



HOUSEHOLD FOOD CONSUMPTION AND WELFARE IN EGBA DIVISION OF OGUN STATE

¹Akerele, E. O., ¹Oyebanjo O., ¹Ologbon O.A.C, ¹Taiwo B. O.,
²Yangomodou O.D., ²Solana O. I., ²Olugbemi M. T.

¹Department of Agricultural Economics and Farm Management

²Department of Home Science and Hospitality Management

Olabisi Onabanjo University, Yewa Campus, Ayetoro, Ogun State, Nigeria

E-mail: akereleeze@gmail.com

ABSTRACT

The study examined the welfare and household food consumption among households in Egba division of Ogun State, Nigeria with a view to providing policy information towards improving welfare condition of the Egbas, using a well-structured questionnaire and sample size of 130 households. Standard welfare function was specified and estimated using Ordinary Least Square Regression. The study revealed that the monthly per capital income of the household is ₦9,623.27 while the monthly per capital food and non food expenditure was ₦5,949.7 and ₦1,768.25 respectively. Similarly, with respect to household welfare, household income, education and household size have significant impact on food expenditure. The result indicated that as household income increases, household tends to expend more and more on food consumption. On the basis of this finding, it was recommended that appropriate and effective policies which will reduce household size, increase household income and improve their education level should be put in place

Keyword: *Household, Welfare, Consumption, Income, Education*

INTRODUCTION

Food is a basic necessity of life. Its importance is seen in the fact that it is a means of sustenance and an adequate food intake in terms of quality and quantity is a key for healthy and productive life. The importance of food is also shown in the fact that it accounts for a substantial part of a typical Nigerian household budget (Omonona and Agoi *et al* 2007). Its importance at the household level is indicated by the fact that

it is a basic means of sustenance (Ajibola 2000). Food consumption has been a subject of research all over the world, the concern for food security and nutritional well being (Akinleye and Rahji, 2007). It is essentially meaning full in the developing countries where food expenditure accounts for a relatively large share of the household income, studies on food consumption has also shed light on food related nutritional policies (Obayelu *et al* 20009).

Food problem, with regards to quantity and quality is one of the characteristics of a developing country like Nigeria. The structure of the Nigerian food consumption has been undergoing dramatic changes for some years now. There was a decrease in the Dietary energy consumption (kcal per caput per day) for the periods 1990 - 1992, 1995-1997 and 2001-2003 was put at 2540, 2750 and 2700 respectively. Also there is the decrease in the dietary protein consumption (gm per caput per day) for the period 1995-1997 and 2002-2003, the protein was put 62 between 1995-1997 but dropped to 61 between 2001-2003 (FAO 2006).

Food consumption in Nigeria has been an important issue not only because it is related to poverty and food insecurity, but also because it is highly correlated with the standard of living and household resources. Essentially, the demand for food depends on the population and the dietary per capital daily calorie intake of the people under consideration (Obayelu *et al* 2009). Common staples in most Nigeria homes are insufficient and do not provide balanced diet, as such mal-nutrition is prevalent in most homes (Makinde 2000). There has been an increase in the consumption of carbohydrate foods like yam, cassava, maize and rice while decrease in the consumption of

such food items as fish, fresh fruit, as well as fresh and processed vegetables. Thus with growing calorie supply deficient, coupled with the decline in real income, the threat of food insecurity particularly among the low income group has deepened (Orewa and Iyande 2009).

Welfare of household which though not observable could be said to represent the people's standard of living. In theory, household consumption expenditure on food and education are used as proxy for welfare indicator (Quartey 2005). Bruck (2003) identified household mean level of education of the mother is likely to have a greater positive impact on household food consumption than the level of the male head. Earlier studies on welfare have identified micro credit, human assets, household income and farm output as factors which explain welfare (Teal 2003, Tunali 2000, Ravallion 2001, Litchfield and Waddington 2003). Income is a major determinant of welfare, location variables such as region of residence (rural or urban) etc explains household welfare, since they explain spatial causes of affluent or poverty. Location effects are manifest in infrastructure and unobservable geographical heterogeneity (Litchfield and Waddington 2003).

It is clear that many factors have influenced the Nigerian food consumption pattern and the understanding of these factors will be pertinent to know the proper assessment of the agricultural product market in Nigeria (Olorunfemi 2007). Average calorie intake by Nigerians is only at the threshold of adequacy. The daily per calorie supply as a proportion of the requirement was 90% in 1988-1990 and 85% between 1992-1996 (FAO 1993). According to FAO (1998), Nigeria managed to reduce the prevalence of undernourishment by more than

30% points between 1979-1981 and 1996-1998, the number dropped from 44% to 8%. The depth of hunger in Nigeria remains 210 Kcal per person per day while the diet comprised of 64% cereals and roots and tubers (Obayelu *et. al.* 2009). Per-capital growth of production of major food in Nigeria has not been sufficient to satisfy the demand of an increasing population (Kormawa 1999). The result is a big gap between national supply and demand for food. Malnutrition is still widespread and eloquently manifested in the high levels of severe and moderate underweight among children coupled with the rate of infant and under five mortality a low life expectancy at birth (Maziya-Dixion *et. al.*, 2005).

Nigeria is a country with a population of 138.3 million people, about 14.3% of the total African population and 2.1% of the world population. It is richly endowed with human and material resources, but has not been able to harness these sufficiently and efficiently enough to meet the food need of the poor in the nation (Orewa and Iyande 2009). Regardless of the level of controversy associated with the concept of Poverty and the poor, one thing is clear, there is Poverty in Nigeria and the level is high (Okuneye, 2001). These facts obviously show the worsening nature of the Poverty in Nigeria the consequences of which is increasing level of food insecurity (Omonona *et al* 2007). Common staple foods in most Nigerian homes are insufficient and do not provide a balanced diet, as such malnutrition is prevalent in most homes. This has led to massive importation of food and massive foreign dept (CBN 1998, Makinde 2000).

Objectives of the Study

The main objective of the study is to determine the welfare of the households in terms of food consumption in Egba Division of Ogun State., Nigeria. The specific objectives are to

1. describe the socio-economic characteristics of the households.
2. estimate the per capital expenditure on the consumption level of food and non-food items.
3. examine the marginal propensity to consume (MPC) among the households.
4. Determine the household welfare model in the study area.

RESEARCH METHODOLOGY

Area of Study

The empirical setting for this study is Egba Division of Ogun State, Nigeria. Ogun state is in the southwest rainforest zone of Nigeria. It lies within latitude 6⁰55' and 4⁰55', and is bounded in the west by the Republic of Benin, on the east by Ondo state, on the north by Oyo State and the south by Lagos and the Atlantic Ocean. It had a population about 2,236,689 at the 1991 census. Egba Division of the State accounts for six (6) out of the twenty (20) Local Government Areas in Ogun State. The six Local Government Areas in the Division are: Abeokuta South, Abeokuta North, Odeda, Obafemi, Owode, Ifo and Ewekoro Local Government Areas.

Sampling Techniques

One Local Government Area representing urban area and one Local Government Area representing rural area were selected for the study. To ensure an even distribution of the sample for the study, a multi stage sampling technique was adopted in selecting the respondents. The first stage involved a random

selection of five (5) communities from each local government area, making a total of ten (10) communities. The second stage involved a random selection of fifteen (13) respondents from each of the (10) communities making a total of one hundred and thirty (130) respondents sampled.

Data Collection

Both primary and secondary data were used for the purpose of the study. Primary data were collected through the use of a well structured questionnaire and interview of the households. Secondary data were obtained from the Ogun State Agricultural Development Programme (OGADEP). Other sources were relevant literatures, journals and publications.

Analytical Techniques

In order to achieve the objectives of this study, the analytical technique used included descriptive statistics and regression analysis. The descriptive statistics involved the use of frequency table, mean, median and mode; while the regression analysis (Ordinary Least Square regression) was used to analysis the marginal propensity to consume and determinants of household welfare.

Marginal Propensity to Consume

Estimating the Marginal Propensity to Consume (MPC) among the household was measured as:

$$MPC = \Delta C / \Delta Y$$

Where:

ΔC = change in consumption (kg).

ΔY = change in disposable income that produced the Consumption (₦).

Regression Analysis Model

Ordinary Least Square Regression was employed.

The model specification: $W = f(X_1, X_2, X_3, X_4, X_5, X_6, X_7, U) \dots\dots (1)$

Where:

W = welfare (expenditure on food, education and other consumption items (₦)).

X_1 = credit (Amount loan obtained by the household members, (₦))

X_2 = household income per adult equivalent (AE), (₦), where $AE = 1 + 0.7(N_1 - 1) + 0.5N_2$ (Quartey 2005).

N_1 = Number of adult aged 15 years and above.

N_2 = Number of children less than 15 year. The household income per adult equivalent was derived as total household income divided by adult equivalent (AE)

X_3 = Physical assets (Real value of building, vehicles, lands, etc (₦))

X_4 = Household size (Number of persons in the household).

X_5 = Sex of household head (1= Male, 0=Otherwise).

X_6 = Age of household head (years).

X_7 = Education level (Number of years spent in school).

U = Error term.

Functional forms (Linear, Semi-log, Double log) were fitted and the best fit was chosen based on the significance of the coefficient, their compliance with a prior expectation and the value of the coefficient of multiple determination R^2 .

The functional forms fitted were as follows:

Linear function:

$$W = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n + U \dots\dots\dots (2)$$

Semi-log function

$$W = \ln \beta_0 + \beta_1 \ln X_1 + \beta_2 \ln X_2 + \dots + \beta_n \ln X_n + U \dots\dots\dots (3)$$

Double-log function:

$$\ln W = \ln \beta_0 + \beta_1 \ln X_1 + \beta_2 \ln X_2 + \dots + \beta_n \ln X_n + U \dots\dots\dots (4)$$

Where:

\ln = natural logarithm

β_0 = parameters to be estimated.

RESULTS AND DISCUSSION

Socio-Economic Characteristics of the Respondents

Expenditure of household on food items is affected by a number of socio-economic characteristics of the household such as income, household size, educational level of the household head and that of the spouse, marital status, age, sex and occupation of the household head. Table 1 shows the distribution of the households by their socio-economic characteristics.

Table 1: Distribution of Households by Socio-Economic Characteristics

Characteristics	Rural		Urban		All	
	Freq	%	Freq	%	Freq	%
Sex						
Male	41	70.7	54	75	95	73.1
Female	17	29.3	18	25	35	26.9
Age (years)						
<30	21	36.2	6	8.3	27	20.8
30 - 39	12	20.7	13	18.1	25	19.2
40 - 49	10	17.2	28	38.9	38	29.2
50 - 59	7	12.1	13	18.1	20	15.4
> 60	8	13.8	12	16.7	20	15.4
Religion						
Christian	37	63.8	53	73.6	90	69.2
Muslim	21	36.2	19	26.4	40	30.8
Occupation						
Artisan	16	27.6	6	8.3	22	16.9
Farming	15	25.9	12	16.7	27	20.8
Trading	20	34.5	16	22.2	36	27.7
Civil servant	7	12.1	38	52.8	45	34.6
Marital Status						
Single	0	0	4	5.6	4	3.1
Married	50	86.2	66	91.7	116	89.2

Widowed	3	5.2	0	0	3	2.3
Separated	5	8.6	2	2.8	7	5.4
Educational Level						
No formal education	19	32.8	0	0	19	14.6
Primary	23	39.7	2	2.8	25	19.2
Secondary	14	24.1	16	22.2	30	23.1
Tertiary	2	3.4	54	75.0	56	43.1
Household size (person)						
<3	1	1.7	4	5.6	5	3.8
3-5	41	70.7	48	66.7	89	68.5
6-8	16	27.6	16	22.2	32	24.6
>8	0	0	4	5.6	4	3.1
Years of experience						
<5	11	19.0	12	16.7	23	17.7
5 -10	15	25.9	24	33.3	39	30.0
11-15	7	12.1	17	23.6	24	18.5
>15	25	43.1	19	26.4	44	33.8
Household income						
< ₦10000	6	10.3	6	8.3	12	9.2
₦10000-₦25000	19	32.8	8	11.1	27	20.8
₦26000-₦50000	31	53.4	23	31.9	54	41.5
₦51000 - ₦75000	1	1.7	18	25.0	19	14.6
> ₦75000	1	1.7	17	23.6	18	13.8

Source: Field Survey 2018

From the table, in terms of sex generally, 73.1% of the household heads are males with 70.7% representing rural males and 75% representing urban males, in all 26.9% of the respondents are females with 29.3% representing rural households and 25% representing that of urban. Age wise, 20.8% represent household heads who less than 30 years old are generally with 36.2% representing those of rural and 8.3% representing urban. Household head between 30 - 39 years old in all is put at 19.2%, those between the ages of 40 to 49 years.

29.2% while the remaining household heads who are at least 50 years old is represented by 30.8%. Majority of the household head (79.2%) are between the ages 30 - 60 years, which is considered as active and productive year, although those below 30 years generally constitute a lower level of work force and as such earn a relatively low income but with small household size (Omonona and Agoi, 2007).

Household's heads engaged in different type of occupation, these are trading, farming, civil servants and artisan. Majority of the respondents 34.6% were civil servants with 12.1% representing rural and 52.8 representing urban, generally 27.7% were into trading (traders), while 20.8% were engaged in farming and 16.9% are artisan which included tailors, drivers, carpenters, technicians, etc. High percentage of artisan, farmers and traders can be as a result of high rate of unemployment, which causes the tendency for low welfare as a result of inconsistencies in income and expenditure on their part since they spend as they earn (Omonona 2007). Marital status from the study revealed that generally majority (89.2%) of the household heads are married, 3.1% were single while the remaining 7.7% were either widow or separated. Education level from the study revealed that 19.2% had primary education, 23.1% had secondary education while 43.1% represents those with tertiary education, the remaining 14.6% represent household heads with no formal education what so ever.

Percentage of household sizes which is less than 3 in general is represented 3.8% with 1.7% representing that of rural and 5.6% representing that of urban, furthermore in all 68.5% represent household size ranging between 3 to 5, 24.6% represent household size ranging between 6 to 8 and 3.1% for

those greater than 8 in number. In terms of working experience 17.7% of the entire population have less than 5 years working experience, 30% have between 5-10 years, 18.5% have between 11 - 15 years while the remaining 33.8% which represent the majority of the population have more than 15 years working experience. Generally in the area of household income 9.2% out of the respondents earn less than ₦10,000 monthly, 20.8% earn between ₦10,000 - ₦25,000, those earning between ₦26,000 - ₦50,000 was represented by 41.5% while 14.6% represent those earning between ₦51,000 - ₦75,000, the remaining 13.8% earn nothing less than ₦76,000 monthly.

Table 2 Per capital food expenditure

Household Food Consumption and Welfare in Egba Division of Ogun State

Expenses	RURAL			URBAN			ALL		
	House exp (₦)	Per cap exp (₦)	% food share	House exp (₦)	Per cap exp (₦)	% food share	House exp (₦)	Per cap exp (₦)	% food share
Cereals	3693.60	787.55	13.72	4866.57	1026.70	14.90	4343.24	731.79	12.30
Garri	3100.87	661.17	13.20	4236.05	893.63	12.97	3729.24	785.44	13.20
Yam	1151.81	245.59	4.90	1225.43	258.53	3.75	1192.59	252.67	4.25
Plantain	534.48	113.96	2.28	769.44	162.33	2.36	664.61	21.05	0.35
Beans	2368.97	505.11	10.08	2352.77	496.37	7.20	2360	500.00	8.40
Fish and meat	2744.82	585.24	11.68	2694.44	568.45	8.25	2716.92	575.62	9.67
Other sources of protein	1038.38	221.40	4.42	1144.44	241.44	3.50	1097.12	232.44	3.91
Fruits and vegetables	1870.69	398.87	7.96	3279.17	691.80	10.04	2650.77	561.60	9.44
Fats and oil	1538.10	327.95	6.55	1728.19	364.58	5.29	1643.38	464.52	7.81
Beverages and drinks	1862.07	397.03	7.93	3157.50	666.14	10.00	2579.54	546.51	9.19
Baked food	1430.35	304.98	6.09	2253.59	475.44	6.90	1886.31	399.64	6.72
Other foods	3189.65	680.10	13.58	4916.67	1046.1	15.18	4146.15	878.42	14.76
TOTAL	24524.1	5008.95		29169.26	6891.56		29009.87	5949.7	

Source: Field Survey 2018.

Per capital food expenditure of total food and individual food items are presented in Table 2. The result from the table shows that total food expenditure generally is ₦29,009.87; household expenditure for rural area is ₦24,524.11 while that of urban area is ₦29,169.26. Per capital food expenditure of the entire respondents is ₦5,949.7 which implies that an average household in the sample expended the above amount on food per month. Result from the survey reveals that per capital expenditure on energy giving foods (₦1,769.90) which represent 29.75% of the entire household expenditure on food is higher than 21.98% which represent that of protein, this in turn is greater than that of fruits and vegetables (9.44%), fats and oil (7.81%). A relatively small amount is expended of fats and oil and industrial produced foods. The result indicates that the sampled households consumed higher quantity of carbohydrates compared to that of protein and other classes of food.

Table 3: Per capital non-food expenditure

Expenses	RURAL			URBAN			ALL		
	Household exp (₦)	Per cap exp (₦)	% non food share	Household exp (₦)	Per cap exp (₦)	% non food share	Household exp (₦)	Per cap exp (₦)	% non food share
Housing	1124.54	239.77	23.98	1197.96	252.73	10.54	1165.12	246.75	13.40
Stationeries	306.90	65.44	6.54	3612.50	762.13	31.80	1867.30	395.61	22.37
Health	556.90	118.74	11.87	1568.05	330.81	13.50	1116.92	236.64	13.38
Water	134.48	28.67	2.87	447.66	93.18	3.89	304.62	64.54	3.65
Clothing	447.59	95.43	9.54	844.22	178.74	7.46	668.93	142.63	8.07
Transportation	1306.04	278.47	27.85	2319.44	489.33	20.42	2137.69	452.90	25.61
Family obligations	185.35	39.52	3.95	434.02	91.59	3.82	323.08	68.45	3.87
Others	534.48	113.96	11.40	938.89	198.08	8.27	452.47	160.69	9.09
Total	4596.48	1000	-	11358.85	2396.59	-	8342.21	1768.21	-

Source: Field Survey 2018

The table above shows various amounts spent on different non-food items. The result indicates that the total non-food expenditure is ₦8342.21. Per capital non-food expenditure is about ₦1768.21, which implies that a household in the study area on the average expend the said amount on non-food items. Per capital expenditure on transportation is quite higher than that of stationeries which is closely followed by expenses on housing and health, this is an indication that the sampled households expend highest percentage of their non food expenses on transportation which is followed by that of stationeries.

Table 4: Determinants of households' welfare

Explanatory variables	Linear function	Semi log function	Double - log function
Household income	.508* (8.292)	0.578* (8.201)	0.629* (8.508)
Household size	-0.151** (-2.313)	-0.163** (-2.317)	-0.103 (-1.593)
Sex (household head)	0.502 (0.784)	0.020 (0.274)	0.078 (1.167)
Education level (years)	0.515* (6.593)	0.410* (3.937)	0.416*** (4.270)
Age(household head)	-0.012 (-0.149)	0.040 (0.481)	0.061 (0.789)
Occupation (household head)	-0.026 (-0.413)	-0.117*** (-1.803)	-0.036 (-0.596)
Physical assets	-0.021 (-0.284)	-0.076 (-0.724)	0.111 (1.135)
Constant	-- (0.557)	-- (-0.033)	-- (0.860)
R	0.792	0.767	0.860
R ²	0.628	0.589	0.640
Adjusted R ²	0.606	0.565	0.619

* , ** and *** mean significant at 1%, 5% and 10% respectively.

The numbers in parentheses are t-ratio.

Source: Field survey 2010.

Determinants of Households' Welfare

The regression result of the welfare function is presented in the Table 4. The linear function was chosen as the lead equation because its coefficient of multiple determinations is fairly high (0.628) and the model has more explanatory variables than other models. Household income has a significant positive effect (at 1% significant level) on the welfare of the households in the study area. This posit a positive relationship between welfare and income, according to the permanent income hypothesis which distinguish between permanent income and transitory component of income, household will spend mainly the permanent income while the transitory income is channeled into saving with marginal propensity to save from the income approaching unity (Addision, 2005). Education level of the household was positive and significant at 1%, implying that as the education level increases, total monthly expenditure on food consumption also increases. More years of education could bring about an increase in income and this might lead to an increase in the rate of consumption because people that are highly educated are likely to spend more on consumption. Household size has a significant negative effect (at 10% level of significance) on the welfare of the household. This suggests that household having a larger household size are more likely to have reduced welfare, the more the household size, the more difficult it may be for the household to meet the basic requirements such as education for the children, proper nutrition and adequate housing all of which tend to reinforce poverty or poor welfare (Peiro, 2006).

Marginal Propensity to Consume

The marginal propensity to consume estimate (standard coefficient of income under the Double log) for the study area is 0.629 which implies that for every ₦100 increase in income, a typical household in the study area devoted ₦62.90 to expenditure. This is a relatively high value, and it is an indication of low standard of living among the sampled households which can be due to the general economic

hardship throughout the globe during the cause of caring out the research.

CONCLUSION

The study examined the food consumption households. It was found that majority of the sampled households spend more than half of their income on food items. Cross sectional data were used to obtain information from the selected households through the use of a well designed and structured questionnaire. The level of consumption among the respondents suggest that income is an important factor which affect consumption while household size and education level of the respondents also play prominent roles in house decision on the likelihood of purchase and expenditure level on various food commodities in the study area.

RECOMMENDATIONS

On the basis of these findings, it is therefore recommended that:

- (i) Policies which reduce household size will improve their welfare. Therefore fertility control measure and proper family planning which the households can understand and adopt should be focused on.
- (ii) The positive relationship between household income and its welfare implies that policies which remove constraints in occupation and increase household income should be focused on. Policy makers should therefore intervene in real terms in key areas of job improvement and job creation so as to overcome the constraints.
- (iii) There is also need to increase the minimum wages of civil servant across the nation so as to conveniently meet the needs of individual households.
- (iv) Nutrition-oriented programmes should be organized in an attempt to improve the food substitution knowledge of households as education level affects their welfare.

REFERENCES

- Addison. E.K.Y. (2005). "The macroeconomic impact of remittances". In Takiwaa Manuh, ed., *At Home in the World, International Migration and Development, in Contemporary Ghana and West Africa*, pp. 118-38. Accra, Ghana: Sub-Saharan Publishers, Legon.
- Ajibola O. (2000): institutional analysis of the national food storage Programme Development Policy, development center, Ibadan, Nigeria. Research report No 23; 1-30.
- Akinleye, S.O. and Rahji, M.A.Y. (2007). Nutrients elasticities among Nigerian households differentiated by income. *Agrekon* vol. 46, issue 2, June 2007 pp 274-288
- Bruck, T. (2003): Household coping choices and the determination of income and consumption in post war rural Mozambique, a paper submitted at European Economics association Annual meeting, Instockholm.
- Central Bank of Nigeria (CBN) (1998): Annual Report and Statement of Accounts for the year ended 31st December, 1997. Pp. 9 -11.
- FAO(2006): FAOSTAT, food security statistics-Nigeria. <http://fao.org/faostat/Foodsecurity/country/EN/Nigeria.e.pdf>.
- Federal Department of Agriculture (FDA) (1993): *Food Security and Nigeria Agriculture Resources and Rural Development*, Abuja, Nigeria.
- Food and Agriculture Organization (FAO) (1998): *Rural Women and Food Security Current Situation and Perspectives*. Rome 137p.

International evidence." *The Journal of Socio-Economics* 35: 348-365.

Litchfield J and H Waddington (2003): *Migration and Poverty in Ghana, Evidence from the Ghana living standard survey*, University of Sussex, IDS Migration working pp 10.

Makinde K.O (2000). "Measurement and determination of food security in Northern Guinea savannah of Nigeria" Unpublished PhD Thesis. Department of Agricultural Economics, University of Ibadan.

Maziya- Dixon B, Akinleye I.O, Oguntona E.B, Nokoe S, Sanusi R.A, Harris E (2004): *Nigerian Food consumption and nutrition survey 2001-2003*; Ibadan, IITA publication, Ibadan, Nigeria. ISBN9781312211 pp. 16-21.

Obayelu A.E, Okoruwa V.O and Oni O.A ((2009). *Analysis of rural urban household' food consumption difference in North central, Nigeria: A micro- economics approach*. *Journal of Development and Agricultural Economics*. Vol. 1(2), pp 018-026.

Okuneye P.A (2001) "Rural Poverty Assessment and control in Africa" an invited specialization course paper presented at the United Nations DEP, Dakar Senegal.

Olorunfemi S. and Igbekele A.Ac(2007); *Sample selection analysis of household food consumption in southwest Nigeria*. Department of Economics, Adekunle Ajasin University, university of technology Akure, Ondo State, Nigeria. *Pakistan Journal of social sciences* 4 (1); 1-8.

- Omonona B.T and Agoi G.A (2007): An analysis of food security situation among Nigerian urban households; Evidence of Lagos State, Nigeria. Department of Agricultural Economics, University of Ibadan, Ibadan, Nigeria. Volume 8, No. 3 (397-406)
- Orewa S.I and Iyande C.O (2009): Household food insecurity in Nigeria, an assessment of the present status of protein, energy malnutrition among Rural and low income urban households.
- Peiró, A. (2006). "Happiness, satisfaction and socio-economic conditions: Some
- Quartey P. (2005): The impact of migrant remittances on household welfare". Ghana University, Legon. A paper submitted to the Afr. Econs. Res consortium (AERC) Nairobi, Kenya.
- Ravallion M. (2001): Measuring aggregate welfare in Developing countries. How well do National Accounts and Survey Agree? World Bank Working, Washington DC pp 2665
- Teal F. (2003): Education, Income, Poverty and Inequality in Ghana in the 1990's. Center for the study of Africa Economics, Oxford wps/2001-21
- Tunali I. (2000): Rationality of migration, Int, Econs Rev, 41: 893-92.