



## Effect of farmer's multi-purpose cooperative society on the livelihood of members in Taraba State, Nigeria

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### Abstract

The study was conducted on effect of farmer's multi-purpose cooperative societies on the livelihood of the members in Taraba State, Nigeria. The specific objectives of the study were to; describe socio-economic characteristics of the members, determine the yield and income of farmers before and after joining MPCs and identify the constraints that faced by farmers MPCs in the study area. Data were collected from eighty (80) respondents randomly using structural questionnaire and were analyzed using frequency table, percentage, mean, likert scale and t-test. The result on socio-economic characteristics of the respondents revealed that majority (87.5%) were youths who are actively members of MPCs in the study area. Majority (75%) of the respondents were male than female who were members of MPCs in the study area. Most (87.5%) of the respondents were married. Therefore they were member of MPCs in order have high productivity and to take care of their family. Majority (87.5%) has household size less than 11 persons therefore they have to involve in MPCs to improve their productivity in order to sustain their selves and family. Majority (92.5%) of respondents attended one form of education or the others. Since most of them are literate they would understand skills and techniques in rice production. Majorities (80%) of the respondents in the study area occupation were farmers. The average years experience as a cooperative member was 26½ years and majority has average annum income of N350, 000 which enable them improved their livelihood activities. The results on yield and income of the farmers before and after joined farmers MPCs implies that before the farmers joined MPCs their yield was 1.92 tons per hectare and after they joined MPCs their average yield was 4.02 tons per hectare with yield difference of 2.10 tons, it shows that they farmers got more yield when they joined MPCs, it also indicated that MPCs have impacted positively on the livelihood of farmers in the study area. shows the average income of ₦259,891.30K before they joined MPCs and average income of ₦497,989.14K after joined the MPCs with the mean difference income was ₦238,097.83K This implies that the farmers' income increases after they joined MPCs which was due to increase in their yield. The result on constraints faced by farmers MPCs implies that insecurity, inadequate funds and conflict of interest among members were the major constraints that affected farmers MPCs in the study area. The major constraints faced include; were insecurity, inadequate funds and conflict of interest among members were the major constraints that affected farmers MPCs in the study area. Based on the findings of this study revealed that farmers MPCs have positive effect on the livelihood of its members in the study in terms of increase in yield and income, as well as improved living standard of the farmers. But the major problems associated with farmers MPCs in the study area were insecurity, inadequate funds and conflict of interest among members were the major constraints that affected farmers MPCs in the study area. Recommendations include; The government and communities should devise means of improve the security of life and properties of farmers through establishment of peace and conflict resolution committee, hunters and vigilante groups and create more awareness among farmers to avoid taken laws into their hands. They should always report any suspicious act to the appropriate authority. The affected farmers should also dialogue and forgive one another for peace to reign among them. The cooperative should diversify their resources into more viable investment that will yield more returns such as earnings; infrastructure; this will also encourage members to be actively participating as well as enable members to acquire skills that will empower them and increase funds and the members in position//executive should avoid self interest and abide with rules govern the cooperative societies in order to achieve its objectives

**Keywords:** Effect, farmers, multi-purpose, cooperative society, livelihood, members

### Introduction

Promoting the livelihoods of the poor has become more urgent in the current economic climate. It calls for organizations such as cooperative societies to use their resources optimally to achieve maximum scale. According to Chikaire (2011), the primary reason to promote livelihoods is the belief in essential right of all human beings to equal opportunities and ensuring that poor households have a stable livelihood which will substantially increase their income over a period of time; also to asset ownership; self esteem, as well as sense of socio-economic

inclusion. He further stated another reason for livelihood promotion is to promote economic growth.

Livelihood is a set of economic activities involving self employment and or wage employment by using one's endowment to generate adequate resources for meeting the requirements of self and household and this is usually carried out repeatedly; as such become a way of life. Ideally, a livelihood should keep a person meaningfully occupied in a sustainable manner with dignity (FAO and ECOWAS Commission 2018). Therefore, livelihood goes far beyond generating income which is also

much more than employment. Cooperative Society has long been recognized as a source of livelihood for the African poor rural household as well as engine for economic growth. The ability of a household to exchange or move surplus from a region of comparative advantage to a region with less potential within a country or across national borders is an important ingredient towards the growth of Cooperative Society and improvement of rural livelihood (Muchopa 2011) [5].

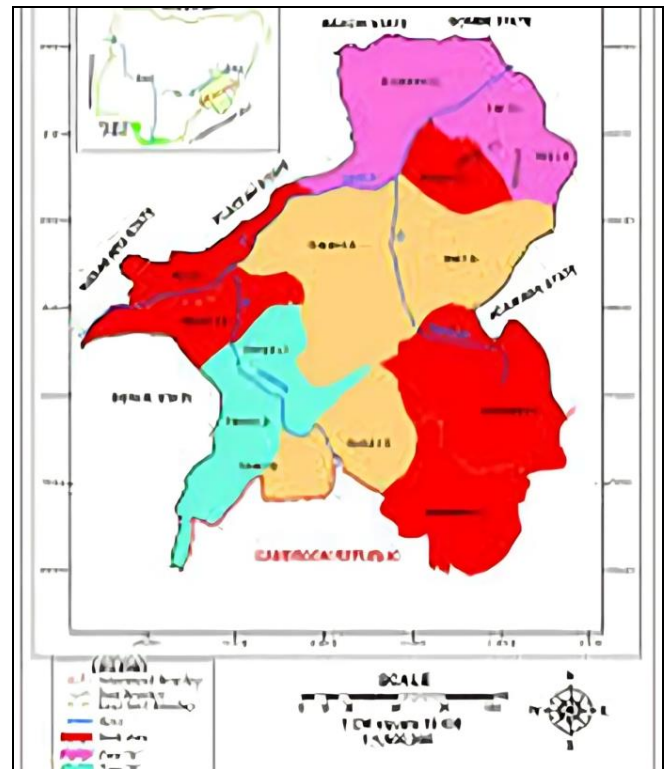
According to Arua (2004) [2], promotion of livelihood should be concentrated on human resources and people of grass root levels and they should be mobilized to work together voluntarily to gather scarce resources together within their disposal. In this context, cooperative, specifically agricultural cooperatives play a vital role in the promotion of livelihoods. People participate directly in Cooperative Society and they create and increase productivity, which are the major indicators for poverty reduction and promotion of livelihood in general. The cooperative league of the USA as cited in Chikaire (2011) asserted that a cooperative being a business that is owned by its members can operate the business to service themselves.

According to World Bank (2005) [6], the pyramid comprises nearly 4 billion or 6 billion people in the world, who do not have the purchasing power to buy even the bare necessity of life, e.g. food, clothing and shelter. But, as they get steadier incomes through livelihood promotion, they become customers of many goods and services, which then promote economic growth. Also, another reason for promoting livelihood is to ensure social and political stability, because when people are hungry and idle, there tends to be violence, crime and other social vices (Chikaire, 2011; Adeyemo, 2005; Adinya, 2008). Thus, we see that there are idealistic, utilitarian and plain self interest based arguments for livelihood promotion.

### Methodology

The study was conducted in Taraba State; Taraba state is located at the north eastern part of Nigeria. It lies between latitude  $6^{\circ} 30'$  and  $8^{\circ} 30'$  north of the equator and between longitude  $9^{\circ} 00'$  and  $12^{\circ} 00'$  east of the Greenwich meridian. The state shares boundaries with Bauchi and Gombe states in the north, Adamawa state in the east, and the Cameroon Republic in the south. The state is bounded along its western side by Plateau, Nassarawa and Benue states. The state has a land area of  $60,291\text{km}^2$  with a population of about 2.5 million people (projected from the 2006 National Population Census). It is divided into sixteen Local Government Areas (LGAs) and three senatorial districts (Taraba north, central and south). The state has an average annual rainfall of 1,766mm with a temperature of about  $30^{\circ}\text{C} - 40^{\circ}\text{C}$ . It is characterized by dry and rainy season common to tropical region. Taraba State is regarded as Nature's Gift to the Nation because of its abundant natural resource endowment. The state is well endowed with abundant solid mineral resources, surface water resources, arable and grazing land. The major occupation of the people of Taraba State is agriculture. The state is blessed with climate and vegetation types that cut across the country, ranging from a more humid climate and forest vegetation in the south to a more seasonal wet and dry climate and savanna vegetation in the north. These favour the growth of tree crops such as palm oil, banana/plantain, orange etc. Root crops in the state include cassava, potato and yam,

while cereals include maize, rice, millet, sorghum and guinea corn. Cash crops produced in the state include coffee, tea and groundnuts. In addition, cattle, sheep and goats are reared in large numbers, especially on the Mambilla Plateau, and along the Benue and Taraba river valleys (Oruonye and Abbas, 2011). Communities living on the banks of River Benue, River Taraba, River Donga and Ibi (on the bank of River Benue) engage in fishing activities all year round. The state is also a tourist haven in the country. The famous Mambilla plateau with its beautiful landscape characterized by valleys and waterfalls and its lush green vegetation makes the state a potential pace-setter in the field of tourism in the country. The Gashaka-Gumti National Park located at the foot of the Mambilla plateau is another major outstanding tourist landmark in the state. It is not only the largest of the eight National Parks in the country, but it is the most diverse in terms of species in the whole of West Africa, harbouring such rare animals like the colobus monkey and warthogs, including buffalo, roam ante-lope, chimpanzee, hippopotamus, hyena, giant forest hog, lion and leopard (Oruonye and Abbas, 2011). Taraba State is one of the Nigerian states with the most diverse ethnic groups comprising over 80 ethnic groups.



Source: Department of geography, Taraba State University Jalingo.

Fig 1: Map of Taraba State showing the study areas

### Source of Data Collection

This study adopted the use of both primary and secondary data. Primary data were been collected through the use of structured questionnaire while secondary data were been obtained through journals, conference paper, reports and internet.

### Sampling Procedure and Sample size

The study population comprises of all the registered multipurpose cooperative society in the study area. This constitutes 12 multipurpose cooperative societies with

membership strength of 204 members. However, 50% of the respondents were randomly selected in a ratio proportional to the size of their population to give a sample size of 102 respondents.

### Method of data analysis

The study adopted the use of descriptive and inferential statistics to analyze the data.

The descriptive statistics such as frequency, percentage, mean and standard deviation were used to analyze objective (i) and (iii) while inferential statistics such as T-test was used to analyze objective (ii).

### T- Test Statistics

The T-test will be used to evaluate the effect of MPCs on the livelihood its members. The T-test is expressed as follows;

$$t = (\bar{X}_1 - \bar{X}_2) / \sqrt{[(S^2_1 / N_1) + (S^2_2 / N_2)]}$$

Where,

$\bar{X}_1$  = means yield and income of the farmers before joining MPCs

$\bar{X}_2$  = means yield and income of the farmers after joining MPCs

$S_1$  = standard deviation error of the farmers before joining MPCs

$S_2$  = standard deviation error of the farmers after joining MPCs

$N_1$  = number of observation of the farmers before joining MPCs

$N_2$  = number of observation of the farmers after joining MPCs

## Results and Discussion

### Socio-economic Characteristics of the Respondent

The result in Table 1 shows that (7.5%) of the respondents were between the age of 20-29 years old, (62.5%) were between the age of 30-39 years old, (17.5) were between the age of 40-49 years old while (12.5%) were between the age of 50 years and above. This revealed that majority (87.5%) of the respondents were youths who are actively members of MPCs in the study area. This finding agreed with that Akerele, (2016) which stated that most of the members were youth, it also shows that (75%) of the respondents were male while (25%) were female. This implies that majority of the respondents were male than female who were members of MPCs. This study agreed with that of Akerele, (2016) shows that men were involved more than women in farmers' multipurpose cooperative societies with 65.2 percent, while women stood at 34.8 percent and the result from show that (87.5%) were married while (12.5%) were single. This indicated that most of the respondents were married. Therefore they were member of MPCs in order have high productivity and to take care of their family. This study agreed with the findings of Akerele, (2016) shows that the percentage of married respondents was much more than both single and the widowed. The Result from table: shows that (25%) of the respondents has household size below 5, (62.5%) has household size between 6-10 while (7.5%) has household size between 11 and above. This implies that majority (87.5%) has household size less than 11 persons therefore they have to involve in MPCs to improve their productivity in order to sustain their selves and family.

The result from Table:1 shows that (7.5%) of the respondents didn't attend formal education, (55%) attended primary education, (25%) attended secondary education while (12.5%) attended tertiary education. This indicated

that majority (92.5%) of respondents attended one form of education or the others. Since most of them are literate they would get exposure to cooperative credit acquisition that will increase production. This study agreed with the finding of Akerele, (2016) who report majority of the respondents (84.2%) have formal education. The result from table 1 shows that (80%) of the respondents were farmers, (12.5%) were traders while (7.5 %) were civil servants. This implies that majority (80%) of the respondents in the study area were farmers.

The result from Table: 1 shows that (80%) the respondents had cooperative experience between 1-5 years, (12.5%) had cooperative experience between 6-10years while (7.5%) had cooperative membership experience of 11years and above. The average years experience as a cooperative member was 26½ years and the result from Table. 1, show that (62.5%) of the respondents has less than N500,000 per annum income, (25%) has N600,000 -1,000,000 while (12%) has more than N1,100,000 per annum income. This implies majority has average annum income of N350,000 which enable them improved their livelihood activities.

### Yield and Income of Farmers before and after joined MPCs

The result of the study Table. 2 shows the mean yield of 1918.26 with standard deviation of 441.23 before the joined MPCs and a mean yield of 4021.94 with standard deviation of 452.81 after joined the MPCs at 95% Confidence Interval of the Difference. The t-value was 42.70, p- value was 0.05 significant and degree of freedom was 183 while the mean difference was 2103.68. Therefore, the t value = 42.70, p value= 0.05 while the critical t value=1.98. Based on decision rule of t-test (Shaun, 2022) since the t value (42.70) is greater than the critical value (1.98), so we reject the null (Ho) hypothesis which stated that there is no significance difference between the yields and incomes of the farmers before and after joined the MPCs and accept the alternative hypothesis. This implies that before the farmers joined MPCs their yield was 1.92 tons per hectare and after they joined MPCs their average yield was 4.02 tons per hectare with yield difference of 2.10 tons, it shows that they farmers got more yield when they joined MPCs, which may be due to access to farm inputs, extension services, access to credit facilities, etc. This also indicated that MPCs have impacted positively on the livelihood of farmers in the study area, The result of the study (Table 2) also shows the average income of ₦259,891.30K with standard deviation of 45376.25496 before they joined MPCs and average income of ₦497,989.14K with standard deviation of 135903.29208 after joined the MPCs at 95% Confidence Interval of the Difference. The t-value was 28.73, p- value was 0.05 significant and degree of freedom was 183 while the mean difference income was ₦238,097.83K Therefore, the t value = 28.73, p value= 0.05 while the critical t value=1.98. Based on decision rule of t-test (Shaun, 2022) since the t value (28.73) is greater than the critical value (1.98), so we reject the null (Ho) hypothesis which stated that there is not significance difference between the income of the farmers before and after joined the MPCs and accept the alternative hypothesis. This implies that the farmers' income increases after they joined MPCs which was due to increase in their yield.

### Constraints faced by Farmers MPCs

The major constraints that affect farmer's multipurpose cooperative societies in the study area were presented in Table 3. Constraints encountered by the respondents were

ranked according to their relative severity. The result in Table 3 revealed that insecurity had mean of 3.94 with standard deviation of 0.24, inadequate funds had mean of 3.35 with standard deviation of 0.84, conflict of interest among members had mean of 3.23 with standard deviation of 0.71, dishonesty among cooperative leaders had mean of 2.97 with standard deviation of 0.65, inactive members participation had mean of 2.71 with standard deviation of 0.47 while inadequate infrastructure had mean of 1.67 with standard deviation of 0.48. This implies that insecurity, inadequate funds and conflict of interest among members were the major constraints that affected farmers cooperative MPCs in the study area.

**Conclusion and Recommendations**

Based on the findings of this study revealed that farmers MPCs have positive effect on the livelihood of its members in the study in terms of increase in yield and income, as well as improved living standard of the farmers. But the major problems associated with farmers MPCs in the study area

were insecurity, inadequate funds and conflict of interest among members were the major constraints that affected farmers MPCs in the study area. Based on the findings of this research the followings recommendations were made: The government and communities should devise means of improve the security of life and properties of farmers through establishment of peace and conflict resolution committee, hunters and vigilante groups and create more awareness among farmers to avoid taken laws into their hands. They should always report any suspicious act to the appropriate authority. The affected farmers should also dialogue and forgive one another for peace to reign among them, The cooperative should diversify their resources into more viable investment that will yield more returns such as earnings; infrastructure; this will also encourage members to be actively participating as well as enable members to acquire skills that will empower them and increase funds and the members in position//executive should avoid self interest and abide with rules govern the cooperative societies in order to achieve its objective,

**Table 1:** Socio-economic Characteristics of the respondents (n=80)

Variables	Frequency	Percentage (%)
Age (years)		
20 – 29	06	7.5
30 – 39	50	62.5
40 – 49	14	17.5
50 and above	10	12.5
Sex		
Male	60	75
Female	20	25
Marital status		
Married	70	87.5
Single	10	12.5
House hold size, Below 5, 6-10, 11 and above	20, 50, 10	25, 62.5, 12.5
Educational status		
Non – formal education	06	7.5
Primary education	44	55
Secondary education	20	25
Tertiary education	10	12.5
Main occupation		
farming	64	80
Trading	10	12.5
Civil servants	06	7.5
Years of membership Experience		
1 – 5	64	80
6 - 10	10	12.5
11 and above	06	7.5
Income per Annum		
<500,000	50	62.5
600,000-100,000	20	25
>1100,000	10	12.5

Source: Field Survey, 2026

**Table 2:** Yield and Income of Farmers before and after joined MPCs

Variable	Mean Before	Mean After	Percentage change
Yield	1918.2603	4021.9397	2103.6794
Income	259891.30	497989.14	238097.83

Source: Field Survey, 2026

**Table 3:** Constraints faced by farmers MPCs

S/n	Constraints	Mean	SD	Rank
1.	Insecurity	3.94	0.24	1
2.	Inadequate funds	3.35	0.84	2
3.	Conflict of interest among members	3.23	0.71	3
4.	Dishonesty among cooperative members	2.97	0.65	4
5	Inactive members participation	2.71	0.47	5
6.	Inadequate infrastructure	1.67	0.48	6

Source: Field survey, 2026

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