Editorial Committee

EDITORIAL REMARKS

Dear Reader,

This year the Centre for Human Settlements & Urban Development (CHSUD) will mark her 20th anniversary. This edition of her journal is intended as a prelude to launching of the Anniversary Edition tagged "Managing Human Settlements in the Urban Century". This will highlight the requisites of having and keeping cities, towns and all forms of human settlements as humanity finally moved into the age where urbanization and urban activities, for the first time in history, dominates the planet. The special call for a focus on urbanization is further hinged on the fact that besides dominating human settlement types, urban related human activities have had the greatest impact on earth and its environment. This has resulted into a phenomenon now referred to as "The Anthropocene" – an interconnected, complex global systems in which humanity's impact has become clear.

This volume nine and particular edition (number one) feature works that explored elements and scenarios that increasingly dominates African cities today. Many of them exhibiting lack lustre state of bourgeoning cities and towns in sub-Saharan Africa. But shown here exhibiting the different efforts being made towards having sustainable living and livelihood. This is evident from widespread poverty and deprivations highlighted by "*Implications of Spatial Variation of Household Poverty Incidence in Neighbourhoods of Minna, Nigeria*", to the explorations of the limitations of interventions shown by *"Climate Change Mitigation Paradox: Poverty and Greenhouse Gas Reduction in A Global South City"*. The different negative effects of increasing human activities on the natural and social environment enumerated by "*Spatio-Temporal Analysis of Land Use and Land Cover Change of Birnin Kebbi for Sustainable Development",* and, "*Reduction in the Effects of Climate Change: Efforts Towards Safeguarding the Built Environment in Kaduna, Nigeria";* have drawn attention to the dimensions and consequences, at local, national and regional levels, the increasing effects of human activities dominated earth and arguably the planetary system.

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Editor-in-Chief
CHSUD Journal

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The journal accepts well researched papers, including case studies, from all disciplines in Environmental Sciences and other disciplines or subject areas related to the built environment. However, papers to be considered for a specific volume of the journal should fall within the theme and sub-themes specified. The theme for each volume of the journal will be specified.

<u>Submission of Papers</u>

All manuscripts should be submitted to the editor, CHSUD Journal. Three hard copies of papers should be forwarded to the editor with a letter of undertaking that the work is not under consideration elsewhere and it will not be sent to another journal until final decision has been made on it.

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IMPLICATIONS OF SPATIAL VARIATION OF HOUSEHOLD POVERTY INCIDENCE IN NEIGHBOURHOODS OF MINNA, NIGERIA

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Abstract

Poverty has remained a threat and challenge to humanity in all ramifications. It is multidimensional and multifaceted with manifestations in realms of human existence. This study, with the aim of identifying factors influencing multidimensional household poverty (based on the nation's minimum wage benchmark) also determined and mapped household poverty levels in the study area. This has helped the assessment of spatial variations of poverty incidence among the neighbourhoods of Minna, using households' physical and socioeconomic data. Field surveys were conducted through cluster sampling of nine neighbourhoods using 450 sets of questionnaires, physical observations, oral interviews, and the generated data assessed at neighbourhood levels with the aid of computer software (SPSS). This aided the production of descriptive statistical aggregates that serves as foundation upon which findings and the resulting mapping were based. Using Multidimensional Poverty Index (MPI) analysis, results showed high level of income poverty in Minna where households (with average of six members) live on N47,666 ($115.98) as monthly mean income. This is further exhibited in high levels of physical deprivation from clean potable water, energy access, healthcare access and further limitations to improved sanitation facilities and qualitative basic education. The observed spatial variations of poverty indicate a multifaceted social problem threatening sustainable living and livelihood through the creation of barriers to achieving local and global agenda.

Keywords: *household, poverty, poverty incidences, poverty levels, poverty mapping, spatial variations, SDGs*

Introduction

Poverty is a multidimensional concept that seeks to measure levels of deprivation encountered by a person, household or community. Although, most of the literature focuses on indicators of deprivation such as income, food, access to housing, among others (Bussu and Kawu, 2007; Kayser *et al*., 2013; Leroy *et al*., 2009; Meth and Gelder, 2021), the choice of indicators to measure levels of deprivation can be arbitrary and may not reflect a full-scale measure of unmet basic needs in different social contexts (Hardoy *et al*, 2001). This discrepancy leads to concepts such as poverty, social exclusion and vulnerability used interchangeably in development discourse. Similarly, poverty is generally considered to be a measure of deprivation of the basic needs that a person, household or community requires for basic standard of living (Montgomery, 2006; Yunus, 2009). Deprivation can be measured either in terms of a lack of resources (like income, assets), capabilities (skills, knowledge, and technology) or both. However, poverty is not only deprivation of income rather it is deprivation of other social indicators, like healthcare, education and other capabilities (Momodou, 2016). Poverty is not only the state of deprivation of certain level of income, like the "A Dollars per Day" or "Two Dollars per Day" concept (Hardoy *et al*, 2001; Bigg and Satterthwaite, 2005). But, a state of multiple

deprivations that the poor faces, with multiplicity of dimensions leading to broad definition of poverty (Sial, 2014; Moser, 2011; Moses *et al*., 2021) as no single indicator can capture the multiple dimensions of poverty (Nurnberger, 1999; Mitlin; 2004 & 2006*;* Barbier, 2010). While multidimensional measures of poverty can incorporate a range of indicators that capture the complexities of this phenomenon in order to inform policies aimed at reducing poverty and deprivation; it also encompasses the various deprivations experienced by poor people in their daily lives such as poor health, lack of education, inadequate living standards, disempowerment, poor quality of work, the threat of violence, and living in areas that are environmentally hazardous, among others (OPHI, 2020).

Chimobi (2010) stressed that unemployment, corruption, non-diversification of the national economy, income inequality, laziness, and a poor education system can be considered to be some of the key factors contributing to poverty in Nigeria. Victoria (2018) however, pointed out that poverty is a major impediment to Nigeria's socio-economic development as suggested by various indicators (Mabogunje, 1996 & 2005). Poverty has persisted and several interventions have failed to yield significant improvement in Nigeria's Human Development Index (HDI) even in periods of economic growth. In Nigeria,

widespread and severe poverty is a reality that depicts a lack of food, clothes, education and other basic amenities. Severely poor people lack the most basic necessities of life to a degree that it belittles their efforts towards basic survival (Mabogunje, 1996 & 2005; Asogwa *et al*, 2012). One of the main effects of poverty is poor health, as is reflected in Nigeria's high infant mortality and low life expectancy. Poor people in Nigeria face several health issues as they lack basic health amenities and competent medical services (Chimobi, 2010). Nigeria Bureau of Statistic (NBS, 2010) established that Nigeria is a poor country with more than 70% of the citizens categorized as poor, and about 34% of people in Niger State survive on less than $1.0 per capita per day, implying that they are absolutely poor, with another 43.6% regarded as relatively poor. Hence, the need for detailed study to identify factors influencing household poverty, determine and map household poverty levels with the view to demonstrate spatial differences and implications of poverty incidences among the neighbourhoods of Minna. This can aid in exploring the peculiarities of this area and to further serve as a base for similar exercise for other towns and cities in Nigeria and beyond.

Conceptual Dimensions and Measurement of Poverty

Definitions of poverty influence the way interventions and policies addressing poverty are shaped. In order to be able to compare poverty levels across countries and over time, those that live below a given level of income are classified as poor (Nurnberger, 1999; Ravallion, 2010). Olatomide (2012) argued that a concise and universally accepted definition of poverty is still elusive largely because it affects many aspects of the human conditions, including physical, moral and psychological. Therefore, different criteria have been used to conceptualize poverty with most analyses following the conventional view of poverty as a result of insufficient income for securing basic goods and services, or as a function of education, health, life expectancy, child mortality (Olatomide, 2012). Absolute poverty as a condition characterized by severe deprivation of basic human needs, including food, safe drinking water, sanitation facilities, health, shelter, education and information, and on access to services (David, 2005). This has made World Bank (2000) to conclude that poverty is pronounced deprivation in well-being, and comprises many dimensions that includes low incomes and the inability to

acquire the basic goods and services necessary for survival with dignity. Poverty-stricken people and families might go without proper housing, clean water, healthy food, and medical attention, inadequate physical security, lack of voice, and insufficient capacity and opportunity to better one's life when income level from employment is so low that basic human needs can't be met (World Bank, 2005; Kawu, 2015, 2016; Shuaibu *et al*., 2020).

Chambers (2006) clustered poverty and its definitions into four groups. Income poverty (or its common proxy, consumption poverty); Material lack or want;-this includes absent, limited or low quality assets (such as shelter, clothing, personal means of transport etc.), and it also includes inadequate access to services; Capability deprivation;- such as skills and physical abilities and also self-respect in society; and, Multidimensional deprivation;- comprises of several mutually reinforcing dimensions. According to World Bank (2005) it takes time, energy, and money to measure poverty, since it can only be done properly by acquiring survey data directly from households. At least four good reasons come to mind when measuring poverty: first, to keep the poor on the agenda; if poverty were not measured, it would be easy to forget the poor. Secondly, one needs to be able to identify the poor if one is to be able to target interventions that aim to reduce or alleviate poverty. Third, to monitor and evaluate projects and policy interventions geared towards the poor. Finally, to evaluate the effectiveness of institutions whose goal is to help the poor. Although, Sanusi (2007) argued that it is quite easy to interpret poverty from a given set of data, as there is always the contention that what is often described as poverty by analysts may not be considered so by the people (Mabogunje, 2005; Acemoglu and Robinson, 2012). Hence, the exploration of the multidimensional analyses of individual and community deprivations to counter perceived contentions regarding the alarming spate of lack in the society (Acemoglu and Robinson, 2012). This was done using the nation's minimum wage benchmark vis-a-vis its variations with the global benchmark of the United Nations.

Methods

The Study Area
Minna, the study area, is the administrative capital of Niger State with a total of 24 neighbourhoods spanning from Tudun Fulani in the Northwest to Chanchaga in the Southeast on

Latitude 9°38' North and Longitude 6°33' East. The fast growing metropolis is about 135 km Northwest from Abuja - The Federal Capital Territory of Nigeria. Using national population figures, by year 2020, Minna has estimated population of 627,758 people and 104,626 households (NPC, 1991 & 2006; Sanusi, 2007). The Study area is also known as mainly administrative settlement due her primary role as headquarters for many regional establishments as against dominance of industries to qualify as industrial town. These characteristics have made her and her increasing number of residents solely dependent on public finance for infrastructure and livelihood activities (Kawu, 2016). This arrangement often falls short of expectations thereby increasing incidences of poverty and deprivation across the entire city.

Data, Sampling and Analysis

The study depends largely on primary data collected through questionnaire administration on 450 households in nine selected neighbourhoods using cluster sampling technique. Physical observations, oral interviews, physical measurements and assessment at the household and neighbourhoods levels, were also used to assemble primary data for the research. The primary data collected yielded information on livelihood and income, condition of housing environment and access to community facilities and utilities such as water, electricity, education, healthcare and improved sanitation facilities. The sampling procedure adopted involves two layers; the neighbourhoods and then the clusters within the neighbourhood. In each cluster, households were selected using simple random technique to sample one household member (usually the household head). While the neighbourhoods level analysis of the field data depicts aggregate representation of issues examined, the households level shows spatial variations which helps in classifying the neighbourhoods into classes according to the aggregated observations.

Results and Discussions
Socio-economic Characteristics of Households
In assessing household poverty, socio-economic attributes were used as yardstick to determine poverty status as it provide better understanding of poverty situation of individual or households in multidimensional perspective (Olatomide, 2012; Meth and Gelder, 2021). Household size in Minna ranges between 2 and 11 persons, while the dominant household size is between 4

and 6 members, average household size is 6 which is equivalent to the national average of six persons per household (NPC, 2006). The dominant occupation of respondents is trading/business (34.9%) followed by civil service which is 24.5%. While private workers, artisans and okada/keke/taxi driving accounted for 15.3, 11.6 and 10.2% respectively, those that depend on farming as well as private teaching as means of livelihood accounted for a total of 3.5%. Assessment of monthly income of households shows that household income ranges between N20,000 and N150,000. While the average household monthly income is N47,666 indicating that household members survived on an average of N8,000 monthly (that is, N265 per day).

Energy Access and Poverty

Poverty situation in Minna has manifested through accessibility to electricity supply and the choice of cooking fuel by the households. The result revealed that 86% of the households depend on firewood/charcoal as their cooking fuel, 0.2% relying on kerosene, while only about 13.8% uses cooking gas as their cooking fuel. About 97.6% of the study area accessed electricity for a period of 8 to 10 hours daily (4 to 5 hours in day time and 4 to 5 hour at night), whereas only about 2.4% access electricity between 20 to 24 hours daily. This means that 97.6% of the area stays without electricity for about 14 to 16 hours daily. However, in spite of non-availability of electricity between 14 to 16 hours daily and choice of unclean cooking fuel (wood/charcoal) by majority of households, an average of N4,988 is expended on cooking fuel monthly, as the power supply company charged between N2,000 to N10,000 monthly per apartment. This has further increase poverty amongst the already poor residents as power supply is also the main source of energy for many household based employment and income generating activities.

Access to Healthcare, Water and Sanitation Facilities

The categories of healthcare facilities/services accessed differs from one household to the others, with primary healthcare centres (PHC) accounting for over half (50.2%), while those regarded as the most accessible and affordable services usually based on the financial strength of the households are nurses in the neighbourhood (25.6%) and chemist (18.4%)

due to the gross inadequacy of PHCs to cater for the rising healthcare needs. Virtually all the houses have access to toilet facilities even though most of the facilities (79.1%) are located outside individual residential units but within the compound and mostly in poor sanitary conditions.

A total of 44% of households depends on well water, water vendors (18.9%), and boreholes (7.3%), while only about 29.8% have access to public pipe borne water supply once or twice a week. Majority of households spend much of their time and energy fetching water for family use and equally expending substantial proportion of the households' budget on water. An average of N4,199 monthly were spent on water, for drinking water and for domestic consumption.

Housing Characteristics and Poverty
Shelter is a basic necessity of life that comes after food and clothing, hence, lack or inadequate accessibility to adequate shelter is an indication of poverty. Neighbourhoods of the study area are dominated by low-income earners who are mostly petty traders and civil servants experiencing inadequate shelter evident through ownership status, materials and condition of housing environment. Field assessments revealed that, due to low-wage, about half (43.3%) of households are living in rented apartments, in poor conditions; another 16.7% are in family house, and 10.5% occupying inherited houses. While about 29.9% can be regarded as house owners (although less descent), physical observations revealed that 60% of housing walls, windows/doors and roofs are in poor conditions. Again, another 87.4% of the areas are in poor environmental conditions with financial status of many households preventing them from relocating to befitting housing or maintaining descent environment for decent accommodation.

Educational Access and Quality
Lack of access to qualitative basic education tends to deprive children of the underprivileged the opportunity to develop skills needed to succeed in a rapidly changing society (Mabogunje, 1996 & 2005). A phenomenon that tend to perpetuate through a vicious cycle, passing from generation to generation threatening realization of sustainable and equitable development free of poverty. The study revealed that even though the children school enrolment is high (86.4%), greater percentage of households confirmed that the majority of the schools their children attends lack capacity to deliver qualitative education. This is due to lack of facilities and conducive learning environment that is visibly lacking in those schools. Also, mode of movement of children to schools equally confirmed the high level poverty in the area – as 73% of children trek long distances to school.

Determination and Mapping of Household Poverty Levels
Household Income Poverty Level
The income poverty level of households was determined based on the World Bank proposed $1.90 (N780.90) cut-off per person per day and the current national monthly minimum wage of N30,000 ($73) equivalent to N1,000 ($2.44) a day, was adopted as the monetary indicator of poverty. World Bank, in the 1990s, set one United States Dollars (1.00USD) per person a day poverty line for developing countries. This threshold was adjusted to $1.25 in 2008 and further increased to $1.90 in October, 2015 to reflect the actual national poverty lines in the 15 poorest countries (Ravallion, 2010). The study therefore, revealed high level of income poverty where a household (with average of six members) survives on N47,666 ($115.98) as monthly mean income (N1,588 ($3.86) a day). A household member survives on N265 ($0.64) a day, living on daily income far below the World Bank proposed $1.90 (N780.90) or National minimum wage cut-off of N1,000 ($2.44).

Multidimensional Poverty Level across Neighbourhoods
The multidimensional poverty levels across neighbourhoods in Minna were examined based on five (5) dimensions; water, energy, education, housing characteristics, healthcare and sanitation as relate to households living standard, and household poverty incidences, intensity and Multidimensional Poverty Index (MPI). The household poverty incidence is the proportion of households that are deprived in five (5) stated dimensions. From field data acquisitions, it was revealed that high proportion of households recorded poverty incidences in all dimensions, this pattern was observed across the neighbourhoods with aggregate index of 58.2%. The result further revealed that Maitumbi had the highest Multidimensional Poverty Index (MPI) of 69.3 to rank 1st, while Chanchaga recorded the least MPI of 47.4 to rank 9th (Table 1).
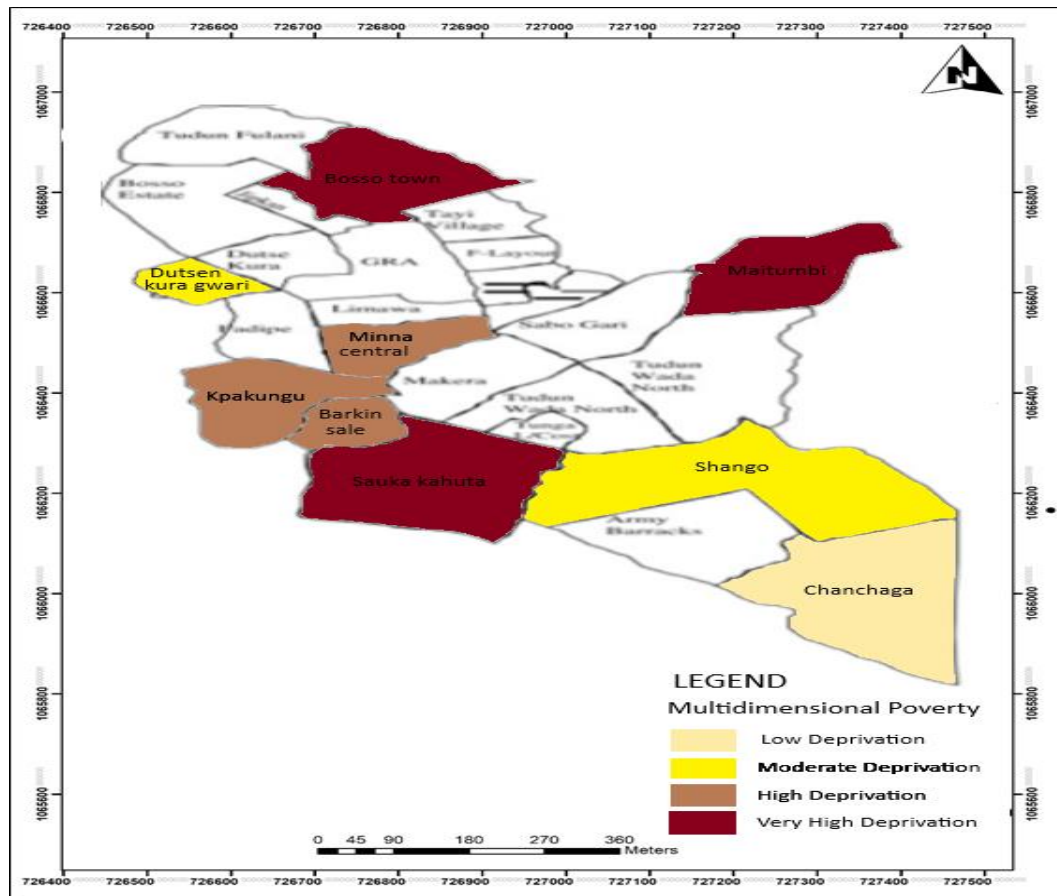
Table 1: Household Multidimensional Poverty Index

Neighbourhold	MPI (%)	Remark	Rank
Maitumbi	69.3	very high	1st
Sauka Kahuta	65.1	very high	2nd
Bosso Town	63.5	very high	3rd
Barkin Sale	59	high	4th
Minna Central	58.4	high	5th
Kpakungu	58	high	6th
Shango	51.9	moderate	7th
Dutsen Kura Gwari	51.3	moderate	8th
Chanchaga	47.4	low	9th
Aggregate Index	**58.2**	**high**	

Source: Author's Field Survey, 2021

In addition, multidimensional poverty situation of Minna examined based on five dimensions is considered to be on the high side as shown through the spatial variations in the levels of poverty across the selected neighbourhoods. With Chanchaga recording low incidences, Dutsen kuran gwari and Shango were classified as moderate, Kpakungu, Minna central and Barkin sale had high, while Bosso town, Sauka kahuta and Maitumbi were classified to experience very high MPI (Figure 1). Main implication is that large household size with income below poverty cut-off or poverty line will find it more difficult to come out of poverty. Such situation if not well addressed will lead to the phenomenon of chronic poverty where poverty is transferred to future generations.

Source: URP Department, FUT Minna and Field Survey, December, 2021
Figure 1: Spatial Distribution of Multidimensional Poverty Level in Minna

Conclusion and Recommendations

The study examined household poverty from monetary and non-monetary dimensions. The monetary dimension was determined by using the uni-dimensional poverty measurement approach based on household income in line with World Bank proposed $1.90 (N780.90) and current national minimum wage of N30,000 ($73). The non-monetary poverty was assessed from multiple dimensions predicated on four (5) dimensions; access to water, energy, qualitative basic education, healthcare and housing characteristics as it relate to households living standard. The deprivation experienced by households was determined according to the stated dimensions from where the multidimensional poverty index was derived. It is however clear that poverty is a social problem with various manifestations, including lack or inadequate income and productive resources sufficient to ensure sustainable living standard of individuals and households, limited or lack of access to qualitative basic education, clean potable energy, secured water supplies, healthcare and improved sanitation facility and other basic services among others that need be properly examine, measured as well as map in order to determine its nature, magnitude and spatial variation across geographical space with the aim to target specific and appropriate interventions that will alleviate negative effects to life and livelihood activities of households.

The main recommendation is that government in partnership with private sector and Non-Governmental Organisations (NGOs) should invest in infrastructure development as a way of building functional economy, a comprehensive urban infrastructure development policies should be in place to deliver social amenities, as this is one of the most cost-effective development interventions capable of cutting down substantial proportion of household's expenditure on social amenities such as water, energy, healthcare, housing and education.

The design and implementation of functional and robust skill acquisition and training programmes on livelihood improvement and other productive activities can aid to improve the income of households. The programme and schemes can assist households to be motivated to participate in the present and potential income generating activities as well as enlightenment on sustainable livelihood pathways.

Local and regional governments can also help to develop a coordinated social intervention programmes (SIPs) to provide support to poor households. Facilitate access to grants and other basic financial services especially for low-income households. Through this method people who are unemployed or who have low income could get soft loans to help them become self-sufficient, especially rising working class dominated by youthful population.

Across urban areas and by implications, the entire nation, urban authorities, governments and urban mangers can also develop and implement sound and sustained economic growth policies and programmes that provide enabling environment for Micro, Small And Medium Enterprises (MSMEs) to thrive as this could lead to jobs creation for unemployed household members.

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5. Each article should contain between 5 to 8 keywords (avoid the use phrases).

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