

Assessment of the Level of Food Insecurity among the Rural Farm Households and Low Income Urban Dwellers in Benue State, Nigeria.

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Abstract

This paper examined the levels of food insecurity among the rural farm households and the low-income urban dwellers in Benue State. Data were collected from 180 farming households in Buruku Local Government Area and 160 low-income urban dwellers in the Makurdi metropolis of Makurdi Local Government Area. The Household Dietary Diversity Index (HDDI) was used to profile households into food secure and food insecure groups. Descriptive statistics and Logistic regression models were used to determine the impact of farming on food insecurity on one hand, and the impact of a low-income government worker on the level of food insecurity on another hand. The head count ratio of the rural farming households showed that 62.4% were food insecure and 37.6% were food secure, while 54.6% of the sampled urban low-income urban dwellers were food insecure and 45.4% were food secure. The modified Foster- Greer- Thorbecke (FGT) was used to ascertain the level of food insecurity and it showed F_1 (depth) of 55% and F_2 (severity) of 61% in the rural areas and 48.7% and 43% respectively in the urban setting. These showed that the rural area is worst hit by food insecurity incidence. It is recommended that growing family sizes should be controlled since this impacted negatively on food security status in both settings; government should give loans to the rural farmers in order to boost farming; education should be encouraged at both ends to enhance productivity on the farms and in the offices in order to reduce the food insecurity level.

Keywords: Food Insecurity, Foster- Greer- Thorbecke (FGT), Household Dietary Diversity Index (HDDI), Logistic regression, Benue State.

JEL Classification: I31, I32

Introduction

Available and relevant literature on the Nigerian economy shows that agriculture is the backbone of the nation's economic and political sovereignty. This explains why successive governments in Nigeria have taken various steps to encourage food production in the country. According to Babatunde, Omotsosho and Shotan (2007), food security ranks topmost among the developmental challenges faced by

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Nigeria. As clothing and shelter serve as the basic necessities of life, food remains the most essential and pivotal because of its centrality to mankind. The importance of food, according to Eme, Onyishi, Uche and Uche (2014) has overtime led to the ruthless expedition which has shaped human history, provoking wars, driving migration and underpinning the growth of nations.

The importance of staple foods cannot be overemphasized as its availability is not only a nutritional status but also an important revenue earner for agriculturally-based countries. Despite this, the issue of food insecurity remains a fundamental challenge due to the fact that average calorie and protein intake is only at the threshold of adequacy in Nigeria. Nigeria has become one of the world's biggest importers of food staples, particularly rice and wheat, both of which the country could potentially grow in large enough quantities to be self-sufficient. Even with the imports, about 38 percent of Nigerians who are below 5 years suffer moderate or severe malnutrition. They are at the risk of waking up one morning to find that there is nothing to eat (This Day, 2013).

As food situation continued to exacerbate from 1970s, governments had introduced several agricultural development institutions and special projects and programs to tackle the exacerbating challenge of food insecurity and poverty in Nigeria. These programs include the National Accelerated Food Production Program, NAFPP (1973); Agricultural Development Project ADP (1975); Operation Feed the Nation, OFN (1976); National Seed Service, NSS (1977); Agricultural Credit Guarantee Scheme, ACGS (1977); Rural Banking Scheme, RBS (1977); Green Revolution, GR (1979); Directorate of Food, Road and Rural infrastructure, DFRRI (1986); National Agricultural Land Development Authority, NALDA (1992); National Fadama Development Project, NFDP I, II and III (1992, 1999, 2008 respectively); Bank of Agriculture, BOA (2000); National Agricultural Development Fund, NADF (2002); National Special Program on Food Security, NSPFS (2002); Commodity Marketing and Development Companies, CMDC (2003); the Presidential Initiative on Selected Crops (2004 – 2005); the Agricultural Transformation Agenda, ATA (2011) (Ukase, 2004; Agbola, 2014).

In Benue State, the situation is not different as seen in the work of Ahungwa, Umeh and Muktar (2013). Food insecurity continues to linger in the State despite the implementation of several federal government and/or other similar food security programs. According to ACTIVISTA (2009) cited in Ahungwa et al (2013), the State prides itself as the "Food Basket of the Nation" but still lives below the poverty line with notable incidence of hunger and food insecurity. Recent developments, especially the frequent clashes between herdsmen and farmers in the predominant farming State have resulted in the destruction of lives and farm lands, and this constitutes, in addition to other factors, a major threat to efforts to boost food production in the area. In corroboration, Eme et al (2014) posit that these losses of lives have adversely affected farming activities and other

related businesses. This has resulted in drastic reduction in farm outputs, a development that has heightened the threat of hunger in the nearest future. It can be seen that most farmers in Benue State and other neighbouring states like Taraba and Nassarawa have already abandoned their farms for the fear of being attacked by the herdsmen. Consequently, the adjudged “food basket state” is gradually becoming an “empty and bottomless basket”. As such, prices of foodstuffs have skyrocketed in the State and other parts of Nigeria since the areas that hitherto produced foods are under the sieges of Boko Haram and the rampaging Fulani herdsmen.

In consonance with the above, many households have resorted to food rationing in agreement with the assertion of Tewe (1997) that, fasting in Nigeria is now the order of the day, not just as a spiritual exercise alone, but also as a means of sustaining hope for another day’s meal. This statement is evident in the 110, 101, 001, 010, etc menu formulae adopted over the years by students and now by the rural farm households and low-income urban dwellers in order to ensure the availability of another day’s ration as agreed by Aletor (1999).

In spite of the earlier mentioned special projects and food programs initiated and implemented by various governments over the years, empirical evidence in the works of Idachaba (2004); Orewa and Iyangbe (2009); and Ahungwa et al (2013) reveal that these initiatives have not been impressive to bring about the transformation of the agricultural sector, as such; food insecurity problem still looms large in the country. The paradoxes here are that, the highest quartile of the food insecure are those from the rural areas where food is produced, yet the same rural dwellers are net buyers of food and that, the threat of hunger and poverty is evident in the ‘food basket’ State.

Sequel to the above, this paper is aimed at the assessment of food security in Benue State. Specifically, the paper seeks to assess food security or otherwise in terms of dietary diversity, experience of hunger and the level of food security or otherwise experienced by both the rural farm households and the low-income urban dwellers in the study area.

Conceptual Framework

Food and Agriculture Organization, FAO (2011) looks at food security to exist when all people at all times have physical, social and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy living. In a World Bank Policy Study (1986), food security is defined as access by all people at all time to enough food for active healthy life. Idachaba (2004) defines food security as not necessarily meaning self-sufficiency in food supply. He opines that food security is the availability and accessibility of food stuff in desired quantity and quality to all consumers throughout the year. A household is considered food secure when its occupants do not live in hunger and starvation. About 45 million people are

chronically hungry, hungry due to extreme poverty, while 2 million people lack food security intermittently due to the degree of poverty (FAO, 2011). Food security is defined in this study to mean a situation when members of a household have sufficient quantity and quality of food, and when households eat foods they like, did not ask their neighbours for food, and did not skip meals for a day and there is no threat to future food availability, food access and food adequacy.

Theoretical Framework

This work is situated in Abraham Maslow's hierarchy theory of human needs and within the economics of the Malthusian population theory. Maslow's theory of human needs is classified into five hierarchy of physiological needs (the primary needs – with food as one of the components), safety needs, love and belongingness needs, self-esteem needs and self-actualization needs, in that consecutive order (Maslow, 1943). This theory implies that individuals at all times strive to meet at least their basic requirement of human needs of which food is paramount.

Thomas Malthus (1798) postulated a geometric progression of the human population while food production grows in arithmetic progression. This shows that there exists a dichotomous scenario between shortages of food production that cannot meet the population growth rate and hence a fall in the living standards. To this regard, Malthus advocated for preventive measures such as moral restraints and limits in the level of progeny in order to reduce the disproportionate food-to-population ratio. The Marshalian economists and other economists, however, argued that with the advent of technology improvements the position of Malthus would hold sway. Malthus' advocacy has proven right in Nigeria and other African countries which are today faced with food security and hunger challenges. This is because on one hand there is population explosion, and on the other hand there is dearth of food provision in Nigeria. This is thus making it difficult for an average person to meet his food requirement needs as postulated by Abraham Maslow.

Empirical Literature

A research by Agbola (2014) estimates a food security index and examines the "factors that influence food insecurity among small farmers in Nigeria". Data collection which was on pre-testes structured questionnaire was based on 400 farming households in Osun State of southern Nigeria. Descriptive statistics, cost of calorie function (COC) and Tobit regression employed revealed eleven of the 15 specified variables significantly influenced food security. A decomposition of the total elasticity change in the dependent variables show that three of the variables are elastic. Also, it was revealed that food insecurity among farming households in south western Nigeria was influenced by agricultural production inputs remittances received from external members of household, improved asset base and production capacity of the households.

Ahungwa et al (2013) in their study conducted a research on “empirical analysis of food security status of farming households in Benue State, Nigeria” and they employed a two-stage random sampling technique to obtain 180 farm households. They used the descriptive statistics to assess the socio-economic characteristics (age of household heads, sex of respondent, educational profile, household size, household food production, farm size, annual income, household daily calorie availability, household daily calorie requirement, household daily per capita calorie available, household daily per capita calorie requirement) of the households and the Food Security Index to measure the households’ food security status. Using the FAO benchmark of 2500kcal per capita per day, households were profiled into food secure and food insecure. Where 36.67% were found to be food secure 63.33% were food insecure. The shortfall or surplus index (P) indicated that, the food secure households exceeded the benchmark by 33.80% while the food insecure categories fell short by 29.60%.

On their part, Orewa and Iyangbe (2009) assessed the degree of food insecurity in Nigeria by examining the “food insecurity profile among the rural and low-income urban dwellers in Nigeria”. Primary data used for the study were derived from a survey of randomly selected households (made up of 384 household members) in two Local Government Areas of Edo State of Nigeria – Orhionmwon (representing the rural) and the Ikpoba-Okha (representing the low-income urban area). Using a 48 – hour recall method, each household member was asked about the type and quantity of food he/she consumed the previous day and a day after per meal per day. The protein and caloric content in each food item consumed were determined using a modified FGT Poverty Index and used in estimating the quality of food intake. They used three food insecurity measures, the incidence (F_0), depth (F_1) and severity (F_2) were used to analyze the magnitude of food insecurity between locations, sex and age groups. Their study identified three classes of persons, the pre-schoolers (less than 6 years), the male inhabitants and low-income urban households are more severely affected by food insecurity. Scores of 75% and 65% incidence of food insecurity were recorded for the pre-schoolers in the low-income urban and rural areas respectively. For gender, 47% of the male inhabitants were food insecure as against 34% recorded for the female.

Methodology

Research Design

Specifically, the study was conducted in Buruku Local Government Area and Makurdi metropolis of Makurdi Local Government Area, both from the Zone ‘B’ Senatorial District of Benue State. Buruku Local Government is situated east-west of Benue State of Nigeria. It is bounded by Logo, Katsina-Ala, Tarka and Gboko Local Governments to the North, East, West and South respectively. Going by the 2006 census figures of 203, 721 people (NPC, 2006), the local government now

has an approximate population of 250,551 people occupying a landmass of 1,246sq.km.

Buruku Local Government Area has five villages, namely: Tombu, Kusuv, Shorov, Mbagen and Etulo. The local government also has thirteen (13) Council Wards drawn from the five villages, namely: Mbakyaan, Mbaayaka, Etulo, Mbaakura, Mbaazagee, Mbatyoor, Mbaade, Mbaapen, Mbaya, Binev, Mbayongu, Mbaatiikyaa and Shorov (Benue Fact File, 2007). The area is purposefully selected since it is majorly a subsistent food producing area with the grass and vegetation which allow for rearing of livestock and cultivation of crops. Makurdi Local Government on its own has an approximate population of 450,000 occupying about 1,333km² of land. It is bounded by Guma, Tarka, Gwer-east and Gwer-west Local Government Areas to the north, west, east and south respectively. The Makurdi metropolis according to Akighir and Nomor (2013) is comprised of Gyado-villa zone, Wurukum, North-Bank, Wadata, High Level, Owner Occupiers' Quarters, Modern Market side, Nyiman Layout, Judges Quarters and Terwase Agbadu. The Makurdi metropolis is purposefully selected since it is the largest city in the State in terms of human population, and also for the reason that the majority of the civil servants in the State reside here.

Study Design

This study adopts a purposeful sampling technique, cluster sampling and a three-wise sampling technique. The survey will rely on information from the sampled respondents (the rural farm households and the low-income urban dwellers) in Buruku Local Government Area and Makurdi metropolis respectively in Benue State.

Data required are basically from primary sources. These primary data sources included are those orally interviewed and those who completed the questionnaire and the Focused Group Discussion (FGDs). The secondary data required in the literature included those obtained from books, published and unpublished theses, journals, newspapers periodicals and seminars used to elicit both quantitative and qualitative information about the level of food security in the area.

Sampling Technique

The farm –households from Buruku Local Government Area and the low-income urban dwellers from Makurdi metropolis (from Makurdi Local Government Area) were selected. The local government areas of Buruku and Makurdi city were divided into various strata along their respective council wards and zones. In the first stage, a random selection of nine (9) council wards from Buruku Local Government Area and eight (8) zones from Makurdi metropolis of the State was made. In Buruku Local Government Area, ten (90) villages and one hundred eighty (180) households were selected in the second and third stages. In Makurdi metropolis, (80) streets and one hundred and sixty (160) households were

selected. In both instances, the 48-hour recall technique was used to interview families on their daily food intake.

Data collection for this work is cross-sectional for the month of December 2015. Twenty (20) people, 15 males and 5 females were used in data collection and a stipend of N2000 only per ad hoc worker was paid for the trip.

Procedure

Thirty (30) questions were used to measure food security while twenty (20) questions were used to measure food dietary diversity in the four (4) weeks before the survey. From the thirty questions, the responses were divided into 'agree', 'strongly agree'; 'disagree' or 'strongly disagree' with scores ranging from 1 – 4 respectively. The questions were collapsed into binary indicators such that 0 was assigned to negative responses while 1 was assigned to positive responses. Also, when a surveyed household that had less than fifteen (≤ 15) affirmative responses out of the 30 questions they were considered food insecure but if otherwise, they were considered food secure. Out of the 20 questions to assess food diversity, eight (8) of them were used to indicate eating occasions. Individuals who scored more than the mean value were considered as having a good dietary diversity score.

Method of Data Analysis

Data will be analyzed using descriptive statistics, modified Foster, Greer and Thorbecke (FGT) Poverty Index and logit regression analysis. Descriptive statistics was used to analyze the socio-economic characteristics of the respondents under study. The modified FGT Poverty Index was used to profile respondents into food secure or food insecure.

The binary logistic regression was used to investigate the impact of farm and non-farm activities on food security among rural households surveyed, and also for the civil service and non-civil service among the urban dwellers in the study area.

Assessment of the Degree of Food Security/Insecurity

A) Three food insecurity measures were used to assess the degree of food insecurity among the sampled members as suggested by Aromolaran (1999 and 2000). These measures are: i) the incidence of food insecurity (F_0); the depth of food insecurity (F_1); the severity of food insecurity (F_2).

B) Household Dietary Diversity Index (HDDI): This study also adopts the HDDI to measure household food security in the area. This covers a wide coverage of food species commonly eaten in the study area. The USDA Household Food Security Scale (Revised in 2000) and Household Dietary Diversity Index (HDDI) will be used to dichotomize the households into food secure and food insecure households as agreed by Swindale and Bilinsky (2005). The dependent variable, food security was a dichotomous variable which took a value of one (dummied 1)

level; Z = Food security line (2500kcal); C_i = Calorie intake level of the individual household member; \dagger = Inequality aversion;

When $Q \equiv \dagger$, it measures the food incidence; When $1 = \dagger$, it measures the depth;

The head count ratio (H) is given as:

$$H = \frac{M}{N} \dots \dots \dots (3)$$

where: M = Number of the food secure or food insecure members of the sampled population; N = Total population under study.

The parameters are estimated by maximum likelihood, with the likelihood function formed by assuming independence over the observations, as such, the model is structurally expressed as:

$$P(Y) = \frac{1}{1 + e^{-\beta X}} \dots \dots \dots (4)$$

If Y measures food security, then Y might be food secure (1) or food insecure (0), by taking the natural logs and simplifying equation (4), the likelihood transforms the structural equation to be:

$$\ln Y_i = \beta_0 + \beta_1 X_i + \epsilon_i \dots \dots \dots (5)$$

where:

$\ln Y_i$ = natural log of Y (food security) which stands for the probability that a

household is being food secure or otherwise; $\frac{1}{1 + e^{-\beta X}}$ = Proportion of the probability of household being food secure to the household being food insecure; β_0 = Constant term; X_i = A vector of explanatory variables; ϵ_i = Error term

Our model (5) above is now implicitly specified as:

$$Y = f(\text{AGE, SER, FSZ, EDU, DPD, FMZ, COP, HHT, HOS, SOI, ANC, CEX, HCA, HCR}) \dots \dots \dots (6)$$

where:

AGE = Age of respondent, (in years); SER = Sex of respondent, assign 1 if male but assign 0 if otherwise; FSZ = Family size, assign 1 if less than 5 but assign 0 if otherwise; EDU = Educational profile of respondent, assign 1 if up to secondary school but assign 0 if otherwise; DPD = Number of dependents, assign 1 if less than 5 but assign 0 if otherwise; FMZ = Farm size (ha); COP = Cost of production; HHT = House type, assign 1 if zinc but assign 0 if otherwise; HOS = House ownership status, assign 1 if owner but assign 0 if otherwise; SOI = Source of income (N); ANC = Annual Income (N); CEX = Cash expenditure (N); HCA = Household daily calorie availability and requirement.

In this study, if the household was food secure (using values from FGT of Poverty Index), in which case, (1) will be assigned, and if a household was found to be food insecure, in which case (0) will be assigned.

Our model (6) is now explicitly specified as:

$$Y = f(\beta_0 + \beta_1 \text{AGE} + \beta_2 \text{SER} + \beta_3 \text{FSZ} + \beta_4 \text{EDU} + \beta_5 \text{DPD} + \beta_6 \text{FMZ} + \beta_7 \text{COP} + \beta_8 \text{HHT} + \beta_9 \text{HOS} + \beta_{10} \text{SOI} + \beta_{11} \text{ANC} + \beta_{12} \text{CEX} + \beta_{13} \text{HCA} + \beta_{14} \text{HCR}) \dots\dots(7)$$

where:

β_0 = Intercept of the model; $\beta_1 - \beta_{14}$ = Parameters of the model

In this study, $\beta_1, \beta_3 - \beta_7, \beta_9 - \beta_{14} > 0$, implying that these parameters would increase the probability of the households being studied food secure while β_2 and $\beta_8 < 0$, implying that these parameters have a negative relationship with Y.

Data Presentation and Analysis

The result of the survey shows that, in the rural area, the total HDDI for the sampled respondents was 828. This was obtained and dividing it by 180 (number of respondents) resulted to an average HDDI of 4.6. This shows the low level of HDDI of the rural farmers. Taking the percentage level of HDDI, the study revealed the HDDI of the rural farmers was 38.3% which depicts a very severe level of food insecurity in the rural areas.

Table 1 below is a measure of the impact of farming and non-farming activities in Buruku Local Government Area (a rural farming setting).

Table 1: Logistic Regression Results (Rural Farmers)

Dependent Variable: Y

Variable	Coefficie	Std. Error	z-Statistic	Pro
AGE	1.9868	0.667399	2.977008	0.00
SEX	0.0692	0.023670	2.924142	0.00
FSZ	-	0.009943	-2.159710	0.04
EDU	0.5260	0.186550	2.820010	0.00
DPD	-	0.485068	-4.313577	0.00
FMZ	0.3428	0.124677	2.749723	0.00
COP	-	0.667229	-0.644513	0.51
HHT	0.2269	0.162343	1.398201	0.16
HOS	2.0851	0.372969	5.590752	0.00
SOI	2.7300	0.578316	4.720761	0.00
ANC	1.9140	0.468768	4.083175	0.00
CEX	0.0496	0.016266	3.053756	0.00
HCA	3.3031	0.871292	3.791039	0.00
HCR	0.0933	0.021808	4.278250	0.00
C	-	2.299168	-2.071894	0.03
McFadden R-squared	0.5748	Mean dependent var		0.7666
LR statistic	92.876	Avg. log likelihood		-
Prob(LR statistic)	0.0000			
Obs with Dep=0	1	Total obs		180
Obs with Dep=1	61			

Source: E-views

The logit regression in table 1 above indicates that all the explanatory variables are correctly signed and statistically significant at 5% alpha level except the cost of production and house type of the respondents which were found insignificant at 5% level of significance. The negative sign of β_0 is correctly signed and this indicates that if all the regressors are fixed to zero or held constant, the dependent variable (Y; food insecurity status of the sampled respondents) would decrease by -4.7636. All the standard errors of the individual variables are minimum thereby producing high t-statistic and below 0.05 probability values, which indicates that all the variables are statistically significant at 5% level of significance except that of cost on production and that on house type. The McFadden R^2 of 0.5748 implies that, all explanatory variables included in the model explained total variations in the dependent variable (food security/insecurity status) by 57.5% which indicates a goodness of fit. The LR statistic of 98.87 with a probability (LR Statistic) of 0.0000 indicates the reliability of the explanatory variables with regards to the dependent variable and the minimum value of the standard errors of regression proved the robustness of the model.

Table 2 below is a measure of the impact of being a low-income government worker and non-government worker in Makurdi metropolis of Makurdi Local Government Area (an urban setting).

Table 2: Logistic Regression Results (Low Income Urban Dwellers)

Dependent Variable: Y				
Variable	Coefficie	Std. Error	z-	Pro
AGE	1.9279	0.661343		0.00
SEX	0.0673	0.023805		0.00
FSZ	-	0.029975	-	0.32
EDU	0.0002	2.85E-05		0.00
DPD	-	0.334388	-	0.01
FMZ	0.8150	0.623234		0.19
COP	-	0.088946	-	0.01
HHT	0.2310	0.163163		0.15
HOS	0.0107	0.004774		0.02
SOI	2.5571	0.590671		0.00
ANC	-	0.342468	-	0.00
CEX	2.22E-	4.78E-06		0.64
HCA	0.8741	0.312657		0.00
HCR	-	0.271701	-	0.00
C	-	2.399042	-	0.03
McFadden R-squared	0.5546	Mean dependent var		0.7562
LR statistic	80.799	Avg. log likelihood		-
Prob(LR statistic)	0.0000	Total obs	160	
Obs with Dep=0	102	Obs with Dep=1		58

In a likewise manner, in the urban area, the total HDDI for the sampled respondents was 736. This was obtained (736/180) resulting to an average HDDI of 4.03. This also shows the low level of HDDI of the urban dwellers. Taking the percentage level of HDDI, the study revealed the HDDI of the low income urban dwellers to be 37.8% which depicts a very severe level of food insecurity in the urban areas.

The head count ratio of 62.4% showed those who were food secure and that 37.6% were food insecure in the rural setting, while 54.6% were food secure and 45.4% were food insecure in the urban setting. The FGT result showed 55% of F_1 (depth) and 61% of F_2 (severity) of food insecurity in the rural setting, while 48.7% of F_1 (depth) and 43% of F_2 (severity) indicate the level of food insecurity that exists in the urban setting. These reveal that the rural area is worst hit by food insecurity than the urban setting. This is probably because the urban dwellers have a wider variety of food insecurity coping strategies than their rural counterparts.

The logit regression in table 2 above indicates that most of the explanatory variables were correctly signed and statistically significant at 5% alpha level. However, family size, farm size, house type and cash expenditure were not statistically significant at 5% level of significance among the low income urban respondents that were sampled. The negative sign of β_0 is correctly signed which indicates that if all the regressors are fixed to zero or held constant, the dependent variable (Y; food insecurity status of the sampled respondents) would decrease by -5.0628. This indicates that, other things being equal, food insecurity of the sampled respondents will be reduced in the study area. All the standard errors of the individual variables are minimum thereby producing high t-statistic and below 1.5 probability values, which indicate that all the variables are statistically significant at 5% level of significance except that of cost on production and that on house type. The McFadden R^2 of 0.5546 implies that, all explanatory variables included in the model explained total variations in the dependent variable (food security/insecurity) by 55.5% which indicates a goodness of fit. The LR statistic of 80.79 with a probability (LR Statistic) of 0.0000 indicates the reliability of the explanatory variables with regards to the dependent variable and the minimum value of the standard errors of regression proved the robustness of the model.

Conclusion and Recommendations

This paper is empirical on food insecurity among rural farming households and the low income urban dwellers in Benue State, Nigeria. The head count ratio of 62.4% households were food secure and 37.6% were food insecure in the rural setting, while 54.6% were food secure and 45.4% were food insecure in the urban setting. The FGT result showed 55% of F_1 (depth) and 61% of F_2 (severity) in the rural setting, while 48.7% of F_1 (depth) and 43% of F_2 (severity) of food insecurity existed in the urban setting. This confirmed that the rural area is worst hit by food insecurity than the urban setting. It was also found out that the rural

farming area was worst hit by the depth and severity of food insecurity. The study concludes that, in spite of the much orchestrated demonstration of the government to reduce food insecurity, the evidence showed that the Food Basket of the Nation is getting emptier by the day. It is recommended based on findings that:

1. Growing family sizes and the cost on production should be controlled since this impacted negatively on food security status in both settings;
2. The Federal Government should as a matter of urgency eliminate the perennial clashes between the rampaging herders and farmers in Nigeria and the “food basket state” in particular;
3. The government should give loans to the rural farmers in order to ease the cost of production so as to boost farming;
4. The people should combine work and farming, and farming and trading in order to diversify their streams of income.

References

- ACTIVISTA (2009). Fighting against hunger in Nigeria: The Benue experience. www.ourbenueourfuture.org. 12th July 2009.
- Agbola, P. O. (2014). Factors influencing food insecurity among small farmers in Nigeria. *African Journal of Agricultural Research*. Vol 9 (27). Pp 2104 – 2110, July 2014.
- Ahungwa, G. T., Umeh, J. C and Muktar, B. G. (2013). Empirical analysis of food security status of farming households in Benue State, Nigeria. *IOSR Journal of Agriculture and Veterinary Science (IOSR – JAVS)*. Vol 6, Issue 1, 2013; Pp 57 – 62.
- Akighir, D. T. and Nomor, D. T. (2013). Empirical investigation of the poverty – fuelwood composition nexus in Makurdi metropolis. *Journal of Economic and Social Research*, Vol. 5, No. 1, October 2013.
- Aletor, V.A. (1999). Inaugural lecture series 15. Anti – nutritional factors as nature’s paradox in food and nutrition securities. Federal University of Technology Akure, 12th August 1999, Pp 1 – 88.
- Andohol, J. (2012). Nigeria’s food security programs: implications for MDGs goal of extreme hunger eradication. *International Journal of Business and Social Science*. Vol 3, No. 9, May 2012.
- Aromolaran, A. B. (1999). Household food security, poverty alleviation and women focused development policies in Nigeria. A revised research proposal presented at the Annual Mid-year Research Consortium (AERC) in Accra, Ghana. May 29th – June 3rd 1999.
- Aromolaran, A. B. (2000). Food consumption and women income: Implications for household food security in Nigeria. A revised work-in- progress presented at the Annual Mid-year Research Consortium (AERC) in Nairobi, Kenya. May 27th – June 1st 1999.
- Babatunde, R.O., Omotosho and Sholatan O. S. (2007). Socio-economic characteristics and food security status of farming households in Kwara State, North Central Nigeria. *Pakistan Journal of Nutrition* 6(1); 49 -59.
- Benue Fact File (2007).
- Eme, O.I., Onyishi, A.O., Uche, O. A. and Uche, I.B. (2014). Food insecurity in Nigeria: A thematic exposition. *Arabian Journal of Business and Magement Review (OMAN Chapter)*. Vol 4, No. 1; August, 2014.
- Food and Agricultural Organization, FAO (1996). Food and Agricultural Organization. World Food Summit. Nov 13 – 17; 1996. Rome, Italy. *Technical Background Documents*. 6 – 13. Vol II. Pp 1 – 47.
- Food and Agricultural Organization, FAO (2011). The state of food security on world hunger. Rome.
- Foster, J. Greer J. and Thorbecke (1984). A class of decomposition poverty measures. *Econometrica*. 52(3): 761 -766.

- Idachaba, F. S. (2004). Food security in Nigeria: Challenges under democratic dispensation. Paper presented at Agricultural and Rural Management Training Institute (ARMTI)". ARMTI Lecture, Ilorin, March 24, 2004. Pp. 1 -23.
- Malthus T. (1798). Essay on principles of population. London, J. Johnson in St. Paul Church Yard.
- Maslow, A.H. (1943). A theory of human motivation. *Psychological review*. 50(4): 370-396.
- National Population Commission, 2006.
- Orewa, S.I. and Iyangbe, C. O. (2009). The food security profile among the rural and low income urban dwellers in Nigeria. *American – Eurasian Journal of Scientific Research*. Vol 4, No. 4. 302 – 307, 2009 Publication.
- Osagie, C. (2013). Fear of food insecurity grips Nigeria. *This Day*. November 8. Pp 24.
- Runge – Metzger A., Dehl, L. (1993). Farm household system in Northern Ghana. A case study in farming systems – oriented research for the development of improved crops production system. Nyankpata Agricultural Report. No. 9, 1993. Nyankpata, Ghana.
- Swindale, A; Bilinsky P. (2005). Household Dietary Diversity Score (HDDS) for measurement of household food access: Indicator guide. Food and Nutrition Technical Assistance Project (FANTA), Academy for Education Development, Washington DC.
- Tewe, O. O. (1997). Sustainability and development: paradigms from Nigeria's livestock industry. Inaugural lecture delivered at the University of Ibadan. October 9, 1997. Pp 1- 84.
- Ukase P. I. (2007). Nigerian's food security system and poverty reduction policies: options and strategies for sectoral reforms in the 21st century. In Ogiji P. (ed): Implications for food security and agricultural reforms in Nigeria. Essay in honour of David Ker: *The Food Basket Myth*. Aboki Publishers, Makurdi.
- World Bank (1986). Poverty and hunger: Issues and options in developing countries. A World Bank Policy Study, Washington D. C: World Bank.

