

## **ASSESSMENT OF AGRICULTURAL COOPERATIVE FOR ACHIEVING SUSTAINABLE AGRICULTURAL DEVELOPMENT IN UDENU LOCAL GOVERNMENT AREA OF ENUGU STATE**

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### **Abstract**

*The study investigated the extent agricultural cooperative can enable the achievement of sustainable agricultural development in Udeno local government area of Enugu state. Specifically, the study sought to ascertain the extent to which agricultural cooperatives enable sustainable agricultural production and agricultural product marketing in Udeno local government area of Enugu state; also, to determine the challenges of agricultural cooperatives towards the achievement of sustainable agricultural development. Descriptive survey design was used for the study. The population of the study comprised of 1,368 members of the 52 registered agricultural cooperative societies in the local government. Four hundred (400) respondents were sampled using Taro Yamen statistical formula. The study was guided by three (3) research questions and two (2) hypotheses. An 18 item questionnaire was used to collect data for the study. The instrument was validated by three experts. Cronbach alpha technique was used to establish the reliability before administering the instrument to the respondents. Reliability co-efficient of 0.82 was obtained. The data collected were analyzed using mean and standard deviation for the research questions and t-test for the hypotheses. The findings, among others, were that agricultural cooperative improves farmers' knowledge and skills through periodic training and aids land acquisition for use by farmers. The study concluded with some far reaching recommendations as a way forward; one of which is that the leaders of various agricultural cooperatives should ensure that there should be timely provision of farm inputs for the farmers in order to increase productivity for sustainable agriculture.*

**Key words:** Agricultural Cooperative, Sustainable Agricultural Development.

### **Introduction**

The agricultural sector is a very significant sector in Nigeria towards ensuring sustainable food security; therefore a lot of effort has been channeled to improving agricultural structure in the country. However, the low productivity witnessed in the agricultural sector within the past decades proves that its performance has not been satisfactory. This is largely due to difficulty in developing appropriate organization and institution to mobilize members of the rural sector to a greater productive effort (International Cooperative Alliance (ICA), 2010). The farmers especially those in the

rural areas face several challenges; they face high transaction costs, inadequate access to agricultural infrastructures and information and inability to influence policies that could affect them (Herbel, Crowley, Ourabah, Lee, 2012). Nnadozie, Oyediran, Njoku, and Okoli, (2015) noted that most of the rural farmers are dispersed, fragmented and as a result, they face a big challenge in pooling their resources together towards raising their farm productivity and income. Consequently, there is need for cooperative society to enable the rural farmers pool their resources together to enhance sustainable agricultural development.

The role of cooperative society in solving mutual problems through organized and coordinated efforts cannot be over estimated. Cooperative society is an autonomous association of persons unified voluntarily to meet their common economic, social and cultural needs through a jointly-owned and democratically controlled enterprise (ICA, 2010). According to Siddique (2015), co-operative society is a voluntary association started with the aim of rendering service to its members; it is a form of business where individuals belonging to the same class join their hands for the promotion of their common goals. Therefore, agricultural cooperative is a voluntary organization formed by some group of farmers with the aim of pooling together their resources to achieve their common economic, social and cultural goals and objective. Through this initiative, rural farmers enhance sustainable agricultural development through their ability to influence agricultural policies and actions of the government which affects them.

Sustainable agricultural development implies constant improvement in agriculture so as to sustain the livelihood of the present generation and that of the future generation. Sustainable development involves the effective management of resources at hand in order to bring about a lasting improvement in the quality of life of the society, both for today and for the future (Nwachukwu and Ugwueze, 2017). This implies that sustainable development is the development that benefits the present people and also the generation to come. On the other hand, Malik and Dikko (2015) defined sustainable agricultural development as a sustained increase in the level of agricultural productivity over a reasonable length of time and the subsequent improved wellbeing of farmers as reflected in their higher per capita income and standard of living. Sustainable agricultural development is the development which ensures efficient production of safe high quality agricultural products, in a way that protects and improves the natural environment, the social and economic conditions of farmers, their employees and local communities (Agboeze, Agboeze, Ugwueze and Agbogo, 2017). Therefore, sustainable agricultural development implies the lasting improvement of safe high quality agricultural products.

Sustainable agricultural development is the main goal that all farming communities try to achieve in order to improve their living standards and that of their families. Agricultural cooperatives play a major role in achieving sustainable agricultural development through the production, processing, marketing, distribution

and financing of agricultural products (Ibitoye, 2012). Agricultural cooperatives deliver agricultural improvement services which include the provision of production input such as fertilizers, improved seedlings, and other chemical substances; agricultural cooperatives provide farmers with the necessary skills and knowledge about the agricultural new methods that aim at increasing the agricultural production (Nnadozie, Oyediran, Njoku, and Okoli, 2015). Hence, agricultural cooperatives play an important role in identifying the agricultural needs of the farmers, improving the farmers' education, delivery of agricultural input services, packaging and advertising of farm products among other services.

In Udenu local government area of Enugu state, Nigeria, there are various agricultural cooperatives which include agricultural thrift and credit cooperative, cashew processing and marketing cooperatives, palm wine production and marketing cooperatives, live goat marketing cooperatives, yam sellers cooperative, poultry women association, palm oil cooperative among others (Odo, 2019). These cooperatives provide their members with services such as credit, health, recreational and housing facilities; they also assist in the dissemination of information about modern practice in their respective area of agriculture (Muhammad, 2014). However, agricultural cooperatives in Udenu have always suffered some forms of setback resulting from the inadequate considerations given to cooperative societies, as a tool for empowering the farmers especially those in the rural areas (Odo, 2019).

Agricultural cooperative society in Udenu Local Government Area could help solve challenges related with organizations and mobilization of farmers with adequate information and equipments to bring about greater productivity. It could also help stabilize the price of farm products and inputs so the farmers would not have to suffer from sudden changes in prices for farm products and inputs. However, despite these clear benefits associated with agricultural cooperatives in Udenu local government area of Enugu state, most farmers still do not recognize the important roles agricultural cooperative could play in improving their productivity; this therefore keeps them away from the agricultural cooperative societies available to them. Furthermore, there is need for more empirical evidence on the extent to which cooperative societies could enhance sustainable development through improved agricultural production and marketing in Udenu Local Government Area of Enugu State. Hence the problem of this study is the assessment of the extent to which agricultural cooperative societies enhance the achievement of sustainable agricultural development in Udenu local government area of Enugu state.

### **Purpose of the Study**

The main purpose of the study is to assess agricultural cooperative for achieving sustainable agricultural development in Udenu local government area of Enugu state. Specifically, the study sought to:

1. Ascertain the extent to which agricultural cooperatives enhance sustainable agricultural production in Udenu local government area of Enugu state.
2. Ascertain the extent to which agricultural cooperatives enhance sustainable agricultural product marketing in Udenu local government area of Enugu state.
3. Determine the challenges of agricultural cooperatives towards the achievement of sustainable agricultural development in Udenu local government area of Enugu state.

### **Research Questions**

The following research questions guided the study:

1. To what extent does agricultural cooperative enhance sustainable agricultural production in Udenu local government area of Enugu state?
2. To what extent does agricultural cooperative enhance sustainable agricultural product marketing in Udenu local government area of Enugu state?
3. What are the challenges of agricultural cooperatives towards the achievement of sustainable agricultural development in Udenu local government area of Enugu state?

### **Hypotheses**

The following null hypotheses which were tested at 0.05 level of significance guided the study.

**HO<sub>1</sub>:** There is no significant difference in the mean rating of male and female farmers on the extent to which agricultural cooperatives enhance sustainable agricultural production in Udenu local government area of Enugu state.

**HO<sub>2</sub>:** There is no significant difference in the mean rating of male and female farmers on the extent to which agricultural cooperatives enhance sustainable agricultural product marketing in Udenu local government area of Enugu state.

### **Methodology**

A descriptive survey research design was used for the study. Nworgu (2015) remarked that descriptive survey studies aimed at collecting data on, and describing in a systematic manner the characteristics, features or facts about a given population. Therefore, the design was used as the study seeks to collect and analyze data from farmer in Udenu local government area of Enugu state, so as to assess the extent to which agricultural co-operative enhance sustainable agricultural development in the area.

This study was carried out in Udenu local government area of Enugu state. The population of the study comprised of the 1,368 members of the 52 registered

agricultural cooperative societies at the local Government trade and commerce office and the Enugu State Agriculture Development programme office at Udenu Local Government Area. 400 male and female farmers were selected as the respondents for the study using Taro Yamene's statistical formula. This technique was employed to reduce to level of sampling error and to make sure of a true representation of the population (Uzoagulu, 2011).

A structured questionnaire titled "Agricultural Cooperative for Sustainable Agricultural Development" (ACSAD) used for the study was developed by the researchers. The instrument made up of 18 items was face validated by three experts and used for the study. Cronbach Alpha technique was used to determine the internal consistency of the questionnaire items and a reliability coefficient of 0.82 was obtained. The questionnaire was distributed to the 400 male and female farmers during their quarterly cooperative meeting. From the 400 questionnaire administered, 385 were rightly completed accounting for accounting for 96 % return rate which was used for data analysis.

#### **Data analysis**

Data collected were analyzed using mean and standard deviation to answer the research questions while t-test of independent samples was used to test the hypotheses at 0.05 level of significance.

#### **Results**

The results were presented in line with the research questions and hypotheses that guided the study.

**Research Question One:** To what extent does agricultural cooperative enhance sustainable agricultural production in Udenu local government area of Enugu state?

**Table 1.** Mean analysis of rating of farmers on the extent to which agricultural cooperatives enhance sustainable agricultural production in Udenu local government area of Enugu state.

S/N	Item Statement	Group	N	Std.		
				Mean	Deviation	Decision
1.	Helps to reduce the cost of labour	Male farmers	200	2.65	0.35	HE
		Female farmers	185	3.05	0.40	VHE
2.	Improves farmers' asses to farm inputs	Male farmers	200	2.90	0.37	HE
		Female farmers	185	3.01	0.33	VHE
3.	Improves farmers' knowledge and skills through periodic training	Male farmers	200	2.58	0.33	HE
		Female farmers	185	3.30	0.27	VHE
4.	Improves the farmers' asses to credit and loans	Male farmers	200	2.90	0.42	HE
		Female farmers	185	2.57	0.37	HE
5.	Aids land acquisition for use by farmer members	Male farmers	200	3.12	0.48	VHE
		Female farmers	185	3.06	0.29	VHE
6.	Assists members with the hire and purchase of machines for production.	Male farmers	200	2.73	0.27	HE
		Female farmers	185	2.60	0.32	HE
<b>Overall Mean</b>		<b>Male farmers</b>	<b>200</b>	<b>2.82</b>	<b>0.37</b>	<b>HE</b>
		<b>Female farmers</b>	<b>185</b>	<b>2.93</b>	<b>0.33</b>	<b>HE</b>

**Key:** HE= High Extent; VHE= Very High Extent

Table 1 shows that the mean ratings of male and female farmers on the extent to which agricultural cooperatives enhance sustainable agricultural production in Udenu local government area of Enugu state. Mean rating on items 1 to 6 are within the range of 2.82 and 2.93; this is above the 2.50 criterion mean. This indicates that to a high extent, agricultural cooperatives enhance sustainable agricultural production in Udenu local government area of Enugu state.

**Research Question Two:** To what extent does agricultural cooperative enhance sustainable agricultural product marketing in Udenu local government area of Enugu State?

**Table 2:** mean analysis of rating of farmers on the extent to which agricultural cooperatives enhance sustainable agricultural product marketing in Udenu local government area of Enugu state.

S/N	Item Statement	Group	N	Std.		
				Mean	Deviation	Decision
1.	Helps to increase profit by sales through networking	Male farmers	200	2.60	0.29	HE
		Female farmers	185	2.99	0.34	HE
2.	Expands market opportunities of the farmers through provision of adequate information	Male farmers	200	3.34	0.47	VHE
		Female farmers	185	2.67	0.26	HE

3.	Increases farmers' bargaining strength	Male farmers	200	3.03	0.35	VHE
		Female farmers	185	2.52	0.31	HE
4.	Improves market competition	Male farmers	200	3.21	0.41	VHE
		Female farmers	185	3.62	0.39	VHE
5.	Improves the packaging potentials of farmers	Male farmers	200	3.10	0.43	VHE
		Female farmers	185	3.14	0.47	VHE
6.	Enables easy asses to governmental and non-governmental agencies in need of their products	Male farmers	200	3.44	0.38	VHE
		Female farmers	185	3.01	0.33	VHE
<b>Overall Mean</b>		<b>Male farmers</b>	<b>200</b>	<b>3.12</b>	<b>0.39</b>	<b>VHE</b>
		<b>Female farmers</b>	<b>185</b>	<b>2.99</b>	<b>0.35</b>	<b>HE</b>

Table 2 shows that the mean ratings of male and female farmers on the extent to which agricultural cooperatives enhance sustainable agricultural product marketing in Udeno local government area of Enugu state. Mean rating on items 1 to 6 are within the range of 2.99 and 3.12; this is above the 2.50 criterion mean. This indicates that to a very high extent, agricultural cooperatives enhance sustainable agricultural product marketing in Udeno local government area of Enugu state.

**Research Question Three:** What are the challenges of agricultural cooperatives towards the achievement of sustainable agricultural development in Udeno local government area of Enugu state?

**Table 3:** mean analysis of rating of farmers on the challenges of agricultural cooperatives towards the achievement of sustainable agricultural development in Udeno local government area of Enugu state.

S/N	Item Statement	Group	N	Std.		Decision
				Mean	Deviation	
1.	Insincerity and dishonesty among the leaders	Male farmers	200	3.42	0.42	Accepted
		Female farmers	185	2.92	0.41	Accepted
2.	Unnecessary bureaucracy for obtaining loans	Male farmers	200	2.58	0.33	Accepted
		Female farmers	185	3.63	0.32	Accepted
3.	Inability of government to subsidize farm inputs	Male farmers	200	2.60	0.29	Accepted
		Female farmers	185	3.30	0.27	Accepted
4.	Lack of member commitment to responsibilities	Male farmers	200	3.03	0.34	Accepted
		Female farmers	185	3.13	0.35	Accepted
5.	Politics among members	Male farmers	200	3.26	0.33	Accepted
		Female farmers	185	2.52	0.31	Accepted
6.	Inability of the members to repay loans as at when due	Male farmers	200	3.24	0.37	Accepted
		Female farmers	185	2.89	0.36	Accepted
<b>Overall Mean</b>		<b>Male farmers</b>	<b>200</b>	<b>3.02</b>	<b>0.35</b>	<b>Accepted</b>
		<b>Female farmers</b>	<b>185</b>	<b>3.07</b>	<b>0.34</b>	<b>Accepted</b>

Table 3 shows that the mean ratings of male and female farmers on the challenges of agricultural cooperatives towards the achievement of sustainable agricultural development in Udenu local government area of Enugu state. The mean ratings on items 1 to 6 are above the 2.50 criterion mean. This means that both the male and female farmers agreed that: Insincerity and dishonesty among the leaders, unnecessary bureaucracy for obtaining loans, inability of government to subsidize farm inputs, lack of member commitment to responsibilities, politics among members, and inability of the members to repay loans as at when due are the challenges of agricultural cooperatives towards the achievement of sustainable agricultural development in Udenu local government area of Enugu state.

### Hypotheses

**HO<sub>1</sub>:** There is no significant difference in the mean rating of male and female farmers on the extent to which agricultural cooperatives enable sustainable agricultural production in Udenu local government area of Enugu state.

**Table 4:** t-test analysis of the difference in the mean rating of male and female farmers on the extent to which agricultural cooperatives enable sustainable agricultural production in Udenu local government area of Enugu state

Respondents	Mean	SD	No	c-value	DF	t-cal	t-tab	Dec
Urban	2.82	0.37	200	0.05	107	3.23	3.35	Accepted
Rural	2.93	0.33	185					

The calculated t-value at 107 degree of freedom and 0.05 level of significance is 3.23. Since the calculated value of 3.23 is less than table value of 3.35, the null hypotheses is accepted. Therefore, there is no significant difference between the mean rating of male and female farmers on the extent to which agricultural cooperatives enable sustainable agricultural production in Udenu local government area of Enugu state.

**HO<sub>2</sub>:** There is no significant difference in the mean rating of male and female farmers on the extent to which agricultural cooperatives enable sustainable agricultural product marketing in Udenu local government area of Enugu state.

**Table 5:** t-test analysis of the difference in the mean rating of male and female farmers on the extent to which agricultural cooperatives enable sustainable agricultural product marketing in Udenu local government area of Enugu state

Respondents	Mean	SD	No	c-value	DF	t-cal	t-tab	Dec
Urban	3.12	0.39	200	0.05	107	3.15	3.19	Accepted
Rural	2.99	0.35	185					



The calculated t-value at 107 degree of freedom and 0.05 level of significance is 3.15. Since the calculated value of 3.15 is less than table value 3.19, the null hypotheses is accepted. Therefore, there is no significant difference between the mean rating of male and female farmers on the extent to which agricultural cooperatives enable sustainable agricultural production in Udenu local government area of Enugu state.

### **Discussion of Findings**

Results obtained for research question one showed that to a high extent, agricultural cooperatives enable sustainable agricultural production in Udenu local government area of Enugu state as it helps to: reduce the cost of labour, improves farmers' access to farm inputs, improves farmers' knowledge and skills through periodic training, improves the farmers' access to credit and loans, aids land acquisition for use by farmer members and assists members with the hire and purchase of machines for production. This finding is in line with the findings of Yamusa and Adefila (2014) which stated that small holder farmers stand a better chance of enjoying more agricultural inputs and credit facilities through the formation of agricultural cooperatives. This is so because through agricultural cooperative societies, farmers are able to get loans which ordinarily would not be available to them as individuals, the cost of labour also reduces for them due to the uniform price for acquiring labour.

In the findings of research question two, it was revealed that to a very high extent, agricultural cooperatives enable sustainable agricultural product marketing in Udenu local government area of Enugu state as it; Helps to increase profit by sales through networking, expands market opportunities of the farmers through provision of adequate information, increases farmers' bargaining strength, improves market competition, improves the packaging potentials of farmers and enables easy access to governmental and non-governmental agencies in need of their products. This agrees with the findings of Adefila and Madaki (2014) which revealed that agricultural cooperatives create a strong bargaining power for agricultural product marketing as it plays a pivotal role in changing government policies that affect cooperative farmers. Through the help of agricultural cooperative societies, farmers' rights could be defended and this will reduce or eliminate the exploitation of farmers in terms of price. This is made possible by the uniformity of price of a particular product in various locations.

Also, the findings from research question three revealed that the challenges of agricultural cooperatives towards the achievement of sustainable agricultural development in Udenu local government area of Enugu state include; insincerity and dishonesty among the leaders, unnecessary bureaucracy for obtaining loans, inability of government to subsidize farm inputs, lack of member commitment to responsibilities, politics among members, and inability of the members to repay loans as at when due are. This is in line with the earlier findings of Agbo (2009) who listed

Mismanagement, Overdue loans, unfulfilled promises and Diversion of Farm inputs as challenges facing cooperative societies in Enugu State. This is right because delay in repayment of loan will make it difficult for other individual farmers to have access to loan when they need it. This therefore, makes some of the farmers to lose faith in cooperative societies and hence quit participation in their activities.

### **Conclusion**

From the results of the study, it was revealed that agricultural cooperatives improves farmers' asses to farm inputs, improves farmers' knowledge and skills through periodic training, improves the farmers' asses to credit and loans, expands market opportunities of the farmers through provision of adequate information, increases farmers' bargaining strength, improves market competition and improves the packaging potentials of farmers.

Finally, insincerity and dishonesty among the leaders, unnecessary bureaucracy for obtaining loans, inability of government to subsidize farm inputs, lack of member commitment to responsibilities, politics among members are the challenges of agricultural cooperatives towards the achievement of sustainable agricultural development.

### **Recommendation**

Based on the findings of the study, the researchers recommend that:

- Micro-finance banks and agricultural banks should ensure that their conditions for giving loans are favorable to agricultural cooperatives; their interest rates should be low enough for agricultural cooperatives.
- Governmental and non-governmental agencies in Nigeria should improve on their patronage to agricultural cooperatives. Some farm product required by governmental and non-governmental agencies for charitable purpose or any other purpose should be purchased through agricultural cooperative societies. This will improve their economic base and enhance the confidence of the farmers in agricultural cooperative societies.
- The leaders of various agricultural cooperatives should ensure that there is timely provision of farm inputs for the farmers in order to increase productivity for sustainable agriculture.

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