

## Effect of Farmers Co-operative Societies' Activities on Rural Development in Anambra State, Nigeria

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### ABSTRACT

International Cooperative Alliance (ICA) defines a cooperative society as an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly owned and democratically-controlled enterprise (ICA, 2013). As it is, the problem faced by the rural dwellers in Nigeria today is complex. It is those in the rural community who have to produce not only enough for their families but also for industries and urban population. They also have to produce cash crops either for processing by local industries or for export. Still they lack the basic necessities of life and for their economic development. The Effect of Farmers Co-operative Societies' Activities on Rural Development in Anambra State, Nigeria was determined. The socio-economic characteristics of farmers that had significant effect on rural income were education, farm experience and duration in cooperative. There is significant difference in rural welfare indicators (income, output and value of productive assets of farmers before and after joining cooperatives. Farmers cooperatives affect rural standard of living by providing access to market, adoption of innovation, supply of inputs, access to credit, increased output, better financial shock management and provision of insurance and guarantee services. Duration on cooperative has significant effect on rural standard of living. Farmers cooperatives affect rural capacity building through provision of skills and training, creation of awareness and use of new technology, high capacity utilization of productive resources, improved management and maintenance of available resources and building of leadership skills. There is a strong correlation between duration in cooperative and increase in the value of productive assets. In conclusion, farmers cooperative societies not only increase welfare of their members but also build rural capacities too. It has the potentials to impact on agricultural productivity and increase in rural income thereby serving as engine of economic growth and development in rural areas.

Keywords: Farmers, Co-operative, Societies and Activities.

### INTRODUCTION

[1,2,3,4,5], posit that cooperatives are the ones that are more relevant than ever if the world looks ahead at the development challenges and opportunities the job faces over the coming decades. Cooperatives, he further argues, can offer the chances of making extreme poverty and deprivation history to secure social inclusion, and to reconcile economic and social objectives [6,7,8]. Thus, these organizations are capable of creating wealth for the poor, creating jobs for the millions of the unemployed the world over, checking poverty and hunger, and above all, achieving global prosperity [9,10]. A recent study by the International Labour Organization (ILO) and the International Cooperative Alliance (ICA) titled "Cooperatives and Sustainable Development Goals" highlights the contributions that

cooperative enterprises are making to sustainable development and their potential to do much more from creating employment and enhancing gender equality, providing clean energy and financial inclusion to ensuring food security and extending social protection [11,12,13]. According to [14] cooperatives have an outstanding track record of overcoming multiple forms of exclusion in rural areas, but not only there, cooperatives are present in all sectors of Nigeria and world economies and are adaptable to a range of contexts. [15], opined that the recognition of cooperatives as crucial means for poverty alleviation and, therefore, African development has been widely acknowledged. Cooperatives are believed to be powerful development mechanisms that, under right conditions, can lift entire groups of people

out of poverty and empower them to remain out of it [16]. Their distinctiveness is most commonly visible in their specific ownership and governance structure, but beyond these formal aspects cooperatives are unique in their ability to foster trust and strengthen social ties in a community. Empirical evidence has shown that informal cooperatives date back to the origin of man himself [17]. [18], agreed that modern cooperatives first found a home in Britain, though the movement existed almost simultaneously in various European countries. [19] observed that when workers in Britain cried out to Government to redress their sufferings and got no help, they turned to humanitarians and social reformers. Robert Owen and Dr. Williams King of the Briton cooperative Movement were pioneer leaders of cooperatives. Charles Fourier, Philips Buzuchez and Louis Blanc were the pioneer cooperative members trained in France.

In Germany, it was the substance of the peasant farmers, bitterness and thriftiness of the tradesmen and workers that led to the formation of cooperative societies [20]. According to [21], Two types of cooperatives set up in Isreal (Moshav and Kibbutz) made outstanding success particularly in agriculture and the social life of the people who were (before) relegated to the background. [22] observed that the modern cooperatives as known today in Nigeria started in 1935 when the enactment of the Nigerian ordinance of cooperative societies came into operation with the appointment of

#### Statement of the Problem

Farmers cooperatives are considered as one of the important economic and social organization in rural communities. They play very important roles in agricultural development by providing the farmers with production inputs, such as fertilizers, seeds, other chemical substances, etc. They also provide farmers with the necessary knowledge and skills. They play major roles in the agricultural food industries in various sectors and local setting of Nigerian rural Communities. Despite these advantages, the problem identified is that contributions of Farmers cooperative societies' activities on rural development in Anambra State, Nigeria have not been well documented and hence this study. The impact of cooperative membership on rural development indicators

Major Haig F.E.C as the Registrar of cooperative societies. Nigerian membership of cooperatives has increased and expanded across the States and Local Governments of the Federation with a high built up capital. Nigeria is a country endowed with fertile land, vast mineral resources, as well as enormous human resources. According to [23], about 70% of Nigeria's estimated population of 140.431million live in the rural areas. Although Nigeria is Africa's largest economy (after South Africa) with a GDP of about US \$ 40.0 billion, yet about two - thirds of the populations live below the national poverty line. Federal Government of Nigeria (FGN, 2008), states that although agriculture remains a key component of the country's economy, currently contributing about 40% of the active population, the sector has significantly under - performed its potentials. This has been clearly manifested in the very high food prices nationwide, food insecurity in urban and rural areas of the country and poverty. Nigeria is divided into two very distinct socio - economic sectors, the urban and rural sectors. The difference is caused by a variety of factors which include: shortage of social and economic infrastructure compared to urban areas, migration of educated workforce to urban areas and consequent aging of the rural population, low productivity due to limited access to credit, pesticide, extension services and modern technology for agricultural production and preservation, and a host of other factors [22].

needs to be examined in order to affirm the extent to which the activities of farmers cooperatives affect rural development. Literature is inconclusive about the effect of Nigerian cooperatives activities on rural development. Apart from the fact that there is limited empirical evidence on the research topic, few studies available were conducted in South-West and Northern Nigeria. Moreover, the focus of available studies was agricultural output and not on rural development indicators. As a result, there is the need for a study that is not only domiciled in South-East Nigeria, but will focus on rural development indicators such as rural capacity building, rural standard of living and rural income. This study is designed to fill these gaps.

### Objectives of the Study

The broad objective of this study is to determine the Effects of Farmers Cooperative Societies' Activities on Rural Development in Anambra State. The specific objectives are to:

1. Ascertain socio-economic characteristics of cooperative members that influence rural income.

2. Compare rural development indicators (output, income and value of productive assets) of cooperative members before and after joining cooperative.
3. Assess the effect of co-operative societies' activities on rural dwellers' standard of living

### Research Questions

1. What are the socio-economic characteristics of cooperative societies' members that affect rural income?
2. Is there any difference in the rural development indicators (output,

- income, value of productive assets) of farmers before and after joining cooperatives?
3. What is the effect of farmers cooperative societies' activities on rural standard of living?

### Statement of Hypotheses

HO1: Socio-economic characteristics of Farmers cooperative societies' activities do not have significant effect on rural income

HO 2: There is no significant difference in rural income, output and value of productive

assets of farmers before and after joining cooperative societies

Ho 3: Cooperative societies' membership does not have significant effect on rural standard of living

### Significance of the Study

The findings of this study will be of benefit to the government, farmers, cooperative members and researchers. To the government, the output of this work would help bring to limelight the effect farmers cooperative societies' activities on rural development in Anambra State, as well as the peculiar role of cooperative societies to farmers' standard of living. In the case of farmers, it will confirm their reason for cooperative membership, as well as roles cooperatives play for farmers. Cooperative members will also benefit from the study because they will be made to understand their relevance in rural development. Prospective researchers would benefit from the data which would be generated. This study seeks to contribute to the emerging body of knowledge on how best to make cooperatives more productive. It will deepen the understanding of the values and principles of cooperatives, incorporating them into

competitive strategies, relying on cooperation, trust, loyalty as coordinating forces of economic activities and as sources of competitive difference in agricultural system. The findings of this study will help to suggest to government and non-governmental agencies how social institutions like farmers cooperatives could overcome the problem of low agricultural productivity and lead to betterment of living conditions. It will aid policy makers, academics, managers and administrators to have a better understanding of farmers cooperative societies and take better decisions so as to perform their duties better. The result of the study will also aid the government in policy formulation and redirection in the effective financing and administration of cooperative societies in order to equip them and their members with better knowledge, funding and skills to perform better as medium for rural development.

### Scope of the Study

The study was limited to the farmers in the four agricultural zones in Anambra state who are members of registered farmers cooperative Societies. The period of study was between 2020-2021. Therefore only

cooperatives that played active role within this period were studied. Analysis also focused on the effects of farmers cooperatives in improving rural income, rural capacity and acquisition of productive assets.

## REVIEW OF RELATED LITERATURE

### Conceptual Review

#### Concept of Rural Development

[3] defined rural development as overall development of the rural areas to improve the

quality of rural people. It is an integrated process which includes social, economical, political and spiritual development of the

poorer sections of the society. Food and Agricultural Organization [8] opined that rural development is a term used to denote the actions and initiatives taken to improve the standard of living of the rural and remote communities. This concept is important as a vehicle for targeting development programs, allocation of and eligibility for funds from such programs. It is a process integrated with economic and social objectives, which seeks to transform rural society and provide a better and more secured livelihood for the rural people. Government and assistance agencies use different concepts such as

agricultural, regional and rural development to improve rural life. Rural development mainly targets people and institutions. Rural development is one of the means of economic revitalization for active farmers and targets rural communities. It includes agricultural development activities but the focus is the farmer and the community (FAO, 2014). [12], opines that Rural development generally refers to the process of improving the quality of life and economic well-being of people living in relatively isolated and sparsely populated areas.

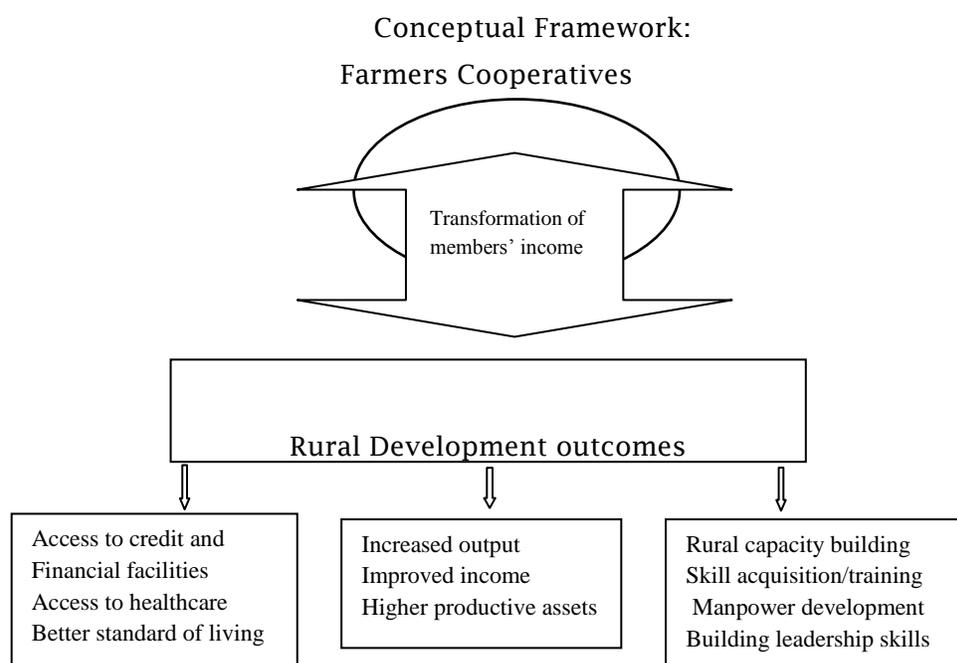


Figure 1: conceptual framework of the effect of Farmers Cooperative societies' activities on rural development. (Source: developed from the Literature reviewed)

#### Theoretical Framework

The theoretical framework of this study is built on the Theory of Social Action.

The Social Action Theory: The social action theory was introduced by Max Weber in 1922. It is a community-oriented model that is used to increase the problem-solving ability of entire communities through achieving concrete changes towards social justice. That is, individuals within communities come together to redress the imbalance of powers or privileges between a disadvantaged group and society at large. Three major tenets of social action theory is that:

- i. It requires the *involvement of a group of people*,
- ii. It requires a *shared interest* within the group, and
- iii. It involves some kind of *common action* which works in pursuit of that shared interest.

The nature of cooperative societies is easily explained by the Social Action Theory. Cooperative societies are made up of individual who through a combination of resources are able to confront and overcome several socio-economic challenges

confronting them. Individuals feel more empowered without discrimination when they work together in cooperative to strengthen their businesses thereby improving their economic status. Social action theory is relevant to this study because it explains the gains, motives and expectations that propelled individual farmers to join or

form cooperatives. It is generally believed that farmers believed that joining cooperatives could help them improve their economic capacity and by extension the capacity of rural communities. This theory will help to explain the reasons behind joining cooperative from rural development point of view.

#### Empirical Review

[11] assessed the farmers cooperatives roles in agricultural development in Sabuwa Local Government Area, Katsina State, Nigeria. The primary data was collected with the aid of a structured questionnaire. Purposive sampling technique was employed in the selection of 60 members among registered farmers Cooperative members in the study area. Based on the findings, it was recommended, among other things, that agricultural policy makers and economic planners should take into cognizance the morale boosters for the cooperative organizations such as lowering interest rates on granting credit facilities, empowering the farmers cooperatives to perform through legislative control and adopting cooperatives as effective strategy towards socio-economic transformation of the less privileged and disadvantaged areas and by so doing, assist in fostering regional balance in our developmental efforts. Ofuoku and Urang (2009) assessed the effect of cohesion of farmer co-operatives societies on loan repayment among members in Delta State, Nigeria using Spearman's rank order correlation analysis. The study observed an almost perfect positive relationship between rates of loan repayment perception and cohesion. Consequently, they recommended that extension agents should take advantage of the effect of cohesion on loan repayment to promote cohesion in upcoming co-operative societies. Olujenyo (2008) investigated something similar, but he considered the determinants of agricultural production and profitability with special reference to maize production in Akoko North East and South West Local Government Areas of Ondo State. His findings revealed that cooperative membership, years of experience, and availability of credit were very significant determinant of output and profitability. [16] conducted an Investigation of the Impact of Co-operative Movement in Rural Development in Kenya. The study's overall objective was to investigate the impact of Co-operative movements in rural development in Kenya.

The study was descriptive in nature. The study found out that Agricultural cooperatives have played significant roles in reducing unemployment problem in the study area by generating permanent and temporary employment to both skilled and unskilled individuals, providing credit and/or grant-based financial support to unemployed people, which enable them to engage in micro and small activities, and building the confidence and awareness of the local people. [8] studied Farmers cooperatives and agricultural development in Kwali Area Council, Federal Capital Territory Abuja, Nigeria. The study remarked that cooperatives as self help organization has been contributing significantly to economic growth and development in terms of empowering poor people and creating enabling environment to participate actively in economic process in areas of providing social protection. Findings revealed that cooperatives play critical roles in rural transformation and is the most significant variable for empowering rural poor and farmers ,while [14], posited that cooperatives have been used successfully to establish small-scale industries, health care centres, poultry farm and food processing plants especially in Enugu State. [17], did a study that examined cooperative associations as a tool for rural development and poverty reduction in Rwanda. Case study of cooperatives in AbahuzamugambibaKawa based in Maraba sector, Huye District in Southern Province. The sample population comprises the members, management and Board of the cooperative society. The research questionnaire was used to gather data from members, management and populace. The findings of the study are on the rural cooperatives and the need for education programming in the areas of cooperative member ownership and ways in which to increase participation in decision making. The cooperative associations have proven to be the best means to realize developmental goals

and poverty reduction working in a humble way at grass root levels. Nnadi, F.N.; Chikaire, J.; Osuagwu, C.O.; Oguegbuchulam, M.N.; Oparaojiaku, J.; Jamilu, A.A.; and Osigwe, T. (2011) evaluated Cooperatives - A Vehicle for Rural Development: The Case of Ahiazu Mbaize Area of Imo State Nigeria. The specific objectives of the study were to determine the contributions of cooperatives in infrastructural and agricultural development, identify problems of cooperatives, as well as people's perception of cooperatives. A random sampling technique was adopted in selecting ten (10) from nineteen (19) cooperatives. Data were analyzed using simple descriptive statistics (frequency distribution and percentage). The study reveals that major constraints to cooperative societies include lack of technical support and credit facilities, government negligence, and inconsistent policies. It was noted that cooperatives play active role in provision of basic amenities and social services to boost the life of rural populace. Ogbeide (2015) conducted a research on An Assessment of Co-operative Society as a Strategy for Rural Development in Edo State of Nigeria. The study assessed the role of co-operative societies as a development strategy. The study was conducted in Edo State of Nigeria. One hundred and fifty respondents were selected using a convenient sample technique. They were drawn from three local government areas of the State. A structured questionnaire was used to collect data from the respondents. Statistical analysis was accomplished by means of frequency distribution, percentages and Chi square. The result of the analysis showed that the co-

operative society strategy is successful and should indeed be encouraged in the development of the rural communities. The study showed that there is a significant relationship between the co-operative society and the growth in size of the rural business in the rural community and that there is also a significant relationship between the growth in the co-operative society and the creation of employment in the rural community. Musa and Ade (2014) studied farmers' cooperatives and agricultural production in Kwali Area Council, Federal Capital Territory, Abuja, Nigeria. The study aimed at evaluating the influence of cooperative farmers in agricultural production. The study found out that cooperative societies are veritable means of improving food production in Nigeria. Primary data were generated through the administration of structured questionnaire among 270 respondents using purposive sampling technique. The study concluded that there is need to organize farm training and retraining programmes to better their lives. [18] did a research on Nigerian Agricultural Cooperatives and Rural Development in Ivo L.G .A., Ebonyi State, Nigeria. The cooperatives have greatly contributed to agricultural development in Ivo Local Government Area by provision of cash to smallholder farmers, processing, marketing and group management. Based on the findings, the researchers concluded that the agricultural cooperative societies in Ivo Local Government Area, Ebonyi State, Nigeria have contributed to rural and agricultural development despite the identified constraints.

Table 1: Summary of Empirical Review

S/N	Author(s)	Year	Area of Study	Title	Methodology	Findings
1	Olujenjo	2005	Ondo State	The Determinants of Agricultural Production and Profitability in Akoka Land, Ondo State, Nigeria.	Gross margin and profit analysis was used on 120 respondents	Cooperative membership and farming experience were significant determinant of output and profitability
2	Wayama <i>et al</i>	2008	Africa	Encountering Evidence: Cooperatives and Poverty Reduction in Africa.	Mean rating, Chi-square and Levene test were used on data generated from 160 respondents.	Cooperative contributed significantly to ownership and acquisition of enterprise assets in Kenya, South Africa and Egypt
3	Enete	2008	Enugu State	Political and Genuine Cooperatives in Enugu State, Nigeria	Questionnaire was used on 200 respondents and statistical analysis was done on the data generated	Cooperatives have been used successfully to establish small-scale industries, health care centres, poultry farm and food processing plants.
4	Ofuoku and Urang	2009	Delta State	Effect of cohesion on loan repayment in farmers' cooperatives societies in Delta State, Nigeria	Spearman's rank order correlation analysis	Strong and positive correlation exist between high loan repayment and duration in cooperatives
5	Adebayo <i>et.al</i>	2010	Kwara State	Cooperatives and Poverty Alleviation in Rural Settlements of Kwara State, Nigeria.	Questionnaire and inferential analysis were used on two hundred respondents	Cooperatives were best at realizing developmental goals and achieving grass root transformation
6	Nnadi	2011	Imo State	Cooperatives- A Vehicle for Rural Development: The Case of AhiazuMbaise Area of Imo State, Nigeria.	10 cooperatives were studied using descriptive statistics	Cooperative can play leading role in rural development if they increase enlightenment and education

7	Gweyi <i>et.al</i>	201 3	Kenya	An Investigation of the Impact of Co-operative Movement in Rural Development in Kenya	Questionnaire and interview were used to generate data which were analyzed using mean rating and descriptive statistics	Cooperative societies play significant role in generating temporary and permanent employment
8	Yunusa and Adefile	201 4	FCT Abuja	Farmers cooperatives and agricultural development in Kwali Area Council, Abuja	Questionnaire and interview were used on 270 respondents and data were analyzed using descriptive and inferential statistics	Cooperatives play critical role in rural transformation and in empowering the rural poor.
9	Adefile and Madaki	201 4	Katsina State	Roles of Farmers' Cooperatives in Agricultural Development in Sabuwa Local Government Area of Katsina State, Nigeria.	Structured questionnaire distributed to sixty farmers and data analyzed with regression and descriptive statistics	Income, agricultural output and leadership potentials of respondents who belonged to cooperative were higher than non cooperative members
10	Musa and Ade	201 4	FCT Abuja	Farmers Cooperative and Agricultural Production in Kwali Area, Capital Territory, Abuja, Nigeria.	270 respondents were studied using regression and chi-square	Cooperative can perform better at improving rural economies especially through input mobilization and fraternity.
11	Ogbeide	201 5	Edo State	An assessment of Co-operative Society as a Strategy for Rural Development in Edo State of Nigeria	150 copies of questionnaire was used together with regression and descriptive statistics	Strong relationship exists between duration in cooperative and size of rural enterprise. Indeed, cooperative create rural employment
12	Nnadozie <i>et.al</i>	201 5	Ebonyi State	Nigerian Agricultural cooperatives and Rural Development in Ivo L.G.A of Ebonyi State.	Questionnaire was used on 200 respondents and statistical analysis was done on the data generated	Cooperatives have contributed significantly to rural and agricultural development despite myriads of constraints facing them.

#### Gap in Empirical Literature

Most studies in the empirical review examined the roles of cooperative societies in agricultural development in some African countries and some states in northern Nigeria while others discussed agricultural output in general. However, this study deemed it

necessary to examine the effect of farmers cooperative societies' activities on rural development indicators so as to affirm the extent to which they affect rural development specifically in Nigeria and particularly in Anambra State.

## METHODOLOGY

### Research Design

The researcher adopted a descriptive survey research method. Descriptive research method is concerned with describing the characteristics of particular individuals or groups. Descriptive research is therefore concerned with specific prediction, with narration of facts and characteristics concerned with individuals, groups or situations. Descriptive survey method is usually available for collecting original data about human behaviour, groups or

households. It allows for the use of questionnaire and it is used to study people's attitudes, feelings and opinions. In the words of [21], descriptive survey research consist of asking questions, collecting and analyzing data from supposedly representative members of the population at a single point in time with a view to determining the current situation of that population with respect to one or more variables under investigation.

### Area of Study

This study was carried out in Anambra State. Anambra is a State in South-Eastern Nigeria. Its name is an anglicized version of the original 'OmaMbala', the native name of the Anambra River which is a tributary of the famous River Niger. Anambra State is made up of three senatorial zones. Anambra State was created on 27th August, 1991 from the old Anambra State. It derives its name from the Anambra River, which is a tributary of the River Niger. The state occupies a landmass of 4416 square kilometers. The state has 177 communities in 21 Local Government Areas (LGAs). The population of the state is about 4,182,032 with an estimated annual growth rate of 2.8% [24]. The Capital and the Seat of Government is Awka. Onitsha and Nnewi are the biggest commercial and industrial cities. The State's theme is "Light of the Nation". The boundaries are formed by Delta State to the west, Imo State and Rivers State to the south, Enugu State and Abia State to the east, and Kogi State to the north. The indigenous ethnic groups in Anambra State are the Ibos (98% of

population) and a small population of Igala (2% of the population) who live mainly in the north-western part of the State. Anambra is the eighth most populated state in the Federal Republic of Nigeria and the second most densely populated state in Nigeria after Lagos State. The stretch of more than 45 km between Oba and Amorka contains a cluster of numerous thickly populated villages and small towns giving the area an estimated average density of 1,500-2,000 persons per square kilometer. Anambra is rich in natural gas, crude oil, and bauxite, ceramic and has an almost 100 percent arable soil. The main occupations in Anambra State are farming, trading and civil service. The major crops grown in the area include cassava, yam, maize, cocoyam and vegetables. The animals reared include goat, sheep, fishery, poultry and piggery. Non-agricultural activities in the areas are petty trading, salons, barbing, vulcanizers and civil service. Over 60% of the population belong to different forms of cooperative societies.

### Sources of Data

The study relied heavily on both primary and secondary sources of data. Primary data were collected using structured questionnaire administered on some members of the Management committees and the ordinary

members. Secondary data was also sourced from journals, published books, internet, magazines and unpublished works of other researchers in related fields of study.

### Population of the Study

The population for this study comprised of all registered and active farmers cooperative societies in the four agricultural Zones of Anambra State. In according with the Ministry of Commerce, Trade, Market and wealth creation, Anambra State (2021), there are 546

functional farmers cooperative societies with total membership strength of 19266 across the 21 Local Government Areas in Anambra State. They constitute the population of the study.

### Determination of Sample Size

The selection of the sample for the study involved multi-stage random sampling technique which involved three stages. This

was done in line with the four agricultural zones in Anambra State in order to have a convenient sample size

### Sampling Techniques

The selection of the sample for the study involved multi-stage random sampling technique which involved three stages. The first Stage involves a purposive selection of two LGAs that are predominantly rural and agrarian from each of the four agricultural zones in Anambra State, namely; Awka, Onitsha, Aguata and Nnewi Zones. Second

stage involved random selection of 20% of the cooperatives from the cooperatives in the selected local government area. The third stage involved proportional and random selection of 50% of members from each the selected cooperatives. Therefore, a total of 326 members were selected from 30 farmers cooperatives as sample size.

Table 2: Population Distribution of farmers Cooperative Societies in Anambra State.

Agricultural Zone/LGA	No. of functional cooperatives	No. of selected cooperatives	Membership strength	No. of members selected
Awka Zone	23	4	102	49
Awka North	18	3	63	32
Dunukofia				
Onitsha Zone	18	3	74	38
Ogbaru	21	4	93	46
Anambra East				
Aguata Zone	22	4	94	47
Orumba North	17	3	83	41
Orumba South				
Nnewi Zone	19	3	75	35
Ihiala	16	3	77	38
Ekwusigo				
Total	154	27	661	326

(Source: Field survey 2022)

### Method of Data Collection

The instrument used for data collection is a structured questionnaire designed and validated by experts in line with the objectives of the study. Information obtained (section A) were on socio-economic characteristics of the farmers such as age, gender, education, farm size, household size, location, membership of cooperative and output before and after joining the cooperative. Others included their relationship and involvement with cooperatives. Section B of the questionnaire

focussed on effects farmers cooperative societies' activities on rural development in the areas of income, standard of living, capacity building and acquisition of productive assets. A five - point rating scale was employed to capture the extent of agreement and disagreement. Three hundred and twenty - six (326) copies of questionnaire were distributed, but only 300 were returned. The respondents were requested to express their opinion by ticking (✓) on a five - point, Likert scale as shown below.

SA-	Strongly Agree	5 points
A-	Agree	4 points
U-	Undecided	3 points
D-	Disagree	2 points
SD -	Strongly Disagree	1 point

The level of agreement on the effects of farmers' cooperatives societies activities on rural development indicators were compared to the mean rating threshold of 3.0. Any item

in the instrument which has a mean equal to or higher than 3.0 was regarded as agree; while any item with less than 3.0 was regarded as disagree.

Validity of the Research Instrument

In order to validate the face value and content quality of the research instrument, the draft questionnaire was issued to validates, including the lecturers in the field of study who critically examined the extent to which the instrument can capture the effect of

farmers cooperative societies' activities on rural development. They were provided with the objectives of the study, research questions and hypothesis. This was important to ensure the items actually generated the information required.

Reliability of the Research Instrument

The test-retest technique was used to ensure reliability of the instrument. To determine this, 30 farmers in Dunukofia L.G.A were selected and administered with the questionnaire twice at an interval of 12 days.

The correlation of the two sets of scores was computed using the Pearson's Product Moment Correlation as 0.912. The high coefficient indicated good consistency of the questionnaire

Table 3:

		First session	Second session
First session	Pearson Correlation	1	.912**
	Sig. (2-tailed)		.000
	N	20	20
Second session	Pearson Correlation	.912**	1
	Sig. (2-tailed)	.000	
	N	20	20

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Method of Data Analysis

Both descriptive and inferential statistics were employed in achieving the objectives of the study. Frequency distribution, percentages and mean score rating were used to achieve objectives one, three and four. A mean score of 3.50 and above was

considered significant, while less than 3.49 were considered not significant. Hypotheses were analyzed using ANOVA and regression equation while t-statistics and F-test were used to test whether to accept or reject the hypothesis at 5% level of significance.

DATA PRESENTATION AND ANALYSIS  
Table 4: Socio-economic characteristics of the respondents

No.	Variables	Frequency	Percentage(%)
1.	Sex		
	Male	125	41
	Female	175	59
	Total	300	100.00
2.	Age		
	Less than 25	31	10
	26- 40	74	25
	41-65	143	48
	Above 65	52	17
	Total	300	100.00
3.	Marital status		
	Single	45	15
	Married	191	64
	Widowed/divorced	64	21
	Total	300	100.00
No.	Variables	Frequency	Percentage(%)
4.	Farm size	143	48
	Less than 1 hectare	121	40
	1- 3 hectare	36	12
	Above 3 hectare		
	Total	300	100.00
5.	Educational qualification		
	No formal education	66	22
	Primary	131	43
	Secondary	89	30
	Tertiary	14	5
	Total	300	100.00
6	Household size		
	1-3	37	12
	4-6	68	23
	7-9	125	42
	10-12	58	19

	Above 12 Total	12 300	4 100
7	Years of cooperative membership		
	0-5 years	53	18
	6-10 years	136	45
	11-15 years	74	25
	16-20 years	35	12
	Above 21 years	2	1
	Total	300	100

(Source: Field survey 2022)

Table 5 Distribution on socio-economic characteristics that influence rural income

S/N		Mean (x)	Standard deviation	Decision
1	Sex	2.90	0.895	Rejected
2	Age	3.53	0.675	Accepted
3	Education	4.45	0.785	Accepted
4	Farm size	3.62	0.870	Accepted
5	Household size	2.23	1.065	Rejected
6	Marital status	1.67	0.654	Rejected
7	Farming experience	3.89	0.674	Accepted
8	Cooperative membership	3.99	0.543	Accepted

## Test of Hypotheses

## Hypothesis I

HOI Socio-economic characteristics of cooperative members do not have significant effect on rural income.

Table 6: Regression Estimates (Effects of socio-economic characteristics on rural farm income)

Model	Coefficient Estimates	t-Value	Significance
(CONSTANT)	1.187	5.023	0.030
Sex	0.184	1.904	0.273
Marital status	0.206	1.860	0.428
Education	2.016	4.121	0.039
Housize	3.099	3.763	0.178
Farmexp	1.713	4.871	0.016
Coopdura	2.205	6.194	0.026
Age	0.421	1.437	0.076
$R^2$	0.814		
Adj $R^2$	0.797		
F	8.774 (Sig. @ 0.05)		

*Dependent Variable: Annual Rural farm income*

The estimates of  $R^2$  and Adj.  $R^2$  suggest that all the variables in the model collectively accounted for more than 81% of the variations

farm income. The F ratio value of 8.774 was significant at 5% level. All the variables had expected positive signs suggesting direct

relationships with rural farm income. However, only education, farm experience, age and cooperative duration were significant. Sex of the farmer, marital status and household size were not significant. This, therefore, suggests that some socio-economic characteristics of farmers have influence on

rural farm income. The null hypothesis that the Socio-economic characteristics of agricultural cooperative members do not have significant effect on rural income was, therefore, rejected. We therefore conclude that socio-economic characteristics of farmers have effect on rural farm income.

Table 7 Distribution on rural welfare indicators of farmers before and after joining cooperative

Indicators	Before joining the cooperative	Percentage %	After joining the cooperative	Percentage %
Output				
Less than 1metric tonne	110	37	58	19
1-3 tonnes	98	33	90	30
4-10 tonnes	80	26	112	37
Above 10 tonnes	12	4	40	14
Total	300	100	300	100
Annual farm income				
Less than 200,000	96	32	41	14
200,001-500,000	82	27	63	21
500,001-1,000,000	71	24	96	32
Above 1,000,001	51	17	68	23
Above 5,000,001	0	0	32	10
Total	300	100	300	100
Value of productive assets (₦)				
Less than 500,000	96	32	39	13
500,001-2,000,000	109	36	89	30
2,000,001-5,000,000	59	20	93	31
Above 5,000,001	34	11	46	15
Above 10,000,001	2	0	33	11
Total	300	100	300	100

Hypothesis II:

HO2. There is no significant difference in rural income, output and value of productive assets

of farmers before and after joining cooperative societies.

Table 8 ANOVA Table showing whether difference exist in the productive assets of farmer before and after joining the cooperative

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	4.816	1	6.236	6.588	.017
Within Groups	82.118	299	.672		
Total	86.934	300			

Table 9 Distribution on effects of farmers cooperative activities on rural standard of living

S/N		Mean	S.D	Decision rule
1	Provision of access to market	3.55	1.050	Accepted
2	Adoption of innovation	3.64	0.98	Accepted
3	Supply of inputs	4.50	2.06	Accepted
4	Access to credits	3.87	0.76	Accepted
5	Access to grants/aids	2.97	0.82	Rejected
6	Increased output	3.78	1.64	Accepted
7	Better state of health through knowledge sharing	3.45	1.51	Rejected
8	Increased inclusion owing to fraternity	2.56	0,52	Rejected
9	Better financial shock management	4.00	0.48	Accepted
10	Insurance and guarantee services	3.68	1.92	Accepted
11	Training on life skills and voice in community decisions	3.34	1.88	Rejected
12	Increased variety owing to bulk buying/ strong bargaining power	3.54	0.59	Accepted

## Hypothesis III

Ho3. Cooperative membership does not have significant effect on rural standard of living

Table10 Regression estimates (Effect of farmers cooperatives activities on rural standard of living)

Model	Coefficient Estimates	t-Value	Significance
(CONSTANT)	1.247	2.753	0.009
Sex	2.324	1.984	0.053
Edu	1.571	2.761	0.039
Marital status	0.606	0.65	0.078
Housiz	2.090	2.961	0.139
Productasset	3.453	3.763	0.028
Farmexp	1.897	2.971	0.026
Duracoop	0.217	3.174	0.030
Anicom	2.452	3.671	0.019
Age	-0.251	2.207	0.016
$R^2$	0.794		
$Adj R^2$	0.779		
$F$	21.670 (Sig. @ 0.05)		

Dependent variable = Annual farm output in tones.

## DISCUSSION OF FINDINGS

Table above showed the socio-economic features of the respondents with regards to sex, age, marital status, farm size, educational qualification, household size and years of cooperative membership. The respondents have a blend of males and females. Female

respondents constitute 59% of the sample, while the 41% represented the male. The result revealed that the sample concentrated mainly on the active population with people between 26-65 years constituting over 63% of the sample. Seventeen percent of the sample

was above 65 years, while 10% were less than 25 years. Fifty-eight percent of the sample was married, while 14% were widowed/divorced. Only 28% were single. In terms of farm size of the respondents, majority have less than 3 hectares (88%). Only 12% had more than 3 hectares. Result revealed that majority of the respondents attempted primary and secondary education. (73%). Twenty-two percent do not have any formal education, while 5% attempted tertiary education. Furthermore, the result showed that majority of the respondents in the sample had large household. Sixty-one percent of the respondents had household

#### Regression Estimates (Effects of socio-economic characteristics on rural farm income)

The estimates of  $R^2$  and Adj.  $R^2$  suggest that all the variables in the model collectively accounted for more than 81% of the variations farm income. The F ratio value of 8.774 was significant at 5% level. All the variables had expected positive signs suggesting direct relationships with rural farm income. However, only education, farm experience, age and cooperative duration were significant. Sex of the farmer, marital status and household size were not significant. This, therefore, suggests that some socio-economic characteristics of farmers have influence on rural farm income. The null hypothesis that the Socio-economic characteristics of agricultural cooperative members do not have significant effect on rural income was, therefore, rejected. We therefore conclude that socio-economic characteristics of farmers have effect on rural farm income. Table above revealed that there was an appreciable increase in the output, annual farm income and in the value of productive assets of farmers after they joined cooperative. About 18% of farmers who previously produced less than 1 tonne had a significant improved in the volume of their output. Before joining the cooperative, 63% produced more than 1-3 tonnes but after joining the cooperative, the percentage jumped to 81%. Before joining cooperative, only 4% produced above 10 tonnes but after joining cooperative, the number of people that produced over 10 tonnes jumped to 14%. In terms of annual rural income, 32% earn less than ₦200,000 (Two Hundred Thousand Naira) but after joining cooperative, the number decreased to 14%. Sixty-seven percent of farmers earn between ₦ 200,001- ₦5,000,000 (Two Hundred and one thousand Naira - Five

size of 7-12 persons. Thirty-five had less than 6 persons, while 4% had more than 12 persons. As shown on Table above, majority of the respondents (70%) have been in the cooperative for between 6-15 years. Eighteen percent have spent less than 5 years, while 13% had spent over 16 years in the cooperative business enterprise. Table above revealed that socio-economic characteristics of farmers that influence rural farm income were age, education, farm size, farming experience and cooperative membership. Other characteristics like sex, marital status and household size were rejected.

million Naira) before joining cooperative but after joining cooperative, the number increased to 73%. Nobody was earning above ₦5million previously but after joining cooperative, over 32 farmers started earning above ₦5,000,000 (five million Naira) annually. In terms of the value of productive assets, nobody had asset worth of over ₦10,000,000 (ten million Naira) previously. But after joining cooperative, 11% entered the category. The percentage that previously had less than ₦500,000 worth of assets reduced by 19% after joining cooperatives. In table above, the ANOVA test revealed that there was a significant difference in the annual output, annual farm income and value of productive assets of farmers before and after joining cooperative. All the indicators were significant at 0.05 level of significance with F-value of 6.5888. Table above revealed that major effects of farmers cooperatives on rural standard of living were in the areas of provision of access to market, adoption of innovations, supply of inputs, access to credit, increased output, better financial shock management and provision of insurance and guarantee services. However, activities that do not have significant effect in rural standard of living include access to grants, Better state of health through knowledge sharing, increased economic inclusion and training on life skills and voice in community decisions. The estimates of  $R^2$  and Adj.  $R^2$  suggest that all the variables in the model collectively accounted for more than 79% of the variations farm income. The F ratio value of 21.670 was significant at 5% level. All the variables had expected positive signs suggesting direct relationships with rural farm output except age which has

negative relationship. However, educational qualification, value of productive assets, farm experience, number of years spent in cooperative, annual farm income and age were significant. Sex, marital status, household size and educational qualification were not significant. This, therefore suggest

that duration in cooperative societies have influence on rural farm output. The null hypothesis that farmers cooperatives do not have effect on rural standard of living was therefore rejected. Therefore, we conclude that Farmers cooperatives have effect on rural farm output.

#### SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

##### Summary of findings

The socio-economic characteristics of farmers that had significant effect on rural income were education, farm experience and duration in cooperative. There is significant difference in rural welfare indicators (income, output and value of productive assets of farmers before and after joining cooperatives. Farmers cooperatives affect rural standard of living by providing access to market, adoption of innovation, supply of inputs, access to credit, increased output, better financial shock management and provision of insurance and

guarantee services. Duration on cooperative has significant effect on rural standard of living. Farmers cooperatives affect rural capacity building through provision of skills and training, creation of awareness and use of new technology, high capacity utilization of productive resources, improved management and maintenance of available resources and building of leadership skills. There is strong correlation between duration in cooperative and increase in the value of productive assets.

#### CONCLUSION

Cooperative societies have the potential to enhance rural development. In many developing economies, cooperatives have served as veritable tool for increasing productivity, providing access to market an improving market power for the economically weak populace, strengthening the capacity of vulnerable poor and making farm mechanization possible. This is an indication that these cooperatives when strengthened can play critical role in ensuring food security, rural transformation and improved standard of living for people in rural areas.

From the findings, it could be deduced that farmers cooperative societies not only increase welfare of their members but also build rural capacities too. It has the potentials to impact on agricultural productivity and increase in rural income thereby serving as engine of economic growth and development in rural areas. However, agricultural cooperatives still need some support especially in the area of capacity building, credit support, marketing and extension services and voice in community decision making.

#### RECOMMENDATIONS

Increased emphasis on capacity building through effective linkages and strong apexes. Since studies have established the important roles of farmers cooperative societies in rural development, efforts should be made by relevant agencies to strengthen their capacity. The cooperatives in Anambra State are operating as isolated entities and with low volume of business. The presence, more active participation, supervision and assistance of an apex body at national and district level would help to consolidate these small volumes and enable the cooperatives to benefit from economies of scale and meet the buyers' required volumes. Government and development stakeholders should back up their words with action in terms of developing rural capacity through

cooperatives. Cooperatives have proved to be a veritable platform for increasing rural welfare and rural capacities. This will come inform of capacity building of cooperative and provision of technical and financial assistance. There is growing need for enhancing members' technical skills and regular training in cooperative knowledge to help them gain a better understanding of the cooperative's function. This will improve the quality of member's participation and steer the cooperatives toward success.

Agricultural extension services need to be revived and activated. The number of extension officers in the Ministry of Agriculture and Local Government Areas need to be increased. They also need to be trained and motivated to offer their best to

cooperatives. There should also be effective way to evaluate their performance and track their contributions. There should be stronger collaboration between cooperatives and Ministry of Agriculture so that they will understand each other's viewpoints and

## CONTRIBUTION TO KNOWLEDGE

The study will contribute to the growth in body of knowledge and will also be of

## SUGGESTIONS FOR FURTHER STUDIES

The researcher suggests and recommends the following titles for further research

Effect of Multi - Purpose Cooperative Societies' Activities on Rural Development in

challenges. Also, seminars, workshops and symposia should be organized by Agricultural Development Programme office in the State, in collaboration with secondary cooperative societies in order to impart new skills and improved practice.

immense benefit to researchers, students and policy makers as reference material.

Nigeria. Effect of Agricultural Cooperative Societies on Rural Development in South -East Nigeria. Influence of Agricultural Cooperative Societies on Poverty Alleviation in Nigeria

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