

ASSESSMENT OF SOCIAL COHESION INDICATORS AND RURAL POVERTY REDUCTION IN NIGERIA

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Abstract

Social cohesion (SC) is not much of a debatable topic in the developing countries, and like poverty is a multidimensional concept. Evidence from research shows fairly poor basis for testing the multidimensionality and measurement of SC in Nigeria. We test for the multidimensionality of social cohesion(SC) in rural areas using possible indicators that could contribute to the welfare of the rural populace. Data were drawn from the Nigeria General Household Survey 2012/2013 derived from the World Bank Living Standard Survey Measurement. Using exploratory factor analysis and Pearson correlation techniques to measure and test the multidimensionality of SC and its relation to rural welfare respectively, the results showed that about 46.5% and 36.6% have a perception that social trust and violence level is better in Nigeria, however only 36% have access to rural communal resource. Policy focus should be targeted towards development of the rural social sector by redefining funding, institutional structures and functions.

Key words: multidimensionality, rural welfare, social cohesion

INTRODUCTION

Social cohesion (SC) include social capital, absence of conflict and social exclusion [5], it becomes difficult for the implementation and effective utilization of any welfare or development project in a weaker cohesive society and as well poses a great risk to increasing poverty in the society. Nigeria, as a multicultural society, automatically possesses various societal attributes along its ethnic, religious and cultural lines. Having surmounted her civil wars and varying ethnical and religious crisis is however faced with terror attack. Of concern is looming destruction of its staple foods base (the rural areas) and displacement of its agricultural labour and potential ones. At present, the number of internally displaced persons is over 2 million [15] which is about 8 percent of the country's population. A multiplier effect is increasing poverty incidences and severity especially among rural households. This explicitly confirms the relationship between the degree of the absence of cohesion and rural poverty.

Over the years there has been trend towards the bipolarization of the income class, in other words, a disappearing middle class, and a higher income inequality this can be explained from the increasing income inequality report between 1991 and 2000 from 48% to 60% [3]. However a further measurement by the World Bank in 2010 recorded an income inequality of 43.0%, though lower, but at a perceived level. Inequality in varying dimensions (income, gender, health etc) is quite important and contributes to a weaker social cohesion.

In theory, community cohesion is dependent on the nature of the socioeconomic or inequality gap between its citizens [13]. It therefore means that rural households' income, knowledge status and participatory abilities determines the type of societal build-up. It also suggests that degree of social cohesion determines the welfare package available to a community. This argument however needs extensive empirical proof on the impact of social cohesion on socioeconomic characteristics of a society. In the studies of

social cohesion, a usual strong affirmation is made about social exclusion and inequality since the absence of cohesion is the usually the basis of research, it becomes prominent that a society with large ethnic minorities has the possibilities of being imbalance and poses threats of social conflicts. On this note, for a large rural society like Nigeria, the agricultural sector which has continued to play its role as a source of food and income to its rural populace has lost several of its resources (human and natural resources) to social conflicts. It is cogent to note that several efforts have been made towards the improvement of rural livelihood, but poor efforts have been channeled to improving the rural society. This is evident in poor resource utilization, application and build-up of poorly knowledgeable rural society and poor or non-existing rural networks, inequality towards access to resources amongst others. These can be attributed to the poor concern to social protection packages.

Problem Statement

The Nigeria economy has over the years sustained its growth, and in 2014 rated the largest economy in Africa after the rebase of its GDP from 1990 to 2000 at current prices [2]. However, this does not reflect in the country's welfare indices. Otherwise, persisting high poverty incidences is quite common with the Northern region of Nigeria, compared to the Southern region. Most of these northern states ranked above the National average of Multidimensional Poverty Index (MPI), incidences and intensity of 0.303, 53.3% and 56.8% respectively [12]. In addition, this region is experiencing persisting territorial resource crisis, terrorist attack among other social vices. Of noticeable is the increasing number of street children (*Almajiris*) suggesting inadequate provision for child welfare and poor implementation of social and welfare policies for the country's economic development. It also expresses the reasons for the offshoot of disadvantaged groups in the Northern and Southern region of the country. The southern region however with lesser poverty incidences is not devoid of crisis and records of ethnical and resource use crisis and

societal vices such as increasing robbery, violent attack and kidnapping. Constant resource conflicts example is the Niger Delta, and the Plateau farmers, fishermen and *fulani* herdsmen are at dilemma of crisis over agricultural lands and rendering local economy defective. A cumulative effect of this is increasing poverty incidences especially in the rural areas. The rural areas in Nigeria are mostly poverty-hit (41.6%) and usually gets the higher share of poverty indicators compared to the urban area (13.2%) according to the global multidimensional poverty index of 2015, this is also above the national average of 30.3% [4]. Rural poverty has however been on the increase, it stoops higher above its urban counterpart in every type of poverty measure, one can refer to the Nigeria Bureau of Statistics poverty profile in 2010; on absolute poverty 66.1% and 52.0% for rural and urban respectively, relative poverty measurement of 73.2% and 61.8%, dollar per day measurement of 66.3% and 52.4% and food poverty measurement of 48.3% and 26.7% respectively [14]. A recent multidimensional poverty analysis OPHI 2015 shows a record of 70% and 59.5% of poverty incidence and intensity respectively compared to 28.1% and 47% for urban populace. A most significant problem is corruption, leadership inefficiency and poor budgetary allocation to the social sector of the economy. This is evident in the poor budgetary allocation to the social budget sector. A higher percentage of meagre allocation to the social sector goes to social insurance (pension, unemployment benefits) while little goes to social assistance targeted solely to the large rural populace. In a report by [6], Nigeria allocates 0.6% of the Gross domestic product to social protection which is less than the ILO averaged 3.9% for West Africa. Moreso, the significant of infrastructure in promoting livelihood is worthy of note due to its importance in the build-up of human capital. Physical infrastructures in the rural areas such as good roads are lacking, as reported by IFAD, a chunk of 80 percent of the Nigerian populace living in the rural areas, have limited social services and infrastructures. Infrastructure in this case promotes and

facilitates a convenient and socially ordered environment. Apart from income poverty and deprivations, several issues ensue from a weak cohesive society and cuts across several aspects from disorderliness, conflicts, inequality, exclusion, terrorism consequently leading to destruction of infrastructures and poor socioeconomic status., a persisting continual vicious poverty cycle. Inequality speaks volume from income to education, with a gini coefficient of 48.83, inequality in education and life expectancy ranks 45.24 and 34.49% respectively.

Justification of the study

The rural populace forms the majority of the Nigeria populace and thus contributes to the 70% labour force of the agricultural sector which including other non-oil sectors have continued to contribute to the growth of the economy with real GDP growth rate of 5.4%, 8.3% and 7.8% compared to 3.4%, -2.3% and 5.3% of the oil sector in 2011, 2012 and 2013 respectively [2]. At the same time the country's real GDP growth, at its rebased from 1990-2000 using current price projected Nigeria as the largest economy in Africa. Despite this record, it is evident that the country's stances on poverty over the years have not successfully included and equally targeted the rural poor. A constant deprivation of Nigeria of its needed development is persisting social conflicts, unemployment, poor educational status and health status, infrastructures among others. All these contributes to a weaker and poverty stricken society. Poverty is multidimensional and thus should be solved using a multidimensional approach, research have shown that poverty is highly linked with inequality [8], which is a component of absence of social cohesion. Evidently, severities of poverty in Nigeria are found in regions with high records of social conflicts, and poor socioeconomic populace. An example is the increased poverty incidences in the Northern region of the country compared to the Southern region of the country, most states in this region have poverty incidences above national average (46%) and has over the years, experience persisting conflicts as a result. An example of a weak or absence of social

cohesion known as social erosion [7]. Significantly, the rural areas' holds the ace in the production of the cool climate crops (due to presence of plateau), vegetables (due to presence of *fadama* lands), grains, staples and commodity crops (sesame, cocoa, rubber, etc) and contributes immensely to the agricultural sector. Despite the agriculturally rich nature of the rural areas, it is socioeconomically poor. The rural areas is more agriculturally driven, and this sector constitutes 70% of the labour force whom are largely poor [2]. Also, as much as Nigeria is a large rural country due to the concentration of her populace in the rural areas (60.1%) and the continual significance of rural society to the urban society, it becomes more important to study the social status and possible indicators of social cohesion attributes to assess the need for a shift in the social development focus for a multidimensional framework that promotes social cohesion, expand rural networks and reduce poverty. The study of social cohesion becomes prominent in the stance of Nigeria in order to incorporate the poor and excluded minorities into a socially developed network; however, it would require the need for identified indicators that best explains the concept of social cohesion in Nigeria. Moreso, with the present decline in oil prices which is the main source of income to the country, increasing support has been noticed from the non-oil sectors which includes the rural agricultural sector, and for the fact that agriculture has once driven the affairs of the country's economy; the rural populace needs to be incorporated sustainably for social, economic and environmental balance.

A focus on social cohesion in Nigeria have not appropriately linked it to societal welfare, complex referral have been from ethnic and religious point of view with no significance detail of possible component of social cohesion . Most times, social conflicts are used as basis for absence of social cohesion in multiethnic Nigeria; however, the concept of social cohesion encompasses this. Researches such as [9], constitute the basis for measuring social capital (a component of social cohesion) and its impact on poverty. Other approaches have

included the relating social inequality with poverty and measurements in varying dimensions [1; 10; 11]. However, a wide gap of research still exists in the social sector of the country. Emphasis has not been made on the need to constitute the set of indicators representative of social cohesion in a multiethnic society like Nigeria, of which on this basis, effective and efficient policies can be formulated.

From this, it can be said that social cohesion which incorporates social capital, social equality, social trust, societal identity and social solidarity amongst others has not been defined to enable measurement. In other words, the intertwine of these components can be depicted as the outcome of the group prowess to utilize its social capital might not be complete without a fairly equal participation advocated for, and adequate protection of public goods would be amiss without social order and civic identity. As regarded by [4], social cohesion can be described in varying dimensions, either in the inequality dimensions/social exclusion or in the social capital dimension.. However both dimensions are important for poverty reduction and rural economic development especially in a multicultural society like Nigeria with diverse ethnic and culture and gender disparities belief and notably is the resource diversities among the geographical areas of the country. This study refers to the multidimensional definition of poverty and stands to state that the problems of failure of several rural development policies is more as a result of weak investment in the social protection to create a well-defined civic society. On one hand, poverty and societal conflicts are however highly related, although argument has ensued that a peaceful society does not necessarily means presence of social cohesion, this depicts the complexity of social cohesion. This study tends to construct the link between the indicators of social cohesion and rural welfare, by first testing for its multidimensionality and creating a link with income poverty.

On this basis, our aims in this paper are:

-to profile the level of social cohesion indicators;

-to test for the multidimensionality of social cohesion as a concept;

-to determine the correlation between social cohesion on poverty.

MATERIALS AND METHODS

The Study Area is Nigeria. Nigeria is a large multicultural society. It is located in West Africa on latitude and longitude 8⁰N 10⁰E respectively with Abuja as its Federal Capital Territory. It occupies a land area of 923,768 square kilometers with a population of more than 170 million. It is bordered to the North by Niger republic to the East and West by Republic of Cameroun and Republic of Benin respectively, and to the south by the Atlantic Ocean. There are six geopolitical zone which includes North-West, North-East, North-Central, South West, South-East and South South-South. Across these geopolitical zones are diverse vegetation which includes the Sahel Savannah, Sudan Savannah, Guinea savannah, Rain forest and the Mangrove. Her diversity extends to its populace in ethnic, cultural and religious activities. The country has about 250 ethnic groups, with three common influential group, Hausa, Yoruba and Igbo, others include Ijaw, Fulanis, Kanuris, Ibibios and Tivs (Nigeria fact sheet, 2012). The rural and urban populace constitutes 54% and 46% respectively according to 2016 estimates (WDI, 2017) [16].

Data Collection

This study uses secondary data derived from Nigeria General Household Survey from the World Bank Living Standard Measurement Survey that was carried out between 2012 and 2013 (Wave 2), it was released in 2015. The data is agricultural based which means it collectively captures the rural and urban households. For this study, stratified method was used to differentiate rural from urban. For the purpose of this study which tries to test for the multidimensionality of social cohesion, its measurement and impact on poverty reduction, data were retrieved on proxies for social cohesion components such as social trust, social order, social capital, inequality and sense of belonging, they include perception on

trust level, perception on violence level, presence of village development group, presence of women group, presence of communal resources and access to communal resource. Due to limited data, 273 responses were used for the analysis.

Variables Definition

The variables used in this study include the following: presence of communal resource, presence of women group, presence of village development group, access to communal resources, perception on trust level and perception on violence level. These proxies constitute components of SC which include sense of belonging, social capital, social trust and social order. The variables are defined below:

Presence and access of communal resources (arable land): In this study, presence of communal resources is used as a proxy for sense of belonging and the communal resource used is arable land, arable land because, land is a very important resource for the rural community. The presence of rich arable lands poses a risk for control and priorities of access. Access to communal resource (arable land) in this study is however seen as differentiated access apart from gender.

Presence of women group: This significantly represents societal allowance for women participation in activities that contributes to their livelihoods. Rate of women group in Nigeria to an extent is dependent on cultural, ethnic and religious belief.

Perception on trust level and Perception of violence level: Social trust have been used as a proxy for measurement of social cohesion. It also forms a component of social capital as defined by Putnam.

Social trust is seen as a lubricant for societal cohesion, and in this study, it is portrayed as a value perceived in the society to foster rural networking activities and could as well improve rural livelihoods.

Violence contributes to a non-civic society; disrupt livelihood activities and a major contributing factor to poverty increase. Societal perception of violence can predict the likelihood of presence of economic and developmental activities.

Analytical Methods

We employ descriptive statistics such as frequency, percentages, mean and standard deviation to profile the level of indicators of social cohesion in rural Nigeria. Lorenz curve was used to describe the income disparities among rural households.

Following this, we test for the multidimensionality concept of social cohesion in rural areas of Nigeria using Exploratory Factor Analysis (EFA).

To determine if social cohesion can be explained using more than one dimension, exploratory factor analysis was used to treat social cohesion as a latent variable to see if social cohesion could be treated using one latent concept in accordance to Reeskens *et al* (2000) [13].

The mathematical expression as cited in Yong and Pierce (2013) denoted as:

$$X_j = a_{j1} F_1 + a_{j2} F_2 + \dots + a_{jm} F_m + e_i \dots \dots (1)$$

Where

X_j = denotes number of variables represented in the latent factors

$a_{j1} \dots \dots a_{jm}$ ($j = 1, 2, \dots \dots p$) depicts that a_{j1} is the factor loading of j th variable on the 1st factor

$F_1, F_2, \dots \dots F_m$, m denotes the number of underlying factors

Finally, to analyse the relationship between social cohesion indicators and rural welfare we use the Pearson correlation technique.

The correlation coefficient estimates, the degree of relationship between variables, calculated using the formula denoted below:

$$r = \frac{\sum_{i=1}^n (X_i - \bar{X})(Y_i - \bar{Y})}{\sqrt{\sum_{i=1}^n (X_i - \bar{X})^2 \sum_{i=1}^n (Y_i - \bar{Y})^2}} \dots \dots \dots (2)$$

where: \bar{X} and \bar{Y} are the sample means of social cohesion and income values;

\bar{X} = sample means of SC variables (perception of violence, perception on trust level, presence of communal resource, village development group, access to communal resource and women group;

\bar{Y} = sample means of log of per capita expenditure (income).

RESULTS AND DISCUSSIONS

Social cohesion indicators/measures of income disparities

Descriptive statistics analysis of the social cohesion indicators/measures of income disparities in Table 1 details the perception of rural dwellers in Nigeria on trust and

violence. The results show that 46.5% and 36.6% believes that the perception on trust and violence level respectively among rural population is better. However, a considerable proportion of 30.8% and 36.6% believes that trust level and violence level are still the same respectively.

Table 1. Social trust and Social Order: Perception on Trust and Violence level

Demography	Much Better	Better	About the same	Worse	Much Worse	*NA	Total
Perception of Trust level	F = 25 P = 9.2	F = 125 P = 46.5	F = 84 P = 30.8	F = 25 P = 9.2	F = 8 P = 2.9	F = 4 P = 1.5	T = 273 T = 100
Perception of violence level	F = 21 P = 7.7	F = 100 P = 36.6	F = 67 P = 24.5	F = 26 P = 9.5	F = 15 P = 5.5	F = 44 P = 16.1	T = 273 T = 100

F means Frequency and P means percentage *NA – Not Applicable
 Source: Authors' data analysis 2017.

A measure of social capital and sense of belonging is profiled in Table 2 proxied by presence of village development committee, presence of communal resources (arable land) and access to communal resource (arable land). Results reveal that 76.9%, 39.2% and 37.0% of rural communities have village development committee, presence of communal resources and access to communal resources respectively.

This implies that the level of social networking platforms/organizations among rural dwellers is high but not correlated with perceived trust level among them.

Table 2. Social capital and Sense of belonging

	Frequency	Percentage
Presence of village development committee	Yes = 210	76.9
	No = 63	23.1
Presence of communal resources(arable land)	Yes = 107	39.2
	No = 166	60.8
Access to communal resource (arable land)	Yes = 101	37.0
	No = 172	63.0

Source: Authors' data analysis 2017.

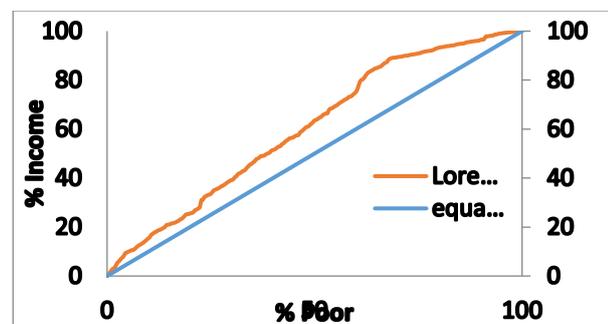


Fig. 1. Income description based on disparities (Lorenz curve)

Source: Authors' data analysis 2017

The Lorenz Curve in Figure 1 reveals the presence of income inequality among rural households and a tendency of disparities of income. There is sharp increase in the curve at 80%, which implies that the income disparity is prominent among large proportion of rural poor. This could be as a result of impact of varying income sources, access to rural infrastructural and some other differing socio-economic characteristics, most especially household size.

To test for the multidimensionality concept of social cohesion using exploratory factor analysis

Table 3 shows the correlation matrix between variables and validity of p-value greater than 0.05. Using the Pearson correlation matrix, women group, access to communal resource and village development committee are negatively correlated, while a strong positive correlation exists between access to communal resource and presence of communal resource. However, the determinant 0.073 which is greater than the 0.001 rule of thumb and the Kaiser Meyer measure of sampling adequacy is 0.515 which is slightly above the 0.5 stipulated requirement. In addition, the Barlett test significant value below 0.05 ($p < 0.05$) shows the sample's appropriateness for further analysis.

Table 4 explains the variation of the unobserved variable explained by the observed variable. From the extracted and rotated sums

of square loadings, 73.7% of the total variation is explained.

Table 5 reveals the extraction of three components with two variables loadings on each. In the communalities, all other variables

satisfied the 0.5 rule of thumb except one. Table 5 also shows that two variables each are loaded component one and two with high (ish) positive, including one factor in component three.

Table 3. Correlation Matrix

	VILLADEVCO	WOMENGRP	PRECOMRES	ACCCOMRES	LEVOFTRUST	VIOLENTPER
VILLADEVCO						
WOMENGRP	-0.043					
PRECOMRES	0.012	-0.020				
ACCCOMRES	-0.012	-0.026	0.894			
LEVOFTRUST	0.114	-0.010	-0.003	0.003		
VIOLENTPER	0.135	-0.004	-0.083	-0.060	0.377	
<i>Significant (1 tailed)</i>						
VILLADEVCO						
WOMENGRP	0.238					
PRECOMRES	0.420	0.373				
ACCCOMRES	0.419	0.334	.000			
LEVOFTRUST	0.031	0.436	.482	.478		
VIOLENTPER	0.013	0.474	.087	.161	.000	
<i>Determinant: 0.073 > 0.0001</i>						
<i>Kaiser-Meyer-Olkin Measure of Sampling Adequacy: 0.50038</i>						
<i>Barlett's Test of Sphericity Approx. Chi-Square : 695.582 df : 15; Sig : 0.000</i>						

Table 4. Total variance explained

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% var	%cum	Total	% var	%cum	Total	% var	%cum
1	1.968	32.805	32.805	1.968	32.805	32.805	1.958	32.639	32.639
2	1.440	24.006	56.811	1.440	24.006	56.811	1.434	23.894	56.533
3	1.013	16.878	73.689	1.013	16.878	73.689	1.029	17.156	73.689
4	0.916	15.262	88.950						
5	0.618	10.303	99.253						
6	0.045	0.747	100.00						

Source: Author's data analysis 2017

Table 5. Rotated Component Matrix

	Component		
	1	2	3
PREOFCOMMRES	.988		
ACCESSTOCOMRE	.980		
VIOPERCEPT		.803	
LEVOFTRUST		.799	
WOMENGRP			.919
VILLADEVCOM			-.430
Extraction Method: Principal Component Analysis.			
a. 3 components extracted.			

Source: Author's data analysis 2017

From this, one can detect that the two factors loadings are highly related to sense of belonging, they are presence of resources and access to resources, the second components constitute factors relating to social order and social trust which include level of violence and

perception of level of trust, while the third components constitute variable of social equality is presence of women group. One can conclude that social cohesion cannot be explained by a concept and thus is a multidimensional term.

To determine the correlation between rural social cohesion and poverty

Table 6 reveals that there is a weak and negative significant correlation between indicators of social cohesion and rural income. This could be as a result of low data indicators of social cohesion and proxies of poverty. This

further explains the multidimensionality concept of social cohesion and poverty.

Table 6. Correlation coefficient analysis

	Income	Significant (2-tailed)
PREOFCOMMRES	-0.122*	0.045
ACCESSTOCOMRE	-0.119	0.051
VIOPERCEPT	-0.073	0.230
LEVOFTRUST	0.013	0.832
WOMENGRP	-0.173**	0.005
VILLADEVCOM	0.044	0.474

** correlation is significant at 1% *correlation is significant at 5
Source: Author's analysis 2017

CONCLUSIONS

The multidimensionality concept of rural social cohesion is tested in this study; it explicitly depicts the many facet of social cohesion from the variables used in this study. This study is more like a preliminary to determining many significant facets of social cohesion, and thus raises the need for comprehensive social data in Nigeria. Due to the data limitation, this study has only been able to use little out of many facets of social cohesion, but has significantly point out the huge errors in the social aspect of the country. Furthermore, an attempt to measure correlation between income and social cohesion indicators shows that there is a likelihood of relationship. Conclusively, there is a need for policy targeted towards improving social cohesion to enhance rural welfare. This would be easier if concurrently policy is targeted towards differentiating the roles of development in agriculture and rural areas; hence a defined rural development ministry explicitly understands better the importance of rural social cohesion to rural welfare.

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