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# Effects of Livelihood Assets on Poverty Status of Farming Households' in Southwestern, Nigeria

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**ABSTRACT**

Poverty as a multi-dimensional phenomenon is determined by a wide range of factors one of which is the non-equity in distribution and scarcity of assets in development opportunities. The eradication of poverty in rural Nigeria remains a hard challenge for the country to overcome despite the various poverty eradication programmes implementation at different levels of government. This study examined the effects of farmers' household livelihood assets on poverty. Primary data were collected using well structured questionnaire from 135 farming households in Egbeda Local Government Area of Oyo State, Nigeria and analyzed using descriptive statistics, Foster Greer Theobecke (FGT) weighted poverty index and Logit regression model.

The result shows that poverty line (PL) which is the two-third of the respondents' mean per capita expenditure (PCE) is ₦1770.40 ($11) with 31.9 percent of the respondents falling below the PL while average PCE equals ₦2636.12 (about $18). The poverty incidence index was 0.296, poverty depth index is 0.054 and the poverty severity index is 0.015. Socio-economic characteristic like Gender ($p<0.1$), Human assets such as education ($p<0.01$), farming experience and health status ($p<0.1$); Physical assets like land and agricultural machinery ownership ($p<0.05$); Financial asset like cooperative funding ($p<0.05$) and Aggregate Social capital ($p<0.1$) will reduce the poverty status of farming households in Southwestern, Nigeria.

Based on the findings of this study, the study recommends that access and use of human capital, financial, physical and social capital assets are important to reduce the poverty status of farming households in Southwestern, Nigeria

**Keywords:** poverty, farming household, livelihood assets, Logit, Nigeria

## INTRODUCTION

According to World Bank, 2001, poverty is the denial of choices, opportunities and a violation of human dignity. It means lack of basic capacity to participate effectively in society. It means insecurity, powerlessness and exclusion of individuals, households and communities. It is broad, multidimensional, partly subjective phenomenon, often viewed as both the cause and symptom of underdevelopment.

In the same light, poverty is seen as the result of the interaction of economic, political and social processes in an unfavourable way to generate deprivation and reductions in people's standard of living. Though economic growth is essential to reduce the incidence of poverty, it has been recognized that the presence of massive inequality could affect its effectiveness in reducing the extent of deprivation (World Bank, 2000). On the basic needs approach, poverty can either be absolute or relative. Absolute poverty, as defined by Greenwal and Associates (1965) is a situation where income is insufficient to meet subsistence need. Absolute poverty refers to lack of the physical requirements of a person or a household for existence, and at its extreme, those affected are no longer able to live a life worthy of human dignity (UNDP, 1990, Schubert, 1994 and Hemmer, 1994). Relative poverty exists where households within a given country have per capita income of less than one-third of the average per capita of such country (World Bank, 1990). Relative poverty would occur where certain sections of a society do not have adequate income to enable them have access to some basic needs being enjoyed by other sections of such society.

On the state of poverty in Africa, Ali and Thorbecke (2000) found widespread incidence of poverty in rural sub-Saharan Africa in 1993 with a per capita monthly poverty line of about $26. Headcount, poverty gap and squared poverty gap ratios of 59 per cent, 27 per cent, and 16 per cent respectively were obtained. The poverty portrait is quite alarming when one considers the fact that incidence of poverty increased from 28.1 percent in 1980 to 46.3 percent in 1985. The poverty problem grew so worse in the 1990s that in 1996, about 65.6 percent of the population was poor, while the rural areas account for 69.3 percent (FOS, 1999). Recent data showed that in 2004, 54.4 percent of Nigerians were poor (FRN, 2006).

The reduction of poverty is the most difficult challenge facing any country in the developing world where on the average majority of the population is considered poor. Evidences in Nigeria show that the number of those in poverty has continued to increase. For example, the number of those in poverty increased from 27% in 1980 to 46% in 1985; it declined slightly to 42% in 1992, and increased very sharply to 67% in 1996. By 1999, estimates had it that more than 70% of Nigerians lived in poverty. But the 2004 National Living Standard Survey (NLSS) revealed that poverty incidence is 54.4 percent. In addition, 63.3 per cent of the rural population are in relative poverty and 79.2 per cent are in subjective poverty. More than four-fifths (86.5 per cent) of the households participated in agriculture in the rural areas compared with only 14.0 per cent in the urban areas. The poor participated more in agriculture than non-agriculture. Twenty-five per cent of the core poor households were in agriculture.

The economic situation of the rural population in Nigeria as shown in previous discussions is characterized by a high degree of vulnerability and poverty. However, there had been different approaches to reducing rural poverty in Nigeria, their focus has been on certain aspects or manifestation of poverty, such as low income, human capital or physical capital but did not consider livelihood assets as a "whole". According to Omonona *et al,* 2009, poverty reduction should be addressed with a multi-pronged approach in relation to achieve more marginal improvement in the standard of living of poor farming households. The empowerment of the

poor is very important in poverty alleviation, for it to be sustainable and efficient; there should be an efficient combination of livelihood assets which will have more impact in meeting peoples' needs (DFID, 2001).

Livelihood assets lie at the core of livelihood research. Livelihood comprises of the capabilities, assets (stores, resources, claims and access) and activities required for a means of living. The value of the livelihoods concept is in understanding how the rural poor call upon a range of different assets and activities as they seek to sustain and improve their wellbeing. Viewing it from the angle of production, that is the condition under which the poor (rural farmers) have to work to earn their living, there are different survival livelihood strategies that rural farmers employ to meet up with their basic needs. The array of livelihood strategies employed by farmers depends on the level and the kind of resource, (capital asset) that is livelihood assets available to them.

IFAD (2001) states that increasing access to assets is crucial for broad–based growth and poverty reduction. The uniqueness of this study is its focus on showing the effects of the various kinds of livelihood assets (Natural assets, financial assets, physical assets, social assets and human assets) in a combined form on the poverty status of farming households in rural areas. The result of the study will aid policy makers and NGOs' in effective formulation of poverty reduction strategies that will focus on increasing the livelihood assets of rural households in ways that will translate to improvement on their standard of living and productivity.

## THE OBJECTIVES OF THE STUDY

1. To examine the poverty profile of farming households in the study areas.
2. To examine various dimensions of livelihood assets among farming households in the rural areas.
3. To determine the effects of access and use of assets on farming household poverty status.

## METHODOLOGY

This study was carried out in Egbeda local government area (LGA) of Oyo state, Nigeria. It lies on latitude 7º 21´ and longitude 4º 02´. Egbeda LGA was carved out of the old Lagelu Local Government Area in 1989. Primary data were collected from the respondents with the aid of well structured questionnaire to elicit Socio-economic/Demographic data and Assets indicators using a two stage random sampling procedure in selecting 135 farming households in six villages of the local government area. The list of villages were obtained from the LGA, the six villages (Erunmu, Alugbo, Lalupon, Solademi, Oberan and Ayede) were selected randomly. In each village, an average 22 households were interviewed by convenient random sampling. Data collected were analysed using descriptive statistics, poverty measurement and Logit model.

## RESULTS AND DISCUSSION

### Monthly per Capita Expenditure (PCE) Distribution and Poverty Analysis

The per capita expenditure of the household was calculated and table 1.0 shows the distribution. Majority of the respondents have PCE that falls between ₦1000 ($7) and ₦2999 ($20). The maximum PCE is ₦6150.00 ($41), the minimum is ₦816.67 ($5.4) and the average PCE is ₦2636.12 (about $18) from which the poverty line of the population was drawn by getting the 2/3 of the average PCE which is ₦1770.40 ($12). Out of the 135 respondents, 32 respondents' per Capita Expenditure falls below the poverty line putting the percentage at 31.9 percent.

**Table 1.0: PCE Distribution**

| Per Capita Expenditure ₦ | | Frequency | Percent | Cum. Percent |
|---|---|---|---|---|
| | <1000 | 2 | 1.5 | 1.5 |
| | 1000-1999 | 44 | 32.6 | 34.1 |
| | 2000-2999 | 47 | 34.8 | 68.9 |
| | 3000-3999 | 19 | 14.1 | 83.0 |
| | 4000-4999 | 16 | 11.9 | 94.8 |
| | >5000 | 7 | 5.2 | 100.0 |
| **Total** | | 135 | 100.0 | |
| **Mean PCE** | 2636.12 ($18) | | | |
| **2/3 PCE** | 1770.40 ($12) | | | |

**Source: Field survey 2009; (₦150 =$1)**

### Effect of Livelihood Assets Ownership on the Poverty Status

Using the Logit regression model, the probability of the respondents being poor (1 for poor and 0 for non poor) subjected to the five livelihood assets is determined, the result of which is shown in Table 2.0. Out of the 23 variables, 9 variables are significant while other were not significant. The chi square of the model is 119.2 while the goodness of fit of the model is 0.7426 and the log likelihood is -20.661.

**Table 2.0: Livelihood Assets Ownership on the Poverty Status (Logit regression Analysis)**

| Variables | Coefficients | t-value | Marginal Effects | Standard error |
|---|---|---|---|---|
| **Socio-economic Factors** | | | | |
| Gender | -3.154* | 0.067 | -0.468 | 0.403 |
| Age | 0.128 | 0.274 | 0.009 | 0.006 |
| Household size | 0.269 | 0.400 | -0.018 | 0.028 |
| Dependency Ratio | 0.387 | 0.696 | 0.026 | 0.062 |

| | | | | |
|---|---|---|---|---|
| **Human Assets** | | | | |
| Education | -3.322*** | 0.007 | -0.224 | 0.165 |
| Vocational training | -0.725 | 0.580 | 0.048 | 0.086 |
| Farming Experience | -0.226* | 0.066 | -0.015 | 0.013 |
| Extension Service | 2.649 | 0.113 | 0.180 | 0.208 |
| Health Status | -3.217* | 0.097 | -0.492 | 0.408 |
| **Natural Assets** | | | | |
| Farm size | -0.110 | 0.458 | -0.007 | 0.012 |
| Wetlands | -0.048 | 0.971 | -0.003 | 0.099 |
| **Physical Assets** | | | | |
| Land ownership | -4.081** | 0.013 | -0.500 | 0.242 |
| Machinery | -3.018** | 0.035 | -0.262 | 0.153 |
| Family labour | 0.013 | 0.114 | 0.001 | 0.001 |
| Hired Labour | -0.005 | 0.162 | -0.001 | 0.001 |
| Agrochemicals | -2.163 | 0.352 | -0.097 | 0.540 |
| Improved seeds | -3.217 | 0.115 | -0.035 | 0.480 |
| Livestock | -1.688 | 0.383 | -0.083 | 0.100 |
| **Financial Assets** | | | | |
| Cooperative Funding | -4.864** | 0.025 | -0.340 | 0.165 |
| Bank Loan Funding | -2.620 | 0.258 | -0.081 | 0.755 |
| Relations Funding | 4.305*** | 0.081 | 0.291 | 0.218 |
| Other Business | -0.920 | 0.594 | -0.074 | 0.200 |
| **Social Assets** | | | | |
| Social Aggregate index | -0.102* | 0.003 | -0.007 | 0.007 |
| **LR Chi square** | **119.22** | | | |
| **$R^2$** | **0.7426** | | | |
| **Log likelihood** | **-20.661** | | | |
| **Number of Observation** | **135** | | | |

* Significant at 1%, ** at 5% and *** at 10%

**Source: Field survey, 2009.**

**Socio-economic Characteristics and Poverty**

The result shows that there is strong reduction in the probability of being poor when a household is headed by a male. The marginal effect of a male headed household on the probability of being poor is -0.468, this means that households headed by males will have 46.8 percent lower poverty than their female counterparts.

**Human Assets and Poverty**

Five variables are considered under this and three variables out of these are significant at five percent. These are; level of education, farming experience and the health status of the farmers. The educated household heads will lower poverty level of the household by 22.4 percent compared to non-educated counterparts. The years of experience of the household head in agriculture as shown by the result has a negative impact on the probability of being in poverty, a unit increase in the years of experience in farming by household head will reduce the poverty status of the household by 1.5 percent, as it has been explained using the poverty indices, then years of practicing an act makes the practice more effective and efficient. Efficiency leads to cost

minimization, increased profit and thus, improved standard of living. For every unit increase in the years of experience of the household head in farming, the probability of being poor is reduced by 0.015. The health status of the household head has a negative relationship with the probability of being poor. Good health condition of household heads will reduce the chance of being poor by 49.2 percent. This is because more work can be done and results achieved when the farmers are in good health.

**Physical Assets and Poverty**

Seven physical assets are considered under this study, out of which only two are significant - Land and Machineries ownership. The land ownership shows a negative coefficient of 3.265 at 5 percent level of significance and a marginal effect of -0.5, this means that those households owning land have 50 percent reduction in poverty than those not owning land. As for the use of machineries by farming households, those using machineries in the farm production process have 26.2percent lower poverty than those not using farm machineries. This can be as a result of the efficiency and capacity of production that is increased when machineries are employed in production.

**Financial Assets and Poverty**

Farmers that have access to funds from cooperative society have lower poverty by 34 percent than those without access and the coefficient of -4.864 at 5 percent level of significance. As for households with sources of fund from relatives, they showed percent higher poverty than those without this source. The reason being that households with adequate income will not be dependent on their relatives for sustenance.

**Social Assets and Poverty**

The aggregate social index is used in the Logit regression model; this is the multiplication of five social capital indices which are the membership index, meeting attendance index, cash contribution index, heterogeneity index and decision making index. The marginal effect result shows that a unit increase of aggregate social index will reduce the probability of a household being in poverty by 0.7percent. The coefficient is -0.102 which is significant at 1 percent.

## CONCLUSION

This study has shown that the issue of poverty alleviation and eradication should involve the improvement of all the livelihood assets of farmers particularly human assets: better rural health training and education; social assets, financial assets and physical assets. This study has also contributed to the growing literature on the effects of livelihood assets on the poverty status of rural people. This study recommends that the government should address the constraint faced by farmer in getting land, machineries, access to credit and accessible health infrastructures in the rural villages for improved welfare and reduced poverty status of farming households' in Southwestern, Nigeria

**REFRENCES**

Ali, A. G. A. and E. Thorbecke (2000), 'The State and Path of Poverty in Sub-Saharan Africa:Some Preliminary Results', *Journal of African Economies*, Vol. 9, Supplement 1, p. 9–40.

Aliyu, A. (2002) Re-Structuring of the Poverty Alleviation Activities of the Federal Government of Nigeria, National Poverty Eradication Programme Abuja.

Hemmer H.R. (1994): "Possible Approaches of Poverty Oriented Development Policy: *A general Survey." Economics* VOL.49 no. 50 pp 56-76.

IFAD 2001. The rural poverty report 2001. International Fund for Agricultural Development: 13. Ravallion, M. and B. Bidami, 1994. Italy. http://www.ifad.org/poverty/index.htm

Omonona B.T., Okunmadewa F.Y (2009): Determinants of Poverty Among Farming Households in Kogi State of Nigeria, *Journal of Income Distribution,* vol. 18, no. 2, pp 16-34.

Khan, M.H. (2001), 'Rural Poverty in Developing Countries: Implications for Public Policy',*Economic Issues, No. 26, IMF*, Washington DC.

Kijima, Y., T. Matsumoto and T. Yamao, 2006. Nonfarm employment, agricultural shocks and poverty dynamics: Evidence from rural Uganda. Agric. Econ., 35: 459-467.

Schubert R.(1994): Poverty in Developing countries: Its definition, Extent and Implications.*Economic* vol. 45 No 50 pp 17-40

UNDP (1990): Human Development Report New York University Press. United Nations (2004): Urban and Rural Areas 2003, Department of Economic and Social Affairs*, Population Division*, New York.

UNU/WIDER, 2000. United Nations University/ World Institute for Development Economic Research, *World Inequality Database*, Vol. 10, Helsinki.

World Bank (1990): World Development Report on Poverty. Vol. 6; no. 5. World Bank, New York, Oxford University Press.

World Bank (2000), *World Development Report 2000/2001: Attacking Poverty*; Oxford University Press.