

# POVERTY PROFILE OF RURAL FARM HOUSEHOLDS IN SOUTHWEST NIGERIA

ADEWUNMIO.IDOWU

Department of Agricultural Economics and Farm Management, Olabisi Onabanjo University, Yewa Campus, Ayetoro.  
E-mail : adewunolu@yahoo.co.uk

## ABSTRACT

This study aims to empirically assess the extent and level of poverty among rural farm households in Southwest, Nigeria. The study drew a sample of 411 rural farm households through a multi-stage sampling technique and the data obtained were analyzed using the descriptive statistical measures, the poverty depth analysis and normalized per capita consumption equation. Results indicated that an average rural farm household needs N253.39/person to meet the daily basic needs. The poverty incidence was 76.40 per cent and more severe among households whose heads were female, having low educational attainment and larger household size. Educational levels, size of land and investment assets owned by the household reduce households' poverty while household size and dependency ratio entrench it. Implications were drawn for rural education, birth control, access to farmland and rural electrification.

**Keywords :** Absolute poverty line, farm diversification, per caput consumption, dietary energy requirement, body mass index.

## RESUME

*PROFIL DE LA PAUVRETE DES FAMILLES AGRICOLES RURALES DU SUD-OUEST DU NIGERIA*

*Cette étude vise à évaluer empiriquement l'étendue et le niveau de pauvreté parmi les ménages agricoles rurales du Sud-Ouest, le Nigeria. L'étude a constitué un échantillon de 411 ménages agricoles rurales grâce à une technique d'échantillonnage en plusieurs étapes et les données obtenues ont été analysées à l'aide des mesures statistiques descriptives, l'analyse de la profondeur de la pauvreté et normalisée équation de la consommation par habitant. Les résultats indiquent qu'un ménage moyen en milieu rural agricole doit N253.39/person pour répondre aux besoins quotidiens de base. L'incidence de la pauvreté était de 76.40 pour cent et plus grave chez les ménages dont le chef étaient de sexe féminin, ayant un faible niveau d'éducation et une plus grande taille des ménages. Les niveaux d'éducation, la taille des actifs fonciers et d'investissement appartenant à la famille de réduire la pauvreté des ménages tandis que la taille des ménages et le taux de dépendance retranchent il. Implications ont été établis pour l'éducation rurale, le contrôle des naissances, l'accès aux terres agricoles et l'électrification rurale.*

**Mots-clés :** ligne de pauvreté absolue, la diversification agricole, la consommation par habitant, les besoins en énergie alimentaire, indice de masse corporelle.

## INTRODUCTION

Poverty has been one of the most challenging problems facing mankind today (SIDA, 2006). Evidence in the Millennium Development Goals Report (MDGR, 2009) showed that the 2008 global food crisis added an estimate of 55-90 million people to the World extremely poor, while World Bank (2010) reported that poor people in developing countries nearly doubled between 1981 and 2005.

The poverty incidence in Sub-Saharan Africa in 2005 was recorded to be 50.7 per cent with the poverty gap ratio rising up to 20.6 per cent (MDG, 2009) but in 2008, the share of the population living in extreme poverty in sub-Saharan Africa was 48 per cent (UNDP, 2012). The situation in Nigeria is more deplorable because poverty incidence in Nigeria was 70.2 per cent between the periods of 2000 and 2003 and later rose to 70.8 per cent in 2004 and remains unchanged till 2006 with overall decline in the standard of living (HDR, 2007/2008).

Nigeria is in the low bottom quartile of Human Development Index (HDI) group with HDI rank and value of 156 and 0.459 respectively and multidimensional poverty index (MPI) of 0.310 (HDR, 2011). This situation is vividly reflected in variables such as shortness of life span (51.9 years life expectancy at birth), lack of basic education (5.0 mean years of schooling) and reasonable nutrition (HDR, 2011 ; UNDP, 2012).

Over the years, there are many literatures on Nigerian poverty (Okumadewa, 1997, 2001; Rahji 1999 ; Awoyemi 2004 ; Oyekale, Adeoti and Ogunnupe 2004 ; Oyeranti and Olayiwola, 2005 ; Oyekale and Oyekale 2007 ; Oni and Yusuf 2008 among others) but most of these literature used national data to report on national (rural and or urban) poverty ; this study deviated from this conventional norms by using cross sectional data to study regional poverty specifically among households that involve in Agriculture. However, rural farming households was necessitated because most literature revealed that poverty is a rural phenomenon in Nigeria and higher among households that rely mainly on agricultural income (Babatunde, 2008 ; Idowu *et al.*, 2011).

In departure from several poverty studies (e.g Oyeranti and Olayiwola, 2005 ; Okunmadewa, Yusuf and Omonoma, 2005 ; Olubanjo *et al.*, 2007 ; Oni and Yusuf, 2008) which used relative poverty line like two-third mean per capita expenditure or US\$1.25 as conventional poverty line, this study used absolute poverty line defined as an estimated per caput cost of a basket of food and non-food consumption, required to supply an average member of the household the daily dietary calorie requirement necessary to live an healthy life. In addition, Foster-Greer-Thorbecke (FGT) class of poverty measures was used to determine poverty status of the rural farm households in order to assess the number of the poor as well as the poverty gap and its severity which are indexes needed to analyse policies aiming to reach the poorest.

Considering the above, it will be interesting to know the extent and level of poverty as well as the factors and/or processes that fuel poverty among the farming population in Nigeria, especially in southwest region. Therefore, this paper aims at assessing the extent, level and determinants of poverty among rural farming households in Southwest, Nigeria.

## MATERIALS AND METHODS

### THE STUDY AREA

The empirical setting for the study is the Southwest Nigeria, with a special focus on rural farming households. The south western part of Nigeria is one of the six geo-political zones in Nigeria and the hometown of the Yorubas with a land size of 114.271 km<sup>2</sup> (which is approximately 12 percent of Nigeria's total land mass) and population of about 28.61 million, approximately 20.44 percent of the Nigeria's total human population in Nigeria (NBS, 2006 ; UN, 2006) and this zone consists of six states : Ekiti, Lagos, Ogun, Ondo, Osun and Oyo.

Yoruba is the main ethnic group in the geo-political zone, which comprises several dialects. It lies within latitude 4° - 14° N and longitude 3° - 14° E and exhibits the typical tropical climate of averagely high temperature and high relative humidity. The temperature is relatively high during the dry season with the mean around 33° C and low temperature is experienced during the rainy season with the mean around 24° C. The distribution of rainfall varies from about 1 000 mm to about 2 000 mm. The south western part of Nigeria has three main types of vegetation, namely, mangrove forest, tropical rain forest and guinea savannah. The natural resource endowment of the region includes land, water, mineral, forest and agricultural resources, through which a wide range of agricultural and forest products, are obtained.

### SAMPLING PROCEDURE

The study utilizes primary data generated among rural farm households drawn from the study area. Multi-stage stratified random sampling technique was employed in selecting a target of 480 rural farm households from the study area. The southwest region was stratified into three (3) strata viz Lagos/Ogun, Oyo/Osun and Ondo/Ekiti. The first stage entailed a random selection of a state from each stratum making three states (Ekiti, Ogun and Osun states) out of the six in the southwest Nigeria. Subsequent selections were based on the organization of farming communities in each of the three states selected into cells, blocks and agricultural zones by the Agricultural Development Programme (ADPs) in Nigeria.

The second stage of the sampling process involved a random selection of five agricultural zones from the three selected states in stage one (proportional to the number of agricultural zones in each of the selected states). This was followed by a simple random selection of four blocks in each selected zone resulting into 20 agricultural blocks. Then, three cells in each selected block were randomly picked, giving chance for 60 agricultural cells to be randomly selected across the selected agricultural blocks. The fifth stage entailed purposive selection of two farming communities under each cell and four residential buildings randomly drawn from each farming community but with no more than one farm household purposively interviewed from each residential building. This process yielded 480 rural farm households spread across 120 farming communities in the three states. Out of the 480 questionnaires collected, 411 of them were found useful for subsequent analysis while 69 questionnaires were discarded because of incomplete information.

#### ANALYTICAL PROCEDURES

Both descriptive and regression analytical tools were employed for the analyses as follows :

#### Poverty level among rural farm households

The level of poverty among the sampled farm households and its variation across various socio-economic groups were determined by computing the Foster, Greer and Thorbecke (FGT) (1984) poverty measures and comparing these across socio-economic groups following the standard methodology used in Greeley (1994), Foday-Lamin (1996), Gibson (2001) and Mukherjee and Benson (2003). The FGT measure is defined as:

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

Where,  $n$  = total number of households in population,  $q$  = the number of poor households,  $Z$  = an absolute poverty line, defined as an estimated per caput cost of a basket of food and non-food consumption (Fambon, 2006 ; Duclos and Araar, 2006), required to supply an average member of the farm household the daily dietary calorie requirement necessary to life an healthy life as defined by FAO/WHO/UNU (2008) ;  $y_i$  = household per capita expenditure,  $\alpha$  = Poverty aversion parameter and takes on

value 0, 1, 2. If  $\alpha = 0$ , it results in Headcount Ratio (Poverty incidence) describing the proportion of the population that falls below the poverty line. If  $\alpha = 1$ , the result becomes the normalised poverty gap (depth of poverty), which gives the proportion of the poverty line required by an average household per person to get out of poverty. When  $\alpha = 2$ , it reveals the Poverty Severity Index. This index weighs the poverty of the poorest individual more heavily than those just slightly below the poverty line. It adds to the Poverty Gap ratio an element of unequal distribution of the poorest individual's income below the poverty line.

#### Determinants of Poverty among Rural Farm Households

An analysis of the correlates of poverty among the rural farm households was estimated using consumption regression model (Okunmadewa, Yusuf and Omonona, 2005). The binary model was considered inappropriate for the analysis because the resulting probit and logit regressions were relatively sensitive to specification errors (Bidani, and Ravallion, 1992 ; Ravallion and Bidani, 1994 ; Ravallion, 1998 ; Clark, Hemming and Ulph, 1981). The model is specified as follows :

#### Household Per Capita Consumption Equation

$$\text{Log}C_i = Q_i \delta_2 + u_i \quad (2)$$

Where,  $C_i$  is the normalized monthly per capita consumption of the  $i$ th household divided by the poverty line ;  $C_i = y_i / z$  ; where,  $y_i$  is the per capita consumption and  $z$  is the absolute poverty line. Note :  $C_i$  is in log form to allow for the log normality of the variable (Bidani, and Ravallion, 1992 ; Ravallion, 1998).

$Q_i$  is the set of explanatory variables that include : Age of the household head (years) ; gender of the household head (1 if female ; 0 otherwise) ; educational level of household head (Number of years spent in school) ; marital status of the household head (Single = 1 ; 0 otherwise) ; single parenthood by the household head (Yes = 1 ; 0 otherwise) ; nativity of the household head (1 if a native of the community, 0 if otherwise) ; household size (Number of person) ; dependency ratio (ratio of the number of non-working members of the farm household to those that are working) ; amount of credit accessed during the production season (₦) ; per capita landholding of the household,

measured as the total area of land per economically active member of the farm household (Ha/ worker) ; per capita investment, measured as the total household asset income per economically active member of the farm household ( ₦ / worker) ; per capita animal wealth, measured as the total household worth of animal income per economically active member of the farm household ₦ / worker).

Others include proportion of land devoted to tree crops (Ha) ; household owns a House (yes = 1 ; 0 otherwise) ; diversification within the Farm (Farm Diversification index) ; participation in Non-farm Employment (yes = 1 ; 0 otherwise) ; connection to National Electricity Grid (1 if connected ; 0 if otherwise) ; access road to the nearest urban centre (1 if there is good access road ; 0 if otherwise) ; availability of public source of water within the residence community (1 if available ; 0 if otherwise) ; availability of public health services within the residence community (1 if available ; 0 if otherwise) and  $u_i$  is the stochastic residual terms

## RESULTS AND DISCUSSION

### SOCIO- ECONOMIC CHARACTERISTICS OF THE SAMPLED RURAL FARM HOUSEHOLDS

An average rural farm household size in southwest Nigeria consists of seven members with dependency ratio of 0.7 and means working member of 2.1. Most (83.7 %) of the households were headed by male with average age of 49.9 years and their mean years of formal education was 8.8 years with as much as 87.3 % of the household heads having some form of formal education. The mean diversification index within the farm level across rural farm households was 1.80. This implies that an average rural farm household in southwest Nigeria involved in at least two farming activities, that is, there was an evidence of diversification within the farm (Table 1).

**Table 1** : Socio-economic Characteristics of Rural Farm Households/Heads.

*Caractéristiques socio-économiques des chefs de ménages des fermes rurales.*

	Dominant Indicators	Mean Value
Age	66.1% between 41 – 60 years	49.9 years
Gender	83.7% Males	-
Educational level	87.3% had formal education	8.8 years
Household Size	82.9% between 4-9 persons	6.8
Household Working member	70% between 1 – 2 members	2.1
Dependency Ratio	-	0.7
Major Occupation	57.9% into farming	-
Farming Experience	61.5% having 11 – 30 years	21.4 years
Diversification Index within the Farm	60.5% between 1.01 – 2.00 level	1.80

Source : Field Survey, 2009.

### CONSUMPTION PATTERN AND POVERTY LINE OF THE SAMPLED RURAL FARM HOUSEHOLDS

Cost of basic needs-based poverty analysis was the choice of an appropriate poverty line. The appropriate poverty line was taken to be the cost or expenditure borne that was sufficient to purchase a basket of food and non-food items needed for an household to meet the minimum per caput daily dietary energy requirement for

an healthy life as defined by FAO/WHO/UNU (FAO, 2008), while also making provision for mark-up for non-dietary food expenditure. Thus, the per capita consumption level of an average household in the sample was assessed and the dietary energy contents evaluated as well as compared with the requirement of an average household in the sample so as to estimate the poverty line. The results were summarized in Tables 2, 3 and 4.

As shown in Table 2, the mean per caput consumption of food and non-food items by an average farm household in the sample was found to be ₦3, 567.31 per person per month or ₦118.91 per person per day. The bulk of the per caput expenditure (i.e. worth of goods consumed) was devoted to food consumption (77.6 percent) ; while less than a quarter (22.3 percent) was devoted to non-food consumption items like education, health services, etc.

Considering the cost of living (i.e. average prices of food commodities at the time of the study) and the dietary energy contents of the consumed food items, the result on Table 3 shows that the average dietary energy intake per household per day was 10, 169.68 kcal at a cost of ₦806.21, while the per caput daily dietary energy intake was 1, 499.95 Kcal/day at a cost of ₦118.91. This fell far below the estimated minimum per caput daily dietary energy requirement of 2, 557 Kcal/person/day (Table 4). However, it is worthy of note that the minimum dietary energy requirements recommended by FAO/WHO/UNU varied with age, sex and the body mass index (BMI) of the reference person (FAO, 2008). Thus, the per caput dietary energy requirement estimate (2, 557 Kcal/person/day) used in the study was an average calculations based on the sample mean household size of 6.78 (i.e. seven persons) that was composed of infant (mean =

0.24), children (mean = 1.18), adolescents (mean = 1.45), youths (1.38), middle age adults (mean = 2.05), and the aged (mean = 0.49).

On the basis of the observed cost of living and dietary energy content, an average household in the sample required a daily per caput consumption of at least ₦202.71 per person per day to enable its members met the dietary energy requirement for a healthy life. Making a 20 % provision for mark-up non-dietary food expenditure, the estimated poverty line for rural farm household in the study area became ₦253.39 at 2009 prices. Thus, computation of the FGT poverty indices for the rural farm household in southwest Nigeria was based on this poverty line

The mean per capita income in an average rural farm household in the sample was ₦ 206.72/day. The poverty incidence was found to be 0.7640, implying that 76.40 percent of the sampled farm households were thus classified as poor. This finding was in line with the findings of HDR, 2007/2008 (70.8 %) and Oluwatayo, 2009 (76.3 %).

The poverty depth was estimated to be 0.3287, implying that the poor rural farm households require 32.87 % of the poverty line (₦ 83.29/day) to get out of poverty while the poverty severity ( $P_2$ ) was estimated to be 0.1733 suggesting 17.33 percent of the rural farm households suffer severe poverty.

**Table 2 :** Descriptive statistics of the average monthly food and non-food consumption by the sampled farm households.

*Statistique descriptif de la consommation moyenne mensuelle de nourriture et non nourriture par les familles paysannes échantillonnées.*

Data of Sampled Farm Households in Southwest					
Description	Food Items		Description	Non-Food Items	
	Mean (₦)	Std. Error		Mean (₦)	Std. Error
Beverages	486.82	64.71	Body care	236.88	23.19
Bread & Baked Products	722.98	54.58	Clothing	973.88	68.29
Cassava Granules & flour	1,863.20	224.07	Education	1,494.24	169.01
Cowpea & other beans	1,169.27	216.01	Energy	531.08	151.00
Eggs	224.22	36.68	Health Service	372.17	29.28
Fish	2440.89	239.32	House rent	612.67	94.28
Fruit Vegetables & Spices	1,648.91	164.34	Telecommunication	364.57	110.46
Leafy Vegetables	328.40	23.54	Transportation	597.71	91.61
Maize & other Cereals	795.49	81.22	Utilities & Others	219.13	32.27
Meats	3,138.12	307.52	Sub-Total Non-Food	5,402.33	
Milk & Dairies	312.06	53.43			
Rice	2,952.05	368.46			
Vegetable oil & others	1,322.85	88.56			
Yams & Cocoyam	1,378.80	242.94			
Sub-Total Food	18,784.06				
Total Consumption (Food + Non-food)	24,186.39				
Average Household Size	6.78				
Per Caput consumption/ month	3,567.31				

Source : Computed from Survey Data, 2009

**Table 3 :** Dietary energy content of an average farm household's consumption.

*Besoin énergétique de la consommation moyenne d'un ménage paysan.*

Consumption Items	Dietary Energy Content (Kcal/Kg)	Actual Consumption		
		Expense (N)	Avg. Price (N/Kg)	Dietary Energy Intake (Kcal)
Household Consumption per month (Mean Household Size = 6.78)				
Beverages	4,000.00	486.82	1,100.00	1,770.24
Bread and Baked Products	2,389.00	722.98	145.00	11,911.75
Cassava granules & flour	1,100.00	1,863.20	95.00	21,573.94
Cowpea & Other Beans	3,364.78	1,169.27	156.00	25,220.09
Eggs	1,228.89	224.22	295.00	934.04
Fish	709.46	2,440.89	300.00	5,772.38
Fruit Vegetables & Spices	488.02	1,648.91	116.00	6,937.13
Leafy Vegetables	263.89	328.40	82.00	1,056.90
Maize & Other Cereals	3,176.88	795.49	68.00	37,164.53
Meats	1,687.47	3,138.12	450.00	11,767.74
Milk and Dairies	1,840.00	312.06	650.00	883.36
Rice	3,701.80	2,952.05	164.00	66,633.69
Vegetable Oil & Others	8,729.27	1,322.85	120.00	96,229.52
Yams and cocoyam	1,000.00	1,378.80	80.00	17,234.96
Total Food Consumption/month		18,784.06		305,090.30
Add: Non-Food Expenses		5,402.33		
Total Household Consumption/month		24,186.39		305,090.30
Average Daily Consumption				
Consumption Per Household /day		806.21		10,169.68
Consumption Per Person /day		118.91		1,499.95

Source : Computed from Survey Data, 2009

**Table 4** : Estimates of daily dietary energy requirements and Poverty in an average farm household.*Estimation des besoins caloriques journalier et la pauvreté dans un ménage fermier.*

Category	Mean of Number In the sampled Farm Households	Recommended Dietary Energy Intake (Kcal/person/day)			Dietary Energy Requirement (Kcal/day)
		Min	Max	Mid Point	
Infants (<1year)	0.24	464	775	620	146
Children 1-<10	1.18	865	1978	1422	1,677
Adolescent 10-<18	1.45	2006	3410	2708	3,915
Youths (18 – <30)	1.38	1650	4500	3075	4,244
Adults (30 – <60)	2.05	1750	4200	2975	6,095
Aged 60+	0.49	1550	3600	2575	1,264
TOTAL	6.78				17,341

Estimated Per Caput Dietary Energy Requirement (Kcal/person/day)

2,557

Estimated Cost of Per Caput Dietary Energy requirement

$$= \frac{118.91}{1499.95} \times 2557 = N202.71 / person / day$$

Add: Mark-up for other non-dietary consumption expenditure items (20%) = N50.68

Absolute Poverty line = ~~N~~253.39Calculated Mean per Capita Income (N/day) = ~~N~~206.72Poverty Incidence  $P_0$  = 0.7640Poverty Depth  $P_1$  = 0.3287Poverty Severity  $P_2$  = 0.1733

Source : Author's computations based on Survey Data and FAO (2008), Human Energy Requirement: Report of a Joint FAO/WHO/UNU Expert Consultation, FAO Food and Nutrition Technical Report Series 1, FAO Rome.

#### EXTENT OF POVERTY ACROSS SOCIO-ECONOMIC GROUPS OF THE RURAL FARM HOUSEHOLDS

Poverty indices computed for the purpose of drawing comparison across the various socio-economic categories of rural farm households revealed that the various indices of poverty tend to rise with age and were significantly ( $p < 0.01$ ) higher among female headed households than their male counterparts. The various indices of poverty also declined in general with increase in the education level of the household heads, but it was most prominent among households whose heads had primary school education.

Comparing the results across occupational groups, results on Table 5 showed that households whose heads were mainly involved in paid employments had least poverty incidence (69.23 %). The table also showed that the various indices of poverty also tend to significantly rise with increase in household size but were largely invariant with respect to differences in the number of household members that were reported to be working and contributing to household income. Households living in mud buildings and owned less than three hectares of farmlands had the highest incidence of poverty, but with significant difference across the building types.

**Table 5** : Poverty level among Farm Households in Southwest Nigeria by Household Heads.*Niveaux de pauvreté des ménages paysans par chef de famille.*

Description	Mean Per Capita Income ₦ /person/day	P <sub>0</sub>	P <sub>1</sub>	P <sub>2</sub>
Sample Average	206.72	0.7640	0.3287	0.1733
Age group of Household Heads				
≤30	317.18	0.5000	0.1895	0.0883
31-40	196.53	0.8182	0.3853	0.2114
41-50	208.14	0.7899	0.3223	0.1713
51-60	197.40	0.7955	0.3235	0.1622
Above 60	211.06	0.6522	0.3148	0.1730
F-value	1.881	3.215**	2.084*	1.748
Gender of Household Heads				
Male	212.55	0.7558	0.3161	0.1632
Female	176.80	0.8060	0.3937	0.2252
F	2.801*	0.780	5.216**	6.601**
Educational Level of Household Heads				
No Formal	189.84	0.7308	0.3115	0.1527
Primary	169.28	0.8085	0.3978	0.2270
Secondary	213.08	0.7778	0.3119	0.1607
Tertiary	298.27	0.6429	0.2193	0.0940
F	9.480***	2.213*	7.498***	8.575***
Main Occupation of Household Heads				
Farming	205.60	0.7395	0.3268	0.1728
Trading	170.82	0.8519	0.4246	0.2495
Artisan	175.26	0.8148	0.3626	0.1849
Paid Employment	265.77	0.6923	0.2363	0.1004
Transporters	198.65	0.8571	0.2929	0.1475
Others	260.09	0.8000	0.4140	0.2554
F	2.328**	1.341	3.308***	4.076***
Household Size				
1-3	434.82	0.3462	0.0482	0.0141
4-6	212.94	0.7699	0.2893	0.1329
7-9	165.80	0.8168	0.415	0.2423
10-12	134.44	0.8182	0.5194	0.3504
13 or more	142.52	1.0000	0.4299	0.2325
F	19.801***	7.836***	19.098***	21.388***
Economically Active Household Members (Number of Income Earners)				
Only one	201.89	0.7753	0.3459	0.1949
Two members	219.78	0.7418	0.3097	0.1582
Three or more members	185.15	0.7982	0.3518	0.1854
F	1.740	0.673	1.234	1.611
Farm size(Ha)				
Below 1 Ha	214.03	0.7561	0.3333	0.1766
1.0- <3Ha	205.67	0.7813	0.3283	0.1735
3.0 or more	199.46	0.7396	0.3237	0.1689
F	0.229	0.337	0.038	0.048
Type of Residential Building				
Block house	223.34	0.7348	0.2915	0.1412
Brick	207.00	0.6842	0.3087	0.1734
Mud	189.24	0.8208	0.3742	0.2070
F	2.010	3.004*	4.912***	5.919***

Note : \*, \*\*, \*\*\* indicate that the calculated F-value exceed the critical value at 10, 5 and 1 % level respectively.

Source : Author's computation based on survey data, 2009.



## DETERMINANTS OF POVERTY AMONG RURAL FARM HOUSEHOLDS

In assessing the factors that fuel poverty among the households that rely on farming in southwest Nigeria, the set household per capita consumption model revealed that age, gender, education, household size, dependency ratio, per capita landholding, per capita investment, proportion of land to tree crops, diversification within the farm and availability of some public assets were significant variables determining the rural farm households' poverty.

Increase in the level of education of the household head, proportion of land devoted to tree crops and presence of farm diversification<sup>2</sup> significantly improved the consumption pattern (well-being) of the household, thus reducing the

poverty situation of the households while increase in the household size and dependency ratio entrenched the households' poverty. The two major household assets that have positive significant effect on household consumption pattern were per capita land and investment; showing that the more the size of land and investment assets owned by the household, the higher the tendency for the household to be less poor.

The results further revealed that access of the rural farm households to electricity and public water within the residence communities significantly reduced the poverty level; implying that any attempt of rural development program in Southwest Nigeria, attention should be focused on electrification and provision of drinking water within the farming communities.

**Table 6 :** Factors affecting Rural Farm Households' Poverty.

*Facteurs affectant la pauvreté des familles paysannes.*

Variables	Coefficient	Std. Error
Age of Household head	0.0037***	0.0014
Gender of Household head (Female = 1)	-0.0774**	0.0336
Educational level of Household head	0.0107***	0.0026
Marital status of the head (Single =1)	-0.0224	0.0491
Single Parent (Yes = 1)	0.0405	0.0887
Nativity of the household (Native = 1)	0.0200	0.0228
Household size	-0.0503***	0.0080
Dependency ratio	-0.0578***	0.0195
Volume of Credit	-2.98E-08	6.61E-08
Per capita landholding	0.1038**	0.0403
Per capita animal	0.4514	0.4118
Per capita Investment	1.88E-06	5.42E-07
Proportion of land devoted to Tree crop	0.1410*	0.084
Owned House by household	0.1244**	0.0627
Diversification within Farm	0.1371**	0.0595
Participation in Non-Farm Employment	0.0334	0.0246
Hook to National Electricity Grid	0.2399**	0.1183
Road Access	0.0015	0.0163
Hook to Public Water	0.0061**	0.0028
Government Health Facility	-0.0431***	0.0120
Constant	1.3572***	0.1435
Adjusted R <sup>2</sup>	0.367	
F	9.812***	

Source : Data Analysis, 2009

\*,\*\*,\*\*\* indicate significant level at 10, 5, 1 % respectively.

<sup>2</sup>Farm diversification in this study implies diversification within the farm, that is, the involvement of the farmer in mixed cropping and/or farming or integrated farming.

## CONCLUSION

The poverty situation among the rural farm households was found to be high (76.4 percent) and require 32.87 % of the poverty line (N83.29/day) to get out of poverty. An average rural farm household needed N253.39/person to meet the basic needs per day. Poverty was more severe among households whose heads were female, having low educational attainment and larger household size. Likewise, household size and dependency ratio entrenched the households' poverty while involvement in farm diversification and increase in educational level, size of land and investment assets owned by the household make the households to be less poor.

Therefore, reduction in poverty among the rural farm households called for an integrated approach that would promote higher education, birth control, greater access to farmland and intensify efforts on rural electrification.

## REFERENCES

- Atkinson A. B. 1987. On the Measurement of Poverty, *Econometrica.*, 55 : 749 - 64.
- Awoyemi T. T. 2004. Rural Non-Farm and Poverty Reduction in Nigeria. A Report submitted to AERC, Nairobi, Kenya.
- Babatunde R. O. 2008. Income inequality in rural Nigeria : Evidence from farming households' survey data. *Australian Journal of Basic and Applied Sciences* 2 (1) : 134 - 140.
- Bidani B. and M. Ravallion. 1992. Constructing a Consistent Poverty Profile. Mimeo. Poverty Analysis and Policy Division. World Bank, Washington DC.
- Clark S., R. Hemming and D. Ulph. 1981. On Indices for the Measurement of Poverty. *Economic Journal*, 91 : 515 - 526.
- Duclos J. Y and A. Araar. 2006. Poverty and Equity : Measurement, Policy and Estimation with Dad, Berlin and Ottawa, Springer and IDRC.
- Fambon S. 2006. A dynamic poverty profile for Cameroon. A paper submitted for AERC-UNECA Dissemination Conference on Poverty, Income Distribution and Labour Market in Sub-Saharan Africa : Phase 11
- FAO. 2008. Human Energy Requirement: Report of a Joint FAO/WHO/UNU Expert Consultation, FAO Food and Nutrition Technical Report Series 1, FAO Rome.
- Foday Lamin J. M. 1996. Poverty Monitoring in Africa CERAF, School of business, Montclair State University, Upper Montclair, New Jersey 07043
- Foster J. E., J. Greer and E. Thorbecke. 1984. A Class of Decomposable Poverty Measures. *Econometrica* 52(3) : 761 - 776.
- Gibson J. 2001. Measuring chronic poverty without a panel. *Journal of Development Economic*, 65 : 243 - 266.
- Greeley M. 1994. Measurement of poverty and poverty of measurement. *Institute of Development Studies (IDS) bulletin*, 25 (2) : 50 - 56.
- Human Development Report - HDR. 2011. Sustainability and Equity : A Better Future for All. UNDP: 1 UN Plaza, New York, NY 10017, USA.
- Human Development Report -HDR. 2007/2008. Fighting climate change : Human solidarity in a divided world. Palgrave Macmillan, New York.
- Idowu A. O., A. Banwo and E. O. Akerele. 2011. Non-Farm Activities and Poverty among Rural Farm Households in Yewa Division of Ogun State. *Journal of Social Sciences*, 26 (3) : 217 - 224.
- Millennium Development Goals Report -MDG. 2009. United Nations, New York.
- Mukherjee S. and T. Benson. 2003. The determinants of poverty in Malawi, 1998. *World Development* 31 (2) : 339 - 358.
- NBS. 2006. 2006 Population Census. National Bureau of Statistics : Federal Republic of Nigeria, Abuja.
- Okunmadewa F. 1997. Poverty Alleviation Efforts of United Nation Agencies in Nigeria. *Partnership for Development* 1(5) : 5 - 11.
- Okunmadewa F. 2001. Poverty reduction in Nigeria : A four-point demand. The house annual guest lecture, University of Ibadan, Ibadan.
- Okunmadewa F. Y., S. A. Yusuf and B. T. Omonona. 2005. Social capital and Poverty Reduction in Nigeria. Report Submitted to Africa Economic Research Consortium (AERC) Nairobi, Kenya.
- Olubanjo O., S. Akinleye and W. Soremekun. 2007. Poverty Determinants among Farmers in Ogun State, Nigeria. *Agricultural Journal* 2 (2) : 275 - 280
- Oluwatayo I. B. 2009. Poverty and income diversification among households in Rural Nigeria : A gender Analysis of livelihood patterns. Paper presented at the 2<sup>nd</sup>

- instituto de Estudos Sociais de Economicos (IESE) Conference on Dynamics of Poverty and Patterns of Economic Accumulation in Mozambique. Pp 1 - 21.
- Oni A. O. and S. A. Yusuf . 2008. Determinants of Expected Poverty among Rural Households in Nigeria. AERC Research Paper 183, African Economic Research Consortium, Nairobi, Kenya.
- Oyekale A. and T. Oyekale. 2007. An assessment of income shocks and expected poverty dynamics in Nigeria. Draft Paper Presented at the AERC Workshop in Nairobi, Kenya.
- Oyekale A., Adeoti A. I. and T. O. Ogunnupe. 2004. Sources of income inequality and poverty in rural and urban Nigeria. Retrieved 12<sup>th</sup> August, 2010 from <http://www.worldbank.org/poverty/pdf>
- Oyeranti O. and K. Olayiwola. 2005. Policies and Programmes for Poverty Reduction in Rural Nigeria. An Interim Research Report Submitted to the African Economic Research Consortium (AERC), Nairobi for the Second Phase Collaborative Poverty Research Project Revised
- Rahji M. A. Y. 1999. Dimensions of Rural Poverty and the Food Self-Sufficiency Gap in Nigeria. In : Y. L. Fabiyi and E. O. Idowu (Eds.). Poverty Alleviation and Food Security in Nigeria : Annual Proceedings of the Nigerian Economic Society NAAE, Nigeria : Pp 33 - 37
- Ravallion M. 1998. Poverty Lines in Theory and Practice, Living Standards Measurement Study Working Paper N° 133, World Bank.
- Ravallion M. and B. Bidani. 1994. How Robust Is a Poverty Profile ? The World Bank Economic Review, 8 (1) : 75 - 102.
- SIDA. 2006. of Global Concern - Rural Livelihood Dynamics and Natural Resource Governance. SIDA studies n° 16, Stockholm.
- UNDP. 2012. Africa Human Development Report : Towards a food secure future. United Nations Development Programme : Regional Bureau for Africa (RBA), 1 UN Plaza, New York, NY 10017, USA.
- United Nations - UN. 2006. World population prospect, 2006 : United Nations Population Division.
- World Bank. 2010. World Bank Updates Poverty Estimates for Developing World. Retrieve 15<sup>th</sup> April, 2011 from <http://econ.worldbank.org/>.