

# Determinants of Youth Farmers' Participation in Agricultural Activities in Akwa Ibom State, Nigeria

M. U. Dimelu<sup>1</sup>, A. M. Umoren<sup>1</sup> & Jane M. Chah<sup>1</sup>

<sup>1</sup> Department of Agricultural Extension, Faculty of Agriculture, University of Nigeria Nsukka, Nigeria

Correspondence: Jane M. Chah, Department of Agricultural Extension, Faculty of Agriculture, University of Nigeria Nsukka, Nigeria. E-mail: Jane.chah@unn.edu.ng

Received: June 21, 2020

Accepted: August 29, 2020

Online Published: November 15, 2020

doi:10.5539/jas.v12n12p201

URL: <https://doi.org/10.5539/jas.v12n12p201>

## Abstract

A refocus on agriculture is considered a pertinent resort for the youths because it is generally believed to be a panacea for sustainable development in any nation. To help generate suitable policies to encourage youth farmers to be involved in agricultural activities, the study analysed factors that influence youth farmers' participation in agricultural activities in Akwa Ibom State, Nigeria.

Through a list of farmers obtained with the assistance of Akwa Ibom State Agricultural Development Programme, 120 youth farmers were randomly selected for the study using simple random sampling technique. The study used descriptive and inferential tools to analyse information collected. The majority (59.2%) of youth farmers were male and 42.5% were between the ages of 36-39 years. Only 8.3% had access to credit. About 71% of the youth farmers were involved in on-farm activities and only 29.2% in both on- and off-farm activities. The major determinants of youth agricultural activities were household size and membership of social organizations. The state government and other relevant agencies and organizations should create platforms to educate youth farmers on the need for more involvement and diversification in their agricultural livelihood strategies.

**Keywords:** youths, farmers, determinants, agricultural activities, on-farm, off-farm, Nigeria

## 1. Introduction

The population of youths in the world is about 1.2 billion and it is projected to increase to 1.3 billion by 2030 (United Nations, 2019). Youths make up to one-fifth of the population in many countries of the world (ILO, 2017). African youths population is nearly 200 million and it is the highest globally (UNDP, 2017). Nigeria's population is estimated at 205,856,089 people in 2020 (United Nations, 2019), and about half of its population is made up of youths between 14 and 34 years of age (National Bureau of Statistics, 2017). Nigeria's National Youth Development Policy defined the youth as comprising all young persons of age 18 to 35 years.

As the youth population grows, so does the unemployment rate. The unemployment rate of adults in developing countries is less when compared to that of youth (ILO, 2020). David and Eugene (2015) observed that the highest unemployed population in Africa is the youth. In sub Saharan Africa the rate of youth unemployment is a major problem yet to be overcome (World Bank, 2020).

The number of unemployed youth in Nigeria, was about 11.1 million in 2012 (NPC, 2014) and reduced to 7.9 million in 2017 (National Bureau of Statistics, 2017). National Bureau of Statistics for Nigeria (2018), put unemployment rate at 23.10% in third quarter of 2018, with youth unemployment put at 36.5%. It is somewhat difficult to absorb this youth population into the formal employment sector (Abimbola, 2008; Bakare, 2011; ILO, 2020), not because they lack education/skills to work or idleness by choice but by lack of opportunities (Institute of Development Studies, 2019). As a result, there is panic over youth unemployment in Nigeria as this will affect living conditions, economic development, and increase juvenile delinquency. Consequently, urgent attention is required to remedy youth unemployment. This should be made a priority, given that youth unemployment poses a threat to the safety of nations (Adesina, 2013).

In order to address youth unemployment, the Government of Nigeria has shown its commitment to creating job opportunities for the unemployed youth in the country. For instance, in 2013, the government introduced the youth enterprise with innovation scheme called YouWin. Under the YouWin programme, thriving enterprises with prospect to create employment for other youth were encouraged to submit business plan for financial

assistance. It is expected that the scheme would create between 80,000 and 110,000 sustainable jobs over a period of four years from inception. This programme was launched at each of the six geo-political zones of the country to bring about youth empowerment and translate to wealth creation. Other programmes such as Sure-P and N-Power have been ongoing as part of recent government efforts to reduce the number of unemployed youths. Sure-P is a graduate internship scheme with a central focus of equipping graduates with employable skills in various sectors of the economy. N-Power is geared towards employing both graduates and non graduates in various livelihoods such as agriculture, education, health, etc. for a period of two years to reduce the number of unemployed youths (John, 2013).

Thus, a refocus on agriculture is considered important in order to reduce the number of unemployed youths (Africa Development Indicators, 2009; Sumberg & Okali, 2013; Naamwintome & Bagson, 2013), because agriculture is believed to be a solution for sustainable development of any nation (Vaarst, 2010; Barbu & Capusneanu, 2012; Siebrecht, 2020). The agricultural sector, with its many aspects, offers a variety of employment opportunities. It has various areas such as crop farming, livestock rearing, farm labour, fish farming, bee keeping, hunting of wild animals, gathering and selling of forest products, farm product processing, marketing of agricultural products, palm wine tapping, palm fruit harvesting among others. For sustainable development to be effective in Nigeria, youths have to be encouraged to participate in agriculture (Etim & Udoh, 2018). FAO (2017) reported that in order to sustain growth and stability in the agricultural sector, most of agricultural production should be carried out by young people and not the old as it is the case at the moment. Migration of youth to urban areas is drifting them away from agriculture. Consequently, agricultural labour force is scarce and this causes a major challenge in expanding the scale of agriculture by small holder farmers (Christiaensen et al., 2020).

Government efforts and commitment to solving the unemployment among youth through the agricultural programmes have considerably revived and sustained the interest of some youth in the state, especially those in agrarian economies. As a result, youth have been engaged in various forms of agricultural activities such as production, processing and marketing of agricultural commodities among others (AGRA, 2015).

Akwa Ibom State government had enunciated several programmes to stimulate and improve youth participation, interest and involvement in agricultural production. Majority of youth participate in different production activities of cassava, yam and rice in large quantities. Fishery, livestock and poultry businesses thrive well in the state among the youths (Akpan et al., 2015). These agricultural activities are classified as on-farm, off-farm. Any agricultural activity carried out at home on own plot of land is considered as On-farm (FAO, 2011), while off-farm agricultural activities are the activities carried out away from the farm. Participation is a direct involvement of people in a development process, which aims to improve people's potentials to have entry to, and mastery of resources, in order to have opportunities which are meant to improve quality of life (Aref, 2011). For the youth to participate effectively in the multitude of agricultural activities in Akwa Ibom State, a choice has to be made. The choices that people make are influenced by their goals and wants. These are expressed according to priority. In making choices people assess the various alternatives and make the choice they think will have the best outcome (Beresford & Sloper, 2008). For a decision to be considered rational it must have been well evaluated and should be most helpful to the individual (Uzonwanne, 2015) and this decision is influenced by certain factors.

Boomsma (2013) noted that the diversification of livelihood choices of each household are determined by a number of factors such as availability of assets, household members' level of education and household risk perception. Baiphethi and Jacobs (2009) also noted that assets and resource endowments constitute the determinants of agricultural activities among farmers. Altman (2009) noted that farmers' choice of agricultural livelihood depends on their socioeconomic factors; with a significant relationship between these factors and choice of agricultural activity.

Despite the availability of many choices of agricultural activities, the choices made by youth farmers in Akwa-Ibom State are not ascertained. This study sought to investigate the determinants of youth farmers' agricultural activities in Akwa Ibom State, Nigeria. Specifically, the study sought to describe agricultural livelihood strategies of youths in Akwa Ibom State and determine factors that influence the choice of agricultural livelihood among youth farmers.

The study will help the State Ministry of Agriculture and extension agencies to identify issues of policy relevant in addressing youth unemployment problems. The findings will also be relevant to extension agencies including NGOs for design and implementation of tailored training for youth in agriculture.

## 2. Methodology

The study was conducted in Akwa Ibom State, Nigeria. Akwa Ibom State is located in the South-South Geo-political Zone of Nigeria lying between latitudes 4°32'N and 5°33'N, and longitudes 7°25'E and 8°25'E. The state is bordered on the east by Cross River State, on the west by Rivers and Abia States, and on the south by the Atlantic Ocean and the southernmost tip of Cross River State. It occupies a total land area of 7,245,935 km<sup>2</sup> (Asa & Valarie, 2015) with a population density of 587 persons per square meter and has an estimated population of 3,920,208 people (National Population Commission (NPC), 2007). The state is made up of thirty-one (31) local government areas (LGAs). Uyo, Ikot Ekpene and Eket are its major towns. Agriculture earns a good share of the state's GDP, and a greater percentage of her citizens derive their incomes and livelihoods from agriculture. The state has 6 agricultural zones Viz: Oron, Abak, Ikot Ekpene, Etinan, Eket, and Uyo, and has very high potential for agriculture (Enete, 2010). It is suitable for food crops, tree crops, fish and livestock farming. Crops widely grown are leafy vegetables like, waterleaf, fluted pumpkin, and garden egg. Others are yam, swamp rice, and cassava.

In this study we considered youths to be age 18-40 years old. The population of the study comprised young farmers in the study area that have been active within the last 3 years (2015-2017) and are duly registered with the Akwa Ibom State Agricultural Development Programme and are between 18-40 years of age.

Youth farmers were selected through a multistage sampling procedure. In the first stage, three agricultural zones were purposively selected because of their proven strength and popularity in agricultural production. These were Uyo, Ikot Ekpene and Abak Agricultural Zones. In the second stage, simple random sampling technique was used to select two blocks from each of the zones giving a total of six blocks. In the third stage, two circles from each of the chosen blocks were randomly selected. This gave a total of 12 circles. In the final stage, 10 youth farmers were randomly selected from each of the circles. This was done using a list of farmers obtained with the assistance of Akwa Ibom State Agricultural Development Programme. Hence, a total of one hundred and twenty (120) farmers were used for the study. Data were collected from youths through the use of structured interview schedule. The interview schedule was divided into sections based on the specific objectives of the study. Interview schedule was used to give operational definitions to reflect strength of views and opinions by trying to measure and quantify them. Socioeconomic (age, sex, years spent in school, access to extension, income etc.) characteristics of respondents were measured using frequency and percentages. To measure choice of agricultural livelihood strategies, respondents were asked to indicate, if they participate in on-farm or on-farm/off-farm agricultural activities. Participation of agricultural livelihood strategy was analysed using descriptive statistics and results were presented in percentages.

Determinants of participation in agricultural livelihood strategies were analysed using binomial logistic regression. This is because the dependent variable (participation in agricultural activity) is a categorical variable with two levels. Logistic regression model is a qualitative choice model use to explain relationship between a dependent discrete variable and explanatory variables (Polson & Spencer, 1991).

The logistic regression model was specified as follows:

$$Y = \text{Ln} (P/1 - p) = b_0 + b_1x_1 + b_2x_2 \dots b_9x_9 + e \quad (1)$$

Where, Y = Dependent binary variable (participate = 1; do not participate = 0); P = Probability of participating in agricultural livelihood strategies; Ln = Natural logarithm function; b<sub>0</sub> = Constant; b<sub>1</sub>-b<sub>10</sub> = Regression coefficients; x<sub>1</sub>-x<sub>10</sub> = Explanatory variables; x<sub>1</sub> = year in school; x<sub>2</sub> = Household size (number of people eating from one pot); x<sub>3</sub> = Age (yrs); x<sub>4</sub> = Income (per annum); x<sub>5</sub> = Sex (male = 1; female = 0); x<sub>6</sub> = Marital status (married = 1; single = 0); x<sub>7</sub> = Member of social organization (yes = 1; no = 0); x<sub>8</sub> = Access to credit (yes = 1; no = 0); x<sub>9</sub> = Access to extension services (yes = 1; no = 0); x<sub>10</sub> = Access to land (yes = 1; no = 0); E = error term; (P/1 - p) = Odd ratio (odds in favour of participation).

All analyses were done at 5% level of significance. Statistical Product for Service Solution (SPSS) was the software used for analysis.

## 3. Results

### 3.1 Socio-economic Characteristics of Youth Farmers

Table 1 shows that 59.2% of the respondents were males. A greater proportion (42.5%) were between the ages of 36 and 39 years, while 25.8%, 25.8% and 5.9% were within the ages of 32-35, 28-31 and 24-27, respectively. The mean age of the respondents was 34.4 years. The average years of farming experience of the respondents was 9 years. The average household monthly income was about ₦40, 000 (101USD).

Table 1. Socio-economic characteristics of respondents

Socio-economic characteristics	Percentage (n = 120)	Mean ( $\bar{x}$ )
<i>Sex</i>		
Male	59.2	
Female	40.8	
<i>Age (years)</i>		
24-27 years	5.9	
28-31 years	25.8	34.43
32-35 years	25.8	
36-39 years	42.5	
<i>Years of farming experience</i>		
1-6 years	36.7	
7-12 years	51.7	8.55
13-18 years	8.3	
19-24 years	3.3	
<i>Estimated monthly household income</i>		
10,000-40,000	70.0	
40,001-80,000	25.8	
80,001-120,000	3.3	39,500.00
120,001-160,000	0.0	
160,001-200,000	0.8	
<i>Access to credit</i>		
Yes	8.3	

Note. 1USD = ₦360.

### 3.2 Participation in Agricultural Activities

The respondents were involved in multiple agricultural livelihood activities. They were classified into on-farm only (70.8%) and on-farm and off-farm (29.2%) (Table 2). Sixty percent of the respondents were involved in crop farming (Table 2). A sizeable number (39.2%) were also involved in livestock rearing of various kinds such as poultry, goats and piggery. Only 15.0% of the respondents were engaged in fish farming, while 5.0% were into palm fruit harvesting as sources of livelihood.

In addition to on-farm agricultural livelihood activities, results show that a greater proportion (23.3%) of the youth farmers were engaged in marketing of products such as poultry products (chicks, eggs, etc.) and cassava products (*garri*, cassava cuttings or stems), fertilizers (inorganic) and other products. A small number (11.7%) of the respondents were involved in farm product processing such as *garri* and oil palm. Only 0.8% of the respondents indicated involvement in farm labour as a source of livelihood. Farm product processing was common in the area, but youth involved in it was small.

Table 2. Youth farmers' participation in agricultural activities

Agricultural livelihood activities of respondents*	Percentage
<i>On-farm</i>	
Crop farming	60.0
Livestock rearing	39.2
Fish farming	15.0
Palm fruit harvesting	5.0
<i>Off farm</i>	
Farm product processing	11.7
Marketing of products	23.3
Farm labour	0.8

Note. \* Multiple responses.

### 3.3 Factors Affecting Participation in Agricultural Livelihood Among Youths

Table 3 shows the results of the binomial logistic regression analysis on the factors influencing the choice of and participation in agricultural livelihood activities among youth farmers. The overall regression model was significant with a-2 Log Likelihood of 127.617;  $X^2 = 45.328$  and p-value 0.028. This means that 2.8% probability of either livelihood choices was attributed to the effects of the independent variables. In other words, the independent variables accounts for 2.8% change on the dependent variables. Specifically, household size was significant and positively ( $p = 0.046$ ) related to choice of agricultural livelihood among youths. This means that the probability that a farmer will choose either on-farm or both on- and off-farm agricultural livelihood is a function of his or her household size. Result of the binomial logistic regression also shows that membership of social organization was significant ( $p = 0.027$ ) and positively related to the choice of agricultural livelihood among youths. This means that the probability that a farmer will choose either on-farm or both agricultural livelihoods is dependent on whether he or she is a member of any social organization. On the contrary, number of years in school, age, monthly household income, sex, marital status, access to credit, access to extension services and land owned had no significant relationships with the probability of choosing on-farm or on- and off-farm agricultural livelihoods.

Table 3. Factors influencing choice of or participation in agricultural livelihood activities

Variables	Coefficient	S.E	Wald	P-value	Exp (B)
Years in school	-0.063	0.080	0.610 <sup>NS</sup>	0.435	0.939
Household size	0.272	0.136	3.998**	0.046	1.312
Age	0.057	0.056	1.022 <sup>NS</sup>	0.312	1.058
Income	0.000	0.000	0.110 <sup>NS</sup>	0.740	1.000
Sex	0.551	0.451	1.493 <sup>NS</sup>	0.222	1.735
Marital status	-0.910	0.562	2.627 <sup>NS</sup>	0.105	0.402
Membership of social organization	-0.341	0.154	4.917**	0.027	0.711
Access to credit	0.379	1.160	0.107 <sup>NS</sup>	0.744	1.461
Access to extension services	-0.409	0.907	0.203 <sup>NS</sup>	0.652	0.664
Land owned	0.593	0.500	1.407 <sup>NS</sup>	0.236	1.810

Note. \*\* indicates significance at 5% level of probability, NS means not significant.

## 4. Discussion

### 4.1 Socioeconomic Characteristics of Respondents

It is not surprising that the average years of farm experience was 9 years given the young population of the respondents. While very few may have taken up agriculture from their early youthful life, perhaps due to their rural farming background, others particularly from the educated group who rarely have a farming background are more recently gaining interest in agriculture. Generally, youths perceive agriculture industry as a low economic industry, because of the relatively low income derived from it especially at subsistence level (Magagula & Tsvakirai, 2020). Often, the attitude of youth is to go into agriculture temporarily, until such a time when better jobs can be found (Privilege, 2016). This explains the increasing aging labour force in agriculture reported by Maiga et al. (2015). Nevertheless, experienced youth farmers are great assets for improved performance of the agricultural sector, considering their high innovativeness and responsiveness to technological change.

Though the monthly household income of about 100 USD is above the minimum wage, it is relatively low to sustain youth interest in agriculture. Besides, this may be inadequate to encourage expansion and modernization of farming activities, particularly where personal income significantly accounts for farm income. Largely, this explains the subsistence nature of most agricultural livelihood strategies and the increasing diversification of livelihood among youths. The low income among the respondents could be attributed to several factors ranging from low output, postharvest losses, poor market, climate change and other environmental factors. Masood et al. (2020) found out that uncertainty in weather conditions as well as poor transport system causes postharvest losses in agriculture. This could negatively affect the youth farmers' interest in agriculture, especially those with small holdings. Besides, the majority (91.7%) of the respondents lamented that they do not have access to credit facilities due to lack of collateral to secure loan. Access to credit could place youth farmers in a better position to reduce the challenges of their agricultural ventures; this will go a long way to improve their monthly income and

encourage them to take agriculture as their major livelihood strategy. Credit facilities are urgently needed by the youth farmers if they have to stay in agriculture productivity. Kurgat et al. (2017) observed that access to credit facilities enhances youth economic development in Uasin Gishu County of Kenya. Provision of credit facilities, at very low interest rate and little or no collateral, by state government will have a positive impact on youths' interest in agriculture.

#### *4.2 On-Farm Agricultural Activities*

Crop production was the most popular on-farm agricultural activity among the youth farmers. Personal observation shows that many households used any available space/small plots as farm land for cultivation of crops. Reasons for the high participation may include fertile soil, low technical know-how required, favourable climate, economic recession and as an age-long tradition. On the contrary, fish farming is very demanding and requires a high technical know-how and a big capital for start-up. However, fish farming holds great potential for youths' employment and income generation, particularly where scarcity of land is a major problem to crop production. Participation in oil palm harvesting was very low. This is a rare and unattractive agricultural activity for many youths, with severe consequences on full exploitation of the numerous benefits of oil palm in most rural communities. With increase aging of the farming population, the challenge is on the increase, resulting to abandonment of oil palm plantation. There is need to rejuvenate the oil palm sector because these will enhance the the economy of the country owing to the various products of the palm and the multiple uses of the products (Ekenta et al., 2017). Youth farmers should be encouraged to participate in oil palm cultivation as a livelihood strategy.

#### *4.3 Off-Farm Agricultural Activities*

In addition to on-farm agricultural livelihood activities, a large number of youth farmers (men and women) were also involved in off-farm agricultural activities; with farm product processing being common young women. This agrees with Udoh (2014) in his study on agricultural extension development administration in Uyo, Nigeria. Lack of interest in processing farm products exhibited by the youth farmers could be attributed to high cost of tools used for processing. Babatunde (2013) found that the income derive by farmers involved in both on- and off-farm agricultural activities is expected to increase in future, especially in sub-Saharan Africa where there is a high population growth rate which may limit agricultural resources. Rural households relying on one type of agricultural activity (e.g. subsistence farmers) are more likely to be in poverty, compared to those depending on a variety of livelihood sources (Khatiwada et al., 2017). According to Haggblade et al. (2010), on- and off-farm activities account for between 35% and 50% of total income of rural households in developing countries, while off-farm activities alone contributed 27.6% of household labour income in Southwest Nigeria (Shittu, 2014).

Generally, the agricultural livelihood strategies of the respondents were diverse. Diversifying agricultural livelihood strategies is necessary in other to reduce economic and environmental risk and to increase livelihood sustainability and regional sustainable development (Dai et al., 2019). It has also been pointed out that the involvement of a farm household in both on- and off-farm sectors is to diversify livelihood strategies in order to make higher income and to reduce the risk of investment (Khatiwada, 2017). Youth farmers in the study area, usually diversify on-farm activities (in terms of crop-livestock mix and crop diversity) to spread risks (mainly against climate hazards and price changes) and to meet their consumption and marketing needs. It is the major feature of subsistence agriculture strategically employed to increase income and cushion the effects of crop failure among rural households. The income of farmers involved in multiple livelihood options is expected to be higher. Kassie et al. (2020) in their study of integrated health interventions for improved livelihoods in Ethiopia found that the annual income realized from multiple livelihood options was 35% higher than a single intervention. Livelihood diversification is a significant contributor to poverty reduction in Nepal (Khatiwada et al., 2017).

#### *4.4 Determinants of Participation in Agricultural Livelihood Activities*

In the present study, the probability of choosing either on-farm or both on- and off-farm agricultural livelihood was found to be a function of the household size of the youth farmers. This finding however disagrees with Sheyin (2016) who observed that household size does not drive livelihood diversification among farming households in Chikun and Zango Kataf Local Government Area of Kaduna State, Nigeria. It is expected that household size, to a large extent, determines the strength of the labour force that contributes immensely to the day-to-day activities in agricultural livelihood. The household size equally dictates the quantity of food consume, food and nutrition security burden of households, which in turn influence the farming decisions. Farmers with a large household size will comfortably engage in labour intensive or diversified agricultural livelihood with ease

because of availability of cheap family labour. On the other hand, those with small household sizes cannot venture into a livelihood that requires more labour and time if they not have the capacity to hire labourers.

The probability that a farmer will choose either on-farm or both agricultural livelihoods was significantly dependent on whether he or she is a member of any social organization. This is not surprising because often information about a livelihood is gotten from social organizations. A farmer belonging to an organization that receives information about the performance and benefits of on-farm livelihood activities will certainly settle for on-farm agricultural livelihood and vice versa. Besides, social capital often provides financial aids, facilitates access to credit, trainings and cheap labour which are crucial in household decision on diversification of income sources. However, this disagrees with Akaakohol and Aye (2014); and Gautam and Anderson (2016) who reported that membership of social institution/organization do not influence rural livelihood diversification and household well-being.

Apart from household size and membership of social organization, other socioeconomic variables had no significant influence on the probability of choosing on-farm or on- and off-farm agricultural livelihoods. The result is quite surprising, except that there seems to be strong homogeneity in socio-economic and institutional status of the respondents. For instance, level of education contributes significantly to knowledge, skills and ability to take decision for high return on investment. It accounts for the entrepreneurship skills and decision to diversify livelihood. Educated farmers are in a better position to understand and adopt new technologies, make informed choices on effective use of inputs, labour and equipment, respond rapidly to changes in the market and natural calamities (Holden & Otsuka, 2014), and subsequently impacts on their livelihood choices. The results however, point to the general lapses in the education system at all levels particularly in some courses/subject like agriculture, where students are not adequately exposed to practical skills and entrepreneur training.

The findings on marital status disagree with Umunnakwe et al. (2014) who found a significant positive effect of marital status on rural youths' involvement and choice of agricultural income generating activities. However, it agrees with Ifeanyi-Obi and Matthews-Njoku (2014) who noted that marital status did not influence the choice of livelihood activities among rural dwellers in Southeast Nigeria. Marital status is directly linked to size of household, dependent ratio, family burdens and assets which influence choice of livelihood strategies and diversification behaviour of farmers. Similarly, age correlates with farmers' decision, attitude and acceptability of a particular livelihood option or the other. Age largely influences farmer's responsiveness to change, innovativeness and the type of farm work carried out, and consequently the type of livelihood or the diversifications options made. Man (2007) observed significant differences between age groups on attitude towards contract farming.

Furthermore, access to credit and income means strong financial bases for choice of one or diversified livelihood options. Alemu (2012) opined that lower income people tend to choose agriculture activity as their main money generating activity or as a side income. Unfortunately, many farmers especially women and youths lack access to credit facilities because of their inability to provide collateral. The current approach of using farmers' group/cooperative has not proved very effective, probably due to structural and policy issues. According to Alemu (2012) age, labour endowment, education, and community infrastructure were found to significantly influence the households' ability to make high-return on livelihoods investments. Also, contrary to the result on sex, gender was found to be an indicator for the factors that play a role in determining the attitude and acceptance of youth towards agriculture (Silva et al., 2010). Some agricultural livelihoods are more time and energy demanding than others, and thus could be more male or female dominated. Traditionally, some agricultural activities are male or female dominated. Therefore, sex is expected to have significant influence on choice of livelihood among youth farmers.

The findings on access to extension services and land owned is also surprising because extension services in agriculture should provide farmers with diverse skills—including giving young people skills in processing, value addition, marketing, machinery operation and repair, transport, and quality control as earlier noted by Huggins et al. (2005). Ownership of land has a strong correlation with agricultural production, because it is one of the major factors of production.

## 5. Conclusion

Majority of the youth farmers in Akwa-Ibom State were engaged in only on-farm livelihood activities of various types including crop farming, livestock rearing, fish farming and palm fruit harvesting. Household size to a large extent determined the choice/participation of agricultural livelihood in the aspect of the labour force embedded in the household. The decision of the youth farmers vis a vis livelihood choices/participation was influenced by information received by members of social organization. Therefore the state government should design policies

to improve youth farmers' diversification of agricultural livelihood choices in Akwa-Ibom State. These policies should take into consideration youth farmers' access to no interest and collateral free loans as well as policies to encourage membership in social organizations. This will motivate youth farmers to remain in agriculture and go a long way to reduce the unemployment problem in Nigeria and by extension Africa. While designing these policies, there is need for the state government and other relevant agencies and organization in the state to create platforms to educate farmers on the need for more diversification of their agricultural livelihood strategies. Extension agents and agencies should also encourage youth farmers on the need to register and secure membership in social organizations where emerging ideas and innovations can be shared.

## References

- Abimbola, O. (2008). The menace of street trading in Lagos metropolis. *Yaba Journal of Environmental Studies*, 2(1), 38-51.
- Adesina, O. S. (2013). Unemployment and security challenges in Nigeria. *International Journal of Humanities and Social Science*, 3(7), 42-45. Retrieved from [http://www.ijhssnet.com/journals/Vol\\_3\\_No\\_7\\_April\\_2013/17.pdf](http://www.ijhssnet.com/journals/Vol_3_No_7_April_2013/17.pdf)
- Africa Development Indicators. (2009). Youth Employment in Africa. *The Potential, the Problem, the Promise* (pp. 133-135). The International Bank for Reconstruction and Development, The World Bank, Washington D.C., USA.
- African Youth Decade. (2011). Plan of Action. Accelerating Youth Empowerment for Sustainable Development. *Road map towards the implementation of the African youth charter* (pp. 46-49).
- AGRA (Alliance for a Green Revolution in Africa). (2015). *Africa Agriculture Status Report: Youth in Agriculture in Sub-Saharan Africa* (Issue No. 3). Nairobi, Kenya. Retrieved from <https://agra.org/AGRAOld/wp-content/uploads/2016/04/africa-agriculture-status-report-2015.pdf>
- Agwu, N. M., Nwankwo, E. E., & Anyanwu, C. I. (2014). Determinants of agricultural labour participation among youths in Abia State, Nigeria. *International Journal of Food and Agricultural Economics*, 2(1), 157-164. Retrieved from <https://www.foodandagriculturejournal.com/vol2.no.1.pp157.pdf>
- Akaakohol, M. A., & Aye, G. C. (2014). Diversification and farm household welfare in Makurdi, Benue State, Nigeria. *Journal of Development Studs Res.*, 1(2), 168-175. <https://doi.org/10.1080/21665095.2014.919232>
- Akintayo, D. I., & Adiat, K. O. (2013). Human resource development for sustainable development: Perspective for youth empowerment in Nigeria. *Youths in Action* (pp. 11-21). Retrieved from <http://www.managementjournal.info>
- Akpan, S. B., Udoh, E. J., & Nkanta, V. S. (2015). Factors influencing fertilizer use intensity among small holder crop farmers in Abak Agricultural zone in Akwa Ibom State, Nigeria. *Journal of Biology, Agriculture and Healthcare*, 2(2), 2224-3208. Retrieved from <https://www.iiste.org/Journals/index.php/JBAH/article/view/1127/1048>
- Alemu, Z. G. (2012). *Livelihood strategies in rural South Africa: Implications for poverty reduction* (pp. 18-24). Paper presented at the 28<sup>th</sup> International Conference of the International Association of Agricultural Economists, Foz do Iguacu, Brazil.
- Altman, M. (2009). *Policy options to leverage the system of social grants for improved access to economic opportunity* (pp. 1-12). Paper prepared for the Department of Social Development. Pretoria: Human Sciences Research Council.
- Aref, F. (2011). Farmers' Participation in agricultural development: The Case of Fars Province, Iran. *Indian Journal of Science and Technology*, 4(2), 155-158. <https://doi.org/10.17485/ijst/2011/v4i2.17>
- Asa, U. A., & Valerie, A. S. (2015). *Determinants of catfish production in Akwa Ibom State, Nigeria*. Department of Agricultural Economics and Extension, University of Uyo, Uyo, Akwa Ibom State, Nigeria. *Journal of Basic and Applied Sciences*, 11(1), 1-7. <https://doi.org/10.6000/1927-5129.2015.11.01>
- Babatunde, R. O. (2013). *On-Farm and Off-farm Works: Complement or Substitute? Evidence from Rural Nigeria*. 2013 Fourth International Conference, September 22-25, 2013, African Association of Agricultural Economists (AAAE), Hammamet, Tunisia. <https://doi.org/10.22004/ag.econ.160437>
- Baiphethi, M. N., & Jacobs, P. T. (2009). *The Contribution of Subsistence Farming to Food Security in South Africa*. International Centre for Poverty, Employment and Growth Human Sciences Research Council.



- Retrieved November 26, 2019, from [https://www.researchgate.net/publication/46536430\\_The\\_Contribution\\_of\\_Subsistence\\_Farming\\_to\\_Food\\_Security\\_in\\_South\\_Africa](https://www.researchgate.net/publication/46536430_The_Contribution_of_Subsistence_Farming_to_Food_Security_in_South_Africa)
- Bakare, A. S. (2011). The determinant of urban unemployment crises in Nigeria: An econometric analysis. *Journal of Emerging Trends in Economics and Management Sciences*, 2(3), 184-192.
- Barbu, C. M., & Capusneanu, S. (2012). Agriculture, environment and sustainable development of rural areas. *International Journal of Academic Research in Business and Social Sciences*, 2(9), 22-69.
- Beresford, B., & Sloper, T. (2008). *Understanding the dynamics of decision-making and choice: A scoping study of key psychological theories to inform the design and analysis of the panel study*. Social Policy Research Unit, University of York. Retrieved from <https://www.york.ac.uk/inst/spru/pubs/pdf/decisionmaking.pdf>
- Boomsma, M., Mur, R., & Mangnus, E. (2013). *African Agribusiness Supplier Development Programme (AASDP) Toolkit: Growing Inclusive Agri-food Value Chains Benefitting African Farmers and SMEs*. UNDP.
- Buyisile, M., & Tsvakirai, C. Z. (2020). Youth perceptions of agriculture: Influence of cognitive processes on participation in agripreneurship. *Development in Practice*, 30(2), 234-243. <https://doi.org/10.1080/09614524.2019.1670138>
- Christiaensen, L., Rutledge, Z., & Taylor, J. E. (2020). *The future of work in agriculture* (Policy research working paper 9193). The World Bank Group, Social Protection and Jobs Global Practice. <https://doi.org/10.1596/1813-9450-9193>
- Dai, X., Wu, Z., Fan, Y., Li, B., Yang, Z., Nan, B., & Bi, X. (2020). Characteristics and determinants of livelihood diversification of different household types in Far Northwestern China. *Sustainability*, 12, 64. <https://doi.org/10.3390/su12010064>
- David, S. A., & Eugeine, M. (2015). *Africa agriculture status report, 2015* (p. 16). Growing Africa's Agriculture.
- Effiong, J. B. (2012). An analysis of agricultural livelihood activities prevalent among rural farmers in Itu L.G.A. Akwa Ibom State. *African Journal of Agricultural Research and Development*, 5(3), 31-45.
- Ekenta, C. M., Ajala, M. K., Akinola, M. O., & Oseni, Y. (2017). Abandoned Nigeria economic resources: The case of oil palm. *International Journal of Agricultural Extension and Rural Development Studies*, 4(2), 1-16. Retrieved from <http://www.eajournals.org>
- Enete, A. (2010). *Challenges of agricultural adaptation to climate change in Nigeria: A synthesis from the literature* (pp. 7-30). Institute of Veolia Publication.
- Etim, N.-A. A., & Udoh, E. (2018). Willingness of Youths to Participate in Agricultural Activities: Implication for Poverty Reduction. *American Journal of Social Sciences*, 6(1), 1-5. Retrieved from <http://www.open-scienceonline.com/journal/ajss>
- FAO (Food and Agriculture Organization of the United Nations). (2017). *The Future of Food and Agriculture: Trends and Challenges*. FAO, Rome.
- FAO (Food and Agriculture Organization of the United Nations). (2011). *The State of Food and Agriculture: Women in Agriculture, Closing the Gender Gap for Development*. FAO, Rome.
- Fernandez-Cornejo, J. (2007). Off-farm income, technology adoption and farm economic performance. *Economic Research Report No. ERR-36*. Economic Research Service, U.S. Department of Agriculture, Washington, D.C.
- Gautam, Y., & Anderson, P. (2016). Rural livelihood diversification and household well-being: Insights from Humla, Nepal. *Journal of Rural Studies*, 44(2), 239-249. <https://doi.org/10.1016/j.jrurstud.2016.02.001>
- Gidaroku, I. (1999). Young women attitude towards agriculture and women's new work in Greek countryside. The first approach. *Rural Studies*, 15, 147-158. [https://doi.org/10.1016/S0743-0167\(98\)00054-0](https://doi.org/10.1016/S0743-0167(98)00054-0)
- Haggblade, S., Hazell, P., & Reardon, T. (2007). *Transforming the Rural Nonfarm Economy: Opportunities and Threats in the Developing World* (pp. 44-58). Johns Hopkins University Press and IFPRI, Baltimore.
- Haggblade, S., Hazell, P., & Reardon, T. (2010). The rural non-farm economy: Prospects for growth and poverty reduction. *World Development*, 38(10), 1429-1441. <https://doi.org/10.1016/j.worlddev.2009.06.008>
- Holden, S. T., & Otsuka, K. (2014). The roles of land tenure reforms and land markets in the context of population growth and land use intensification in Africa. *Food Policy*, 48, 88-97. <https://doi.org/10.1016/j.foodpol.2014.03.005>

- Huggins, C., Kamungi, P., Kariuki, J., Musahara, H., Oketch, J. S., Vlassenroot, K., & Wakhungu, J. W. (2005). Land, conflict and livelihoods in the Great Lakes region. Testing policies to the limit. *Ecopolicy Series No. 14* (pp. 53-64). African Centre for Technology Studies (ACTS), Nairobi.
- Ifeanyi-Obi, C. C., & Matthews-Njoku, E. C. (2014). Socio-economic factors affecting choice of livelihood activities among rural dwellers in Southeast Nigeria. *Journal of Agriculture and Veterinary Sciences*, 7(4), 52-56. <https://doi.org/10.9790/2380-07415256>
- ILO (International Labour Organisation). (2017). *Global Unemployment Trends for Youths 2017*.
- ILO (International Labour Organisation). (2020). *Global Employment Trends for Youth 2020*.
- Institute of Development Studies. (2019). *Youth employment needs in Nigeria. knowledge, evidence and learning for development*. [https://assets.publishing.service.gov.uk/media/5ddfdabbed915d015c5482ee/691\\_Youth\\_Employment\\_in\\_Nigeria.pdf](https://assets.publishing.service.gov.uk/media/5ddfdabbed915d015c5482ee/691_Youth_Employment_in_Nigeria.pdf)
- John, I. (2013). *President Jonathan is tackling unemployment in Nigeria: Private sector Initiative Imperative, Nigeria*. Retrieved from <https://www.thenigerianvoice.com/news/121226/president-jonathan-is-tackling-unemployment-in-nigeria-pri.html>
- Jolliffe, D. (2004). The impact of education in rural Ghana: Examining household labour allocation and returns on and off the Farm. *Journal of Development Economics*, 73(3), 287-314. <https://doi.org/10.1016/j.jdeveco.2003.02.002>
- Kassie, M., Abro, Z., Wossen, T., Ledermann, S. T., Diirro, G., Ballo, S., & Belayhun, L. (2020). Integrated Health Interventions for Improved Livelihoods: A Case Study in Ethiopia. *Sustainability*, 12, 2284. <https://doi.org/10.3390/su12062284>
- Khatiwada, S. P., Wei, D., Paudel, B., Khatiwada, J. R., Jifei, Z., & Su, Y. (2017). Household livelihood strategies and implication for poverty reduction in rural areas of Central Nepal. *Sustainability*, 9, 612. <https://doi.org/10.3390/su9040612>
- Kilic, T., Carletto, C., Miluka, J., & Savastano, S. (2009). Rural nonfarm income and its impact on agriculture: Evidence from Albania. *Agricultural Economics*, 40(2), 139-160. <https://doi.org/10.1111/j.1574-0862.2009.00366.x>
- Kurgat, F., Owembi, K. O., & Alang'o, O. G. (2017). Impact of access to credit facilities on youth economic development: A case of Mwanzo Youths in Uasin Gishu County, Kenya. *International Journal of Research in Business Studies and Management*, 4(1), 24-36. <https://doi.org/10.22259/ijrbsm.0401004>
- Magagula, B., & Tsvakirai, C. Z. (2020). Youth perceptions of agriculture: Influence of cognitive processes on participation in agripreneurship. *Development Practice*, 30(2), 234-243. <https://doi.org/10.1080/09614524.2019.1670138>
- Maiga, E., Christiaensen, L., & Palacios-Lopez, A. (2015). *Are the Youth Exiting Agriculture en Mass?* (pp. 44-56). Retrieved from [https://editorialexpress.com/cgi-bin/conference/download.cgi?db\\_name=CSAE2016&paper\\_id=746](https://editorialexpress.com/cgi-bin/conference/download.cgi?db_name=CSAE2016&paper_id=746)
- Man, N. (2007). *The agricultural community, 50 years of Malaysia Agriculture: Transformation issues, challenges and direction, Serdang, Selangor* (pp. 128-213). UPM Publisher.
- Masood, A., Ellahi, N., & Batoz, Z. (2020). Causes of Low Agricultural Output and Impact on Socio-economic Status of Farmers: A Case Study of Rural Potohar in Pakistan. *International Journal of Basics and Applied Science*, 1(2), 342-350. <https://doi.org/10.17142/ijbas-2012.1.2.21>
- Naamwintome, B. A., & Bagson, E. (2013). Youth in Agriculture: Prospects and challenges in the Sissala area of Ghana. *Net Journal of Agricultural Science*, 1(2), 60-68. Retrieved from <http://www.netjournals.org/pdf/NJAS/2013/2/13-023.pdf>
- National Bureau of Statistics. (2017). *Labour force statistics* (No. 476). Abuja: The NBS Publication. Retrieved August 23, 2018, from <http://www.nigerianstat.gov.ng>
- National Bureau of Statistics. (2018). *Unemployment and Underemployment Report (Q4 2017-Q3 2018) Nigeria* (Volume I). Retrieved from [http://www.q4\\_2017\\_-\\_q3\\_2018\\_unemployment\\_report%20\(1\).pdf](http://www.q4_2017_-_q3_2018_unemployment_report%20(1).pdf)
- National Population Commission. (2007). Report of Nigeria's National Population Commission on the 2006 Census. *Population and Development Review*, 33(1), 206-210. Retrieved from <https://www.jstor.org/stable/25434601>

- National Population Commission. (2014). *Nigeria demographic and health survey 2013*. Retrieved from <https://www.unicef.org/nigeria/reports/nigeria-demographic-and-health-survey-2013>
- Nigerian Institute of Social and Economic Research. (2013). *Analysis and design of safety nets and capacity empowerment programme for unemployed youth in Nigeria* (pp. 12-22).
- Peters, P. E. (2004). Inequality and social conflict over land in Africa. *J of Agra Chan*, 4(3), 269-314. <https://doi.org/10.1111/j.1471-0366.2004.00080.x>
- Polson, R. A., & Spencer, D. S. C., (1991). The technology adoption process in sub-sistence agriculture: The case of cassava in Southwestern Nigeria. *Agric. Sys.*, 36, 65-78. [https://doi.org/10.1016/0308-521X\(91\)90108-M](https://doi.org/10.1016/0308-521X(91)90108-M)
- Privilege, C. (2016). *Youth Participation in Agriculture in the Nkonkobe District Municipality, South Africa* (MPRA Paper No. 77358). Munich Personal RePEc Archive. <https://mpa.ub.uni-muenchen.de/77358>
- Proctor, F., & Lucchesi, V. (2012). *Small-scale farming and youth in an era of rapid rural change* (pp. 80-88). London, The Hague: IIED/HIVOS. Retrieved from <https://pubs.iied.org/14617IIED>
- Sheyin, E. A. (2016). *Analysis of Livelihood Diversification Strategies by Farming Households in Chikun and Zango Kataf Local Government areas of Kaduna State, Nigeria* (An M.Sc Thesis, Department of Agricultural Economics, Ahmadu Bello University, Zaria).
- Shittu, A. M. (2014). Off-farm labour supply and production efficiency of farm household in rural Southwest Nigeria. *Agricultural and Food Economics*, 2, 1-21. <https://doi.org/10.1186/s40100-014-0008-z>
- Siebrecht, N. (2020). Sustainable agriculture and its implementation gap—Overcoming obstacles to implementation. *Sustainability*, 12(9), 1-27. <https://doi.org/10.3390/su12093853>
- Silva, J. L., Mohamad, S. H., Uli, J., & Abu, S. B. (2010). Socio-demography factors that influence youth attitude towards contract farming. *Journal of Applied Sciences*, 7(4), 603-608. <https://doi.org/10.3844/ajassp.2010.603.608>
- Sumberg, J., & Okali, C. (2013). *Young People Agriculture, and Transformation in Rural Africa: An “Opportunity Space” Approach*. Innovations, A quarterly Journal Published by MIT Press. Global Youth Economic Opportunities Conference. [https://doi.org/10.1162/INOV\\_a\\_00178](https://doi.org/10.1162/INOV_a_00178)
- Udoh, A. J. (2014). *Agricultural extension development administration* (pp. 31-53). 50<sup>th</sup> Inaugural Lecture of the University of Uyo, Etofia Media Service Ltd, Uyo, Nigeria. Retrieved from <https://www.uniuyo.edu.ng/downloadables/50th%20Inaugural%20Lecture.pdf>
- Umunnakwe, V. C., Pyasi, V. K., & Pande, A. K. (2014). Factors influencing involvement in agricultural livelihood activities among rural youth in Jabalpur district of Madhya Pradesh, India. *International Journal of Agricultural Policy and Research*, 2(8), 288-295.
- United Nations Development Programme. (2017). *Africa’s defining challenge*.
- United Nations. (2019). *International Youth Day, August 12, 2019*. United Nation’s Department of Economics and Social Affairs.
- United Nations. (2019). *World population prospects 2019*. Department of Economic and Social Affairs Population Dynamics.
- Uzonwanne, F. (2015). Rational model of decision making. In A. Farazmand (Ed.), *Global Encyclopedia of Public Administration, Public Policy, and Governance*. Springer International Publishing, AG. [https://doi.org/10.1007/978-3-319-31816-5\\_2474-1](https://doi.org/10.1007/978-3-319-31816-5_2474-1)
- Vaarst, M. (2010). Organic farming as a developmental strategy: Who are interested and who are not? *Journal of Sustainable Development*, 3(1), 2-13. <https://doi.org/10.5539/jsd.v3n1p38>
- World Bank. (2020). *Youth unemployment rate for developing countries in sub-Saharan Africa*.
- World Food Programme. (2009). *Comprehensive food security and vulnerability assessment* (pp. 1-9). Rome: WFP.
- World Population Prospects. (2015). *Current status of youths in agriculture status report, 2015* (p. 18). Growing Africa’s Agriculture.

**Copyrights**

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).