# ANALYSIS OF POVERTY STATUS AND COPING STRATEGIES AMONG HOUSEHOLDS IN MICHIKA LOCAL GOVERNMENT AREA OF ADAMAWA STATE, NIGERIA

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**ABSTRACT**
The study examined poverty status and coping strategies among Small Scale Farmers in Michika Local Government Area of Adamawa State of Nigeria. Purposive and simple random sampling methods were used to select 342 respondents. Primary data were collected with the aid of questionnaire and analyzed using Foster-Greer-Thorbecke (FGT), Logistic regression and Likert type Scale. The poverty status of the respondents revealed that 64% were poor with poverty gap of 33%. Poverty severity also revealed that the 17% of the respondents were mostly hit by core poverty. Credit size and household size were significant at P≤0.01 while age of household head, farm size, and ownership of farm land, educational level and gender were found to be significant at 5% and positively influence poverty status in the study areas. Plaiting of hair/barbing and credit from Micro-Finance banks (MFBs) were the major non-agricultural poverty coping strategies with mean of $x = 3.0$ and $x = 2.89$, respectively, and major agricultural poverty coping strategies were rain fed crop farming and gardening with mean value of $x = 3.69$ and $x = 3.21$, respectively. The study recommended that credit accessible to farmers and promote off farm activities as an alternative to livelihood strategies will go a long way in addressing their poverty situation.

**Keywords:** Headcount, Likert, Purposive, Sampling, Techniques.

## INTRODUCTION

Poverty is a reality and spreading like wild fire in recent times especially in developing countries is no more in doubt. Also not in contention is the worldwide outrage on poverty as many people the world over are reportedly living in absolute poverty and suffer from chronic hunger (Simpa, 2014). The rural areas seem to be the worst hit going by the report of Simpa (2014) that about 3.1 billion people (55%) in rural areas are poor with about 1.4 billion living in less than US \$1.25. The distribution of poverty in Nigeria has shown that poverty is very much pronounced in rural areas where bulk of the nation's population reside (Adepoju and Yusuf, 2012). The country's rural space holds about 53% of the nation's population (United State Agency for International Development [USAID], 2015). These rural areas are the economic backbone of most developing nations and contribute to the overall economic growth of such nations by creating jobs for a large proportion of the population and also supply food and other industrial raw materials (Umunnakwe and Pyasi, 2014). Poverty is a negative state that threatens life and due to its prevalence globally, it is considered one of the leading challenges of mankind in the 21st century (Abimbola *et al*., 2013). Currently, over 90 million Nigerians live in extreme income poverty, which is the highest globally (World Poverty Clock, 2018). In fact, according to the organization, about 14 persons slide into such poverty every minute in the country. In terms of multidimensional poverty, Nigeria is still home to about 97 million poor people which are more than any other Sub- Sahara African country (Oxford Poverty and Human Development Initiative, 2018).

The National Bureau of Statistics (2017) further revealed that five northern states (Sokoto (86%), Bauchi (83.7%), Katsina (82.0%), Adamawa (80.7%) and Kebbi with (80.5%) have record of poorest people in Nigeria. Morris, (2021) earlier stated that Nigeria, like other sub-Saharan African countries has a phenomenal rural poverty that is more pronounced in the northern part of the country, with pockets of severity in the riverine and remote southern areas. Extreme poverty is defined as living on less than 1 US Dollar per day, around 1.1 billion of the poor live in extreme poverty, People living in extreme poverty often lack opportunities to have their basic needs met, meaning access to food, clean water, medication, education, clothes and decent shelter (Morris, 2021). There are different types of poverty such as income poverty, absolute poverty, relative poverty and consistent poverty. Income poverty is type of poverty that is a result of lack of money or limited income. Absolute poverty is a type of poverty where people are starved, living without proper housing, clothing or medical care- people who struggle to stay alive. Relative poverty is a type of poverty where people are considered to be living substantially less than the general standard of living in the society. Consistent poverty is a type of poverty that is the combination of income poverty and deprivation (Abimbola *et al*., 2013)

In the midst of such uncertainties, adoption of diverse poverty coping strategies have often times being a formidable mitigating force available to people. Defined as a sum total of ways in which one deals with minor to major stress and trauma (Adam and Ogbonnaya, 2014). Coping strategy may vary from place to place and among individuals. This is to say that the ability of a people to break out of poverty or adopt a coping mechanism is often associated with the peculiarities of the conditions within their communities. In Northern Nigeria, for example, the coping mechanisms of rural populace were found to include domestic work, crop processing, trading, craft, weaving, carving, hired causal labor as well as gathering of forest products and certain farming operations on their own farm (United Nations Development Programme [UNDP], 2018). Given that people's coping strategies could vary from one location to another even among individuals depending on their poverty levels and dispositions, investigating those of rural dwellers in Michika Local Government Area of Adamawa State is germane.

**MATERIAL AND METHODS**
**The Study Area**
The study was conducted in Michika Local Government Area (LGA) of Adamawa State. The LGA lies between latitude 10º23´ - 10º47´N and longitude 13° 16´ - 13° 36´E. It has a tropical climate of wet and dry seasons. The mean annual rainfall is 1,000mm and last for a period of 5-6 months, while the mean monthly temperature is 27.8°C (Adebayo, 1999). The maximum temperature is as high as $40^0$C particularly in March and April when we have the hottest period while the minimum temperature is as low as $18^0$C between December and January (Adebayo *et al*., 2012)**.** The projected population of the local government is placed around 375,000 people (National Population Commission [NPC] 2017). The LGA was created in 1976 and located in the northern axis of the state and it is bordered on the east by the Republic of Cameroon. On its Northern border is the Madagali LGA, while it shares border to the west by the Askira/Uba LGA of Borno State. Southward, it is bordered by the Mubi North and Hong Local Government Areas (LGAs). The LGA lies in the valley of igneous and sedimentary rock with good fertile soil for agricultural production. It has a fairly well drained sandy-loam to clay soil that supports the growth of different crop species (Jongur, 2008).

There are many cultural festivals performed by the Kamwe people in Michika. Foremost amongst them are the Yawale, Wasinata, Ngarba, and the Zhitta dance among other

festivals. There are also tourist's sites and scenery in Michika such as the Kwandree cold spring water at Dlaka and the Kamale peak at Kamale. In 2017, Kamwe elders re-launched their annual cultural festival which is usually staged in April every year just before the start of the rainy season to showcase their rich culture. Michika is made of eight districts 16 wards namely; Michika i, Michika ii, Madzi, Bazza-Margi, Jigalambu, Minkisi/Wuru Ngiki, Futudou/Futuless, Garta/Ghunchi, Moda/Dlaka/Ghenjuwa, Munkavicita, Sukuma/Tilijo, Tumbara/Ngabili, Vi/Boka, Sina/Kamale/Kwande, Thukudou/Sufuku/Zah, Wamblimi/Tilli, and 84 villages around the mountainous ranges (National Bureau of Statistics [NBS], 2013). Michika is also a cosmopolitan town: it has branches of many banks, a technical college and many secondary schools. The inhabitants are mostly Christians, while the remaining are Muslims and some traditional religion worshipers (NBS, 2017).

**Sample Techniques and Sample Size**

The multi-dimensional Poverty Assessment tools employs a standardized 16-30 × 30 sampling approach (16 to 30 villages and 30 households per village) as the acceptable minimum sample size and good geographical coverage (International Fund for Agriculture Development [IFAD], 2014). Using multi-stage random sampling procedure, eight out of 16 wards in Michika LGA of Adamawa State were randomly selected in the first stage. In the second stage, 16 villages were randomly selected proportionate to the size of the sampled wards. In the third stage, 30 households were selected systematically from each of the sampled villages. Exceptionally large villages having more than 400 households were divided into multiple units based on traditional delineations in the villages and then households were sampled. Hence, 480 of the questionnaires were randomly sampled and 342 were retrieved, properly filled and used for the analysis.

**Analytical Techniques**

Foster-Greer-Thorbecke (FGT) measures of poverty is one of the analytical methods considered in the study. A number of previous studies have used relative poverty line, which are proportions (two third) of the average per capita expenditure or $ 1.25 per day of expenditure (NBS, 2013). In this study $ 1.25 per day expenditure approach was adopted as a poverty line. This poverty line helps us in classifying the poor and non – poor then calculates the indices for rural households in Nigeria. Foster-Greer-Thorbecke (FGT) indices were used to measure the magnitude (incidence), depth (gap) and severity of rural poverty. The class of poverty according to Foster *et al.* (1984) can be addressed in respect of poverty incidence, ($\alpha = 0$); depth of poverty ($\alpha = 1$); and severity of poverty ($\alpha = 2$). The larger the value of the poverty depth, the greater the weight given to the severity of poverty; for $\alpha = 0$, FGT reduces to Head Count Ratio (H) and when $\alpha = 1$, it reduces to poverty gap and if ($\alpha = 2$), we have poverty severity index; as also used by these researchers (Gibson, 2001; and Mukherjee and Benson, 2003).

Poverty gap index ($P_1$) measures extent to which individuals fall below the poverty line (poverty gaps) as proportion of the poverty line. The sum of these poverty gaps gives the minimum cost of eliminating poverty, if transfers were perfectly targeted. The measure does not reflect in inequality among the poor. The square poverty gaps index, also known as the poverty severity index, ($P_2$) averages the square of the poverty gaps relative to poverty line. It is one of the Foster-Greer-Thorbecke (FGT) classes of poverty measures that allow one to vary the amount of weight that one puts on the expenditure level of the poorest members in society. The FGT measures are additively decomposable. It is also possible to separate in the FGT measures into component resulting from rising average incomes, and a component resulting from changes in the distribution of income (World Bank, 2009) general class of a poverty

measure which combines these three characteristics of poverty as adopted by the (Adigun *et al.,* 2015) and written as:

$$P_\alpha (y, z) = \frac{1}{n} \sum_{i=1}^{q} \left(\frac{z - y_i}{z}\right)^\alpha \qquad \text{…(1)}$$

where;

n = total number of households in a population;

q = the number of poor households;

z = the poverty line;

$y_i$ = household per capita expenditure

α = poverty aversion parameter and takes values, 0, 1, 2;

$\left(\frac{z - y_i}{z}\right)$ = proportionate shortfall in expenditure below the poverty line;

α = takes on the value 0, 1, 2, to determine the type of poverty index;

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Binary logistic regression model, following Adeniyi and Ojo (2013) was used to examine the determinants of poverty status among the respondents. The poverty status of households which is bivariate, taking the value of zero for non-poor households and one for poor households were used as the dependent variable. Socio-economic variable as well as other variables were used in the binary logistic regression analysis and specified explicitly as:

$$L_i = \ln\left(\frac{P_i}{1 - P_i}\right) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \mu$$
$$\text{…(2)}$$

where;

$L_i$ = Logit of Cross sectional data

$P_i$ = Probability of household being non-poor

$1 - P_i$ = Probability of household being poor

$L_i = \frac{P_i}{1 - P_i} = 1$ (if a household is poor)

$L_i = \frac{P_i}{1 - P_i} = 0$ (if a household is non-poor)

$\beta_0$ = Constant

$X_1$ = Amount of microcredit accessed (₦)

$X_2$ = Age of household head (in years)

$X_4$ = Household size (in Number).

$X_4$ = Farm size (ha).

$X_5$ = Farming experience (Number of years).

$X_6$ = Farm ownership (Owned farm =1, Otherwise =0).

$X_7$ = Educational status of the household head (Number of years spent in school).

$X_8$ = Membership of cooperative (Yes=1: Otherwise= 0)

$X_9$ = Sex of the household head (Binary variable; Male=1: Female=0).

$\mu$ = Error term.

Likert type scale was used to describe poverty coping strategies among respondents. In determining the poverty coping strategies frequently employed by the respondents they will categorized in accordance to four point Likert type scale ( always = 4, occasionally = 3, rarely = 2 and never = 1) to access the degree to which the respondents employ the livelihood strategies/activities with mean score of equal and above the cut-off mean of 2.5 was declared as frequent livelihood diversification strategies employed by the respondents and any mean lower than 2.5 was classified as not frequent livelihood diversification strategies employ by the respondents. The formula mathematically represented as:

(A x Z/ N)                                                                     … (3)

where;
A   = Number of respondents per category
N   = Sampling size
Z   = Likert score for each category

## RESULTS AND DISCUSSIONS
### Poverty Status among the Respondents

Poverty status refers to the threshold level that divides individual, households and population into poor and non- poor based on income and expenditure. Therefore, poverty line of $1.25 that is ₦ 450 per day was used. All household with expenditure of < $1.25 per day was classified as poor, while all household with expenditure of ≥ $ 1.25 per day was classified as non- poor. Table 1 revealed that 64% of the respondents were below poverty line while 36% were at poverty line and above. This implies that, there is high incidence of poverty among the respondents, since 64% among the respondents live below poverty line of $1.25 per day. Likewise, World Poverty Clock (2018) reported that more than half of Nigeria population live on less than a dollar (₦360) a day, with a poverty incidence of 46%. Therefore poverty manifestation become a serious issue in the study area among the respondents.

**Table 1:** Distribution of Respondents by Poverty Status

| Poverty status | Frequency | Percentage |
|---|---|---|
| Poor | 219 | 64.0 |
| Non-poor | 123 | 36.0 |
| Total | 342 | 100 |

Source: Field survey (2019)

### Analysis of Poverty Measures

Measurement of poverty is an important variable for the assessment of respondent's standard of living. The most wide poverty indices are the percentage of the poor, that is, head count index, the aggregate poverty gap, that is, poverty gap index and income/expenditure distribution among the poor households (severity of poverty index) which are major determinant of poverty in any society.

Poverty incidence ($P_0$) also known as poverty head-count the proportion of the population which falls below poverty line among the sampled households. The poverty head-count index given by the percentage of the population with expenditure per capita that is less than the poverty line was 64%. This implies that, 64% of the respondents have fallen below poverty line of $ 1.25 (₦ 450) per day. The mean expenditure of the respondents below the poverty line was estimated to be ₦ 253 per day (Table 2). This implies that more than two third of the respondents are poor characterized by low standard of living. Likewise, World Poverty Clock (2018) reported that more than half of Nigeria population live on less than a dollar (₦360) a day, with a poverty incidence of 46%. Therefore poverty manifestations become a serious issue in the study area among the respondents.

Poverty gap ($P_1$) refers to poverty depth which measures the mean distance between the income/expenditure of the average poor and poverty line. The measure captures the mean aggregate expenditure shortfall relative to the poverty line across the entire population. Poverty gap measures the total amount of income necessary to remove that poverty shortfall. The poverty gap of the sample was 0.33 this means that the income of the poor must increase by at least 33% to move them to the threshold and get them out of poverty. The result (Table 2) indicates that, the expenditure of the poor has fallen by 33% below the poverty line. Thus, it

indicates that, their expenditure has to be increased by 33% to raise them to the level of the poverty line. This finding corroborates those of Adepoju and Yusuf (2012) who revealed that, households with higher income have a higher probability of moving out of poverty and vice versa.

Poverty severity ($P_2$) does not only consider the distance that separates the poor from the poverty line, that is the poverty gap but it also revealed the inequality among the poor. The distribution (Table 2) revealed that 17% among the poor were severely hit by poverty. That is, they are extremely poor. The poverty severity of 0.17 among the respondents implies that the poor in the population are far-off from the poverty line .It also implies equality among the poor than the non-poor. Consequently, they find it very difficult to cater for their basic needs.

**Table 2:** Distribution of Respondents by Poverty Measures

| Poverty Measures | Indices |
|---|---|
| Head count | 0.64 |
| Poverty gap | 0.33 |
| Poverty severity | 0.17 |

Source: Field survey (2019)

**Determinants of Poverty among the Respondents**

The  logistic regressions was used to examine the determinants of  poverty  among the respondents such as amount of microcredit accessed, age, household size , farm size, farm experiences, ownership of farm, educational level, membership of cooperative and  sex. Binary logistic regression analysis reveals the Log Likelihood value is 23.51 (Table 3) was statistically significant at 1% level of probability; this implies the specified logistic model has a strong explanatory power.The pseudo R-square ($R^2$) was 0.90 which implied that 90% of the variation in the dependent variable was explained by the regressors (independent variables) included in the model and that the remaining 10% of the variation was accounted for by other external factors that were not included in the regression model. Furthermore, Hosmer-Leme show test was not significant (model is correctly specified), goodness of fit was also significant and the model correctly explained 96.78%.

The estimated Variables Inflation Factors with respect to each variable was greater than unity but less than the threshold level of 10 (Table 3). The result suggests that the explanatory variables specified in the model do not cluster together or exhibit multicollinearity tendencies. This implies that the estimates of the model to an appreciable extent are consistent and unbiased, stable over time.

Credit size ($X_1$) has a positive and statistically significant (1%) relationship poverty status. This signifies that for a naira rise in credit amount, non-poor increase by 0.0054%. This implies that, an increase in the amount of agricultural loan increases the possibilities of a household being non poor. This is due to the fact that loan contribute to household income and would lead to increase farm production and consequently improved wellbeing of the households. This finding corroborates those of Asogwa and Umeh (2012) and Adepoju and Adejere (2013) who revealed that, households with low loan size have a lower probability of having high farm income.

The finding reveals that Age ($X_2$) has marginal effects of 22% and significant at 1%. This implies that there is positive relationship between Ages of household head and poverty status. In other words, an increase in number of family house head Age would lead to increase in household being non-poor. Specifically, year increase in the age of the respondents will increase the probability of household being non-poor by 22%.

The finding reveals that household size ($X_3$) has odd ratio of 0.941 and significant at 1%. This implies that there is an inverse relationship between household size and poverty status. In other words, an increase in number of family size would lead to a decrease in household being poor. Specifically, a member increase in household size decreases the probability of household being poor by 94%. This is in agreement with Bashir *et al*. (2013) and Adepoju and Adejere (2013) who found that an increase in one family member increases the chances of a household becoming poor by indirectly reducing income per head, expenditure per head, and per capita food consumption. This may be attributed to the fact that household size exerts more pressure on consumption than it contributes to production (Paddy, 2003).

Farm size($X_4$) was positive and statistically significant at 5% level. This means that as a household's farm size increases, farm income tends to increase. Specifically, a hectare increase in farm size will lead to an increase household being non-poor by 4% for every hectare increase in farm size. That is, households with larger farm sizes tend to have more income than those with smaller sizes, and vice versa. This can be attributed to the greater efficiencies in the use of resources associated with the large farms than those with small farms as observed by Reddy *et al.* (2004). As a consequence, small farm holdings may result in low productivity and low income. This outcome is consistent with the finding of Asogwa and Umeh (2012) who reported that household farm income increases with increase in area under cultivation.

Farm ownership($X_6$) of household head was statistically significant at 5% and exhibits a positive relationship with poverty status. This implies that, if a household head own a farm and livestock's he is 30% times more likely to have more farm income and move out of poverty than the household head who does not own farm. This is because farm ownership provides security for household livelihood. This is in line with the a priori expectation and the findings of Aidoo *et al.* (2013).

The coefficient of years of formal education($X_7$) was statistically significant at 5% level and exhibits a positive relationship with poverty status of the respondents. Specifically, the probability of being non poor increased by 7% for households whose heads had higher level of formal education. This suggests that, increase in years of formal education decrease the chance of being poor. This is as expected, since the level of education should positively affect the income earning capacity and level of efficiency in management and enhances household's productivity. This implied that higher educational level will facilitate the adoption of appropriate agricultural technologies and skills that would enable respondents move out of poverty. This also agrees with the findings of Morris *et al.* (2020) reported that level of education influences participation in agricultural productive activities, adoption, transfer and application of innovations and enable them earns more income.

Sex ($X_9$) has a significant at 5% influence on poverty status of the respondents. This findings implies that women are likely to become poor compared to their male counterparts. As revealed by Oluwatayo (2009), gender is an integral and inseparable part of rural livelihoods since men and women have different assets, access to resources and opportunities. The high likelihood of poverty among the women could be attributed to their unequal access to social and economic assets among the males and female across most rural settings due to some cultural factors prevalent in the communities. Ajani (2008) reported similar finding with respect to food security. According to the submission, the incidence of food insecurity is also higher for female than for male-headed households.in fact, across rural communities of Nigeria, female-headed households tend to be poorest, cultural norms which inhibit women from accessing certain resources (Rural Poverty Portal, 2010).

**Table 3:** Logistic Regression for the Factors Influencing Poverty Status among the Respondents

| Variables | Coefficient | Std. Error | Z- value | Marginal effect |
|---|---|---|---|---|
| Constant (C) | -20.20338 | 5.109399 | -3.95 | |
| Credit amount ($X_1$) | 0.000291 | 0.0000792 | 3.67*** | 0.0000541 |
| Age ($X_2$) | 1.182055 | 0.2630292 | 4.49*** | 0.2197687 |
| Household size ($X_3$) | -7.420643 | 1.875113 | 3.96 *** | 0.9409285 |
| Farm size ($X_4$) | 0.2319282 | 0.1046362 | 2.22 ** | 0.0431203 |
| Farming experience ($X_5$) | -0.0054294 | 0.0710868 | -0.08 | 0.0010094 |
| Farm owner ($X_6$) | 0.0014575 | 0.9618582 | 1.71 ** | 0.3061995 |
| Educational level ($X_7$) | 0.4065999 | 0.1584101 | 2.57** | 0.0755954 |
| Cooperative membership ($X_8$) | 7.81e-06 | 0.0000736 | 0.11 | 1.45e-06 |
| Sex ($X_9$) | 0.2093218 | 0.0701389 | 2.98*** | 0.0389173 |
| Pseudo R-squared | 0.898 | | | |
| Log-likelihood | 23.51 | | | |
| Specification test | | | | |
| Hat | 1.08792 | 0.2257523 | 4.82*** | |
| Hatsq | 0.1637440 | 0.354791 | 0.46 | |
| Goodness fit test | | | | |
| LR Chi2 (10) | 417.88* | | | |
| Correct classified | 96.78% | | | |
| Variable Inflation Factor: | | | | |
| Variables | VIF | 1/VIF | | |
| Credit amount ($X_1$) | 1.34 | 0.747245 | | |
| Age ($X_2$) | 1.69 | 0.593201 | | |
| Household size | 1.63 | 0.613581 | | |
| Farm size ($X_4$) | 1.10 | 0.908461 | | |
| Farming experience ($X_5$) | 1.05 | 0.952836 | | |
| Farm owner ($X_6$) | 1.24 | 0.807343 | | |
| Educational level ($X_7$) | 1.14 | 0.877961 | | |
| Cooperative membership ($X_8$) | 2.39 | 0.418057 | | |
| Sex ($X_9$) | 2.45 | 0.408125 | | |
| Mean (VIF) | 1.51 | | | |

Note: ***, ** significant at 1% and 5% levels, respectively.
Source: Computer output Regression Model (2019)

**Poverty Coping Strategies among the Respondents**

The respondents have expressed different opinions regarding to poverty coping strategies involved in the study area. In an attempt to assess the strategies employed by the respondents in the study area non-agricultural and agricultural based coping strategies are adopted. In Table 4 the result of the study revealed that respondents always engage in collecting credit from microfinance bank (61.7%), masonry (41.2%) and trading/petty trading (40.9%). This is immensely followed by strategies occasionally employed by the respondents, mechanic/electrician (87.4%), Okada/car driving (66.4%), sale some assets (55.6%) and plaiting of hair/barbing (45.9%) while respondent in the study area are rarely employ tailoring (47.1%) and credit from cooperative society (39.5%). However plaiting of hair/barbing was ranked first with mean ($x$ = 3.00) among the non- agricultural coping strategies of the respondents in the study area. This was followed by credit from MFBs ($x$ = 2.89), mechanic/electrician and petty trading ranked 2nd, 3rd and 4th, respectively. This implies that these non-agricultural coping strategies are frequently employed by the respondents among others because there are more profitable in income generation and effective medium via which respondents alleviate their poverty status (Morris *et al*., 2020). This finding is in agreement

with that of Adeniyi and Ojo (2013). Who reported that off farm activities are more profitable in income generation and effective in enabling the respondents cope with poverty.

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**Table 4:** Non-agricultural and Agricultural Poverty Coping Strategies Used by the Respondents

| Variables | Always | Occasionally | Rarely | Never | Total | Mean |
|---|---|---|---|---|---|---|
| Non-Agric. Strategies | | | | | | |
| Plaiting of hair/barb | 95(27.8) | 157(45.9) | 84(24.6) | 6(1.8) | 1025 | 3.00 |
| Credit from MFBs | 211(61.7) | 5(1.5) | 5(1.5) | 121(35.4) | 990 | 2.89 |
| Mechanic/electrician | 11(3.2) | 299(87.2) | 5(1.5) | 27(7.9) | 978 | 2.86 |
| Trading /petty trading | 140(40.9) | 61(17.8) | 61(17.8) | 80(23.4) | 945 | 2.76 |
| Masonry | 141(41.2) | 76(22.2) | 20(5.8) | 105(30.7) | 937 | 2.74 |
| Credit from coop./Is. | 90(26.3) | 89(26.0) | 135(39.5) | 28(8.2) | 925 | 2.70 |
| Okada / car driving | 27(7.9) | 227(66.8) | 5(1.5) | 83(24.3) | 594 | 2.59 |
| Tailoring | 54(15.8) | 97(28.4) | 161(47.1) | 30(8.8) | 859 | 2.51 |
| Sale of some assets | 22(6.4) | 190(55.6) | 68(19.9) | 62(18.1) | 856 | 2.50 |
| Relief M. from NGO | 13(3.80) | 93(27.2) | 96(28.1) | 140(40.9) | 663 | 1.94 |
| Blacksmithing | 5(1.5) | 15(4.4) | 11(3.2) | 311(90.9) | 398 | 1.16 |
| Carpentry/wood work | 12(3.51) | 20(5.8) | 10(2.9) | 300(87.7) | 428 | 1.25 |
| Agric. Strategies | | | | | | |
| Crop farm. Rain sea. | 279(81.6) | 36(10.5) | 10(2.9) | 17(5.0) | 925 | 3.69 |
| Gardening | 201(58.8) | 64(18.7) | 25(7.3) | 52(15.2) | 1098 | 3.21 |
| Poultry farming | 58(17.0) | 95(27.8) | 25(7.3) | 164(48.0) | 1049 | 3.06 |
| Agric. hire labour | 17(5.0) | 152(44.4) | 58(17.0) | 115(33.6) | 1049 | 3.06 |
| Restaurant | 200(58.5) | 20(5.8) | 26(7.6) | 96(28.1) | 1008 | 2.94 |
| Selling of farm waste | 85(2.9) | 160(46.8) | 80(23.4) | 17(5.0) | 997 | 2.91 |
| Crop processing | 104(30.4) | 121(35.4) | 45(13.2) | 72(21.1) | 942 | 2.75 |
| Livestock farming | 123(36.0) | 92(26.9) | 35(10.2) | 92(26.9) | 930 | 2.72 |
| Sales of food crops | 28(8.2) | 197(57.6) | 54(15.8) | 63(18.4) | 874 | 2.56 |
| Selling forest product | 49(14.3) | 98(28.7) | 95(27.8) | 100(29.2) | 780 | 2.28 |
| Crop farm. Dry sea. | 17(5.0) | 62(18.1) | 27(7.9) | 236(69.0) | 544 | 1.59 |
| Fish farming | 20(5.85) | 45(13.2) | 16(4.7) | 261(76.3) | 508 | 1.49 |

Note: Figures in parentheses are percentages.
Source: Field survey (2019)

Table 4 also reveals that crops farming in rain fed season (81.6%), livestock farming (36.0%), gardening (58.8%) and restaurant (58.5%) were the agricultural activities the respondents carried out always to cope with poverty. Also, sale of food crops (57.6%), sale of farm waste (46.8%), Agricultural hire labour (44.4%) and crop processing were occasionally undertaken by the respondents. Therefore 27.8% rarely indulged in selling of forest product. Crop farming in rain fed season ($x = 3.69$) was ranked the number one poverty coping strategy of the respondents while gardening ($x = 3.21$) and poultry farming and Agricultural hire labour ($x = 3.06$) ranked 2nd and 3rd, respectively among others agricultural poverty coping strategies of the respondents as revealed in Table 4. The result means that the strategies in most rural area have monetary gain to mitigate poverty and cater for the family and other relative's wellbeing (Morris, 2021). The finding is in line with that of Giroh *et al.* (2021) who reported that people from both male and female headed households in the rural villages were engaged in subsistence agriculture in the form of small vegetables gardens growing maize and beans to allow them to meet there financial requirements.

**CONCLUSION AND RECOMMENDATIONS**

The results of the study reveal that poverty is high among the respondents. Credit size, age of household head, farm size, and ownership of farm land, educational level and gender

were found to be significant and positively influence poverty status in the study areas. Respondents were coping poverty by various strategies frequent among them are credit from MFBs, mechanic/electrician, trading/petty trading, masonry, credit from cooperative/*isusu*, okada/car driving and okada/car driving. The study therefore, recommended that promotion of off-farm activities as alternative livelihood options and strategies should be pursued by government at every tier. Policies that will make credit from government and non- governmental agencies accessible to farmers will go a long way in addressing their poverty situation.

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