

Social capital and poverty among agropastoral farmers in Oyo state

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ABSTRACT

Poverty in the rural areas affects mostly farmers who constitute the majority of rural dwellers while agro pastoral farmers in semi-arid zones are more affected due to the inclement conditions and food security problems of the area. Although social capita has been found to aid poverty reduction, its use among agro pastoralists is still limited. This study therefore assessed the level of household poverty among agro pastoral farmers in Oyo State and as well determined the influence of social capital on poverty status of the farmers. Primary data was collected with the aid of wellstructured questionnaires in the semi-arid area of Oyo North in Oyo state from 150 agro pastoralists randomly selected using a multi-stage sampling procedure. Data were analyzed using descriptive statistics, FGT and Logistic regression. Poverty line of N4237.29 was obtained using mean per capital expenditure. Findings reveal that respondents with higher percentage in cash contribution and meeting attendance index (significant at 5% respectively) were less poor and more likely to move out of poverty cycle. Also, the agro pastoral farmers with higher years of schooling (significant at 5%) were less likely to be poor while large household size (significant at 5%) had the tendency of increasing the likelihood of poverty. Therefore, it is imperative to encourage increased participation in social networks among agro pastoral farmers in order to reduce poverty incidence and bring about desired development in the rural areas where agro pastoral farmers are dominant.

Keywords: Poverty incidence, mean per capita expenditure, meeting attendance, cash contribution, social institutions

INTRODUCTION

Agricultural development is germane to reduction of poverty and hunger (World Bank, 2008). Low level of development in Africa has resulted in the continent's less appreciable economic development, which has in turn caused many countries to be trapped in a vicious circle of borrowing and donor dependency syndrome (Yusuf 2011). Africa's share of global poverty doubled in the last 20 years (Lawrence et al, 2013) and for which more than 218 million people live in extreme poverty in sub Saharan Africa. Although poverty has no geographical boundary; cutting across rural and urban sectors of the economy, the highest concentrations of poor people (about 70%) live in the rural areas and depend on agriculture for food and livelihood (Osinubi, 2003). Over half of Africa's poor people live in four countries:

Democratic Republic of Congo, Ethiopia, Tanzania and Nigeria (Moritz 2014). Nigeria is the most populated country in Africa with Human Development Index (HDI) ranking of 152 in the world and 22 in Africa; having a value of 0.504 (UNDP, 2013). The country is among the poorest countries in the world with Human Poverty Index (HPI) value of 38.8%, and ranked 75th among 103 developing countries (Etim et al. 2009; Etim and Ukoha, 2010). National poverty is about 69% while both absolute and relative rural poverty are 66.1% and 73.2% respectively (NBS, 2012). Limited access to services such a schools, health centers, safe drinking water have perpetuated the poverty circle much more in the rural areas than the urban (IFAD, 2007).

Endemic poverty in the rural areas affects mostly

farmers who make up the majority of rural dwellers; both crop and livestock farmers. Farmers in semi-arid zones are particularly affected due to the extreme marginalization and food security problems of the area (Mukhtar et al. 2013). Semiarid zones comprise mainly of agro pastoral and normadic farmers and are found in the northern part of the country while pockets of semi-arid areas can also be found in the south western part such as in some parts of Oyo and Ogun states. Hence, rural households in the area are majorly involved in agro pastoral and crop farming. These households are usually low income and poor (NBS, 2010). Lack of social capital awareness among the agro pastoral farmers particularly has increased their poverty level over time.

Several programmes and projects of government have aimed at reducing poverty level in the country. These include: Community Action Programme for Poverty Alleviation" (CAPPA) in 1996; establishment of a national poverty reduction focused Family Economic Advancement Programme (FEAP) in 1997 and the National Poverty Eradication Programme in 2000, among others. These programmes were aimed at reducing poverty but the effect of all these effort is yet to be felt by majority of rural dwellers as their living conditions have not witnessed a significant growth (UADR, 2009), hence, the poverty level has remained high. The lingering phenomenon of poverty has seen poverty incidence in Nigeria rise from 27.2 percent in 1980 to 46.3 percent in 1985. Although it declined to 42.7 percent in 1992, it rose astronomically to 65.6 percent in 1996. Another decline in poverty level to 54.4 percent was witnessed in 2005 however, the rise to 69 per cent in 2010 (NBS, 2012) shows that the poverty reduction drive of the government is yet to yield a consistent positive result.

An effective tool for poverty reduction which has not yet been fully explored by government is capital accumulation (Okunmadewa 2007). Several forms of capital exist, including: physical capital, financial capital, human capital and social capital. There is increasing acknowledgment that social capital is an important determinant of overall well-being. Empirical evidence regarding the direction and strength of these linkages in the developing world is limited and inconclusive (Narayan and Pritchett 1997, Hu and Jones 2002, Yip et al, 2004 and Yusuf 2008). Social capital is a form of capital which is capable of attracting other capital forms as it emphasizes social relationship among individuals and societies. Social capital refers to the internal social and cultural coherence of society, the norms and values that govern interactions among people and the institutions in which they are embedded (Collier, 1998). Social capital is the glue that holds societies together and without which there can be no economic growth or human well-being. Capital generated from social collection tends to be sensitive to the necessities of the more vulnerable, hence, it has been found to have major impact on the income and welfare of the people by improving the outcome of activities that affect them. Social capital can help to reduce poverty through micro and macro channels by affecting the movement of information useful to the poor and by improving growth and income redistribution (Grootaert and Bastlear, 2002). Therefore, underutilization of human and social capital mechanism in the rural areas is of great concern because it aids increased level of poverty (Yusuf et al, 2011).

Poverty reduction programmes have largely remained unfelt by agro pastoral farmers. While emphasis of most of the interventions has been on provision of physical infrastructure to support the agro pastoralists and the acquisition of human capital, there has been little or no consideration for the development of local level institutions or mechanism to ensure delivery of support to the farmers. The absence of such institutions and the weakness of existing ones largely exclude the farmers from participating in the decision making process of interventions and issues that affect their welfare. Hence, the study aims to analyze the impact of social capital on poverty status among agro pastoral farmers in Oyo state, south western Nigeria. Specifically, the study assesses the level of household poverty among agro pastoral farmers in Oyo State and determines the influence of social capital on poverty among agro pastoral farmers.

Concept of social capital

Economists worldwide have accepted the efficacy of both human and physical capital accumulation

to economic growth. This theory captures the endogenous replacement of physical capital accumulation by human capital accumulation as a prime engine of economic growth in the transition from the industrial revolution is modern growth (Haque et al, 2007). Social capital is a production factor of the household similar to human or physical capital (Grootaert, 1999). Moreover. Grifft and Harvey (2004) defined two groups of social capital: capital at the individual and firm levels. Social capital at the individual level is the social capital of the firm's manager. Firm level social capital represents relationship in the business networks that includes customers, business partners and governmental agencies. Entrepreneurs require resources such as information, capital, skills, and labour to start business activities. They can complement their resources by accessing their contacts. Business social networks, however, do not constitute the resources themselves but rather represent the ability of the entrepreneurs to mobilize these resources on demand (Portes and Landolt, 1996).

Social capital, when viewed from historical perspective may be seen beyond being a concept, but an axis (Balogun, 2012). Coleman (1988) and Putman et al (1993) defines social capital as a stock of trust and an emotional attachment to a group or society at large that facilitate the provision of public goods. Durlauf and Fafchamps (2005) defines social capital as the informal forms of institutions and organizations that are based on social, relationship, networks, and association that create shared knowledge, mutual trust, social norms and unwritten rules. Social capital encompasses, three elements, "a network; a cluster of norms, values and expectancies that are shared by group members and sanctions, that help to maintain the norm and network" Halpern (2005). Social capital is a facilitator of information flows (Rauch and Casella, 2003), provides avenue for sharing (Rosenzweig, 1988). crucial risk understanding of economic performance (North, 1990), and more importantly, accumulation of human capital (Coleman, 1988).

The varied and multifaceted definitions of social capital suggest that there are many ways that social capital has been measured. Social capital is recognized as a multidimensional concept and therefore a single measure cannot provide a complete picture (Harper and Kelly, 2003). The measurement of social capital was noted by Lin (2001) as still largely ambiguous and unresolved. Generally, empirical studies have used three principal types of measures of social capital. The first approach is to measure social relations directly among individuals by measuring the intensity of contact or frequency of interaction of persons or the structural characteristics of a whole social network. The second approach uses measure of membership in certain voluntary organization to assess the level of social capital while the third approach is based on measuring individual's belief about their relationships with others; most often, trust. Usually, a combination of the approaches is used in the measurement of social capital. Social capital is multidimensional with each dimension contributing to the meaning of social capital although each alone cannot fully capture the concept in its entirety (Liu and Besser 2003).The dimensions of social capital thus include: trust which is the core of social capital, heterogeneity which is the diversity in people's social networks. political participation, conventional civic leadership and association involvement which is decision making and the density of membership in social group, cash contribution which emphasizes the level of involvement in social connectivity and labour contribution which enhances the team spirit based on the need to work together and render services to members to reduce cost of required resources.

For instance, Yusuf (2011) aggregates social capital into components to determine its effect on welfare. Membership density and active participation in decision making of households in associations were found to influence the welfare of households. Similarly, Balogun et al (2011) found that social capital as measured by decision making and asset value influence poverty reduction. Okunmadewa (2005) also showed that increasing social capital, as measured by the number of members of farming household in local level institutions reduces poverty of the household. Grootaert (1999) also investigated the effect of social capital of six dimensions: heterogeneity, meeting attendance frequency, membership participation in decision making, density of associations, and payment of dues; on household

poverty status. The study found that social capital index is positively related to household poverty status using per capita expenditure, assets and savings as indicators.

MATERIALS AND METHODS

The study was carried out in Oyo state; located in the south western part of Nigeria. Oyo State has thirty three (33) Local Government Areas (LGA's) and covers 28,4546q kilometers. The population of the state is approximately 5,591,589 (NPC, 2010). The state is categorized into three senatorial zones: Oyo North, Oyo Central and Oyo South. Oyo North occupies the guinea savanna area of Oyo state. The climate is equatorial, notably with dry and wet seasons with relatively high humidity. Agriculture is the main occupation of the people. The climate favours the cultivation of crops (e.g. maize, yam, cassava, rice, cocoa and palm produce) and rearing of livestock such as sheep and ruminants (cattle, goats) and monogastric animals (rabbits and pigs). A vast area of cattle ranches also exist in the northern area (i.e. Shaki, Fasola and Ibadan areas) of the state.

Data for the study were collected with the aid of well structured questionnaires. A total of 160 agro pastoral farmers were surveyed using a multistage sampling procedure. The agro pastoral farmers surveyed were cattle herdsmen who also engaged in food crop farming. The practice enabled their cattle to not only feed in pasture lands (i.e. browsing) but also on crop residue. The practice is likely to make more feed and food available to the cattle and the farm families respectively, and ultimately reduce poverty among the farmers. The first stage of the sampling procedure was thus, the purposive selection of the Ovo North out of the three senatorial zones because of its dominance in the production of cattle. Next, three Local Government Areas (LGAs): Atisbo, Saki East and Saki West: were randomly selected out of ten LGAs in the zone. This was followed by the random selection of five communities from each local government areas. The communities were selected due to the predominant of agro pastoralists in these areas. The last stage was the selection of 160 agropastoral farmers from the communities proportionate to size; fifty agro pastoralists each from Atisbo and Saki East LGAs and sixty agro pastoralists from Saki West LGA. Only 150 questionnaires were found useful for the analyses. Data collected were analyzed using descriptive statistics and inferential statistics namely: Foster-Greer- Thorbecke (FGT) class of poverty measures and Logit regression method. The distribution of socio economic frequency characteristics was explained using tables, means and percentages.

The inferential statistics gave an insight to incidence, depth and severity of poverty among respondents. Changes in poverty levels of agro pastoralists households were achieved by using the Foster-Greer- Thorbecke (1984) class of poverty measures (FGT) which include the Headcount Index (P_0) , the Poverty Gap Index (P_1) , and the severity of Poverty Index (P_2) . The three indices can be expressed into one general form and distinguish themselves for the different weights attributed to the distance between expenditure of the poor and the poverty line. P0 attributes equal weight to all expenditure of the poor while P₁ and P₂ attribute increasingly more weight to distance of expenditure of the poor from the poverty line. They are widely used because they are consistent and additively decomposable (Verme, 2003). The FGT is presented below:

$$\mathbf{P}_{\alpha} = 1/n \Sigma \quad \begin{bmatrix} \mathbf{Z} - \mathbf{y}/\mathbf{Z} \end{bmatrix}^{\alpha}$$
$$\mathbf{i} = 1$$

Where.

Z = the poverty line defined as 2/3 of Mean per capita expenditure

Y = the annual per capita expenditure –poverty indicator/welfare index per capita

q = the number of poor households in the population of size n,

 α = the degree of poverty aversion; $\alpha = 0$; is the Headcount index (P₀) measuring the incidence of poverty (proportion of the total population of a given group that is poor, based on poverty line). $\alpha = 1$; is the poverty gap index measuring the depth of poverty that is on average how far the poor is from the poverty line; $\alpha = 2$; is the squared poverty gap measuring the severity of poverty and inequality among the poor.

Logit regression was employed to establish whether there is a bi-causal relationship between social capital and poverty. The regression Logit model is specified as:

 $Z = \beta_0 + \beta_1 X 1 + \beta_2 X_2 + \dots + \beta_{13} X_{13}$

Where Z is the poverty status among agro pastoral farmers, βo is a constant

 $\beta_1,\ldots,\beta_{13}$ are the coefficient of the explanatory variables X_1,\ldots,X_{13} .

The explanatory variables include:

Household characteristics

 $X_1 = Age of household head (Years)$

 X_2 = Age squared of household head (Year)²

 X_3 = Gender of household head (D=1 for male, otherwise D=0)

 $X_4 =$ Years of schooling of household head (years)

 X_{z} = Household size

 X_{6} = Marital status (D=1 if Married, 0=Otherwise)

 X_{γ} = Primary occupation (D=1 if Farming, 0= otherwise)

 $X_{s} =$ Meeting attendance index

 $X_9 =$ Heterogeneity index

 X_{10} = Labour contribution index

 X_{11} = Decision making index

 $X_{12} = Cash contribution (\mathbf{N}).$

 X_{13} = Membership density

RESULTS AND DISCUSSION

Socioeconomic characteristics and poverty profile of agro pastoral farmers

Table 1 presents the description of socioeconomic characteristics of agro pastoral farmers in the study area. The results show that agro pastoral farming is a male dominated occupation as about three quarters of the farmers were male while the remaining were female. This may be due to the considerable amount of physical strength required in the enterprise and by implication, may lead to higher incidence of poverty among female farmers than their male counterparts. Also, almost 90 percent of the farmers were married while the remaining were single (8.72%), widowed (0.67%) and divorced (3.36%). Married agro pastoralists may be poorer than other groups because of higher volume of responsibilities in respect to number of dependents. Similarly, about 80 percent of the agro pastoralists were between 30 and 60 years while the mean age was about 47 years. This indicates that a higher proportion of agro pastoral farmers in study area were in their active and productive years. However, about 30 percent of the farmers had no formal education while the mean years spent in school was 6 years, indicating that on the average, agro pastoral farmers had primary education. This implies that farmers' exposure and interpretation of available information that may be beneficial for their enterprise is limited. The implication of limited information may have a direct impact on their poverty level. Moreover, more than half of the agro pastoral farmers have household size of between five to nine persons while the mean household size was 5. Large household size may predispose the household to increased levels of poverty.

| | Frequency | Percentage |
|--------------------|-------------|------------|
| <i>N</i> = 150 | | |
| Gender | | |
| Female | 37 | 24.50 |
| Male | 113 | 75.50 |
| Marital Status | | |
| Married | 131 | 87.25 |
| Single | 13 | 8.72 |
| Divorce | 5 | 3.36 |
| Widowed | 1 | 0.67 |
| Age | | |
| < 30 | 16 | 10.7 |
| 30-60 | 119 | 79.9 |
| >60 | 15 | 9.4 |
| Mean | 46.9 (10.9) | |
| Years of schooling | | |
| 0 | 45 | 29.73 |
| 1-6 | 50 | 33.56 |
| 7-12 | 22 | 14.77 |
| >12 | 33 | 22.15 |
| Mean | 6.00 (5.97) | |
| Household size | | |
| 1-4 | 60 | 40.27 |
| 5-9 | 77 | 51.01 |
| >9 | 13 | 8.72 |
| Mean | 5.00 (2.63) | |
| Years of schooling | | |
| 0 | 45 | 29.73 |
| 1-6 | 50 | 33.56 |
| 7-12 | 22 | 14.77 |
| >12 | 33 | 22.15 |
| Mean | 6.00 (5.97) | |

| Table 1: Socioeconomic characteristics of agro bastoral farms | eristics of agro pastoral farmer | characteristic | economic | 1: Socioe | Table |
|---|----------------------------------|----------------|----------|-----------|--------------|
|---|----------------------------------|----------------|----------|-----------|--------------|

Source: Field survey, 2013. Standard deviation in parenthesis

The analysis of poverty starts with the derivation of the poverty line. This was done based on the monthly expenditure profile of households within the study area. Table 2 presents the results of the derivation of the poverty line using mean per capita expenditure. The Table shows that a poverty line of $\aleph4237.29$ was obtained and $\aleph2$, 130.61

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mean per capita expenditure for core poor in the study area. Furthermore, about 31percent of the rural household monthly expenditure was spent on children's education which was followed by food (28.9 percent) while about 4.8 percent was spent on rent and medicare every month

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| Variable | | Poverty Estimate | | | Contribution to Poverty | |
|-----------------------------|------|---------------------|------|------|----------------------------|------|
| | Ро | Pi | P2 | Ро | Pi | P2 |
| All farmers | 54.2 | 28.4 | 17.3 | | | |
| Labor/manday | | | | | | |
| 0 | 0.54 | 0.28 | 0.17 | 0.47 | 0.25 | 0.15 |
| 0.1-0.5 | 0.55 | 0.24 | 0.14 | 0.07 | 0.03 | 0.02 |
| >0.5 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Meeting | | | | | | |
| Attendance (%) | | | | | | |
| 1-20 | 1.00 | 0.08 | 0.01 | 0.01 | 0.01 | 0.00 |
| 21-40 | 0.81 | 0.45 | 0.28 | 0.09 | 0.05 | 0.03 |
| 41-60 | 0.71 | 0.36 | 0.20 | 0.07 | 0.04 | 0.02 |
| 61-80 | 0.55 | 0.28 | 0.17 | 0.19 | 0.10 | 0.06 |
| >80 | 0.43 | 0.22 | 0.13 | 0.19 | 0.09 | 0.06 |
| Cash | | | | | | |
| Contribution(N) | | | | | | |
| 0-1000 | 0.62 | 0.33 | 0.20 | 0.37 | 0.20 | 0.12 |
| 1001-2000 | 0.55 | 0.23 | 0.13 | 0.11 | 0.05 | 0.03 |
| 2000-5000 | 0.38 | 0.20 | 0.12 | 0.06 | 0.03 | 0.02 |
| >5000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Decision making | | | | Y | | |
| (%) | | | | | | |
| 1-20 | 0.75 | 0.27 | 0.14 | 0.02 | 0.01 | 0.01 |
| 21-40 | 0.67 | 0.38 | 0.25 | 0.07 | 0.04 | 0.03 |
| 41-60 | 0.73 | 0.40 | 0.24 | 0.25 | 0.14 | 0.08 |
| 61-80 | 0.39 | 0.18 | 0.10 | 0.11 | 0.05 | 0.03 |
| >80 | 0.37 | 0.18 | 0.10 | 0.09 | 0.04 | 0.02 |
| Density of | | | | | | |
| members (No) | | | | | | |
| 1-2 | 0.60 | 0.36 | 0.24 | 0.06 | 0.04 | 0.02 |
| 3-4 | 0.76 | 0.41 | 0.25 | 0.32 | 0.17 | 0.11 |
| 5-6 | 0.33 | 0.14 | 0.07 | 0.15 | 0.07 | 0.03 |
| >6 | 0.50 | 0.12 | 0.03 | 0.01 | 0.00 | 0.00 |
| Heterogeneity | | | | | | |
| index (%) | | | | | | |
| 0-20 | 0.52 | 0.25 | 0.15 | 0.31 | 0.15 | 0.08 |
| 21-40 | 0.56 | 0.31 | 0.19 | 0.15 | 0.08 | 0.05 |
| 41-60 | 0.46 | 0.29 | 0.19 | 0.04 | 0.03 | 0.02 |
| 61-80 | 1.00 | 0.53 | 0.32 | 0.03 | 0.01 | 0.01 |
| >80 | 1.00 | 0.24 | 0.11 | 0.02 | 0.01 | 0.00 |

Table 3: Social capital and poverty among agro pastoral farmers

Source: Estimated field survey data, 2013

Table 3 shows that about 54 percent of the agro pastoralists were poor; poverty depth was 28 percent while the core poorest were 17 percent. Poverty incidence of households follows a definite pattern as it was observed that the incidence of poverty reduced with increased contributions to social institutions. For instance, agro pastoralists that contributed above \$5000 are not poor. Household subgroup contributing between (0-1000 naira) had the highest incidence of poverty

of 62 percent while household subgroups contributing between (1001-2000 naira) and (2000-5000) had poverty incidence of 55 percent and 38 percent respectively. Poverty depth and severity also follow similar pattern. The result is in line with findings of Okunmadewa *et al*, (2005) and Yusuf (2008) who showed that poverty is inversely related to the level of cash contribution. Therefore, it is evident from the result that agro pastoral households with higher level of per capita expenditure and make large amount of cash contribution to their associations are likely to escape from poverty. The same trends were observed for poverty depth and severity of the poor due to labour contributions of households in the study area. This result is consistent with Okunmadewa *et al.*, (2005) that found poverty to be higher for those households that had fewer days of labour days to their local level institutions. Also, the result shows that household with lower meeting attendance index are susceptible to poverty than those with higher index of meeting attendance. This result corroborates the findings of Okunmadewa *et al*, (2005), Yusuf, (2008) and Balogun and Yusuf (2011) that observed that households with highest percentage of meeting attendance had the lowest poverty.

| Table 4: Logit Regression | | | | | | |
|---------------------------|-------------|----------|----------------|----------|--|--|
| Variable | Coefficient | dy/dx | Standard error | (t) | | |
| Constant | 0.9476 | | | | | |
| Age | 0.01207 | 0.00294 | 0.00659 | 0.45 | | |
| Sex | -0.5357 | -0.12705 | 0.15091 | -0.84 | | |
| Marital Status | 2.1414 | 0.52269 | 0.24357 | 2.15** | | |
| Household Size | 0.5351 | 0.13065 | 0.02977 | 4.39*** | | |
| Years in School | -0.1590 | -0.03881 | 0.01179 | -3.29*** | | |
| Primary | 0.2532 | 0.06182 | 0.0408 | 1.52* | | |
| occupation | | | | | | |
| Decision Index | -0.0204 | 0.00498 | 0.00348 | -0.37 | | |
| Cash | -0.00054 | 0.00013 | 0.00006 | -2.39** | | |
| Contribution | | | | | | |
| Meeting | -0.0333 | -0.00812 | 0.00279 | -2.41*** | | |
| Attendance | | | | | | |
| Heterogenity | 0.0028 | 0.00069 | 0.00291 | 0.24 | | |
| Membership | -0.25816 | -0.06302 | 0.04429 | -1.42 | | |
| density | | | | | | |
| Labour | -0.6406 | -0.15638 | 0.66542 | -0.24 | | |
| Observation | 150 | | | | | |
| Probability | 0.000 | | | | | |
| Log likelihood | -56.221 | | | | | |
| Source: Field Surv | ov 2013 | | | | | |

Source: Field Survey 2013

* 10%, ** 5%, *** 1% significance level

Moreover, it was observed that poverty incidence; depth and severity of households had no definite pattern as decision making index of households result increased. Specifically, while household with decision making subgroup (1 - 20 percent) had the highest incidence of poverty with 75 percent; it had the least contribution of 2 percent to poverty incidence. The subgroup (greater than 80 percent) has the lowest incidence of poverty with 37 percent yet its contribution to poverty was 0.09 percent. The highest contribution to poverty based on decision making index of the household head was found in subgroup (41-60 percent) which contributed 25 percent to poverty incidence. Similarly, the result shows that poverty incidence, depth and severity of households had no definite pattern as membership density index of households increased. While the result shows that household head within the highest density of membership subgroup (>6) had 50 percent poverty incidence, the household head within the density of membership subgroup 3-4 percent and 5-6 percent had the highest and lowest poverty incidence with 76 percent and 33 percent respectively. Finally, the contribution of households to poverty indicated that households with 3-4 members contributed highest to poverty (32 percent). This result agrees with Okunmadewa et al., (2005), Yusuf (2008) that poverty is indirectly related to the level of membership of association as members that get involved in more than one social group participated in the proceeds from the different groups thereby coming out of poverty.

Effect of social capital on poverty

The result of logit regression model shows that a log likelihood value of -56.221 was statistically significant at 1 percent significant level. Also, Table 4 presents the estimated coefficients and marginal effects of the changes in independent variables on the likelihood of the agro-pastoral farmers being poor. Five (5) out of the 12 variables experimented with were found to be significant at various levels. These were: marital status, household size. years of education, cash contribution and meeting attendance index. A positive sign on a parameter indicates a positive relationship with the likelihood of poverty while, a negative relationship with the probability of being poor value indicates a negative relationship the likelihood or probability of agro-pastoral households' poverty. Hence, since marital status had positive relationship with the probability of being poor, the results indicate that the likelihood of the household being poor increased by 0.53 percent with a unit increase in married status of the agro pastoral farmer. Similarly, the results show that a unit increase in the household size of an agro-pastoral farmer increased the likelihood of the household being poor by 0.13 percent.

The level of education indicates productivity potential both in farming and non farming enterprises (Abudulai and Delgado, 1990, cited in Balogun 2011). The more educated the individual agro pastoral farmer is, the harder he/she works in non-farming enterprises and the more the income earned. The number of years of formal education is known to influence the behavior, values, exposure, and opportunities of individuals. Hence, in line with *a priori* expectations, the results show that a year increase in formal education of the agro pastoral farmer reduces the likelihood of the household being poor by 0.04 percent.

With respect to the activities of agro pastoral farmers in local level institutions which indicate their commitment and captured their social capital; cash contribution and meeting attendance were found to be significant. Meeting attendance positioned household to know about coming opportunities and solves the problem of information asymmetry among the agro pastoral farmers either in the credit market or in other government programme that could be of benefit to them. It also shows their active participation in networks. Tabi, (2007) and Balogun, (2011) had earlier noted that to capture the gains of a farmer from participating in a social network, just being a member of a high trust group was not enough. However, the results of this study reveal that a unit (i.e. 1pecent) increase in cash contribution of agro pastoral farmers to local level institutions increased likelihood of poverty by 0.0001 percent. On the contrary, meeting attendance of the agro pastoral farmers decreased the likelihood of being poor by 0.008 percent. The result agrees with Okunmadewa et al (2007), Balogun (2011) and Balogun (2013) that found participation in local level institution to be a poverty reduction strategy.

CONCLUSION

The study assessed the influence of social capital on poverty status of the agro pastoral farmers. The study established that agro pastoral farming in Oyo state is a male dominated enterprise engaged by farmers in their active ages who have relatively small households sizes on the averages but are mostly poor. The study further established that social capital has a positive effect on poverty reduction as poverty incidence was observed to decrease with increase in meeting attendance and cash contributions to social institutions although; decision making, membership density and heterogeneity in local level institutions did not show any definite pattern with respect to poverty. Finally the study established that social capital indices of cash contribution and meeting attendance influence the likelihood of an agro pastoral farming household being poor; along with other socio- economic characteristics such as marital status, school years and household size. The study therefore concluded that social capital affects the poverty level of agro pastoral farming households. Following the general conclusion of this study, policy options that encourage increased involvement in social institutions by the farmers should be favored to reduce poverty incidence among agro pastoral farmers.

CONFLICT OF INTEREST

The authors declare that there is no known conflict of interest as regards the conduct of this study and the data reported in this work.

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