

# ASSESSING POVERTY AND INEQUALITY PROFILE IN HOUSEHOLDS; A CASE STUDY OF LETMAUCK BARRACKS, MOKOLA, IBADAN, OYO STATE, NIGERIA

Bamiteko Olalekan Dimeji<sup>1</sup>

University of Lagos, Economics Department, Faculty of Social Sciences.

---

**Abstract:** This study examines the poverty and inequality profile amid households of enlisted soldiers, in Letmauck Barracks, Mokola, Ibadan, Oyo State, South-West Nigeria. Systematic sampling technique is used to select 100 households for the survey. Both descriptive statistics and identities were used to achieve the set objective. The study computes a subjective poverty measure of ₦562 per person in a day as the poverty benchmark. The result reveals that Poverty Head Count is 0.76. Poverty Gap Index and Poverty severity (inequality) is also computed and the result is approximately is 0.276842 and 0.13 respectively. In addition, Average Propensity to consume is 0.625; this is also shows that poverty exists among enlisted soldiers as they spend a large percentage of their income on consumer goods. The study concludes that among enlisted soldiers in Letmauck Barracks Mokola, relative poverty exists; however, poverty gap among the poor can be eliminated if appropriate programmes are put in place. Also, inequality (or poverty severity) exists among the poor enlisted soldiers but can be eliminated with appropriate policies. The study recommends that programmes like child support and women empowerment should be established in the barracks.

**Keywords:** Subjective Poverty Line, Poverty and Inequality Profile.

---

## 1. INTRODUCTION

Poverty has been a major economic development problem in both developed and developing countries. A concise and universally accepted definition of poverty is elusive largely because it affects many aspects of the human conditions, including physical, moral and psychological. Poverty is a condition of severe deprivation and economic disadvantage resulting from a lack of access to economic empowerment to acquire the fundamental necessities of life. The human kind has always been struggling against the elements of nature to ensure a good living. Virtually all developed countries had at one time or another grappled with the task of ensuring that their citizens had adequate shelter, food, clothing, reasonable health care, education, employment and a sense of self-esteem.

The tasks of ensuring better life necessitate studies to examine the trends in income distribution that are equally conflicting. Sala-i-Martin (2006) estimates various indices of income inequality, all showing reductions in global inequality during the 1980s and 1990s. Despite the relatively slow changing nature of income distribution, others observe that inequality remains excessive (Atkinson and Brandolini, 2010). Even though the debate on whether inequality has increased or decreased over time remains unsolved, inequality remains high (Basu, 2006: 1362).<sup>2</sup>

---

<sup>1</sup> Author is an affiliate of University of Lagos, Economics Department, Faculty of Social Sciences.

<sup>2</sup> Amelia U. Santos-Paulino, (2012). Trade, Income Distribution and Poverty in Developing Countries: A Survey No. 207 pg 3.

Although poverty and inequality are generally studied separately, there are significant trade-offs between both issues (Kanbur, 2010; Nissanke and Thorbecke, 2010). Basu (2006) formalizes the concept of “poverty minimizing level of inequality” in trying to explain the relationship between globalization, inequality and marginalization, within and across nations, arguing that they are theoretically and empirically interconnected. Alternative policies to counter extreme poverty and inequality are needed, but the institutional frameworks to coordinate the policies are missing.

Over the years, the Nigerian Government has tried to address the issue of poverty in different ways. Different programmes, agencies and bodies were set up in different sectors of the economy, aimed at providing basic welfare and social services, still the rate of poverty remain high.<sup>3</sup> This resulted into concern about policy formulation as one of the reasons, because more often than not, poverty and inequality assessment are based on consumption expenditures of households which does not represent the welfare of the individuals within the household Haddad and Kanbur (1990).

The propositions for such data use have been that resources within a household are shared base on needs. Blackwood and Lynch (1994), identify the poor, using the criteria of the levels of consumption and expenditure. Several literatures have argued that this position is not true and that consumption inequality exists within households (Sen 1984, Thomas 1990, Phipps and Burton 1995, Iversen 2003). These studies identified that certain social economics factors are the causes of inequality within the household. Poverty reduction programmes without understanding the relationship between poverty and inequality in households will not achieve its set objectives. From this forgoing, assessment of the relationship forms the actual reason for this study.

Furthermore, the deprivations and certain of social economics factors within the household are not accounted for and if these are aggregated for the whole population. The underestimation of inequality and poverty could be significant and result in gross policy neglect. Christiaensen and Demery (2007) point out that the contribution of economic growth to poverty reduction might differ across sectors because the benefits of growth might be easier for poor people to obtain if growth occurs where they are located. This reasoning implicitly assumes that transferring income generated in one economic sector or geographic location to another sector or location is difficult because of market segmentations or considerations of political economy. Aggregate measurement of poverty incidence might not signify the actual prevalence level of poverty on communities’ basis. Also, most studies such as Lise and Steinz (2004), Chiappori et al. (2002), Browning and Chiappori (1998) Findlay and Wright (1996), and Davis Joshi (1994) used micro data simulation where intra-household allocation varies from low to high according to a number of sharing rules rather than gathering information from real data.

In this study, real data is used, household determinants of poverty according to Ajakaiye and Adeyeye, (1999) which includes: Age and education of different household members (head), Number of income earners, Household composition and size, Assets owned by household, Access to basic social services, Sex, ethnicity of head, Sector of employment, and Remittances to households formed the sections of questionnaire used. This study considers the social and economic characteristics of households in Letmauck Barracks using survey method to present a descriptive analysis of intra and inter households.

There are two categories of poverty; absolute and relative poverty. Absolute poverty was originally defined by the united nations in 1995 as a condition where people lived within a penury or destitution level, it was called extreme poverty without any form of access to basic needs. Relative poverty is a condition where people lack the minimum amount of income needed in order to maintain the average standard of living in a society in which they live. The distinct difference between these two set of poverty and considering the relative availability of social amenities in Mokola Barracks, it shows that the assumption of relative poverty stands. This study aims to assess the level of poverty incidence, poverty depth and severity that will evaluate the level of inequality among the poor in Letmauck Barracks, Mokola Ibadan.

It is expected that the study will serve as a useful reference material for the National Poverty Eradication Programme (NAPEP), researchers and social scientists involved in the study of poverty and human development and provoke further research interest on the subject. The study will also add to the body of knowledge on the subject. The remainder of this study is organized as follows: Section 2 presents the analytical framework while section 3 deals with data and method analysis adopted for the study. Section 4 presents the results while section 5 concludes with policy implications.

---

<sup>3</sup> IB Bello – Imam and MI Obadan, **Democratic Governance and Development Management in Nigeria’s Fourth Republic 1999 – 2003**. (Ibadan: Jodad Publishers, 2004), p 306.

## 2. ANALYTICAL FRAMEWORK

This section focuses on how poverty is being measured globally and adapted subjective poverty line in this work. There is wide range of literature on poverty measures, some focus on one or two types of measures. Haddad et al; (1990) observed that consumption expenditures functions are often used to measure the poverty and inequality level of households, though it does not capture the welfare of the individuals. However, the subjective poverty line provides answers to certain questions that could be raised using the globally USD 2.00 per day line corresponds to the median poverty line for all developing countries (Chen and Ravallion, 2008).

Subjective poverty lines” have been based on answers to the “minimum income question” (MIQ), such as the following (paraphrased from Kapteyn et al 1988): “What income level do you personally consider to be absolutely minimal? That is to say that with less you could not make ends meet”. One might define as poor everyone whose actual income is less than the amount they give as an answer to this question. While the MIQ has been applied in a number of OECD countries, there have been few attempts to apply it in a developing country. There are a number of potential pitfalls. Income is not a well-defined concept in most developing countries, particularly (but not only) in rural areas. It is not at all clear whether or not one could get sensible answers to the MIQ. The qualitative idea of the “adequacy” of consumption is a more promising one in a developing country setting.

Absolute poverty can be measured in seven different ways. They are the headcount ratios/incidence of poverty, the poverty gap/income shortfall, composite poverty measures, the physical quality of life index (PQLI), the augmented physical quality of life index (PAQLI), and the human development index (HDI).

Head Count Ratio: Poverty can be expressed in a single index: The simplest and most common measure is the Head Count ratio (H), which is the ratio of the number of poor to total population. This gives the proportion of the population with income below the poverty line. The head count ratio has been criticized for its focus only on the number of the poor and being insensitive to the severity of poverty and to changes below the poverty line. That is, it treats all the poor equally, whereas not all the poor are equally poor.

The poverty gap/income shortfall: The poverty gap ratio or the income gap ratio is the difference between the poverty line and mean income of the poor, expressed as a ratio of the poverty line (World Bank, 1993). The average income shortfall I, measure the amount of money it would take to raise the income of the average poor person up to the poverty line. That is, it provides a statement on the level of income transfer to the ‘poor’.

Composite poverty measures or index is attributed to Sen (1976). It incorporates the headcount index, the income gap, and the Gini coefficient. Sen poverty index (s) is:

$$S = H[I + (1 - I) G_p]$$

Where

I = the average income shortfall as a percentage of the poverty line

$y_i$  = income of the  $i$ th poor household

z = poverty line income

qz = number of households with incomes below z

H = q/n; headcount ratio

N = total number of households

$G_p$  = Gini coefficient among the poor = 0 =  $G_p > 1$ .

S is an increasing function of the headcount index and an increasing function of the income shortfall. Given that the  $G_p$  ranges from zero to one, S is also an increasing function of  $G_p$ :

$$\frac{dS}{dH} > 0 \quad \frac{dS}{dI} > 0 \quad \frac{dS}{dGDP} > 0$$

The Sen index has a major drawback. It is more responsive to improvements in the headcount than it is to reduction in the income gap or to improvements in the distribution of income among the poor. This index indicates that the efficient way to reduce poverty is to help the least needy first and the neediest last.

Therefore, our study trails the same pattern of how to compute the consumption expenditure function to determine our subjective poverty line. For the purpose of this study, we focus and analyse Poverty Headcount Index, Poverty gap index and Squared Poverty gap Index. Poverty Headcount Index ( $P_h$ ): Measures the proportion of the population that is poor. It is also known as incidence of poverty. It is calculated by dividing the total number of people considered as poor by the total number of population.

$$P_h = \frac{Q_{poor}}{N} \dots \dots \dots (1)$$

Where,  $N$  is the sample size and  $Q_{poor}$  is the total number considered as poor. In order to get the poverty headcount for our sample, this study first calculated the household income per day (this is because the respondents are paid monthly and all other sources of income are measured monthly), then household income per person<sup>4</sup>.

The rationale behind this is to get an average income available to individuals in households. It is assumed that the available income allocated to individuals in the households is used for consumption. Obviously, individual needs in the household are not the same. For example, food is a basic need in all households; while an infant needs milk as food, a teenager in the same household may need grains. Also, household individual income is deflated by adapting a subjective daily expenditure per individual; this is with a view to determine relative poverty benchmark of ₦562 per day. Those that are able falls below the benchmark are considered as poor while those on or above the benchmark are considered as not poor.

Poverty gap index ( $P_G$ ): measures the extent to which individuals falls below poverty line. It is expressed in this study as the poverty line ( $\mu$ ) less actual income ( $y_i$ ) for individuals; the gap zero is computed for everyone else. Therefore poverty gap index is

$$P_G = \frac{1}{N} \sum_{i=1}^N \frac{\mu - y_i}{\mu} \dots \dots \dots (2)$$

Equation 2 was computed in this study in order for us to know the extent of poverty among the poor. Squared Poverty gap Index or Poverty Severity ( $P^2$ ): averages the square of poverty gaps relative to the poverty line. It is calculated by

$$P_G = \frac{1}{n} \sum_{i=1}^q \left[ \frac{\mu - y_i}{\mu} \right]^2 \dots \dots \dots (3)$$

This study further computed the poverty severity and the result is discussed in section four of this study.

### 3. DATA AND METHOD OF ANALYSIS

#### 3.1 Area of Study

In order to achieve the set objectives for our study, survey method of a well-structured questionnaire is used. The research area is Letmauck Barracks, Mokola, Ibadan. The choice of this research area is borne out of accessibility and proximity.

The target population is the households in the Letmauck Barracks, Mokola, Ibadan; these households are occupied by the army enlisted soldiers and their family members.

The projected population of the households in this barracks is estimated as 500. The sample size of 100 household is chosen for the purpose of this research work. This captures about 20% of the population. Probability sampling is used in this study. Systematic sampling technique of multiples of 5 is used to select households surveyed. Construct validity was adopted in this study.

<sup>4</sup> See all measurement definition in table 3.1

### 3.2 Estimation Technique

Descriptive statistics of tables and graphs was used in this study. Also, Identities were used to measure poverty and living standard.

**Table 3.1: below showed the measurement of variables**

S/N	VARIABLES	MEASUREMENT
1	Household size	All people living in a household irrespective of their relationship with the respondent (including family relations, house helps etc. but excludes working adults whose income and consumption decisions is independent on the respondent ).
2	Educational attainment	Takes the value of 1-9
3	Household income	Addition of Soldiers salary, spouse salary, other earnings and non-labour income
4	Household Consumption	Summation of household monthly allocation to food, housing, clothing and footwear, personal and medical care, education, transportation and communication and other consumer goods.
5	Household daily consumption	Household consumption divided by 30 days
6	Household consumption per person	Household daily consumption divided by Household size
7	Poverty line Measure	Average household consumption expenditure per person
8	Average Propensity to Consume	Summation of consumption expenditure divided by summation of income

## 4. FINDINGS

### 4.1 Socio-Economic Characteristics of Respondents

This work started by analyzing the socio-economic characteristics of the respondents. The male respondents are 82% in number while female respondents are 18% as showed in table 1.1 below. This may be as a result of the nature of employment in the community surveyed. Because the job is committed to physical fitness, rigorous exercises, commitment to national service etc., it may not be attractive to the female gender.

**Table 4.1: Gender**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	82	82.0	82.0	82.0
Female	18	18.0	18.0	100.0
Total	100	100.0	100.0	

Source: Author's computation, 2018

The age group of the respondents is displayed in table 4.2 below. The respondents in the modal class are soldiers from ages 31-40 amounting to 47% of the sample. The least class is respondents from ages 51-60. 67% of the respondents are 40 years and below revealing that a large population of the soldiers is still agile.

**Table 4.2: Age**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 18-30	20	20.0	20.0	20.0
31-40	47	47.0	47.0	67.0
41-50	24	24.0	24.0	91.0
51-60	9	9.0	9.0	100.0
Total	100	100.0	100.0	

Source: Author's computation, 2018

The marital status of respondents is displayed in table 4.3 below. Married respondents constitute the modal class with 69% while the widowed respondents constitute the least respondents with 8%. The large percentage being married may connote stability for respondent in their discharge of duties. Also, it may connote that the respondents spends a larger percentage of their income on consumption.

**Table 4.3: Marital Status**

	Frequency	Percent	Valid Percent	Cumulative Percent
Single	14	14.0	14.0	14.0
Married	69	69.0	69.0	83.0
Valid Divorced	9	9.0	9.0	92.0
Widowed	8	8.0	8.0	100.0
Total	100	100.0	100.0	

Source: Author's computation, 2018

Table 4.4 below shows the educational qualification of the respondents. 69% of the respondents have their highest qualification as senior secondary school leaver certificate. 25% of the respondents have a higher institution certificate. Only 6% of the respondents have their highest qualification to be primary and Islamic school. 94% of the soldiers met the Universal Basic Education (UBE) standard of having at least 9 years of basic education. Therefore, soldiers in this barracks are literate.

**Table 4.4: Education**

	Frequency	Percent	Valid Percent	Cumulative Percent
Islamic school	2	2.0	2.0	2.0
Primary school	4	4.0	4.0	6.0
Valid Secondary school	69	69.0	69.0	75.0
College of education	14	14.0	14.0	89.0
OND/tech	11	11.0	11.0	100.0
Total	100	100.0	100.0	

Source: Author's computation, 2018

In table 4.5, the maximum number of children the respondent is 7, the mean number of children is about 3.5, the median is 4 and the mode is 4. The implication of this is that the average household in Letmauck Barracks has four children. The average household size in the Barracks is 6, this deduction is made from the value of the mean, median and mode. The mean monthly wage which is an addition of monthly salary and other non-salary earnings of soldiers in Letmauck Barracks is about ₦74, 000 while the mode is ₦65,000. The minimum is ₦45,000 while the maximum ₦110,000. Also, the household income comprises of the addition of salary, non-salary earning, wealth and spouse income; the mode is ₦64,000 while the mean is about ₦88,000, the minimum is ₦45,000 and maximum is ₦203,000. The mean amount on monthly expenditure of household is ₦55,000 while the mode is ₦45,000.

**Table 4.5: Statistics**

	children. number	household. size	monthly.wage.total	household.income	consumption.total	Salary
Valid N	100	100	100	100	100	100
Missing	0	0	0	0	0	0
Mean	3.4600	5.9400	73730.0000	88130.0000	55080.0000	63500.0000
Median	4.0000	6.0000	70000.0000	83000.0000	55000.0000	60000.0000
Mode	4.00	6.00	65000.00	64000.00 <sup>a</sup>	45000.00	45000.00 <sup>a</sup>
Std. Deviation	1.92496	1.91126	15228.79715	30789.16739	17805.73055	14494.51307
Variance	3.705	3.653	231916262.626	947972828.283	317044040.404	210090909.091
Minimum	.00	2.00	45000.00	45000.00	25000.00	44000.00
Maximum	7.00	10.00	110000.00	203000.00	105000.00	90000.00

Source: Author's computation, 2018

#### 4.2 POVERTY AND INEQUALITY PROFILE AMID HOUSEHOLDS IN MOKOLA

For the purpose of this study, subjective relative poverty line measure of less than ₦562 as expenditure per day was used as a measure of poverty in households in Letmauck barracks. This is also in conformity with the Army Ratio Cash Allowance RCA per day, which is ₦500 (Bakare 2011)<sup>5</sup>. The starting point of the computation of relative poverty from our sample is to divide household consumption by 30 days; this gives us household consumption per day. The study then divided the household consumption per day by the household size to get available consumption to each individual in the household. The average of the consumption to each individual in the household was then taken and we arrived at ₦562; which became our subjective poverty line and benchmark for poverty line. Therefore, those that could not spend at least ₦562 per day are poor. The result revealed that 76 out of 100 household falls below poverty line while only 24 falls above poverty line. Hence, **Poverty Head Count is 0.76**. This confirms that poverty incidence exist in Letmauck Barracks Mokola Ibadan.

Upon this fact, based on 76 percent, the study further computes the Poverty Gap Index (PGI) which measures the depth of poverty among the poor populace. It presents the mean aggregate consumption expenditure shortfall relative to the poverty line across our sample. It is obtained by adding up all the shortfall of the poor (with assumption that those who are nonpoor have a shortfall of zero expenditure function) and then dividing the total by the population<sup>6</sup>. The result shows that **PGI is 0.276842**. The implication of this is that the spread of poverty among the poor from the poverty line is about 28%. This affords policy makers the opportunity to know the cost of elimination of poverty among the populace. This suggests clearly the amount needed inform of transfer payment such as child allowance, scholarship and other welfare packages to the poor to bring their expenditures up to the subjective poverty line. The index also presents that with appropriate policies and programme in place, poverty can be eliminated among the enlisted soldiers and family's households in Letmauck Barracks, Mokola that are below the poverty threshold. Conversely, the total monthly expenditure of our sample is determined to be Eight Million Eight Hunderd and Thirteen Thousand Naira (₦ 8,813,000.00) while the monthly poverty gap among the poor using the PGI as an indicator revealed a monthly depth of poverty to be a tune of Two Million Three and Seventy Nine Thousand Five and Ten Naira (₦ 2,379,510.000). Invariably, our study discover that a daily minimum cost of Seven Nine Thousand Three Hundred and Seventy One Naria (₦ 79,317.00) is needed to eliminating poverty using targeted transfers to fill every gap to poverty threshold.

Furthermore, the main focus of this study is to examine the poverty incidence that accounts for inequality amid the poor soldiers and households members in Letmauck Barracks, Mokola Ibadan. This intention can be determined by computing the Squared Poverty Gap Index of our study. The measure of severity and inequality among the soldiers in Letmauck Barracks, Mokola; the index is 0.129224. **Poverty severity is approximately 0.13**, which shows that inequality exist among poor soldier's households in Letmauck Barracks, Mokola is about 13%. This also revealed the impact of previous or existing poverty reduction programme and policies implementation as it affects soldier's family in Letmauck Barracks. The Depth of poverty and squared poverty index are important supplements of the incidence of poverty. Coudouel A, Hentschel J,S and Wodon Q.T; (2004) observed that some groups have high poverty incidence but low poverty gap when numerous members are just below the poverty line but relative poverty exist, while other groups have a low poverty incidence but a high poverty gap for those who are poor when few members are below the poverty line but with extremely low level of consumption with absolute poverty. From the foregoing, our study reveals that the incidence of poverty amid the soldiers in Letmauck Barracks is 76% with PGI of 27% but the inequality among the poor soldiers is lower than the depth. Therefore, there consumption is high and relative poverty exists in Letmauck Barracks. Better still with appropriate policies and programmes inequality can be eliminated. This further informed the need to examine the living condition amongst household in Mokola barracks.

The living standard is generally measured using current consumer spending or income. A measure of current consumer spending is generally preferred to income as a measure of current living standards for two reasons. First, current consumption is often taken to be a better indicator than current income because instantaneous utility depends directly on consumption, not on income per se. Second, current consumption may also be a good indicator of Long-term average well-being, as it will reveal information about incomes at other dates, in the past and future. This is because incomes

<sup>5</sup> Brig Gen Bakare Nigerian Army Logistics Requirement 2010 .A paper presentation at Nigerian Defence College Abuja

<sup>6</sup> M Ravallion: Poverty Comparisons: A guide to concepts and Methods, Working Paper No 8,1992, p.37

(including those of the poor) often vary over time in fairly predictable ways-particularly in agrarian economies such as Nigeria. Alderman and Paxson (1992), Deaton (1992) revealed that using income as a measure of living standards is often questioned on the ground of incorrect rendition by the respondents. On balance, consumption expenditure is preferred to income as a measure of living standard.

Also, in order to measure the living conditions of households in Letmauck barracks, Mokola, this study computed the Average Propensity to Consume (APC) for our sample.  $APC = 0.625$ , the implication of this is that about 63% of the income of our respondents are spent on consumer goods. To get Average Propensity to Save (APS) of our respondents, we computed  $APS = 1 - APC$ , therefore  $APS = 0.375$ , implying that about 37% of the respondents' income is saved. On the average, soldiers in Letmauck Barracks spend a large percentage of their income on consumer goods; this reveals further, that households are poor. The existence of poverty is based on the fact that low income households have high APC and low MPS.

## 5. CONCLUSION AND RECOMMENDATION

The study examined the poverty incidence and account for inequality profile of enlisted soldier residing in Letmauck Barracks, Mokola, Ibadan. The result reveals that Poverty Head Count is 0.76, which is the 76 percent of 100 households of our sample survey. Poverty Gap Index is 0.276842 and Poverty severity is approximately 0.13. These two indicators explained the depth and account for the inequality amid households as well as identified the relative poverty exist as presumed in our survey. The study uphold our assumption of relative poverty which conform with the idea of basic social amenities if provided could address absolute poverty. The living condition among households in our study shows that Average Propensity to consume is 0.625. The study concludes that among enlisted soldiers in Letmauck Barracks Mokola, poverty exists; however, poverty gap among the poor can be eliminated if appropriate policies are put in place. Also, inequality (or poverty severity) exists among the poor enlisted soldiers but can be eliminated with appropriate policies. The study recommends that programmes like child support, scholarship to soldiers' children, and empowerment to wives of soldiers etc. can help to reduce poverty among enlisted soldiers in Letmauck Barracks, Mokola, Ibadan.

## REFERENCES

- [1] Ajakaiye, D.O and Adeyeye, V.A, 1999. Concepts, Measurement And Causes Of Poverty. CBN Economic & Financial Review, Vol. 39 NO. 4
- [2] Amelia U. Santos-Paulino, (2012). Trade, Income Distribution and Poverty in Developing Countries: A Survey No. 207 pg 3
- [3] Atkinson AB and Brandolini A (2010). On Analysing the World Distribution of Income. The World Bank Economic Review, 24(1): 1–37.
- [4] Basu K (2006). Globalization, poverty, and inequality: What is the relationship? What can be done? World Development, 34 (8): 1361–1373.
- [5] Bello, I. and Obadan, M. (2003). Democratic Governance and Development Management in Nigeria's Fourth Republic 1999 – 2003. Jodad Publishers pp 306.
- [6] Blackwood, D. and Lynch, R. (1994). The measurement of inequality and poverty: A policy maker's guide to the literature. World Development; 22(4), 567-57
- [7] Brig Gen Bakare Nigerian Army Logistics Requirement 2010 .A paper presentation at Nigerian Defence College Abuja
- [8] Browning, M. and Chiappori P. (1998). Efficient Intra-Household Allocations: A General Characterization and Empirical Tests. Econometrica, 1998, vol. 66, issue 6, 1241-1278
- [9] Chen, S. and M. Ravallion (2008), "The Developing World is Poorer than We Thought, but No Less Successful in the Fight Against Poverty", August 1, 2008, World Bank Policy Research Working Paper Series.
- [10] Coudouel A, Hentschel J,S and Wodon Q.T; (2004): Chapter 1-Poverty Measurement and Analysis in Volume1- Core Techniques and Cross-Cutting Issues,p.39



- [11] Deaton A (2005). Measuring Poverty in a Growing World (or Measuring Growth in a Poor World). *The Review of Economics and Statistics*, MIT Press, 87(1): 1–19.
- [12] Findlay, J. & Wright, R. (1996). Gender, Poverty and the Intra-household Distribution of Resources, *Review of Income and Wealth*, International Association for Research in Income and Wealth, vol. 42(3), pages 335-351.
- [13] Haddad, I. and Kanbur, R. (1990). How Serious Is the Neglect of Intra-Household Inequality? *Economic Journal*; 100(402), 866-81
- [14] Kapteyn A., Peter K, and Rob, (1988). Some Methodological Issues in the Implementation of Subjective Poverty Definitions. *The Journal of Human Resources* 23:222-242.
- [15] Nissanke, M. & Thorbecke, E. (2010). Globalization, Poverty, and Inequality in Latin America: Findings from Case Studies. *World Development*, Elsevier, vol. 38(6), pages 797-802.
- [16] Phipps, S. and Burton, P. (1995). Sharing within Families: Implications for the Measurement of Poverty among Individuals in Canada. *Canadian Journal of Economics*; vol. 28, issue 1, 177-204
- [17] Rauniyar, G. and Kanbur R. (2010). Inclusive growth and inclusive development: a review and synthesis of Asian Development Bank literature *Journal of the Asia Pacific Economy* 15 (4), 455-469
- [18] Sala-i-Martin, X. (2006). The World Distribution of Income: Falling Poverty and ... Convergence, *Period. The Quarterly Journal of Economics*, 2006, vol. 121, issue 2, 351-397
- [19] Sen, A. K., (1976). Poverty: An Ordinal Approach to Measurement. *Econometrica* 46:437-446.
- [20] Sen, A. (1984). *Resources, Values and Development*. Oxford: Basil Blackwell
- [21] World Bank (1993). *World Development Indicators*, online