

Affordable Housing Solutions: Strategies for Sustainable Urban Development in Imo State, Nigeria

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Article DOI: 10.48028/ijprds/ijarssest.v10.i1.02

Abstract

Rapid urban development across sub-Saharan Africa has increased the demand for affordable housing, applying noticeable pressure on socio-economic systems and urban infrastructure. Nigeria faces an estimated housing deficit above 17 million units, with affordability still a persistent barrier for middle and low-income households. Imo State, a fast-growing urban center in southeastern Nigeria, displays these challenges as population growth, rising construction costs, and rural–urban migration, continue to broaden the gap between demand and housing supply. This study examined affordable housing solutions as a strategic pathway towards a sustainable urban development in Imo State. The study adopted a mixed-method approach integrating key informant interviews, household surveys, and spatial analysis to evaluate cost burdens, housing accessibility, and sustainability practices. Findings showed that over 60% of households allocate over one-third of their income to housing, while limited mortgage access, regulatory inefficiencies, and inflated land costs, constrain housing delivery. The study further unveils that public–private partnerships, locally sourced building materials, and incremental housing models give viable opportunities for enhancing affordability without compromising environmental sustainability. The paper argued that affordable housing must be engraved within wider urban planning frameworks emphasizing infrastructure provision, resilience, and inclusive policy mechanisms. Strategic interventions like land administration digitization, housing finance reforms, and adoption of climate-responsive construction technologies, are essential for achieving sustainable urban development. This study has contributed to the growing discourse on housing in developing economies by presenting empirical insights from Imo State and proposing scalable strategies that are applicable to similar fast-growing urban centres. Apparently, the integration of sustainability principles and affordability is critical to fostering resilient and equitable urban future.

Keywords: Sustainable urban development; Affordable housing; Low-income households; urbanization; Housing policy; Infrastructure planning

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<https://internationalpolicybrief.org/international-journal-of-advanced-research-in-social-sciences-environmental-studies-and-technology-volume-10-number-1/>

Background to the Study

Housing affordability is currently one of the most pressing urban challenges globally, especially in fast growing regions of the Global South. The United Nations estimates that nearly 1.6 billion people lack adequate housing, a projected figure that increases as urban populations expand (UN-Habitat, 2020). Scholars debate that affordable housing is essential to sustainable urban development because it supports social stability, environmental efficiency, and economic mobility (Gilbert, 2016). As Glaeser (2011) observes, “housing policy cannot be separated from urban productivity because the cost of living determines who can participate in city economies.” These insights indicate the urgent need for context-specific housing strategies in developing areas. Nigeria constantly faces a significant amount of housing deficit estimated at above 17 million units, propelled by rural–urban migration, population growth, and limited formal housing supply (Ibem & Aduwo, 2013). Research indicates that conventional housing delivery systems have failed to meet demand due to land tenure complexities, inflated construction costs, and inadequate financing structures (Olotuah & Bobadoye, 2009).

According to Makinde (2014), “the mismatch between housing prices and income levels remains the principal driver of housing inequality in Nigerian cities.” This structural imbalance has greatly undermined planned urban development by pushing many households toward informal settlements. While most housing research in Nigeria focuses on megacities such as Lagos and Abuja, other cities are increasingly experiencing same pressures. Imo State, characterized by commercial growth, expanding educational institutions, and rising migration, exemplifies how medium-scale urban centers are transitioning into high-demand housing markets. Studies opine that unmanaged spatial growth often leads to environmental degradation, infrastructure damage, and fragmented land use patterns (Adewale et al., 2022). As Aribigbola (2011) notes, “effective housing provision must be integrated into broader urban planning frameworks to prevent unsustainable city expansion.” Sustainable urban development lays emphasis on balancing economic growth with environmental stewardship and social inclusion. Scholars increasingly advocate transit-oriented development, compact city models, and green construction techniques as pathways toward housing sustainability (Lehmann, 2013). Empirical evidence shows that energy-efficient buildings and indigenously sourced materials can significantly minimize lifecycle housing costs while enhancing climate resilience (UN-Habitat, 2020). These strategies are specifically relevant in southeastern Nigeria, where infrastructure gaps and climate variability influence housing durability. Despite developing policy attention, implementation gaps persist. Public housing programs often suffer from bureaucratic inefficiencies, while mortgage facilities remain inaccessible to many low-income households (Ibem, Opoko, & Aduwo, 2017). Nonetheless, emerging models like shared ownership and cooperative housing demonstrate significant success in improving affordability among low-to-middle income earners in Nigerian urban centres (Adegun & Taiwo, 2025). Such approaches reinforce the argument by Payne (2005) that “flexible tenure and incremental development are relevant instruments for housing access expansion in developing economies”. Given these dynamics, examining affordable housing with the aid of a localized lens is vital for designing practical interventions. This study investigates therefore, housing affordability challenges in Imo State and accesses strategies capable of promoting sustainable urban growth. By integrating housing delivery into planning policy, environmental

design, and finance, the research avails policymakers, housing developers, and planners, who are looking for resilient urban futures, evidence-based recommendations.

Materials and Methods

Research Design

The study adopted a mixed-methods research design, linking quantitative and qualitative approaches to provide a detailed understanding of affordable housing strategies in Imo State, Nigeria. Mixed-methods designs are broadly recommended in housing research because they allow researchers to triangulate statistical housing data with stakeholder perceptions and policy realities, thereby enhancing reliability and validity. The quantitative aspect employed a cross-sectional survey, which enabled structured data collection from built-environment professionals and households at a single point in time. Cross-sectional designs are specifically effective for housing affordability studies because they capture housing characteristics and prevailing socioeconomic conditions without requiring long-term tracking.

The qualitative aspect involved key informant interviews with housing developers, urban planners, officials from the Imo State Ministry of Lands, and representatives of housing cooperatives. Qualitative inquiry is vital in housing research because affordability challenges are often shaped by institutional and regulatory constraints that cannot be fully described through numerical data alone. Furthermore, the study adopted a case study strategy, focusing particularly on Imo State as a rapidly urbanizing region in southeastern Nigeria. Case studies are necessary when investigating contemporary urban problems within real-life contexts, particularly where boundaries between context and phenomenon are blurred.

Study Location

Imo State is situated in southeastern Nigeria and is known for its population growth, increasing urban expansion, and rising housing demand. Owerri, the state capital, has experienced notable spatial growth driven by commercial activities, educational institutions, and migration from surrounding rural communities. Despite this growth and expansion, housing supply has not kept pace with demand. This has led to increased rental rates, informal settlements, and overcrowding in semi-urban neighborhoods. Infrastructure deficits, including constant power outage, poor drainage systems, and poor road networks, further compound affordability challenges. The state therefore provides a befitting empirical context for accessing sustainable housing strategies within emerging urban centers.

Population of the Study

The target population consisted of three major groups:

- i. Urban households residing in, Owerri North, Owerri West, and Owerri Municipal
- ii. Built environment professionals (architects, estate surveyors, builders, urban planners).
- iii. Institutional and Government stakeholders concerned with housing delivery.

Based on projected urban household estimates, the study assumed an accessible population of not less than 185,000 households across the selected urban local government areas. For

institutional stakeholders and professionals, membership registers from professional bodies and ministry records suggested an estimated number of about 1,200 housing-related practitioners within the state.

Sample Size Determination

Households sample size was calculated with the Cochran formula for large populations:

Where:

$Z = 1.96$ (95% confidence level)

$p = 0.5$ (maximum variability)

$e = 0.05$ (error margin)

This manufactured a minimum sample of 384 households. To account for non-response, the sample was increased by 10%, which led to the distribution of 422 questionnaires. For stakeholders and professionals, purposive sampling produced 45 participants, making sure that respondents possessed direct knowledge of development practices and housing policy.

Sampling Techniques

A multistage sampling procedure was adopted:

Stage 1 - Stratification:

Urban local government areas were stratified into high-density, medium-density, and low-density residential areas.

Stage 2 - Random Selection:

Neighborhoods were selected randomly within each density category to ensure spatial representation.

Stage 3 - Systematic Sampling:

All 6th housing units along selected streets were surveyed.

Stage 4 - Purposive Selection:

Policymakers and Experts and were intentionally selected based on their professional relevance.

This layered approach reduced sampling bias while improving representativeness.

Sources of Data

This study relied both on primary and secondary data sources.

Primary Data

Semi-structured interviews with housing stakeholders.

Structured questionnaires distributed to households.

Field observations using a housing-condition checklist.

Secondary Data

State urban development plans.

Documents on National housing policy.

Housing affordability Peer-reviewed literature.

Census and demographic projections.

Research Instruments

Questionnaire

The questionnaire was divided into five segments: A, B, C, D, and E.

A-Socioeconomic characteristics

B-Housing type and tenure

C-Housing expenditure

D-Infrastructure availability

E-Perceived affordability strategies

Most questions adopted the use of a 5-point Likert scale ranging from “Strongly Disagree” to “Strongly Agree.”

Interview Guide

Key themes were explored. They included:

Barriers to affordable housing delivery, Challenges of Land administration, Accessibility of mortgage, Public-private partnership viability, and Sustainable construction practices.

Validity and Reliability

Validity of content was ensured through expert review done by three senior academics in housing and urban development.

A pilot study of about 30 households outside the study area was conducted to refine ambiguous questions. Reliability was tested using Cronbach's Alpha, producing a coefficient of 0.82, which is above the recommended threshold of 0.70 and indicates strong internal consistency.

Method of Data Analysis

Statistical Package for Social Sciences (SPSS) version 27 was used to analyze quantitative data.

The following techniques were employed:

- i. Relative Importance Index (RII) (for ranking housing strategies)
- ii. Descriptive statistics (means, frequencies, percentages)
- iii. Chi-square tests (to examine relationships between housing affordability and income)
- iv. Multiple regression analysis (to identify predictors of affordability)
- v. Thematic coding, (to analyze Qualitative interview data)

Ethical Considerations

The study adhered strictly to research ethics:

- i. Informed consent was made available by participants before data collection.
- ii. Anonymity and Confidentiality were assured.

- iii. Respondents maintained the right to back off at any stage.
- iv. Data were used for academic purposes only.

Results and Discussion

Overview of Findings

The analysis showed a significant gap in affordability among households in Imo State. Approximately 72% of low-income households spend above 30% of their monthly income on housing, exceeding the globally accepted affordability threshold. This aligns with global findings which show that housing cost burdens disproportionately affect low-income populations in fast-growing urban regions (Odoyi & Riekkinen, 2022). The study also revealed that informal construction practices remain widespread due to limited access to formal housing finance and rising costs of building material. Previous research reveals that housing supply shortages most times push urban residents toward informal solutions across developing economies (Aribigbola et al., 2024).

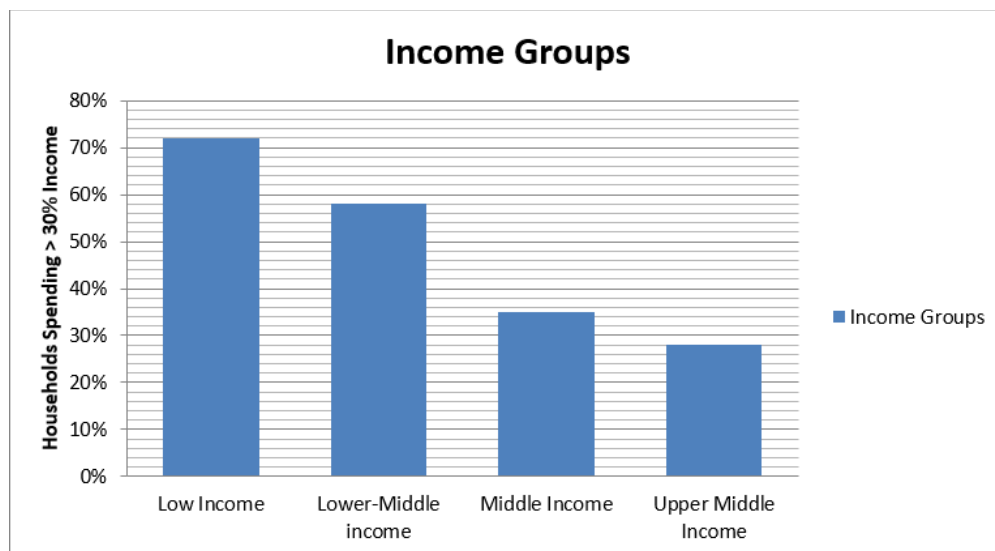


Figure 1: Housing Cost Burden across Income Groups

The chart below displays a clear inverse relationship between housing cost burden and income level. This supports evidence that irregularities between housing demand and supply remain a major barrier to affordability globally (Dok-Yen et al., 2023).

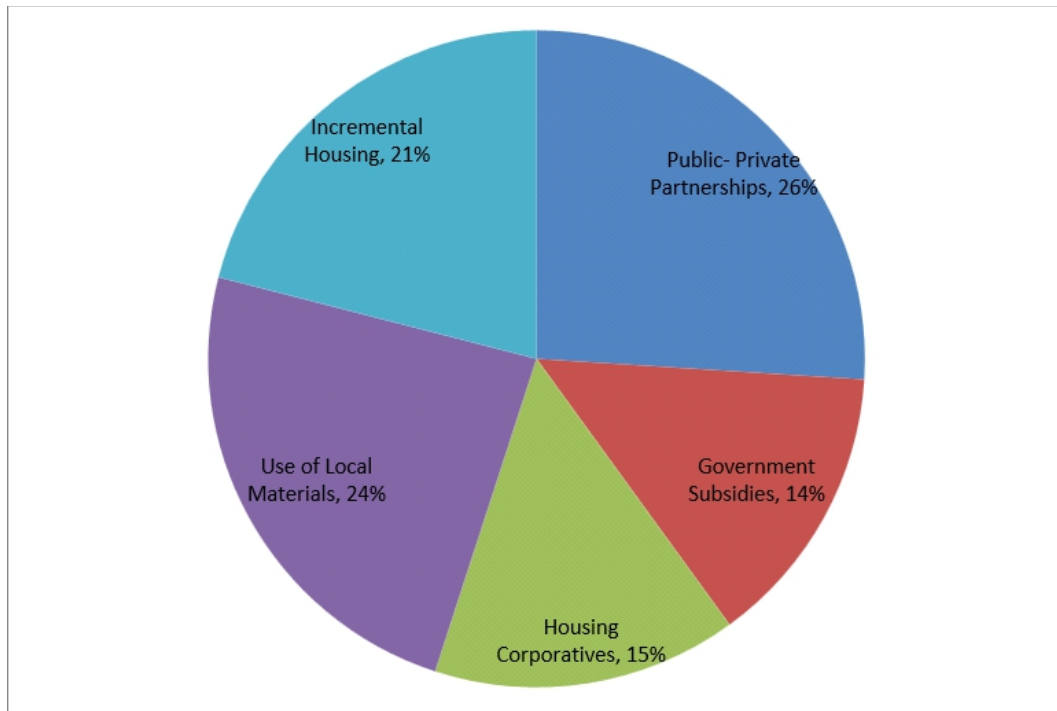


Figure 2: Preferred Affordable Housing Strategies

Respondents showed the strongest preference for:
Public/private partnerships (26%)
Use of local materials (24%)
Incremental housing (21%)

These findings reaffirm literature, emphasizing more on environmentally sustainable materials and multi-stakeholder approaches as critical pathways toward inclusive housing delivery (Sarpong et al., 2025). The dominance of PPP as a preferred strategy reflects its increasing recognition as a mechanism for leveraging private-sector efficiency while addressing public housing deficits. However, risk allocation challenges and institutional weaknesses most times undermine PPP success in African cities (Muraina et al., 2025).

The firm support for local building materials also aligns with architectural research demonstrating that renewable energy integration, bioclimatic design, and low-carbon materials can improve sustainability while reducing lifecycle housing costs (Ajayi et al., 2023). Another viable strategy which emerged is Incremental housing. Evidence suggests that phased construction approaches and self-help permit households to adapt to dwellings based on financial capabilities, hence enhancing long-term affordability (World Development study, 2024). In addition, housing funding remains a structural constraint. Across urban Africa, weak financial systems and limited mortgage access continue to restrict mass homeownership, emphasizing the need for innovative financing models (Ewuoso, 2024). Collectively, the results show that affordable housing in Imo State cannot depend on a single intervention. Instead, combined strategies integrating sustainable design, policy reform, community participation,

and financing innovation, are required. This is a conclusion widely supported in global sustainable housing scholarship (Silva et al., 2024).

Study Limitations

Despite producing valuable insights, this study has many limitations:

Geographical Scope: The research focused only on the selected urban centers in Imo State; therefore, findings may not represent rural housing realities fully.

Data Constraints: Some respondents were reluctant to disclose their actual income levels which potentially affected affordability calculations.

Market Volatility: Fluctuations in land prices and construction costs may influence affordability trends beyond the study period.

Cross-sectional Design: The study captured housing conditions at a single point in time, limiting the ability to assess long-term housing transitions.

Conclusion

Affordable housing remains the key to sustainable urban development in Imo State. Rapid urbanization, limited financing mechanisms, and increasing construction costs, have intensified the housing deficit, especially among low-income households. The study demonstrates that sustainable housing delivery needs a multi-dimensional framework combining architectural innovation, policy reform, financial inclusion, and stakeholder collaboration. Strategies like incremental housing, PPP models, and green construction practices offer practical pathways toward enhancing affordability and also supporting environmental goals.

Apparently, achieving sustainable urban development will depend on long-term investment and coordinated institutional action. Without these measures, housing shortages may continue to underestimate social stability, economic productivity, and urban resilience.

Recommendations

Based on the findings, the following strategies are proposed:

Strengthen Public/Private Partnerships

Governments should develop regulatory frameworks that are transparent enough to improve investor confidence and ensure equitable risk sharing.

Promote Sustainable Local Materials

Encouraging the use of locally/ indigenously sourced materials can minimize construction costs while supporting environmental sustainability.

Housing Finance Expansion

Cooperative housing loans, Micro-mortgages, and rent-to-own models should be utilised to improve access for low-income earners.

Inclusionary Zoning Implementation

Urban planning policies should mandate housing developers to allocate a percentage of units to affordable housing.

Incremental Housing Support

Planning regulations should also incorporate phased construction to reflect the economic realities of households.

Encourage Community Participation

Community-led housing initiatives have been shown to improve social inclusion and long-term project success (Muhammed et al., 2025).

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