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Short Communication

Determinants of Poverty Among Peri-Urban *Telferia occidentalis* Farmers in Uyo, Nigeria

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ABSTRACT

Despite the involvement of many urban and peri-urban households in various agricultural activities including vegetable production, the generality of the incomes of these farming households have remained low coupled with widespread and deepening poverty. Consequently, for these farmers to increase their purchasing power and meet the food requirement of the increasing urban population, their poverty situation has to be reduced. This study was therefore conducted to estimate determinants of poverty among peri-urban fluted-pumpkin (*Telferia occidentalis*) producers. Farm-level data were obtained from 70 farmers through questionnaire using the two stage sampling procedure. Data were analyzed using Tobit regression analysis. Results show that except sex, age and education of household head, all other explanatory variables specified in the model were significant poverty determinants.

Key Words: Determinants; Poverty; Peri-urban; Nigeria

INTRODUCTION

Nigeria is one of the most resource-endowed nations in the world. But socio-economically, Nigerians are also among the poorest in the world. Hence, there is a persisting paradox of a rich country inhabited by poor people, which has been the subject of great concern for many years, but more especially in the past decade. The Human Development Report (HDR, 2005) revealed that Nigeria is one of the poorest among the poor countries of the world. With Human Poverty Index (HPI-I) value of 38.8%, Nigeria is ranked 75th among 103 developing countries. The bitter reality of the Nigeria situation is not only that poverty is getting worse by the day, but that more than 4 out of every 10 Nigerians live in conditions of extreme poverty of less than ₦ 320 per capita per month. According to Mafimisebi (2002), this amount of money will barely provide for a quarter of the nutritional requirements, for healthy living. The above revelations are shocking when one considers the quantum of natural and human resources that abound in the country. This is a paradoxical situation, which was tagged "poverty in the midst of plenty (World Bank, 1997a). Studies by Cleaver and Schreiber (1994), Canagarajah *et al*. (1995), UNICEF (1996) and World Bank (1997a), Etim (2007) showed that poverty is more prevalent in rural areas. World Bank (1997b) however documented that urban poverty is also becoming an increasing concern as reflected in the worsening trend in urban welfare indicators.

Vegetable production particularly Telferia is a common feature in most urban and peri-urban homesteads of Akwa Ibom State. Fluted pumpkin (*Telferia occidentalis,* Hook F.) is a leafy vegetable that is most popular in the south-south and south-east regions of Nigeria especially in Akwa Ibom, Cross River and Abia State. Many urban households cultivate *Telferia* and other leafy vegetables to augment family income and food supplies. But despite the involvement of these urban farmers in cultivation coupled with backward technology, the incomes of generality of the fluted pumpkin farmers have remained low. This has worsened the living conditions through a reduction in purchasing power. Consequently, for these farmers to increase their incomes and meet the food requirement of the increasing population, which according to (Etim *et al.,* 2005), Akwa Ibom State may not be food secured in the near future. Their poverty situation therefore, has to be reduced. This however requires factors that influence poverty among the Fluted Pumpkin farmers in the State. This study was therefore conducted to estimate the determinants of peri-urban poverty among Fluted Pumpkin farmers in the State.

Conceptual framework. The concept of poverty dates back to 1899 when one of the earliest and most famous studies of poverty was conducted by Seebohm Rowntree in York. He used a concept of subsistence poverty and drew a poverty line in terms of a minimum weekly sum of money, which was necessary to enable families to secure the necessaries of a healthy life. Poverty is more easily recognized than defined. Hence, a universally acceptable definition of the term has remained elusive. Poverty is an unacceptable deprivation in human well-being that can comprise both

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physiological and social deprivation. Physiological deprivation involves the non-fulfillment of basic material or biological needs, including inadequate nutrition, health, education and shelter. The concept of physiological deprivation is thus closely related to, but can extend beyond low monetary income and consumption levels. Social deprivation widens the concept of deprivation to include risk, vulnerability, lack of autonomy, powerlessness and lack of self-respect.

In their decomposition of poverty Jalan and Ravallion (1998) defined total poverty as Pi as the expectation overtime of the poverty measured at each point in time pit.

$$Pi = E(Pit)$$

$$\text{Where pit} = \begin{cases} Z = yit & \alpha \\ Z & \text{If } yit < z \\ O & \text{if } yit > z \end{cases}$$

Where z is the poverty line and α represent the poverty aversion parameter in the FGT measure.

MATERIALS AND METHODS

Study area, sampling and data collection procedure. The study was conducted in Uyo the capital city of Akwa Ibom State. The area lies within the humid tropical rainforest zone of South Eastern Nigeria. It has an annual rainfall of about 2000-3000mm. Uyo is situated between 5°17' and 5°27' North and longitude 7°27' and 7°58' East. Uyo has an estimated population of 309,573 (NPC, 2006). It lies within the humid tropical rainforest zone. It has two distinct seasons; the rainy and short dry season. It has an annual precipitation of about 2000-3000 mm. According to Etim and Ofem (2005), this rainfall regime encourages farming.

Two stage sampling technique was used to select the representative fluted pumpkin farming households for the study. The first stage involved the random selection of two clans from Uyo ADP zones namely: Offot and Etoi. The second stage was the random selection of 35 peri-urban households to make a total of 70 households.

Analytical technique. The Tobit regression model, a hybrid of the discrete and continuous dependent variable was used to estimate the determinants of welfare of the telferia farmers. The model is expressed based on Tobin (1958).

$$q_i = \begin{cases} P_i = X_i\beta + e_i \text{ if } P_I > P_I^* \\ O = X_I\beta + e_i \text{ if } P_i \leq P_I^* \end{cases}$$

$$i = 1,2, \ldots\ldots\ldots\ldots, 70$$

Where qi is the dependent variable. It is discrete when households are not poor and continuous when they are poor. Pi is the poverty depth/intensity defined as $^{(z-)}/_{2}$ and P_i * is the poverty depth when the poverty line (z) equals the expenditure per adult equivalent. Xi is a vector of explanation variable. β is a vector of unknown coefficient and e_i is an independently distributed error term.

The explanatory variables specified as factors influencing welfare are as follows:

Xi = Sex of household head (D = 1 if female, 0 if male).
X_2 = Age of the household head (years)
X_3 = Households size
X_4 = Education (years of schooling)
X_5 = Farming income in naira
X_6 = farming experience in years
X_7 = Access to extension services.

RESULTS AND DISCUSSION

From the maximum likelihood estimates of the Tobit regression on Table I, the results reveal that sigma is 0.2018 with a z-value of 2.6317 and is significant at one percent level. This implies that the model has a good fit to the data and that the model as a specified, explained significant non-zero variations in factors determine urban poverty. Household Size has a coefficient of 0.5224 and is significant ($p<0.05$) implying that a unit increase in the household size will raise the poverty depth by 0.5224. This confirmed the fact that most dependent particularly children, contribute less to family income. The regression coefficient of farm income, which was significant ($p<0.05$) implying that a unit increase in household income would decrease poverty by 0.5126. This is because higher income tends to bring about welfare improvement hence reduction in poverty level.

The regression coefficient for farming experience of the household head was 0.4432 implying that a year increase in farming experience of the head will lead to 0.4432 unit increase in poverty. This is because as farming experience increases, age of the household head also increases. And because of drudgery, which is still existing in farm operation, the energy available for work decrease with increase in experience. This led to reduction in cultivable lands as well as income and increase in poverty. Poverty may be reduced by 0.4182 to give 0.0841 for households with access to extension contact as against 0.5123.

CONCLUSION

The estimation of the determinants of poverty among

Table I. Maximum Likelihood Estimates of the Tobit Regression for Urban Poverty

Variable	Coefficient	Z-value
Sex of household head (x_i)	0.0621	1.2810
Age of house hold head (x_2)	0.0352	0.6713
Household size (x_3)	0.5224	2.0134**
Years of education (x_4)	0.2610	1.0310
Farming income (x_5)	-0.5126	-2.1130**
stocking experience (X_6)	0.4432	2.7215***
Access to extension services(x_7)	-0.4182	-2.0597***
Intercept	0.5123	3.3162***
Sigma σ	0.2018	2.6317***

Source: completed from Tobit Regression Result, 2006
***,**,* denote significance at 1%, 5% and 10% respectively

peri-urban fluted pumpkin producers reveals that household size, farming experience, farm income and extension contacts are very important and significant poverty determinants.

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