



Impact of Youth Commercial Agricultural Development Program (YCAD) on Poverty Status of Rural Households in Ekiti State, Nigeria

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Abstract

The paper investigated the impact of the youth commercial agricultural development program (YCAD) on the poverty status of rural households in Ekiti State, Nigeria with the view to ascertain whether the program has increased per capita expenditure of the beneficiaries. We used a household-level survey collected through a well-structured and pretested questionnaire. Descriptive statistics, Foster, Greer, and Thorbecke (FGT) weighted poverty index and Endogenous Switching Regression (ESR) model was used for data analysis. Based on the poverty line created, participants of YCAD who were poor were 33.1 percent while that of non-participants was 48.8 percent. The squared poverty gap index for the participants and non-participants had a value of 0.017 and 0.041 respectively. Education, access to extension, and membership in association significantly influenced household participation in the YCAD program. The result showed that household size, the total value of disposable assets, and access to extension services increases per capita expenditure among participants. With regards to non-participants, the result showed that male-headed household and occupations were positive and significant at 5 percent each. We suggested that government should replicate and scale up the YCAD program so as to expand and accommodate more beneficiaries having impacted positively on the poverty status of the participating rural households in Ekiti State Nigeria.

Keywords:

Poverty, rural households, YCAD, FGT, ESR, Ekiti State, Nigeria

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INTRODUCTION

Nigeria, oil-rich country is inhabited with poor people who are faced with challenges of hunger and severe poverty. The issue of poverty in Nigeria is observed to be predominantly a rural phenomenon. In Nigeria, rural poverty increased from 28.3 percent in 1980 to about 69 percent in 2010; where 44.4 percent of these rural poor were not able to meet their food consumption expenditure (Bolarin, 2010, Ogwumike and Akinnibosun, 2013). In Nigeria, Per capita income has reduced from US \$698 (₦104,700) in the year 1980 to \$128 (₦45,000) in 2016. (FAO, 2019). Nigeria has dropped in human development index as the country was ranked 129 in year 1990 which has dropped to 159 in the year 2018 out of 177 countries ranked (World Bank, 2018). This is however, an indication of severe poverty and its consequences. Despite the abundant agricultural resources in Nigeria, poverty is widely spread across the country. It was found that about 70 percent of Nigerians live on less than a US\$1.25 (₦398) a day.

In Nigeria, for a fairly long time, the problem of poverty has been a cause of concern to the government (Adetayo, 2014). Due to this fact, the government's efforts both at the Federal and State level at solving the menace of poverty actually started after Nigeria attained independence in the year 1960 (Adetayo, 2014; Ovwasa, 2000). According to Apata et al., (2010), although initial attention was mainly focused on the development of rural area as a practical method of dealing with the problem. Apata et al., (2010) and Asogwa et al., (2012) also noted that government's failure to adequately implement the numerous programs was a precursor to majority of the present causes of severe poverty being experienced in Nigeria today. Asogwa et al., (2012) elucidated that past attempts by the government to alleviate severe poverty in the country, which failed totally, may be concisely grouped into two main distinct time frame including pre-SAP and SAP/post-SAP era. Adisa (2013) noted that anti-poverty measures of the pre-SAP period were essentially ad hoc.

The measures which focused more on basic needs, growth and rural development approaches. During the pre-SAP and post-SAP era, the national government put in place certain institutional mechanisms to fight poverty (Adisa, 2013; Apata et al., 2010).

However, nearly all these programs failed to achieve their desired objectives as poverty still persists in Nigeria (Munroe, 2003). Ekiti State is one of the State worst hit with poverty in Nigeria as an agrarian State. According to Nigeria bureau of statistics, Ekiti State is ranked number 16 among the poorest State in Nigeria with figures standing at 64 percent of the population being poor (NBS, 2017). In effort by the government to alleviate the issue of poverty in the State, Youth in Commercial Agricultural Development (YCAD) program was established which was targeted towards the productive and active farmers between the ages of 35-58 years in the State. The program was established in 2012 to ensure sustainable commercial agriculture, generate employment and reduce poverty incidence among the timid rural population in Ekiti State.

Although, several studies (Akinbode, 2013, Akpan, 2010; Adetayo, 2014; Apata et al., 2010 and Asogwa et al., 2012) has been conducted on incidence of poverty in Nigeria. None of this study had evaluated the impact of Youth in Commercial Agricultural Development (YCAD) program on poverty status of the rural household in Ekiti State. Few studies exist on assessment on the impact of poverty alleviation program in Nigeria, those that are available did not actually investigate the impact of the program on the beneficiaries with appropriate assessment tools. For example, Adisa (2013) used descriptive and correlation analysis to assess the contribution of CBNRM program to environmental sustainability in Ondo State. Hence, this study assessed the impact of YCAD program on poverty status of rural households in Ekiti State, Nigeria using endogenous switching regression model. Specifically, the study described the socio-economic characteristics of

YCAD participants and non-participants in the study area; identify and profiled the YCAD program components executed; analyzed the poverty status (incidence, severity and depth) of the participants and non-participants of YCAD program; determine the factors influencing household participation in YCAD program and estimate the impact of the YCAD program on household poverty in Ekiti State, Nigeria.

METHODOLOGY

Area of the Study

The study was conducted in Ekiti State, Nigeria. Ekiti State is a State in South West regions of Nigeria. Ekiti State is situated within the tropics. Ekiti State which was created on the October 1st 1996 comprised of 16 Local Government Area (LGAs). The State occupies a land mass of about 6,3028km². The State is predominantly an agrarian State whose main cash crops include cocoa, oil-palm, timbers and kola nuts. Food crops grown in the state include cassava, cocoyam, yam and grain crops such as rice and maize. Ekiti State has two distinct seasons including the rainy and dry season. Ekiti State was chosen for study because the YCAD program was initiated and implemented in the State.

Sampling method and sample size

A multi-stage sampling procedure was used to select respondents for the study. In the first stage, two Local Government Area were randomly selected. At the second stage, four communities were randomly selected to give eight communities in all. The third stage involved the random sampling of twenty households in each community to give a total of one hundred and sixty (160) non-participants selected. For the participant, a list of beneficiaries was sourced from the ministry of agriculture, Ekiti State. From the list, one hundred and sixty (160) beneficiaries were randomly selected who are regarded as the participants. Thus, a total of three hundred and twenty respondents (160 participant and 160 non-participants) were used for the study. Primary data were used for the study

which was collected through a well-structured and pretested questionnaire. Data collected included household socio economic characteristics, assets endowment, expenditure on food and non-food items, economic activities, wealth and income, access to some basic infrastructures and agricultural services and participation status of respondents.

Analytical techniques

The analytical techniques used were descriptive statistics, Foster, Greer and Thorbecke (FGT) weighted poverty index and Endogenous Switching Regression (ESR) model.

Descriptive statistics and FGT

Descriptive statistics was used to described the socio-economic characteristics of the responding households. It was also used to profile the YCAD components activities executed. (FGT) index was employed in analyzing the poverty status (incidence, depth and severity) of the participants and non-participants of YCAD program. Poverty was proxied by per capital consumption expenditure and the poverty line was set at two-third of the mean per capital consumption expenditure per adult equivalent per day. The first three poverty measure of the FGT class namely; the poverty headcount, the poverty depth or gap, and the poverty severity or squared poverty gap was estimated.

The choice of FGT index was due to, among other things, its additive decomposability into su-groups. The respondent's per capital consumption was used in classifying them into two namely: poor and non-poor. The equation of FGT class of poverty measure is written generally as:

$$P\alpha = \frac{1}{n} \sum_{i=1}^q \left(\frac{z - Y_i}{z} \right) \alpha$$

where n is the total number of the people in the group, q is the number of poor, Z is the poverty line, Y_i is the value of the per capita consumption expenditure of the i_{th} person and α is the poverty aversion parameter. The classification of the poverty status was as follows;

Non-poor: These are respondents whose per capita consumption expenditure is above the poverty line. That is, $P > 2/3$ of the mean per capita consumption expenditure per day.

Poor: These are respondents whose per capita consumption expenditure is below the poverty line. That is, $P < 2/3$ of the mean per capita consumption expenditure per day.

i. Poverty incidence or head count: This represent the share of population that are poor, the proportion of the population for whom consumption is less than the poverty line. i.e, the proportion of the population which couldn't afford to buy basic basket of goods.

ii. Poverty depth or gap: This represent the mean distance that separates the population from poverty line, where the non-poor is given a zero distance. It gives information on how far the households are from poverty line. The poverty gap or depth captures the mean aggregate income or consumption shortfall that are relative to the poverty line across the whole population.

$$P\alpha = \frac{1}{n} \sum_{i=1}^q \left(\frac{z - y_i}{z} \right) \alpha$$

y_i is the value of consumption expenditure of respondents, i_{th} , α is the FGT parameter, which takes the values of 0, 1 or 2 representing the incidence, depth or severity respectively and Z is the poverty line. When there is no aversion to poverty, $\alpha = 0$, the incidence reduces to

$$P_0 = q/N$$

This is called head count ration or incidence of poverty. It is the proportion of the population for whom consumption expenditure Y is less than the poverty line.

Poverty gap is a useful statistic to assess how much resources would be needed or mobilized to eradicate poverty through cash transfers perfectly targeted at poor.

iii. Poverty severity or squared poverty gap: this is often used to describe the measure of severity of poverty. While the poverty gap takes into account the distance separating

the poor from the poverty line, the squared poverty gap takes square of that distance into account and it is sensitive to inequality among the poor, that is, a higher weight is placed on those households further away from the poverty line.

Endogenous Switching Regression (ESR) model

Endogenous Switching Regression (ESR) model was used to determine the factors influencing the likelihood of participating in YCAD program and for estimating the effect of the program on households' poverty status. ESR model is a programming model that consists of two stages. The first stage of ESR model which is the selection equation was probit model to investigate the socio-economic characteristics of households that influence the probability of participating in YCAD and it was expressed as:

$$Prob(D = 1) = prob(U^*(\pi) > 0) = g(Z_k \beta_k + \mu_i \text{ and } \mu_i : N(0,1)) \quad (1)$$

where D takes the value of 1 for the participants and 0 otherwise; Z_k is a vector of explanatory variables (gender, education, age, household size, marital status, farming experience, farm size, household assets, food expenditure, extension contact, occupational status and membership of association); β_k is a vector of parameters to be estimated and μ_i is a random error term with zero mean and a unit variance.

The second stage of the ESR model which is the outcome equation estimates the effect of YCAD on poverty status of the households. The poverty function was specified as

$$\ln \pi_M = \delta_{0M} + \sum \alpha_{jM} X_{jM} + \varepsilon_M \quad M=P, N \quad (2)$$

where, π represents per capita consumption expenditure; X_j represents gender, education, age, household size, marital status, farming experience, farm size, household as-

sets, extension contact, occupational status and membership of association. \ln denotes the natural logarithm; subscript M=P, stands for participants and M=N, stands for non-participants; δ and α are parameters to be estimated; ϵ is the error term for the regression.

For this study, the model relating to selection and outcome equation for ESR model was empirically specified as follows;

First stage

$$Y_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 X_{3i} + \dots + \beta_{12} X_{12i} \tag{3}$$

where the explanatory variables are defined as follows;

Y_i = participation status (1= participation, 0= otherwise)

X_1 = Gender of the household head (1=male, 0=otherwise); X_2 = Age of household head (years); X_3 = Education of household head (years); X_4 = Marital status (1=married 0=otherwise); X_5 = Household size (number); X_6 = Farm size (ha); X_7 = Farming experience (years)

X_8 = Assets (₦), X_9 = Extension access (1=yes, 0=otherwise), X_{10} = Occupational status (1=agriculture, 0=otherwise), X_{11} = household food expenditure (₦), X_{12} = Membership of association (1=yes, 0=otherwise); β 's is the coefficient of the parameters to be estimated

Second stage

$$Y_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 X_{3i} + \dots + \beta_{11} X_{11i} \tag{4}$$

Where the explanatory variables are defined as follows;

Y_i = per capita expenditure of the household

X_1 = Gender of the household head (1=male, 0=otherwise); X_2 = Age of household head (years); X_3 = Education of household head (years); X_4 = Marital status

(1=married 0=otherwise); X_5 = Household size (number); X_6 = Farm size (ha); X_7 = Farming experience (years)

X_8 = Assets (₦), X_9 = Extension access (1=yes, 0=otherwise), X_{10} = Occupational status (1=agriculture, 0=otherwise), X_{11} = Membership of association (1=yes, 0=otherwise); β 's are the coefficient of the parameters to be estimated.

RESULTS AND DISCUSSION

Participants and non-participants of YCAD program's personal profile

The result of the socio-economic characteristics of the non-participant and participants of YCAD were presented in [Table 1](#). The mean age of the participant and non-participant was 43.46 (± 12.43) and 47.26(± 15.21) respectively. This shows that farmers in the study area were in their active age and thus expected to be productive. However, it was noted that there is a difference in the mean age of the two categories of respondents as the non-participants were observed to be older than the participants. This might be due to the fact that the program was targeted towards farmers who were between the ages of 35-58 years. About 78 percent and 76 percent of the participants and non-participants respectively were male which implies that farmers in the study area were male dominated. This might be due to the facts that farming activities is more rigorous and also that women have a major role to play in taking care of the family. The mean years of formal education for the participants and non-participants were 11.29(± 6.43) and 10.82(± 4.83) respectively. This shows that farmers in the study area were literate and might be open to adopting improved agricultural practices. The mean years of farming experience were 17.81(± 11.85) and 19.85(± 12.71) for the participants and non-participants respectively. This indicates that the respondents have the necessary experience to carry out various farming activities in the study area. About 89.4 percent of the participants were member of one association or

the other while 62.1 percent of the non-participants were member of association. This shows that majority of the participants were member of association which might have influence their opportunity to benefits from the program as majority of the government agricultural program in Nigeria were always target towards groups of people. About 73.3 percent and 43.7 percent of the participants and non-participants respectively had contact with extension agent. This indicates that more beneficiaries of the YCAD program had access to extension agents than non-beneficiaries. This large number of contacts with extension agents might have been influenced by the government as the government might have made provision for extension visits to the beneficiaries of the program during the time the program were being designed. The mean household size was 6.3(\pm 2.4) and 7.2(\pm 3.3) for the participants and non-participants respectively. This indicates that the farmers in the study area have relatively large household size. They can thus make use of family labor in carrying out their various farming activities in the study area. About 77.9 percent of the participants have agriculture as their main occupation while 58.3 percent of the non-participants were mainly agricultural producers. This indicates that more of the beneficiaries of the YCAD pro-

gram take agriculture as their main occupation in the study area. Their decision might have been influenced by government assistance rendered to them as they would have been provided with capital and inputs they needed, hence their decision to go fully into agriculture. The mean farm size was 2.9(\pm 1.4) and 1.7(\pm 1.1) for the participants and non-participants respectively. This implies that the participant had larger farm size than the non-participants although the two categories were small scale farmers. This might be due to the fact that government provided both capital and farm inputs for the participants.

YCAD program components

Table 2 shows the profile of the YCAD program components in the study area. Participants of the programme were selected for each component and each beneficiary can only partake in one of the components. Majority (39.4%) of the beneficiaries of the YCAD program were into cassava production followed by livestock producers (31.9%). The beneficiaries who were into livestock production were fully into poultry production. About 15.6% of the beneficiaries were into fishery production while 13.1 percent were into nursery production of oil-palm and cocoa seedlings in the study area.

Table 1
Personal Profile of the Respondents

Variables	Participant	Non-participant	Pooled
Age (years)	43.46 (\pm 12.43) ^a	47.26(\pm 15.21)	45.53(\pm 14.54)
Male (%)	78.00	76.00	79.00
Years of formal education	11.29(\pm 6.43)	10.82(\pm 4.83)	10.42(\pm 5.49)
Years of farming experience	17.81(\pm 11.85)	19.85(\pm 12.71)	19.86(\pm 11.91)
Association membership (%)	89.4	62.1	75.8
Extension contact (%)	73.3	43.7	68.3
Household size (#)	6.3(\pm 2.4)	7.2(\pm 3.3)	5.8(\pm 2.9)
Occupation (%)	77.9	58.3	68.4
Farm size (ha)	2.9(\pm 1.4)	1.7(\pm 1.1)	2.4(\pm 1.2)

^a Figures in parenthesis are standard deviation

Table 2
Distribution of Respondents by Program Components

Components	Frequency	Percentage (%)
Production of arable crops (Cassava)	63	39.4
Livestock production (Poultry)	51	31.9
Aquaculture production (Fishery)	25	15.6
Nursery tree crops production	21	13.1
(oil-palm and cocoa seedlings) Total	160	100.00

Analysis of poverty status of sampled households

The result of the poverty status of the sampled households based on computed poverty lines were presented in Table 3. The sampled households were separated by the poverty line in to poor or non-poor. A non-poor poverty line was drawn from above 2/3rd of the mean per capita expenditure per adult equivalent per day while a poor poverty line was drawn from below 2/3rd of the mean per capita expenditure per adult equivalent per day. Based on this arrangement, participants of YCAD who were poor were 33.1% while that of non-participants were 48.8%. This indicates that non-participants with poor status were more than that of participants' category. Majority (66.9%) of the participants were non-poor while 51.2% of the non-participants were non-poor. This result shows that there were more poor non-participants than the participants. The observed low proportion of the participants who were poor might have been impacted by the program.

Analysis of incidence, depth and severity of poverty (FGT measures)

Table 4 presents the values for Foster-Greer-Thorbecke's measure of poverty, incidence of headcount, poverty gap and poverty severity. The poverty line computed for the participants, non-participants and the pooled sampled were ₦232.64, ₦239.28 and ₦235.96 per adult equivalent per day respectively. The headcount index estimated for the participants and non-participants of the YCAD program and the total sampled households were 0.332, 0.488 and 0.392 respectively. The results implied that the proportion of rural households whose per capita expenditure fell below poverty line among the participants were 33.1 percent and it was 48.8 percent among the non-participants and 39.3 percent among the pooled households. The poverty gap index (poverty depth) which is the distance of the per capital expenditure of poor households from poverty line for the participants and non-participants were 4.8 percent and 9.3 percent respectively while it was 7.6 percent for the pooled households. This im-

Table 3
Poverty Status of Sampled Households Based on Poverty Lines

	Poor		Non-poor		Total
	frequency	(%)	frequency	(%)	
Participants	53	33.1	107	66.9	160
Non-participants	78	48.8	82	51.2	160

plies that the poor households among the participants and non-participants would need to mobilize additional 5.9 percent and 7.8 percent of their poverty lines to completely move out of poverty respectively. Also, the squared poverty gap index for the participants and non-participants had a value of 0.017 and 0.041 respectively with 0.032 for the pooled households. This implies that the severity of poverty was 1.7 and 4.1 for both the participants and non-participants respectively with 3.2 for the pooled households. The results further proof the big role of YCAD in contributing to poverty reduction in Ekiti State. The results of analysis of poverty status (incidence, depth and severity) by participating status shown in Table 4 was an indication that the incidence of poverty, depth and severity were lower among the participants of YCAD program than non-participants. However, this shows that the participation in YCAD is yet to completely move the poor out of poverty but it had narrowed the resource gap for participants. This program also had the potential to gradually improve their consumption to the level required to escape from poverty among the respondents in Ekiti State.

Analysis of factors influencing household's participation in YCAD program

The result of the probit model of factors influencing household participation in YCAD program in Ekiti State were presented in Table 5. The goodness-of-fit shows that the estimates were statistically significant at 10 percent probability level which implies that the estimated model fit the data reasonably well. Education, access to extension services

and membership in association were found to be statistically significant in influencing the household participation in YCAD program in the study area.

Education was positive and significant at 1 percent level of probability. The more the household head becomes educated, the higher the chances that he will likely participate in a developmental program because he will be able to deduce the benefits he might derived from participating in such program. This is in agreement with Nwaobiala (2014) which indicated that education positively influences participation in programs relating to reduction of poverty. Access to extension services was positive and significant at 1 percent level of probability. This implies that the more the household head has access to extension services, the likelihood of participating in a developmental program. This is true because extension agents have first-hand information at hand and will continue to advice and divulge the benefits of participating in a developmental program to farmers leading to high probability of participation. Membership in association was positive and significant at 5 percent level of probability. This indicates that membership in association increases the probability of participation in YCAD program in the study area. Household head who are member in association enjoys group dynamics and have access to information as regarding new technology and introduction of new developmental programs. This result agreed with Abebaw and Haile (2013) who elucidated that farmers group motivates smallholder farmer in benefitting from community-based program.

Table 4

Poverty Analysis of Sampled Households by Participation Status

	Poverty Indices		
	Headcount	Depth	Severity
Pooled	0.392	0.076	0.032
Participants	0.331	0.048	0.017
Non-participants	0.488	0.093	0.041

Program impact on per capita expenditure

Presented in Table 6 is the estimates of the endogenous switching regression model which revealed the relationship between households' socio-economic variables and households per capital expenditure for the participants and non-participants. The result shows that household size, total value of disposable assets and access to extension increases per capita expenditure among participants. Assets and access to extension services were statistically significant at 10 percent while household size was significant at 1 percent.

With regards to non-participants, the result showed that male headed household and occupation were positive and significant at 5 percent each. This means that male headed household and occupation increase household per capita expenditure for the non-participants. However, the result implies that the effect of socio-economic variables on per capita expenditure differs across the participating and non-participating households.

The result of ESR model also showed that the estimated coefficient of correlation be-

tween the selection equation (participation function) and the outcome equation (per capita expenditure function) of 5.7808 for participants of YCAD program is positive and significant at 5 percent which implies that participants in YCAD program have higher capita consumption expenditure than random household sample. The corresponding correlation between the selection equation and outcome equation of -2.8339 for the non-participants was negative and significant at 1 percent. The result suggests that household who are not participants have lesser consumption expenditure. This implies that household's participation in YCAD program reduced poverty measured in terms of increased per capita expenditure.

Conclusion and Policy Implications

We ascertained the consequent impact of YCAD program on rural households in Ekiti State, Nigeria. Based on the findings of the study, there was low participation among the female gender as majority of the participants of the YCAD program were men. Poverty were evident from the findings in the study

Table 5

Factors Influencing Participation in YCAD Programme

Variables	Coefficient	Std. Error	t-value
Constant	-111.880	74.242	-1.51
Gender	3.910	3.114	1.26
Age	-9.385	6.296	-1.49
Education	0.879***	0.138	6.37
Marital status	0.872	1.480	0.59
Household size	-2.126	5.853	-0.36
Farm size	11.228	7.710	1.46
Farming experience	4.286	4.281	1.11
Assets	1.220	1.566	0.16
Extension access	0.931***	0.322	2.89
Occupation	0.197	0.139	1.42
Expenditure	0.044	0.054	0.82
Membership of Ass.	1.220**	0.566	2.16
LR chi2(14)	36.38		
Prob > chi2	0.0987		
loglikelihood	-85.963567		

*** $p < 0.01$, ** $p < 0.05$

Table 6

Estimates of Endogenous Switching Regression Model on Per Capita Expenditure

Variables	Participants		Non-participants	
	Coefficients	Std. Err.	Coefficients	Std Err.
Gender	0.0003(0.10)	0.0039	0.0533** (2.34)	0.0227
Age	-0.0100(-1.45)	0.0069	0.0104(0.73)	0.0142
Education	0.0032(0.51)	0.0064	0.0326(1.49)	0.0329
Marital status	-0.2972(-1.52)	0.2791	0.2065(0.99)	0.0328
Household size	0.2177***(2.68)	0.0812	-0.0039(-0.16)	0.0252
Farm size	-0.0504(-0.42)	0.1204	0.5804(1.61)	0.3616
Farming exp.	-1.70E-07(-0.67)	2.55E-07	-0.3338(-0.8)	0.4181
Assets	0.0096*(1.69)	0.0058	-0.0389(-0.71)	0.0549
Extension access	0.0233*(1.87)	0.0124	0.0505 (0.94)	0.0535
Occupation	-0.2097(-1.34)	0.1567	1.2807** (2.02)	0.6345
Membership of association	-0.2034(-1.11)	0.2964	0.0610(0.14)	0.4503
Constant	1.8939***(2.65)	0.7157	0.4676(0.32)	1.4513
Sigma	0.1293***(6.21)	0.0208	0.2331***(4.51)	0.0516
rho	5.7808**(2.1)	2.7542	-2.8339***(-3.00)	0.9453

Figures in parentheses are t-values; *** $p < 0.01$, ** $p < 0.05$ and * $p < 0.1$.

area. Incidence, depth and severity of poverty were found to be lower among the participants of YCAD program than non-participants. Factors such as education, access to extension services and membership in association were found to be statistically significant in influencing the household participation in YCAD program in Ekiti State. The YCAD program was found to have impacted the poverty status of the participants positively. Based on the findings of the study, we suggested that; Efforts should be made by the government and stakeholders to improve the education status of the respondents in Ekiti State as education was seen as a key factor in farmers decision to participate in a developmental program in Ekiti State. Farmers who are yet to become a member of association especially the non-participants should be encourage to join so that they can have access to information that will be beneficial to them. Government should replicate and scale up YCAD program so as to expand and ac-

commodate more beneficiaries having impacted positively on the poverty status of the participating rural households in Ekiti State. Women farmers should be mobilized in the future to actively participate in developmental program such as YCAD which will help reduce their household poverty status.

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COMPETING INTEREST

Author have declared no competing interest.

REFERENCES

Abeba, D. and haile, M. G. (2013). The impact of cooperatives on agricultural technology adoption: Empirical evidence from Ethiopia. *Food Policy*, 38, 82-91.

- Adetayo, A. (2014). Analysis of farm households' poverty status in Ogun states, Nigeria. *Asian Economic and Financial Review*, 4(3), 325-340.
- Adisa, B.O. (2013). Assessing the contribution of community-based natural resources management programme to environmental sustainability in Ondo State, Nigeria. *African Journal of Environmental Science and Technology*, 7(10), 932-937.
- Akinbode, S. (2013). Profiles and determinants of poverty among urban households in South-West Nigeria. *American Journal of Economics*, 3(6), 322-329.
- Akpan, S. (2010). Encouraging Youth Involvement in Agricultural Production and Processing in Nigeria. Retrieved from <https://goo.gl/bHzsFO>
- Apata, T., Apata, O., Igbalajobi, O., and Awoniyi, M. (2010). Determinants of rural poverty in Nigeria: evidence from small holder farmers in south-western, Nigeria. *Journal of Science and Technology Education Research*, 1(4), 85-91.
- Asogwa, B., Umeh, J., & Okwoche V. (2012). Estimating the determinants of poverty depth among the peri-urban farmers in Nigeria. *Current Research Journal of Social Sciences*, 4(3), 201-206.
- Bolarin, O. (2010) Quantitative Analysis of Rural Poverty in Nigeria. *International Food Policy Research Institute (IFPRI)*, IFPRI-Abuja, www.ifpri.org
- FAO. (2019). Food and Agricultural Organization Data base. Rome, Italy.
- Munroe, M. (2003). *The Principles and Power of Vision: Keys to Achieving Personal and Corporate Destiny*. World Bank Policy Research Working Paper 2, New Kensington, US: Whitaker House. 12-24.
- Nwaobiala, C. U, Ogbonna, M. O. and Egbutah, E.U. (2014). Assessing levels of participation among farmers in IFAD/FGN/NDDC/Community-Based Natural Resource Management Programme in Abia and cross River States, Nigeria. *Discourse Journal of Agriculture and Food Science*, 2(5), 136-141.
- Ogwumike, F. O and M. K. Akinnibosun, (2013). Determinants of Poverty among Farming Households in Nigeria. *Mediterranean Journal of Social Sciences*, 4(2), MCSER-CEMAS-Sapienza University of Rome
- Ovwasa, O.L. (2000). Constraints on Poverty Alleviation in Nigeria. Political Science Review. *Journal of Political Science*, 1(1), 56-80.
- World Bank (2018), *Global Monitoring Report: Millennium Development Goals, Confronting the Challenges of Gender Equality and Fragile States*. World Bank, Washington, DC.

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