The dynamics of welfare deprivation of women in rural Nigeria

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Abstract

This study examined the trend of welfare deprivation of women in rural, Nigeria. The Nigeria demographic and health survey data in 2003, 2008 and 2013 was used, 4563 in 2003, 22896 in 2008 and 23403 in 2013. Data analysis was done using descriptive statistics and fuzzy set analysis. The Deprivation Index for rural women ranges from 0.01 to 0.95 with a mean value of 0.53, 0.57, 0.58 in 2003, 2008 and 2013. In 2003, housing and sanitation contributed the most to welfare deprivation while assets contributed the least. In 2008, autonomy contributed the most to welfare deprivation while information contributed the least while in 2013, housing and sanitation contributed the most and information access the least to welfare deprivation. The study recommended that interventions should be made in the areas of access to information, employment and asset ownership to improve the welfare of women in rural Nigeria.

Keywords: Rural Nigeria, Women, Welfare deprivation, Fuzzy set

INTRODUCTION

Deprivation is a state of observable and demonstrable disadvantage of a woman relative to the local community or the wider society or nation to which the woman belongs (Townsend, 1987). This disadvantage may be with regard to housing and sanitation characteristics, education, employment, autonomy, health and nutrition. A woman is therefore considered deprived to the extent that she falls below generally acceptable social status in the society (Townsend, 1979). It also emphasize the individual experience of discontent when being deprived of something to which one beliefs oneself to be entitled (Schaefer 2008; Walker and Smith, 2001). Deprivation among women in this study is considered through welfare indicators like health, education, food and nutrition, housing and sanitation characteristics, autonomy, employment. Thus reducing the number of women who are deprived in these dimensions above is increasingly acknowledged as an important investment in human capital and the nation's development. Women's ownership of assets is likely to prevent them from falling into poverty and deprivation, lead to better outcomes for their children, or result in better outcomes in case of widowhood, divorce, separation or in violent situations (Deere and Doss, 2006) and may be welfare enhancing (Luke and Munshi, 2011; Doss, 2006).

Poverty and deprivation is one of the fundamental challenges of our contemporary world (Rasaki 2016). (Cook, 2013) revealed that more than a billion people live below US$1.25 per day globally while about 1.75 billion persons suffer from multi dimensional poverty, with deprivations in heath, economic opportunities, education, and living standard. Greater proportion of poor people is found in developing countries, with Africa accounting for the largest. Several countries across the globe are narrowing the rich–poor gap; however, the gap appears to be widening in Africa. (Gyimah-Brempong, 2002) noted that "poverty, slow economic growth, and unequal income and wealth distribution are endemic in African countries". Nigeria, the largest Black Country in the world, is characterized by high rate of poverty despite her economic fortune (Rasaki, 2016). According to National Bureau of Statistics (2012), the incidence of poverty in

Nigeria increased from about 27.2 percent in 1980 to 46.3% in 1985. It decreased marginally to 42.7% in 1992 and rose to 65.6% in 1996.Conversely, the rate declined to 54.4% in 2004 and increased again to69.0% in 2010. The proportion of the Nigerian population living in absolute poverty rose from 54.7% in 2004 to 60.9 percent in 2010 (Abubakar, 2013).

Although great strides have been made in reducing gender inequality in Nigeria, women still face higher rates of poverty compared to their male counterparts (Adeoti and Akinwande, 2013). Over the years, successive governments in Nigeria at various levels have put in place measures and policies to drastically reduce the soaring rate of poverty and deprivation in the country especially among women through several programmes. Such policy measures according to Ogwumike (2001) focus essentially on growth, basic needs, and rural development approaches, some of which were initiated before and after the independence. The period 1960 to 2009 witnessed several poverty alleviation programmes and policies, some of which include : Primary Health Care and Disease Programme (1982); Women Education Project (1986);Family Economic Advancement Programme (1997); Better Life For Rural Women programme (1987); Women in Health Development Project (1989); National Directorate of Employment (1986); National Poverty Eradication Programme (2001); National Economic Empowerment and Development Strategy NEEDS (2003); Seven Point Agenda (2009); Nigeria Vision 20:2020 (2009). Also Non-Governmental Organizations (NGO), States and Federal governments at various times rendered assistance to less privileged women and those in difficult situation by procuring and distributing skills acquisition/economic empowerment equipment to enable them improve their economic base, such as - sewing machine, embroidery machine, hair wash sink/basin, hair dryer, thermocool deep freezer, 5 horse power grinding machine, 2.7 KVA thermocool generator, among others (Rasaki 2016; Adeoti and Akinwande, 2013). An inter-ministerial committee on women in agribusiness was constituted with the thrust of enhancing women's access to productive agricultural assets in the agricultural business.

The committee ensured comprehensive appraisal of the skills acquisition centers nationwide in conjunction with the Federal Ministry of Lands, Housing and Urban Development. In addition, the committee/program is meant to ensure the attainment of the Millennium Development Goals (MDGs) 3, 4, 5 and 6 (Promoting gender equality and women empowerment; reduce child mortality and improve maternal health) through ambulance emergency intervention programme; fight HIV/AIDS scourge and malaria disease as was put in place by the United Nations. Also, recently the passage of gender equality bill in the national assembly which was meant to better the lot of women in Nigeria was turned down.

While some of the programmes recorded certain level of successes, however, a good number of them could not be sustained. Some of these programmes recorded huge success like the case of "iya abiye" project in Ondo state, which helped in taking care of pregnant women and children, thus reducing the issue of mother and child mortality in Ondo state and its environs. Although some became moribund, others were replaced. Issues of corruption, political instability, policy inconsistencies, underfunding, duplication of roles of other agencies, policy reversals, and incompetence on the part of people appointed to serve as heads of programs were factors that militated against the successes of these initiatives. Also, all these programs never made great impact in effectively addressing the problem of deprivation and poverty among women. For example, the Millennium Development Goals that was put in place by the United Nations in year 2000 did not achieve his aim of reducing hunger among women, education of girls to at least junior secondary, reducing maternal mortality and etcetera. This was the reason the United Nations changed the MDGs to SDGs giving us more time to achieve these goals till 2030. In fact, women condition is becoming worse by the day and if drastic steps are not urgently taken towards effectively addressing poverty in Nigeria, especially among women, there is likely to be a wanton catastrophic impact on the country and perhaps the world. Without access to opportunities to further their education and accumulate productive assets in order to become self-reliant, women will continue to disproportionately experience poverty in Nigeria (African Union, 2004; Ssewamala, 2004). Thus, this calls for urgent concern.

In this paper we examined welfare deprivation of women in rural Nigeria since 2003 after the implementation of the Millenium Development Goals (MDGs) to 2013 towards the end of its implementation which is 2015.This study examined whether the welfare deprivation status improved or not. Thus this study answered this research question: what is the deprivation status of women in 2003, 2008 and 2013.

MATERIALS AND METHODS

Study area

The area of study for this research is rural Nigeria. Nigeria is a country located in Western Africa, on the Gulf of Guinea. It is found between latitudes 4^0N and 14^0N of the Equator; and between longitudes 3^0N and 15^0E of Greenwich Meridian (Atlas of Nigeria 2011:18). It is highly endowed with human resources of over 140 million, made up of 50.78% male and 49.22% female-based on 2006 population census figure (Atlas of Nigeria, 2011, NDHS 2013). Despite the enormous wealth which the country possesses, it is paradoxical that its citizens are sliding progressively into poverty. In 2014, the United

Nations Development programme, UNDP ranked Nigeria 152 out of 187 countries like Algeria, Botswana, Egypt, South Africa and Ghana coming ahead of the country often touted as the giant of Africa (Desert Herald, 2016:12). Presently, Nigeria is made up of 36 states and a Federal Capital Territory, grouped into six geopolitical zones: North Central, North East, North West, South East, South South, and South West (Atlas of Nigeria, 2011, NDHS 2013).

Type and sources of data

Secondary data from Nigeria Demographic Health Survey 2003, 2008 and 2013 was used for this study**.** In the DHS for 2003 a total of 4563 women were sampled in rural Nigeria. It was further disaggregated into 36 states and the Federal Capital Territory Abuja. In 2008, a total of 22,896 women were sampled in rural Nigeria. While in 2013 a total of 23,403 women were sampled in rural Nigeria.

Analytical procedure

The study made use of Descriptive statistics and Fuzzy set theory

Descriptive analysis

This involved the use of charts, the construction of simple frequency distribution, and measure of central tendency such as mean was used to outline the socio- economic characteristics of women in rural Nigeria.

Fuzzy set analysis

This was used to estimate welfare deprivation status of women. The fuzzy set substitutes the characteristic function of a crisp set that assigns a value of 1 or 0. Large values denote high degree of membership. (Martinetti, 2000),(Majumder, 2006). The degree of welfare is shown by the placement of the individual on the 0 or 1 value or other values in-between. The model is considered as follows: Assume a population A of n individuals, A = (a_1, a_2, a_3 …a_n). A fuzzy subset B includes all individuals with aiε B. The degree of welfare of the ith individual (i=1,….,n) with respectto a particular attribute j given that (j = 1,……,m) is defined as:

$\mu_{\beta|}xj$ (*ai*)| = xij, 0 ≤ xij ≤ 1 where: 1

xij =1; condition of total lack of welfare attribute (state of deprivation)

xij =0; condition of full possession of welfare attribute

0≤x*ij* ≤1; conditions within the range of lack and full possession

The variables that define indicators of welfare are either dichotomous or categorical in nature.

Dichotomous variables

These are answered by either Yes or No; with the yes being a state of improved welfare and the no, a state of deprivation. Following Oni and Adepoju (2011), from a universal set of A individuals, we define the membership function of fuzzy subset of B for the ith individual

(i=1….n) that possesses the jth welfare attribute (j= 1 m) as:

$\mu_{\beta|}xj$ (*ai*)| = xij, 2

X j (ai) is the m order of welfare attributes that will result in a state of welfare if totally or partially owned by the ith woman.

xij =1, if the ith individual possesses the jth attribute

xij =0, if the ith individual does not possess the jth welfare attribute.

Categorical Variables

Categorical variables present themselves in a range of values, rather than just two values.

Expressing the membership function for these variables take the form:

$\mu_{\beta|}xj$ (*ai*)| = xij 3

In a general case of C = C_{min} to C $_{max}$ ordered categories of some deprivation indicator with C_{min} being the least deprived indicating the highest level of welfare and C_{max} represents the most deprived which translates to the lowest level of welfare. If the modalities are arranged in decreasing order of welfare attainment from C_{min} to C_{max}, C_i values represent the intermediate values within the two thresholds, which depicts the position of the ith individual within the modalities.

xij = C min- Ci/ C min -Cmax , if Cmax ≤Cij ≤Cmin 4

so that 0 ≤x*ij* ≤1

In specifying the deprivation index for the population of women, following (Oyekale and Okunmadewa, 2008), (Oni and Adepoju, 2011), (Adeoti and Akinwande, 2013) it is expressed as:

$\mu\beta(a_i) = \sum_{j=1}^{n} x_{ij}\ w_j | \sum_{j=1}^{m} w_j$ 5

Where wj is the weight given to the jth attribute. μβ(ai) measures the degree of deprivation of the ith individual as a weighting function of m attributes/ indicators.

Selected Dimensions and Methods of Evaluation is presented in Table 1 in the appendix

RESULTS

Socio economic characteristics

Table 2 reveals that 42.3%, 37.9%, 37.6%of rural women in 2003, 2008, 2013 fall within age range 15 to 24 while 30.0%, 31.8%, 31.5% fall within the age group of 25 to 34

Table 2: Distribution of women according to their Socio economic characteristics in rural Nigeria

	2003		2008		2013	
Variable	**Freq.**	**%**	**Freq.**	**%**	**Freq.**	**%**
Age						
15-24	1931	42.32	8666	37.85	8788	37.55
25-34	1369	30.00	7282	31.80	7373	31.50
35-49	1263	27.68	6948	30.35	7242	30.95
Mean	28		29		29	
Standard deviation	10		10		10	
Educational attainment						
No education	2194	48.08	11160	48.74	11423	48.81
Incomplete primary	449	9.84	1710	7.47	1496	6.39
Complete primary	582	12.75	3066	13.39	3038	12.98
Incomplete secondary	816	17.88	3714	16.22	3759	16.06
Complete secondary	358	7.85	2375	10.37	2795	11.94
Higher	164	3.59	871	3.80	892	3.81
Household size						
1-5	1892	41.46	10175	44.44	10000	42.73
6-10	2031	44.51	9828	42.92	10213	43.64
>10	640	14.03	2893	12.64	3190	13.63
Mean	7		7		7	
Standard deviation	4		4		4	
Marital status						
Single	1084	23.76	4574	19.98	4534	19.37
Married	3479	76.24	18322	80.02	18869	80.63
Gender of household head						
Male	3934	86.22	19402	84.74	20025	85.57
Female	629	13.78	3494	15.26	3378	14.43
Occupation type						
Unemployed	1966	43.09	8743	38.19	8855	37.84
Agriculture	2179	27.75	11229	29.04	10903	46.59
Services	298	6.53	2439	10.65	3066	13.10
Industry	120	2.63	485	2.12	579	2.47
Geopolitical zone						
North central	757	16.59	4420	19.30	4041	17.27
North east	852	18.67	4755	20.77	5024	21.47
North west	1265	27.72	5937	25.93	7289	31.15
South east	641	14.05	2254	9.84	1502	6.42
South |South	600	13.15	2175	9.50	3996	17.07
South west	448	9.82	3355	14.65	1551	6.63
Total	4563	100	22896		23403	100

Source: own calculation

years. Older age group women within the age range of 35 to 49 represent 27.7%, 30.4%, 30.9% of women in rural Nigeria in 2003, 2008 and 2013. In all, 57.7%, 62.2%, 62.5%of women in rural areas in 2003, 2008 and 2013 are above the age of 25 years. The minimum age is 15 years while the maximum is 49 years. Women in rural Nigeria with no formal education recorded the highest percentage (48.1%, 48.7%, 48.8%) among their peers in the years examined. The percentage of women who only had primary education increased from 12.8% in 2003 to 13.4% in 2008 and then dropped to 12.9% in 2013. In spite of government efforts to achieve the SDGs with respect to women; they are still largely uneducated in rural areas. This can be traced to the low level of

Table 3 Distribution of Rural Women by their Deprivation status

	2003		2008		2013	
Deprivation Index	**Freq.**	**%**	**Freq.**	**%**	**Freq.**	**%**
0.0000-0.1000	6	0.13	10	0.04	12	0.05
0.1001-0.2000	71	1.56	257	1.12	242	1.03
0.2001-0.3000	292	6.40	936	4.09	869	3.71
0.3001-0.4000	601	13.17	2181	9.53	2011	8.59
0.4001-0.5000	930	20.38	3979	17.38	4063	17.36
0.5001-0.6000	1062	23.27	5299	23.14	5476	23.40
0.6001-0.7000	889	19.48	5305	23.17	5235	22.37
0.7001-0.8000	512	11.22	3481	15.20	3602	15.39
0.8001-0.9000	184	4.03	1264	5.52	1579	6.75
0.9001-1.0000	16	0.35	184	0.80	314	1.34
Total	4563	100	22896	100	23403	100

development in the rural area compared to the urban area which invariably affects their educational attainments. This poses a threat to policy implementation and poverty alleviation.

The percentage of rural women that are unemployed were 43.1%, 38.2%, 37.8%in 2003, 2008 and 2013 while 27.8%, 29.0%, 46.6% of the women are engaged in agricultural activities. This is the subsector where low skill can be applied in the rural area. The percentage distribution shows that households in rural Nigeria are predominantly between six and ten persons in 2003 and 2013 (44.5%, 43.6%) while in 2008 households predominantly have between one and five members (44.4%) Only 14.1%, 12.6% and 13.6% of rural households have large sizes (greater than 10 members) in 2003, 2008 and 2013. The minimum household size is one while the largest household has 34 members. The mean household size is seven with a standard deviation of four across the years.

The multidimensional welfare deprivation index

Welfare deprivation is conceptualized as multidimensional and measured through the aggregation of the different welfare attributes experienced by an individual. In order to assess the deprivation status of rural Nigerian women, their average deprivation status was estimated. The multidimensional welfare deprivation index for all the women was obtained by aggregating it across dimensions and indicators. Table 3 shows the distribution of rural women based on their Deprivation Index (DI). The DI for rural women ranges from 0.01 to 0.95 with a mean value of 0.53,0.57, 0.58 in 2003,2008 and 2013 and the minimum and maximum indexes are shown in table 4.Rural women in 2008 have the least deprivation index. Most of the women had their deprivation index between 0.2000-0.9000 while few had low deprivation index between 0.0000-0.1000 and very high between 0.9001-1.0000.

Multidimensional welfare deprivation index across States

The decompositions across geopolitical zones (GPZs) as shown in table 4 reveal the distribution across states. There is variation between the years. In 2003, Anambra state has the lowest deprivation index (0.25) and Sokoto has the highest (0.57).In 2008, Imo state has the highest index (0.2836) and Yobe (0.6329). In 2013, Ekiti state has the lowest index (0.29) while Bauchi state has the highest index (0.61).This shows that in 2003, rural women in Sokoto state are the most deprived. In 2008, Yobe state rural women were the most deprived and Bauchi state rural women were the most deprived in 2013.

In table 5 the Deprivation Index for rural women ranges from 0.012 to 0.95 with a mean value of 0.53, 0.57, 0.58 in 2003, 2008 and 2013 and the minimum and maximum indexes. Rural women in 2008 have the least deprivation index.

Decomposition across dimensions

The contribution of each welfare dimension and indicator to women's deprivation is presented figure 1, 2 and 3. Among the seven dimensions considered, in 2003 and 2013 housing and sanitation had the highest absolute and relative contributions of (0.12, 0.13) and (23.0%, 22.7%) and thus contribute the least to deprivation. This is followed by autonomy with (0.11, 0.13) and (20.9%, 21.8%). Moreover in 2008 autonomy has the highest absolute and relative contributions 0.12, 21.6%, followed by housing and sanitation 0.12, 20.9%. This means that

Table 4: Welfare deprivation across states in Rural Nigeria

Year/State	2003	2008	2013
Akwa Ibom	0.4058(160)	0.4194(735)	0.4508(936)
Anambra	0.2468(137)	0.3487(138)	0.3439(127)
Bauchi	0.5418(348)	0.5689(750)	0.6117(1015)
Edo	0.4063(22)	0.4457(418)	0.4690(440)
Benue	0.4805(245)	0.4732(834)	0.5157(728)
Borno	0.5121(66)	0.5700(624)	0.5919(429)
Cross River	0.5172(83)	0.4893(578)	0.4888(612)
Adamawa	0.5220(117)	0.5396(808)	0.5612(842)
Imo	0.2793(196)	0.2836(505)	0.3406(394)
Kaduna	0.3930(335)	0.5292(746)	0.5319(715)
Kano	0.3458(170)	0.5011(904)	0.5017(1378)
Kastina	0.4091(219)	0.5238(967)	0.4783(1046)
Kwara	0.3566(12)	0.5574(446)	0.3993(328)
Lagos	0.3426(20)	0.4276(95)	-
Niger	0.5406(133)	0.5216(728)	0.5061(776)
Ogun	0.4338(110)	0.3927(446)	0.3926(291)
Ondo	0.4156(65)	0.6010(446)	0.5102(503)
Oyo	0.4459(110)	0.3507(401)	0.4697(303)
Plateau	0.5144(175)	0.5371(792)	0.5393(639)
Rivers	0.3855(212)	0.4511(516)	0.4728(504)
Sokoto	0.5703(112)	0.5102(808)	0.5476(1024)
Abia	0.3251(96)	0.3497(366)	0.3821(572)
Delta	0.4338(72)	0.4462(453)	0.5024(594)
Enugu	0.3934(122)	0.4488(519)	0.4631(258)
Jigawa	0.5401(177)	0.5294(939)	0.5106(1117)
Kebbi	0.4546(126)	0.5406(777)	0.5479(1028)
Kogi	0.4432(86)	0.4226(559)	0.4889(561)
Osun	0.2863(104)	0.4044(334)	0.4186(268)
Taraba	0.5306(120)	0.5777(1046)	0.5495(1149)
Yobe	0.4276(87)	0.6329(710)	0.5994(752)
Bayelsa	0.4734(51)	0.4859(655)	0.4811(910)
Ebonyi	0.4522(90)	0.4906(726)	0.5113(151)
Ekiti	0.4201(39)	0.4048(453)	0.2995(186)
Gombe	0.5231(115)	0.6011(817)	0.5901(837)
Nasarawa	0.4423(84)	0.4993(805)	0.5103(702)
Zamfara	0.4319(126)	0.6023(796)	0.5012(981)
Abuja(FCT)	0.4983(22)	0.4853(256)	0.5029(307)

Source: own calculation

rural women are less deprived in these dimensions than others. The high relative contribution of housing is expected since most of them live in the same house with their spouses. These houses are provided by the joint effort of the household.

The lowest absolute and relative contributions of (0.05, 0.05) and (9.5%, 8.7%), respectively are recorded in information access in 2008 and 2013 and this dimension contributes the more to deprivation as shown in table 5. While in 2003 the lowest absolute and relative contributions of 0.05% and 9.4% respectively are recorded in employment and this dimension contributes the more to deprivation. It implies that rural women's access to information and employment was poor and improving this dimension will improve their welfare. In descending order of contribution to welfare deprivation in 2003, the seven dimensions considered are arranged as follows: employment, asset ownership, information access, education, health and nutrition, autonomy, housing and sanitation. In 2008, information access, employment, asset ownership, education, health and nutrition, housing and sanitation and autonomy. In 2013,

Table 5: Distribution of mean welfare indexes across the years

Deprivation Index	2003	2008	2013
Mean	0.5319	0.5704	0.5778
Standard Deviation	0.1592	0.1568	0.1579
Minimum	0.0119	0.0471	0.0447
Maximum	0.9493	0.9450	0.9434

Source: own calculation

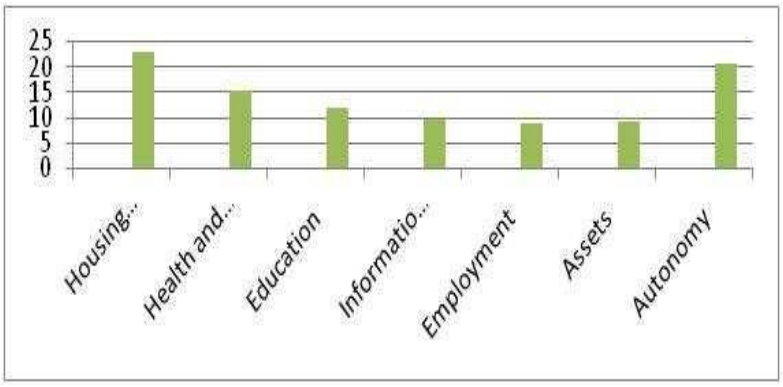

Figure 1: Contribution of Different Dimensions to the welfare Deprivation of Women in Rural Nigeria in 2003.

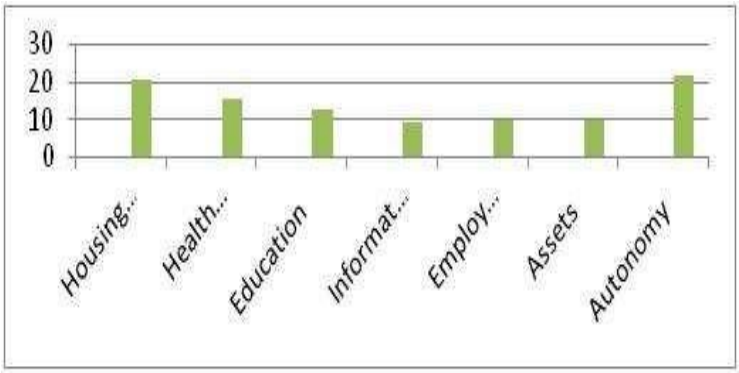

Figure 2: Contribution of Different Dimensions to the welfare Deprivation of Women in Rural Nigeria in 2008.

information access, employment, asset ownership, health and nutrition, education, autonomy and housing and sanitation characteristics. Figure 1, 2 and 3 shows these orderings. In view of the high deprivation index of women in general, these dimensions need to be improved on particularly information access, employment and asset ownership whose contributions to welfare are very low. The Levene's test shows that the variances of multidimensional welfare deprivation indices across dimensions are significantly different (ρ= 0.0000).

DISCUSSION

As shown in table 2 Nigerian women are at disadvantage in accessing education services. This is true of Northern

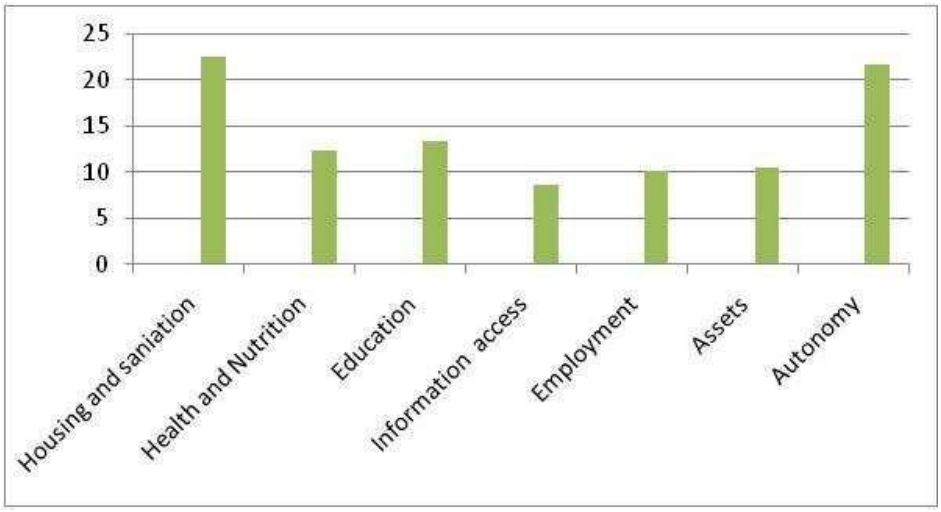

Figure 3: Contribution of Different Dimensions to the welfare Deprivation of Women in Rural Nigeria in 2013.

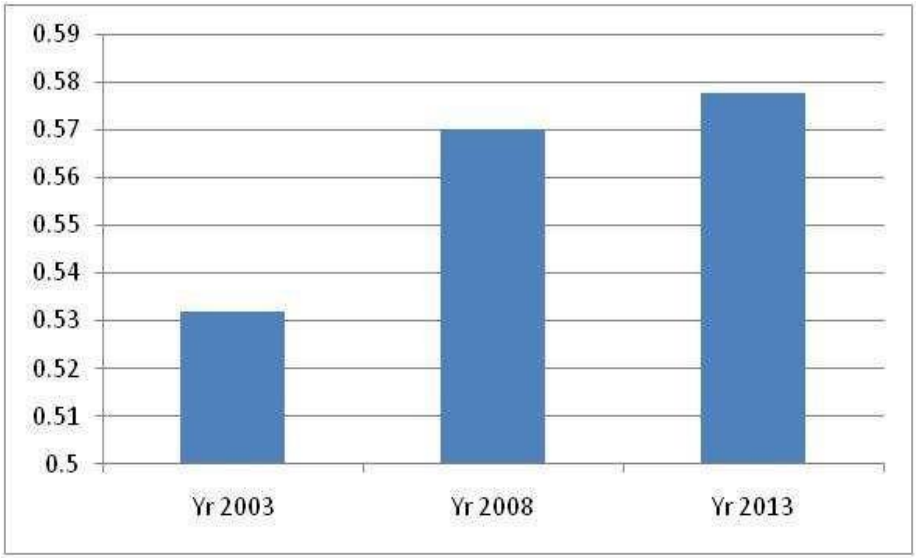

Figure 4: Welfare deprivation index across the years

Nigeria where social indicators show that fewer girls attend school than boys (Mark and Asheazi2016; James and Bwala,2004). The greatest constraint to female gender empowerment is low educational attainment. Many parents prefer to send boys to attend formal education as they are expected to become the family breadwinners. Women who are denied such opportunities usually are married out at tender age as low as 8 years old and many of them are even denied vocational skills. Hence, they are unproductive; poverty looms high among them in the long run. Jat and Bot (2002) averred that the girl-child with little or no formal education usually finds herself in the household sector or the informal sector to do unqualified work outside the home, hence the vicious cycle of marginalization and poverty is reinforced. Sen (cited in Amzat and Dantake, (2012) observed that gender bias in higher education and professional training in fields like military, engineering, astrology, geology and mining among others were predominantly male–dominated. The younger women should enroll and remain in school till completion while the older, not so educated one should be given some kind of non-formal education in order to be more beneficial to themselves and the entire Nigerian society.

Table 6: Multidimensional Welfare Deprivation Decomposition across Dimensions and Indicators

Dimension	Indicators	2003 weights	2008 weight	2013 weight
Housing and sanitation	Source of water	0.2546	0.2298	0.2786
	Type of toilet facility	0.4185	0.2080	0.2081
	Main floor material	0.3162	0.2581	0.2755
	Type of cooking fuel	0.0487	0.0329	0.0344
	Electricity	0.1734	0.1402	0.1759
		23.0138	**20.8821**	**22.6899**
Health and Nutrition	Antenatal care	0.0499	0.0437	0.0600
	Assistance during delivery	0.06419	0.05214	0.0529
	Place of delivery	0.4108	0.3566	0.06601
	Body mass	0.4889	0.4864	0.4923
		15.6732	**15.5597**	**12.4938**
Education	Education in single years	0.1080	0.1192	0.13309
	Literacy	0.2258	0.2113	0.2220
	Educational attainment	0.1407	0.1468	0.1517
		12.0069	**12.6064**	**13.4398**
Information access	Frequency of reading newspaper	0.0352	0.0253	0.0247
	Frequency of listening to radio	0.3156	0.2424	0.1549
	Frequency of watching television	0.0966	0.1050	0.1120
		9.8368	**9.5016**	**8.6782**
Employment	Women currently working	0.3441	0.3779	0.4076
	Women's occupation(type)	0.1129	0.1282	0.1351
		12.0069	**12.6064**	**13.4398**
Assets	Refrigerator	0.0361	0.0307	0.0402
	Bicycle	0.2708	0.1766	0.1198
	Car	0.0754	0.1531	0.2145
	Telephone	0.0100	0.0035	0.0081
		9.4303	**9.9712**	**10.5879**
Autonomy	Person who usually decides how to spend respondent's earnings	0.3215	0.2828	0.3359
	Person who usually decides on respondent's health care	0.2207	0.2290	0.2081
	Person who usually decides on large household purchases	0.1993	0.2155	0.2085
	Person who usually decides on visits to family or relatives	0.2764	0.2675	0.2336
		20.9326	**21.6425**	**21.8362**

In table 3 on the average, women in rural Nigeria are deprived, this is in line with studies using one-dimensional and multidimensional approach carried out in Nigeria (Alaye-Ogan, 2008) where women are believed to have low wellbeing which is synonymous with their high deprivation status. Using a multidimensional approach, the result is more pronounced with a larger number of women found to be worse off (Adeoti and Akinwande, 2013). Also over the years there has been no improvement in the welfare of rural women. Their deprivation status instead of decreasing has been increasing despite the United Nations MDG goals.

It is also worthy of note that autonomy has a high relative contribution. (Adeoti, 2001) reports that 75.4% of women had full control over the loans they obtained; of which 54% were singles, widows and divorcees. In addition, women in non-farm and services subsectors had more control than those in production who might

need their husband's assistance in procuring agricultural inputs. (Ani, 2003) notes that widows make more decisions than the married and concludes that since women are not one homogenous group, their degree of autonomy differs. Although, there is a wide gap in the degree of autonomy between men and women, it should be noted that due to socialization, the degree of autonomy of women has improved in spite of cultural constraints. The high relative contribution of autonomy underscores the point that power relations within the household is crucial and ability to participate in decision making particularly with respect to self is important for women's welfare.

CONCLUSION

The Deprivation Index for rural women ranges from 0.012 to 0.95 with a mean value of 0.53, 0.57, 0.58 in 2003, 2008. Rural women in 2008 have the least deprivation index. Most of the women had their deprivation index between 0.20-0.90 while few had low deprivation index between 0.00-0.10 and very high between 0.90-1.00. On the average, women in rural Nigeria are deprived.

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Appendix

Table 1: Selected Welfare Dimensions and Indicators

DIMENSION	INDICATOR	SOURCE
Housing and Sanitation	Main source of drinking water	Amlan-Majumder, 2006
	Type of toilet facility	Oyekale and Okunmadewa, 2008
	Main floor material	Ologbon et al; 2012
	Main wall material	Adeoti and Akinwande, 2013
	Main roof material	Oyekale and oyekale ,2013
Autonomy	Final say on own health	Amlan-Majumder, 2006
	Final say on visit to friends and relatives	Oyekale and Okunmadewa,,2008
	Final say on making large household purchases	Adeoti and Akinwande, 2013,
	Final say on money spending	
Health	Place of delivery	Yu, 2011
	Skilled attendant during delivery	Kabubu-Mariara *et al;* 2010
	Antenatal care	Amlan-Majumder, 2006
	Body mass	Adeoti and Akinwande, 2013,
Education	Education in single years	Amlan-Majumder, 2006
	Educational attainment	Adeoti and Akinwande, 2013
	Literacy.	
Employment	Employment status	Adeoti and Akinwande, 2013, Oni and Adepoju 2011
	Type of employment	
Information access	Frequency of reading newspaper	Adeoti and Akinwande 2013
	Frequency of listening to radio	
	Frequency of watching television	
Asset ownership	Refrigerator,Land Telephone,Car/Truck,Bicycle	Oyekale and Oyekale 2013

Source: from literature