



DECEMBER

**30TH**

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# BOOK OF PROCEEDINGS

TOWARDS UNLEASHING SUB-SAHARA  
AFRICAN RESOURCES FOR SUSTAINABLE  
DEVELOPMENT: MULTIDISCIPLINARY  
APPROACH

# PROCEEDINGS

FOR THE

INTERDISCIPLINARY ACADEMIC CONFERENCE ON  
AFRICAN RESOURCES FOR SUSTAINABLE  
DEVELOPMENT: MULTI-DISCIPLINARY APPROACH

THEME:  
TOWARDS UNLEASHING SUB-SAHARA AFRICAN  
RESOURCES FOR SUSTAINABLE DEVELOPMENT:  
MULTIDISCIPLINARY APPROACH

DATE:  
30<sup>TH</sup> DECEMBER, 2021

EBITIMI BANIGO AUDITORIUM, UNIVERSITY OF  
PORT HARCOURT, UNIPORT, PORT HARCOURT,  
RIVERS STATE, NIGERIA, WEST-AFRICA.

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*The Academic Conference of Cambridge Research and Publications International on African Resources for Sustainable Development: Multi-disciplinary Approach, Vol. 21, No. 1, 30th December, 2021- Ebitimi Banigo Auditorium, University of Port Harcourt, UNIPORT, Port Harcourt, Rivers State, Nigeria, West-Africa.*

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TOWARDS UNLEASHING SUB-SAHARA AFRICAN  
RESOURCES FOR SUSTAINABLE DEVELOPMENT:  
MULTIDISCIPLINARY APPROACH

SUB THEME

- Engineering Research
- Environmental Design and construction management
- Humanities and Social Science
- Humanities and Social Science
- Management Science and Entrepreneurship
- Contemporary Education Research

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## PROCEEDINGS OF THE ACADEMIC CONFERENCE ON AFRICAN RESOURCES FOR SUSTAINABLE DEVELOPMENT: MULTI- DISCIPLINARY APPROACH

*Vol. 21, No. 1, 30th December, 2021- Ebitimi Banigo Auditorium, University of Port Harcourt, UNIPORT, Port Harcourt, Rivers State, Nigeria, West-Africa.*

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*Vol. 21, No. 1, 30th December, 2021- Ebitimi Banigo Auditorium, University of Port Harcourt, UNIPORT, Port Harcourt, Rivers State, Nigeria, West-Africa.*

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**TOWARDS UNLEASHING SUB-SAHARA AFRICAN RESOURCES FOR SUSTAINABLE DEVELOPMENT: MULTIDISCIPLINARY APPROACH**

### **DATE:**

**30<sup>TH</sup> DECEMBER, 2021**

### **VENUE:**

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## PROGRAMME OF ACTIVITIES

Days	Time	Activities
Day 1: Wednesday, December 29, 2021		Arrival/Pre-conference Meeting
Day 2: Thursday, December 30, 2021	08.00-10.00am	Registration
	10.00-12.00pm	Opening Ceremony
	12.00-01.00pm	Launch/Break
	01.00-02.00pm	Preliminary Section
	02.00-04.30pm	Paper presentation
	04:30-05:30pm	Certificate Presentation
Day 3: Friday, December 31, 2021	05:30-06:00pm	Closing Prayer
		Departure

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OPENING CEREMONY  
(30<sup>th</sup> DECEMBER, 2021)

VENUE: EBITIMI BANIGO AUDITORIUM, UNIVERSITY OF  
PORT HARCOURT, UNIPORT, PORT HARCOURT, RIVERS  
STATE, NIGERIA, WEST-AFRICA.

ACTIVITIES	TIME
Registration	- 08:00 – 10:00am
Arrival of Guest	- 10:00 – 10:30am
Introduction and Recognition of Distinguished by Master Ceremony.	- 10:30 – 10:45am
Opening Prayers	- 10:45 – 11:10am
National Anthem	- 11:00 – 11:20am
Address by the Guest Speaker	- 11:21 – 11:40am
Keynote Address by Lead Paper Presenter, Plenary Session/Paper presentation	- 11:31 – 12:00am
Vote of thanks by Secretary LOC,	- 12:30 – 03:00am
National Anthem	- 03:00 – 03:15pm
Group photograph	- 03:15 – 03:30pm
	- 03:30 – 03:45pm

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## EFFECTS OF HOUSING DYNAMICS ON MENTAL HEALTH OF URBAN DWELLERS IN MINNA, NIGER STATE

DANIYAN FATIMAH AND DR MOHAMMED BALA BANKI

*Department of Urban and Regional Planning, School of Environmental Technology, Minna*

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### Abstract

*This study focused on the effects of housing dynamics on mental health of urban dwellers in Minna with a view to suggesting ways of enhancing harmonious relationship between housing and mental health of urban dwellers. The objective is to examine the effect of housing dynamics on mental health of urban dwellers in Minna. The study employed quantitative approach using structured questionnaires. A total number of 243 questionnaires were administered, multi-stage sampling procedure was used to regroup Minna 36 main residential areas into 10 main residential wards, purposive sampling was used to select of three (3) main wards, one from each density group (High, medium and low density). Multiple linear regression analysis was used to analyse the effect of housing dynamics on mental health of the residents. The study found out that six housing attributes that contributes significantly to mental health and stress level of the residents include types of housing (0.030), house ownership status (0.012), number of rooms (0.040), access to water (0.021), toilet (0.039), and environmental quality (0.040). In conclusion, changes in the dynamics of housing type occupied, home ownership, number of rooms occupied by household, access to water, access to toilet facilities and types, and environmental quality of the residents affect the mental health status of the residents. The study recommends that stakeholders in the construction industry should devise ways of providing quality and affordable housing for the*

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*medium and lower class of the society, this will help reduce the mental stress suffered by residents.*

*Keywords: Housing type, Housing quality, Housing ownership, Housing environment and Living Space.*

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## Introduction

Among the numerous environmental challenges facing developing nations including Nigeria, the problem of housing is probably top of the list. Housing goes beyond a roof over one's head; it is the totality of the dwelling, the home, the immediate environment and the community (WHO, 2004). Housing is characterized as "inadequate" if it fails to have basic facilities, infrastructure and services including adequate space, ventilation, proper collection and disposal of waste facility, proper sanitation, electricity, water supply and general environmental quality (Bashir, 2002; Kriger and Higgin, 2002; WHO, 2004).

Adequate housing remains vital to human health, comfort and general well-being (Habib, *et al.* 2009). According to Astrolabe (2002) adequate housing should provide three basic needs to its occupants and users. These include physical, emotional and intellectual needs. It is generally agreed that in order to achieve total health and well-being, factors to be considered should go beyond mere biomedical and accommodate other factors such as housing (Marsh, *et al.* 2000). This has led to a shift in the minds of researchers to put more emphasis and attention on housing impacts in order to understand the link between housing and mental health. The exact link between poor housing and mental health is complicated and difficult to quantify.

Housing dynamics are the various aspects of housing which include housing type, housing ownership, housing quality, living space and housing environment. (Bonney, 2007).

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Mental health refers to many aspects of people's well-being, such as psychological well-being and emotional well-being. (Rohe and Stegman, 1994). Housing affects mental health in many aspects, but scholars have paid close attention to the following four dimensions: ownership and housing types (single-family dwelling versus multistory dwelling), living space, housing quality and the housing environment (Zumbro, 2014). Ownership of a dwelling is assumed to affect mental health through four different pathways, namely, housing quality, economic reasons, prestige and freedom (Zumbro, 2014). The quality of owner-occupied housing is usually better than rental housing (Iwata & Yamaga, 2008; Rossi & Weber, 1996).

Over the years, Minna has witness sporadic housing development in all parts of the town, yet whether the houses are good enough to positively affect mental health or not is unknown. Thus, the need to investigate the peculiar relationship that exist between housing dynamics and mental health of residents in Minna.

## **Literature Review**

A house is the major location for family life and the place where family members spend the majority of their time. It is a basic foundation for life and there is extensive evidence of the importance of the home environment in influencing the educational achievement and health of family members. Knowing that absent of the house is assessments of mental health. Housing is a basic human need that Maslow explained in the hierarchy of needs; and it is the first level of need similar to food and drink (Manitoba, 2012).

Housing quality refers to the physical condition of a person's home as well as the quality of the social and physical environment in which the home is located (Krieger and Higgins, 2002). Aspects of housing quality include air quality, home safety, space per individual, and the presence of mold, asbestos, or lead.-Housing quality is affected by

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factors like a home's design—and age. Poor quality housing is associated with various negative health outcomes, including chronic disease and injury and poor mental health. The quality of a home's neighborhood is shaped in part by how well individual homes are maintained, and widespread residential deterioration in a neighborhood can negatively affect mental health (Evans, Wells & Moch, 2003).

Some authors have suggested that specific aspects of housing type may impact on the mental health Evans *et al* (2003), factors such as dwelling type and street layout may impact on mental health via psychosocial processes linking the external environment to affective outcomes. Evans *et al* (2003) hypothesises that living in high-rise or multi-unit dwellings (that is housing units occupied by a number of separate households), may impact negatively on mental health through the processes of personal control and social support. For example, lacking the ability to exert territorial control over shared spaces may result in diminished informal social control, and lack of shared space that provides opportunities for social interaction may lead to decreased social support. Crosssectional studies provide evidence of association between such factors and mental health outcomes, although this is moderated by other factors (Evans *et al*, 2003). However, there have been few studies which have attempted to identify such psychosocial processes, or to investigate mechanisms linking housing and mental health.

Houses that are owned are generally in better condition than rented accommodation. Rental housing is generally of poorer quality, have effect on mental health and more insecure. Homeownership seems to confer both psychological and material advantages on owner occupants, (Dunn, 2002) although a recent systematic review concludes the evidence is not strong. Owning a home have less effects on mental health than renting a house (Kearns *et al* 2000). Leases,

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though they vary from country to country, do not give the same security to tenants as a house title gives to an owner. However, this is not a static situation, in part because the housing market is such a pivotal part of the general economy and in an economic recession, home-owners, who bought in a boom, may be left with negative equity in their houses. In this case, home-ownership may be less secure than rental housing, particularly if the home-owner is made unemployed or becomes chronically ill. Mortgage payment commitments and the costs of maintaining housing can be stressful and the quality of housing that can be afforded on reduced incomes may be less health promoting than rental housing that can be afforded for the same expenditure (Leventhal & Brooks 2003).

Housing environment is a combination of both physical factors such as where you live and the people around you both in your home but also on a wider community scale. Other environmental factors that can have a significant impact on mental health include poverty, crime, and environmental racism. For example, research has found that a person's housing environment can play a role on their mental health. Another study found that crime as well as the fear of crime had a substantial effect on mental well-being (Whitehead, 1998)

## **The Study Area**

Minna, the capital of Niger state is located in the middle belt region of Nigeria. It lies between latitude 09061', 09037' north of the equator and longitude 06056', 06032' east of the Greenwich meridian. The town became a major collection point for agricultural product in 1915 following the extension of the Lagos-Jebba rail line which attracted investment and people. Minna became the capital of Niger state in February, 1976. The town begins from Chanchaga in the south and Bosso in the north with easy accessibility from all parts of the country (Mohammed, Olaleye, Umar and

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Jibrin, 2015). The 2006 national population census (Provisional Result) puts the population of Minna at 201,429 (105,803 males and 95,626 females). The projected population of Minna in 2021 at growth rate of 3.2% is 463,000. (National Population Commission, 2006).

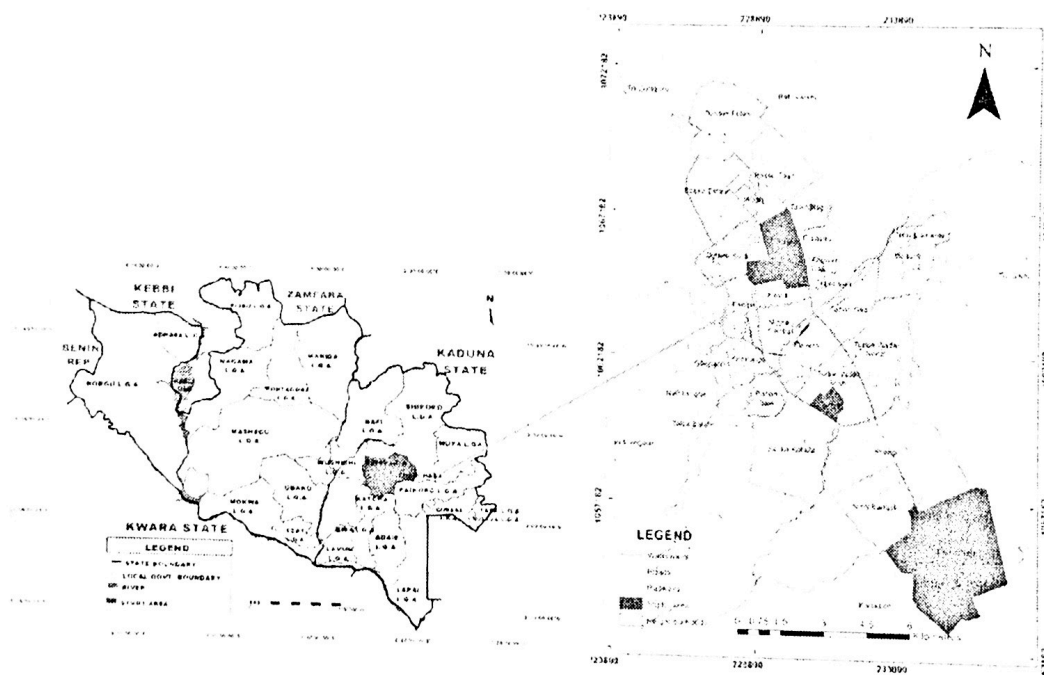


Figure 1: Minna the Study Area  
Source: Author, 2021

## Methodology

Primary data was used to obtain data from the residences and it involves the use of structured questionnaire, a total of 243 questionnaires was administered in the study area. The first stage of sampling utilized the regrouping of Minna 36 main residential areas into 10 main residential wards by (Kawu, 2016). This main wards are Fadikpe, GRA, Bosso, Kpakungu, Tunga, Maikunkele, Minna Central, Chanchaga, Jikpan, and Maitumbi.

The second stage is the purposive selection of three (3) main wards, one from each density group (High, medium and low density). This

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was done to ensure that each density group was represented in the study. The selected neighbourhoods include Chanchaga, Tunga and GRA.

Table 1: Estimated population and household size

S/N	Study Area	2006 Census Population	2021 Projected Population	Estimated Household number
1	Chanchaga	23,236	37270	6211
2	Tunga	6,494	10,416	1736
3	GRA	2576	4132	688
	Total	32,306	51,818	8,635

Source: Author's field survey, (2021).

Table 2: Analysis of sample size of the study area

S.N	Study Area	Analysis	Sample size
1	Chanchaga	$\frac{6211 \times 243}{8635}$	174.8
2	Tunga	$\frac{1736 \times 243}{8635}$	48.85
3	GRA	$\frac{688 \times 243}{8635}$	19.4
	Total		243

Source: Author's field survey, (2021).



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## Analysis and Discussion

### Effect of Housing Dynamics on Mental Health of Resident

Multiple linear regression analysis was used to analyse the effect of housing dynamics on mental health of the residents. The study found out that the mental health of resident was load as the dependent variable while types of building, wall material, roof material, age of building, ownership status, number of rooms, access to water, source of water, quality of water, toilet, condition of building and environmental quality was loaded as independent variables. Table 3 shows the model summary of the regression analysis. The result shows that an  $R^2$  value of 0.37 was recorded for the analysis. This implies that 37% of the mental health challenge of the residents is as a result of the housing dynamics of the residents. The analysis was significant at a p-value of 0.042 since the pvalue is less than 0.05 acceptable at 95% confidence interval (Table 4).

Table 3: Model Summary Table

R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Standard error of the estimate
0.22	0.37	0.34	1.15

Table 4: ANOVA Table

Model	df	F	p-value
Regression	11	1.03	0.042

Table 4: ANOVA Table

Model	df	F	p-value
Regression	11	1.03	0.042

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Although the regression analysis was significant, only six housing attributes contribute significantly to the regression model (Table 5). The six housing attributes that contribute significantly to mental health and stress level of the residents include types of housing (0.030), house ownership status (0.012), number of rooms (0.040), access to water (0.021), toilet (0.039), and environmental quality (0.040). This therefore implies that changes in the dynamics of housing type occupied, home ownership, number of rooms occupied by household, access to water, access to toilet facilities and types, and environmental quality of the residents affect the mental health status of the residents.

However, wall material (0.268), roof material (0.096), age of building (0.095), source of water (0.241), quality of water (0.408), and condition of building (0.058) do not contribute significantly to the mental health status of the residents in the study area. These factors have minimal effect on the mental wellbeing of the residents in the study area.

Table 5: Regression Coefficients Unstandardized Standardized

Model	Coefficients	Coefficients	Standard error t		
	B	Beta	p-value		
(Constant)	1.21		0.49	2.48	.014
Types of Building	-0.02	-0.02	0.07	-	.030
Wall Material	0.17	0.07		0.23	
Roof Material	0.25	0.11	0.15	1.11	.268
Age of building	-0.09	-0.11	0.15	1.67	.096
			0.05	-	.095
				1.68	

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Ownership		0.02	0.01	0.15	0.12	.012
Status						
Number	of	0.09	0.09	0.07	1.39	.040
rooms						
Water Access		0.04	0.02	0.16	0.28	.021
Source of water		0.08	0.08	0.07	1.18	.241
Quality	of	-0.05	-0.05	0.05	-	.408
water					0.83	
Toilet		0.13	0.06	0.15	0.86	.039
Condition	of	0.01	0.01	0.05	0.18	.058
Building						
<u>Environmental</u>		<u>0.17</u>	<u>0.04</u>	<u>0.19</u>	<u>1.09</u>	<u>.040</u>
<u>Quality</u>						

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Source: Author's field survey, (2021).

## Conclusion and Recommendation

It is evident from the findings of the study that housing is not only the provision of physical shelter but also a complex source of resident's mental health and well-being. This therefore implies that changes in the dynamics of housing type occupied, home ownership, number of rooms occupied by household, access to water, access to toilet facilities and types, and environmental quality of the residents affect the mental health status of the residents.

However, the study recommends that stakeholders in the construction industry should devise ways of providing quality and affordable housing for the medium and lower class of the society. This can be achieved through government's intervention in providing funding through mortgage banks to breach the housing deficit

# PROCEEDINGS

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especially among the lower class of the society, this will help reduce the mental stress suffered by residents.

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