nigeria either depends entirely on farming and non-farming activities for survival and generation of income, or depends on these activities (off-farm) to supplement their main sources of income. Although non – agricultural incomes are important as an off-season, part time or home based income

supplements for households whose main activities is farming. Agricultural activities include crop production, animal production, fish farming, forestry and hunting.

Youth as a concept referred to the period between childhood and adulthood (Adesiji *et al.*, 2014). According to the National Youth Development, youth refers to young people between the age of 18 and 35 years (Federal Government of Nigeria (FGN), 2001). Youths participation in agricultural activities is constrained by factors such as inadequate capital, land acquisition and usage, use of traditional tools, inadequate extension services, rural – urban migration, poor rural infrastructure, pests and disease outbreak, in adequate storage facilities, societal, social and political instability, low returns, inadequate man power, among others. These have forced most youths to engage in other economic activities basically non – agriculture for income generation and survival leading to decline in agricultural production in most cases. It is on this basis that the study was conceived to assess the income generation of youths from agricultural and non-agricultural activities giving rise to potential question the study attempts to answer, hence the following specific objectives which are to describe socio – economic characteristic of youths in the study areas, identify the agricultural and non – agricultural activities that are engaged in by the youths, evaluate income realized from agricultural and non – agricultural activities, compare difference in income generated from agricultural and non – agricultural activities by the youths, and identify the constraints faced by the youth in agricultural and non – agricultural activities.

## METHODOLOGY

The research was conducted in Niger State, Nigeria. Niger State lies between longitude 3° 30' and 7° 20' East of the Greenwich Meridian and latitude 8° 20' and 11° 30' North of the equator. The provisional result of the 2006 National population census revealed that the state has a population of 3,950,249 (NPC, 2006) which is projected to 4,933,318 according to population growth rate in Nigeria of 2.5% (World Bank, 2015). The major ethnic groups in the state include Nupe, Gwari and Hausa. The state covers a total land area of 83,266,779 kilometres or about 8.3 million hectares which represents 8% of the total land area of Nigeria and produces crop like yam, beans, rice, millet, groundnut, maize and sugarcane, and raised animals like; cattle, goat, sheep and poultry. Multi-stage sampling technique was used for the study. The first stage involved purposive selection of two Local Government Areas (Wushishi and Shiroro) from the study area due to high level of youth involvement in agricultural and non-agricultural activities. The second stage involved random sampling of 5 villages from each selected LGA. In the third stage, 15 youths was randomly selected from each village to give a total of 150 respondents for the study. Structured questionnaire complemented with an interview schedule was used to collect data for the study. The data collected were analysed using descriptive statistics (frequency distribution, percentages and mean) and inferential statistic like z – test.

Model specification

Z – test

The Z – test was used to compare difference in income generated from agricultural and non – agricultural activities by the youths. It determine whether an observed difference exist between the means of two groups (two samples, or a paired sample) which are larger than 30 in size. The z – test is specified as:

$$Z = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}}}$$

Where;

$\bar{X}_1$  = Mean income from agricultural activities

$\bar{X}_2$  = Mean income from non – agricultural activities

$\sigma_1^2$  = Standard deviation of income from agricultural activities

$\sigma_2^2$  = Standard deviation of income from non – agricultural activities

$n_1$  = Number of youth in agricultural activities

$n_2$  = Number of youth in non – agricultural activities

## RESULTS AND DISCUSSION

### Socio-economic characteristics of the respondents

Age is a very important factor that affects economic activities of an individual. Younger people are expected to be more active and profit driven in many ventures or endeavour compared to their older counterparts. The result in Table 1 revealed that greater proportions of the respondents were within the most economically active age range as majority (82.0%) were between the age ranges of 26 – 40 years with a mean age of 31 years. This implies that agricultural and non-agricultural activities in the study area are dominated by individuals who were young, energetic and adventurous. This finding corroborate that of Rahman *et al.* (2003) who reported that rural youths in their study area were young and ready to diversify their economic base with respect to agricultural and non – agricultural activities. The sex distribution of the respondents as shown in Table 1 revealed that majority (84.7%) were males, while only 15.3% were females implying that most of the agricultural and non-agricultural activities

in the study area were dominated by the male folks, perhaps the activities were too strenuous for the female folks to fully participate. This result disagrees with Adewale *et al.* (2003) who posited that gender is no barrier to active involvement in agricultural and non - agricultural activities.

Education is a vital element in skill acquisition by an individual. The skills, competence and knowledge displayed in any venture describe the level of education of the individuals practicing farming and non-farming activities (Rahman *et al.*, 2003). The result in Table 1 revealed that greater proportion (89.3%) of the respondents had formal education (primary, secondary and tertiary), while about 10.7% had none formal education such as adult and quranic education. This means that participation in various farming and non-farming activities in the study area were greatly influenced by formal education as the level of literacy was high, thus helps respondents to adopt and practice improved technologies. This result is in agreement with the findings of Nsoanya and Nenna (2011) who found out that education level of the respondents in their study area was high, an advantage for innovation adoption and participation in developmental programmes. Furthermore, Table 1 revealed that majority (68.7%) of the respondents were primarily engaged in farming as major occupations, while 24.6% were hunters and 6.7% which is the least percentage of the respondents were engaged in fishing. On the other hand, majority (68.7%) of the respondents were engaged in other occupation like petty trading, while 19.3% practiced tailoring and least which is 12.0% were into photocopying business.

#### **Agricultural and non-agricultural activities of the youth**

The result in Table 2 revealed that more than half (53.3%) of the youth participated in crop production as their sources of income and livelihood as well as improved their standard of living. Animal production was 20%, while 13.3% engaged in fish farming. More so, Table 3 revealed that more than half (53.3%) of the respondents were engaged in tailoring as non – agricultural activities, while 13.3% were engaged in trading. Mining activities were not too common as only 10.0% of the total respondents engaged in mining and vulcanizing, respectively, while about 6.7% of the respondents were engaged in hand craftsmanship and photocopying business respectively.

#### **Income generated by the youth from agricultural and non-agricultural activities**

Distribution of income generated from agricultural and non – agricultural activities by the youths in the study area is presented in Table 4. It revealed that majority (87.0%) of the youth engaged in agricultural (crop and livestock) activities realized monthly income in the range of between ₦10,000 and ₦70,000, while 9.7% realized monthly income of greater than ₦70,000 and only 7.3% realizing monthly income of less than ₦10,000 with mean income of ₦33,260 per month from agricultural activities in the study area. On the other hand, majority (63.3%) of the youths engaged in non – agricultural (trading, mining, etc) activities realized monthly income in the range of between ₦10,000 and ₦20,000, followed by about 27.4% of the youths who realized monthly income of less than ₦10,000, while few (9.3%) realized monthly income between ₦20,000 and ₦40,000 with mean monthly income of ₦12,700 in the study area. The results revealed that agricultural activities were the most profitable in terms of returns to the youth compared to non-agricultural activities which could be due to poor knowledge on the significance of diversifying income base; hence the need for youths to engage more in non – agricultural income generating ventures.

#### **Difference in income from agricultural and non-agricultural activities**

The difference in incomes from agricultural and non – agricultural activities result is presented in Table 5. The z – test value of 4.96 which is statistically significant at 1% level of probability revealed that there was a significant difference in the mean incomes from agricultural and non – agricultural activities of the youth in the study area. This could be due to the level of involvement of youths in both income generating activities. This implies that, level of participation is a major determinant of income from agricultural and non-agricultural activities.

#### **Constraints faced by the youth's agricultural and non-agricultural activities**

Several problems were observed to be affecting the smooth practice of agricultural activities in the study area. Table 6 revealed that pest and diseases (100.0%) and lack of marketing (63.3%) pose high constraints to the youths in the study area, followed by lack of fund representing (54.7%). On the other hand, lack of storage facilities (100.0%), high cost of inputs (79.3%) and lack of processing facilities (68.0%) were indicated to be low constraints to the youth, while shortage of labour (74.0%), housing (73.3%) and bad weather (67.3%) were considered as not a problem or constraints by the youths in the study area. In terms of constraints associated with non-agricultural activities, the result in Table 7 revealed that high cost of equipment (81.3%), market distance (69.3%) and lack of fund (66.0%) were indicated to be high constraints by the youths, while housing (94.7%), absent of cooperative (88.0%), shortage of labour (82.7%) and inadequate time (58.0%) were considered to be low constraints faced by the youth in non – agricultural activities in the study area.

## **CONCLUSION AND RECOMMENDATIONS**

Based on the results of the study, it can be concluded that majority of the respondents were male, educated (having formal education) and were young with physical ability to carry out both agricultural and non-agricultural activities. Most of the youths were primarily farmers engaged in agricultural activities like crop production and animal rearing, as well as non-agricultural activities like petty trading, tailoring among others. Youths realized more monthly income from agricultural activities compared to non-agricultural activities, hence there was significant differences in income realised. Pest and diseases, lack of marketing facilities and fund were among the

serious problems encountered by the youth in the study area. It was recommended therefore that Government policies and programmes should aimed at improving rural agricultural practice through establishment of well-organized marketing system close to the rural youth and provision of production incentives like improved seeds, chemicals, fertilizers and other technologies as well as capital incentives such as affordable credit and loans to enhance diversification into non – agricultural activities.

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

Variables	Frequency	Percentage
Age		
< 26	18	12.0
26 – 30	36	24.0
31 – 35	44	29.3
36 – 40	43	28.7
> 40	9	6.0
Total	150	100
Mean	31.1	
Sex		
Male	127	84.7
Female	23	15.3
Total	150	100
Education level		
Non-formal	16	10.7
Primary	38	25.3
Secondary	86	57.3
Tertiary	10	6.7
Total	150	100
Occupation		
Agricultural activities		
Farming	103	68.7
Hunting	37	24.6
Fishing	10	6.7
Total	150	100
Non-agricultural activities		
Photocopying	18	12.0
Petty trading	103	68.7
Tailoring	29	19.3
Total	150	100

Source: Field Survey, 2010

Table 2: Agricultural activities engaged by the youth

Types	Frequency	Percentage
Crop production	80	53.3
Animal production	30	20.0
Fish farming	20	13.3
Forestry	10	6.7
Hunting	10	6.7
Total	150	100

Source: Field Survey, 2010

Table 3: Non-agricultural activities engaged by the youth

Types	Frequency	Percentage
Tailoring	80	53.3
Handicraft	10	6.7
Mining	15	10.0
Vulcanizing	15	10.0
Photocopying	10	6.7
Trading	20	13.3
<b>Total</b>	<b>150</b>	<b>100</b>

Source: Field Survey, 2010

Table 4: Youths Income generated from agricultural and non- agricultural activities

Income Range (₦)	Agricultural Activities		Non-Agricultural Activities	
	FREQ.	%	FREQ.	%
< 10,000	11	7.3	41	27.4
10,001 – 20,000	53	35.4	95	63.3
20,001 – 30,000	18	12.0	12	8.0
30,001 – 40,000	27	18.0	2	1.3
40,001 – 50,000	14	9.3	-	-
50,001 – 60,000	7	4.7	-	-
60,001 – 70,000	6	4.0	-	-
> 70,000	14	9.7	-	-
Total	150	100.0	150	100.0
Mean Income	33,260		12,700	

Source: Field Survey, 2010

Table 5: Estimated z – test for income of agricultural and non – agricultural activities

	Mean	Standard Deviation	z - value
Agricultural income (₦)	33,260.00	46,638.43	4.96***
Non – agricultural income (₦)	12,700.00	5,158.95	
Income difference (₦)	20,560.00	41,479.48	

Source: Field Survey, 2010 \*\*\* = significant at 1% probability level

Table 6: Constraints of the youth in agricultural activities

Constraints*	High		Low		Not a problem	
	Frequency	%	Frequency	%	Frequency	%
Pest/diseases	150	100.0	-	-	-	-
Lack of marketing facilities	95	63.3	55	36.7	-	-
Lack of fund	82	54.7	42	28.0	26	17.3
High cost of inputs	31	20.7	119	79.3	-	-
Lack of transportation	30	20.0	69	46.0	57	34.0
Bad weather	22	14.7	27	18.0	101	67.3
Lack of land	10	6.7	78	52.0	62	41.3
Housing problem	-	-	40	26.7	110	73.3
Lack of storage facilities	-	-	150	100.0	-	-
Shortage of labour	-	-	39	26.0	111	74.0
Lack of processing facility	-	-	102	68.0	48	32.0

Source: Field survey, 2010

\* Multiple response

Table 7: Constraints of the youth in non-agricultural activities

Constraints*	High		Low		Not a Problems	
	Frequency	%	Frequency	%	Frequency	%
Lack of fund	99	66.0	23	15.3	28	18.7
Inadequate time	8	5.3	87	58.0	55	36.7
No cooperative	-	-	132	88.0	18	12.0
High cost of equipment	122	81.3	28	18.7	-	-
Shortage of labour	-	-	124	82.7	26	17.3
Market distance	104	69.3	16	10.7	30	20.0
Housing problem	-	-	142	94.7	8	5.3

Source: Field Survey, 2010

\* Multiple response

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