



Assessing Housing Affordability and Accessibility Issues in Nigerian Cities: Evidence from an Empirical Study in Warri, Delta State

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Health Hazards.

ABSTRACT

This research evaluates the issues surrounding urban residential housing in Nigeria, with Warri in Delta State serving as the case study location. Its objectives included investigating the consequences of housing shortages and overcrowding, examining the influence of deficient basic infrastructure, analyzing problems of housing affordability, exploring the significance of informal settlements, and assessing the involvement of government and private sector actors in tackling these challenges. The investigation adopted a descriptive research approach, focusing on a population comprising 805 landlords, tenants, and government officials residing in Warri. Application of Taro Yamane's formula yielded a sample size of 267 respondents. Information was gathered through a structured questionnaire administered via a multi-stage sampling procedure that integrated stratified and convenience techniques, then examined using descriptive statistics (means and standard deviations). Results indicate that housing shortages and overcrowding increase rental prices, worsen living standards, create health hazards, and overburden infrastructure systems. Deficient infrastructure including inadequate roads, drainage, water provision, electricity, and waste disposal compromises housing quality and long-term viability. Housing affordability suffers from elevated construction expenses and limited government initiatives, resulting in disproportionately high rent payments. Informal settlements intensify difficulties via inadequate planning, sanitation shortcomings, and restricted access to services. Collectively, these problems are interlinked and require immediate action. The research concludes that strengthened government policies, greater investment in infrastructure, stricter regulatory oversight, and collaboration with the private sector are vital to advancing affordable housing, regularizing informal settlements, and enhancing overall urban livability in Warri.

CITATION

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INTRODUCTION

The built environment offers the physical framework enabling societies to facilitate economic, social, and cultural interactions. As a major global process, urbanization has reshaped spatial geography, rendering the transformations in population composition and the organization of urban and rural residents over the past century particularly noteworthy (Akande et al., 2021). This phenomenon stands out especially in the Global South, where urban centers are rapidly evolving amid swift transitions into focal points of demographic shifts and developmental difficulties. Rural populations move to cities in pursuit of economic opportunities, modern lifestyles, and prospects for socio-economic advancement. Consequently, cities in the developing world face the dual task of promoting growth while maintaining sustainability. This complex dynamic has positioned urban governance as a core focus of scholarly research and policy discussions, with researchers like Ezeudu et al. (2020) arguing that Africa's developmental trajectory depends heavily on robust urban governance and sustainable practices. As an element of urban infrastructure, housing fulfills a critical function by supplying physical accommodation for a growing population and fostering social cohesion across communities. Far beyond a simple physical entity, housing constitutes a diverse and intricate concept encompassing various attributes, including security, affordability, cultural appropriateness, and access to vital services (Ezeanah, 2021). Amid transformations in urban settings, the factors determining housing demand have grown increasingly complex. The availability, quality, and accessibility of housing in cities are shaped by an intricate network of interrelated factors, including land-use policies, planning regulations, and socio-political dynamics (Oluwadare et al., 2023). These elements routinely affect the everyday experiences of city residents and their engagement with urban environments in beneficial ways. Urban housing therefore serves as a compelling framework for analyzing processes of inclusion and exclusion. Rapid urban expansion in Nigeria has triggered profound changes in spatial arrangements and demographic profiles, resulting in the emergence of varied housing forms. Such changes typically reflect broader national trends in economic policymaking and infrastructure investment, which in turn shape housing delivery systems (Akande et al., 2024). The urban housing landscape features the parallel existence of formal and informal settlements, a pattern also reflective of income inequality and constraints on land access. As cities expand both horizontally and vertically, the spatial and design features of residential zones display even greater variety. Ikiriko & Enwin (2023) propose that this heterogeneity calls for stronger governance frameworks capable of effectively responding to diverse needs related to tenure security, service provision, and environmental

sustainability. In analyzing the dynamics of residential housing within Nigerian urban centres, it is essential to consider the socio-economic structures that underpin city living. Access to adequate housing is generally conditioned by one's position within dominant economic arrangements, which further influences financial capacity, employment opportunities, and proximity to urban amenities (Ogbonna & Wiyor, 2020). Urban planning serves as a dynamic arena characterized by negotiation and, at times, disputes among government bodies, private developers, and community groups. Ezeudu et al. (2020) emphasize that the creation of equitable housing initiatives must be supported by coordinated policies across transportation, health, and education sectors to promote truly inclusive urban development. In this context, integrated planning plays a vital role in enabling urban housing systems to effectively address the varied needs of city dwellers. A comprehensive examination of housing patterns within urban settings requires consideration of the specific environmental conditions and geographical features of the city under study. While broad patterns identified at the macro scale may offer simplified frameworks, micro-level investigations yield essential insights into the particular lived experiences linked to urbanization processes and housing delivery. The city of Warri, a prominent urban hub in Delta State, represents an ideal site for this analysis. As a key economic node within the oil-rich Niger Delta, Warri embodies many of the contradictions of urban development, such as the coexistence of affluence and infrastructure deficits, alongside rapid expansion and spatial fragmentation. Local socio-economic forces exert considerable influence on housing outcomes, as asserted by Akande et al. (2021) and reinforced by Oluwadare et al. (2023). Consequently, the character of residential housing in Warri provides a distinctive setting for critically assessing national trends in urbanization and housing provision.

Statement of the Problem

Despite the existence of various housing policies and urban development programs, the delivery of residential accommodation in metropolitan areas like Warri continues to fall short, owing to persistent systemic weaknesses and operational inefficiencies that plague these efforts. A large proportion of urban dwellers now endure substandard or overcrowded living environments, deprived of basic amenities such as piped water, reliable electricity, and effective sanitation systems (Akande et al., 2021; Oluwadare et al., 2023). This reality stands in stark contrast to the common expectation that cities would provide abundant, affordable, and secure housing options for all segments of society. The existing housing supply in Warri inadequately meets both the qualitative and quantitative requirements of its growing population, giving

rise to an urban landscape increasingly characterized by slum proliferation and marked disparities in housing access (Ezeudu et al., 2020; Ezeanah, 2021). Through a detailed examination of residential housing conditions in urban Warri, Delta State, this study seeks to address and narrow that critical gap.

Aim and Objectives of the Study

The central aim of this research is to evaluate the challenges of urban residential housing in Nigeria, using Warri, Delta State as a case study while the specific objectives of this research are:

1. To analyze the impact of housing shortages and overcrowding as challenges in the urban residential areas of Warri.
2. To evaluate how inadequate quality infrastructure influences urban residential housing in Warri.
3. To examine housing affordability as a challenge in the urban areas of Warri.
4. To investigate the extent to which informal settlements influence urban housing in Warri.
5. To assess the roles of the government and private sector in addressing housing-related challenges in the urban areas of Warri.

Research Questions

This research was guided by the following questions:

1. What impacts do housing shortages and overcrowding have as challenges in the urban residential areas of Warri?
2. How does inadequate quality infrastructure affect urban residential housing in Warri?
3. How affordable is housing as a challenge in the urban areas of Warri?
4. To what extent do informal settlements influence urban housing in Warri?
5. What roles do the government and private sector play in addressing housing-related challenges in the urban areas of Warri?

Research Hypotheses

The research hypothesis are:-

Null Hypotheses H_0 : Lack of quality infrastructures does not affect urban residential housing in Warri

Alternate Hypotheses H_A : Lack of quality infrastructures affects urban residential housing in Warri.

Significance of the Study

This research seeks to present a comprehensive examination of the specific residential housing problems in Warri, Delta State. Given its rapid urban growth, Warri

serves as an appropriate study location where the effects of urbanization on housing quality, availability, and affordability can be explored. The findings will enable national housing challenges to be viewed within a broader framework and aligned with the particular characteristics of a regional environment. The study intends to generate empirical evidence that urban planners, policymakers, and development practitioners can apply in designing targeted housing interventions. By identifying the underlying causes of housing shortages in Warri, the research will define the parameters upon which sustainable housing policies tailored to the city's unique conditions can be formulated. In addition, the study will strengthen the empirical basis for future comparative research and create a benchmark for assessing housing conditions in different cities across the country. Ultimately, the research will serve as an important reference for government institutions and private investors interested in the residential property market in Warri. It will ensure informed decision-making aimed at improving living standards, promoting inclusivity, and enhancing urban sustainability in Delta State.

Concept of Urbanization

Urbanization represents a dynamic process of transformation that involves the migration of individuals from rural to urban regions while generating profound shifts in land use patterns, economic structures, and social organizations. It features rising population density along with expanded infrastructure and intensified activities within existing urban centers. Anierobi and Obasi (2021) explain that urbanization extends beyond mere population increase in urban zones; it also involves the establishment of economic functions, technological progress, and improved quality of life. In a similar vein, Umana et al. (2024) argue that the process entails significant structural shifts as rural agrarian societies move toward urban industrialized and service-oriented economies. These changes often reorganize socio-spatial relationships and produce broad impacts on governance, identity, and the physical layout of cities. With ongoing expansion of urban areas, urbanization serves as a vital lens for examining and understanding the speed of progress and the nature of modern society. Urbanization remains closely intertwined with industrialization, population movement, and state-backed infrastructure development. Akande (2021) notes that economic policies in Nigeria have substantially influenced urban growth, especially in the post-independence period, when efforts focused on concentrating administrative and economic functions in select urban hubs. This approach led to the emergence of appealing urban centers that drew rural populations by offering greater access to city opportunities. As Olayiwola and Ajala (2022) describe, this urbanization pattern underpins present-day urban

frameworks, where the process is typically defined by policies promoting economic clustering and pronounced spatial disparities. Such dynamics continue to shape patterns of metropolitan settlement and resource allocation across urban regions. Although population transformation forms a core element within this structural perspective, urbanization is ultimately a spatial phenomenon shaped by policy decisions.

Urbanization brings about significant modifications in land utilization, physical planning, and the arrangement of infrastructure systems. Competition for land—allocated for residential, commercial, and industrial functions—grows more acute with the expansion of urban territories, transforming cities into complex mosaics shaped by dense human occupation (Bello and Auwalu, 2023). Anierobi and Obasi (2021) further maintain that these spatial evolutions are typically guided by planning approaches that help balance urban expansion with the delivery of public services and facilities. The economic reorientation triggered by urbanization, evident in evolving land-use patterns, directly affects the design and connectivity of the urban environment. The allocation and designation of land within metropolitan contexts serve as a key indicator of the trends and character of urban growth. Consequently, urbanization calls for investigation into ways of reorganizing spatial and infrastructural systems to better support the distribution of human settlements. As a powerful agent of change, urbanization reshapes socio-economic structures by reorganizing livelihoods, service delivery, and opportunities for social advancement. Umana et al. (2024) observe that urban centers generally foster diverse economic pursuits, which in turn stimulate entrepreneurship, paid employment, and creative innovation. Olayiwola and Ajala (2022) add depth to this view by explaining that the resulting reconfiguration of urban economic frameworks carries profound consequences for income distribution, occupational profiles, and patterns of urban consumption. The diversity of economic activities generates distinct social classes, leading to varied urban experiences and unequal access to opportunities. These socio-economic shifts highlight the broad-reaching effects of urbanization as a process that not only alters spatial arrangements but also fundamentally reshapes the social and economic realities of city dwellers. In this sense, urbanization emerges as a comprehensive framework for understanding the multifaceted transformations taking place in rapidly growing urban environments.

Concept of Residential Housing

Residential housing is envisioned as the physical structures primarily designed for habitation, exhibiting considerable variety in their forms, spatial configurations, and socio-cultural significance. It extends far beyond mere provision of shelter, as it engages with the social,

economic, and psychological dimensions of human well-being. Obakin et al. (2020) assert that housing constitutes a central element in urban development processes, functioning as a stabilizing force for individual lives and broader societal progress. Enwin et al. (2024) highlight that dwellings mirror the cultural and economic values of their surroundings, frequently serving as markers of status, personal identity, and communal belonging. The configuration of residential housing is inherently connected to urban planning and spatial organization, since the distribution patterns of housing decisively shape the overall urban landscape. Fayomi and Onyari (2024) propose that housing varieties—ranging from single-detached units to high-rise apartment complexes—are grounded in spatial planning principles that respond to land use patterns, population density levels, and infrastructure expansion. Dawaye (2021) clarifies that the interplay between housing types and urban planning affects both the aesthetic quality and the practical functionality and accessibility of city spaces. These spatial relationships can only be fully grasped to reveal how residential housing integrates within the urban fabric, underscoring the need for housing policies to align with transportation networks, service delivery, and environmental sustainability goals. In this respect, the spatial arrangement of residential dwellings offers a vital lens for examining architectural effectiveness and the operational systems of urban areas. Residential housing acts as a key measure for assessing the socio-economic structure and stratification that emerge in urban settings. Ewurum et al. (2025) indicate that historical design features, locational choices, and the amenities present in housing typically reveal prevailing income inequalities, barriers to access, and divisions along social class lines within a city. Hui and Akinwande (2024) add that residential housing transcends basic survival needs; more crucially, it shapes social interactions, as different neighborhoods offer unequal levels of opportunity, security, and social capital.

Urbanization constitutes a dynamic transformative process that involves the relocation of populations from rural to urban settings while simultaneously generating substantial shifts in land utilization, economic frameworks, and social configurations. It is marked by increasing population density, enhanced infrastructure, and heightened activity within established urban zones. Anierobi and Obasi (2021) state that urbanization goes beyond simple population expansion in cities; it further includes the development of economic functions, technological improvements, and elevated standards of living. In a parallel view, Umana et al. (2024) contend that the process incorporates major structural transitions as rural farming communities migrate toward urban economies centered on industry and services. These shifts commonly reorganize socio-spatial interactions and exert

widespread effects on governance structures, personal and collective identity, and the physical configuration of cities. With the ongoing growth of urban territories, urbanization functions as an essential lens for analyzing and interpreting the rate of advancement and the character of present-day society. Urbanization remains tightly interconnected with industrialization, population movements, and government-supported infrastructure initiatives. Akande (2021) observes that economic policies have profoundly shaped urban expansion in Nigeria, particularly in the post-independence era when initiatives concentrated administrative and economic functions in selected urban hubs. This strategy produced appealing urban focal points that offered rural inhabitants improved entry to city-based resources and prospects. As Olayiwola and Ajala (2022) describe, this form of urbanization lays the foundation for modern urban systems, where the phenomenon is typically defined by policies favoring economic agglomeration and marked spatial disparities. Such patterns persist as influential factors in shaping metropolitan settlement patterns and the allocation of resources across urban regions. While demographic change represents a vital element within the structural perspective, urbanization is fundamentally a policy-driven spatial occurrence. The socio-economic dimensions embedded in housing exert considerable influence on how individuals and communities interact with their environments. The relationship between housing and livelihood operates bidirectionally, as living conditions affect employment prospects, educational access, and overall well-being. Housing therefore warrants recognition both as an economic asset and as an inalienable human entitlement, since it encapsulates the socio-economic realities of urban existence. The cultural dimension of residential housing elevates its importance, embedding it within societal norms, values, and daily routines. Dawaye (2021) notes that housing frequently embodies cultural elements through traditional building techniques, spatial layouts, and family-oriented designs. Enwin et al. (2024) reinforce this perspective, arguing that residential architecture can preserve cultural legacies, express belief systems, and sustain intergenerational continuity. Consequently, cultural considerations in housing design and planning imbue spaces with emotional depth and symbolic resonance. Housing enables continuity, functionality, and emotional bonds to local customs and shared histories by aligning with indigenous practices and collective recollections. The cultural blending within housing transforms it into a dynamic entity rather than a static object, actively supporting individual and communal lifestyles through the diverse legal, environmental, and regulatory mechanisms that govern its delivery, management, and long-term viability. Hui and Akinwande (2024) indicate that policies concerning land ownership rights, building codes, and urban zoning play a decisive

role in shaping housing accessibility and spatial organization. Furthermore, Fayomi and Onyari (2024) elaborate that the institutional frameworks guiding housing planning and implementation not only determine development outcomes but also promote equity and participation in urban change processes. Regulatory requirements ensure that housing initiatives correspond with broader societal objectives of resilience, affordability, and environmental sustainability. Residential housing ultimately exemplifies the convergence of interconnected systems legal, institutional, and environmental that steer the trajectory of urbanization and influence the quality of urban living.

Factors Influencing Urban Housing Demand and Supply ***Urbanization and Population Growth***

Population growth represents a core determinant of urban housing demand, since rising urban populations directly increase the need for residential units. Akinwande et al. (2024) note that the growth of urban populations, particularly within metropolitan areas, exerts greater pressure on the existing housing stock, thereby affecting both spatial expansion and the intensity of demand. As individuals relocate to cities in pursuit of economic and social prospects, urban centres undergo demographic changes that require corresponding growth in residential infrastructure. The relationship between population trends and housing demand highlights the demographic basis of urban development patterns.

Urbanization, as a structural phenomenon, heightens housing demand by converting rural communities into economically productive urban areas. This shift frequently results in accelerated land use change, higher housing densities, and the emergence of new residential forms. Ikiriko et al. (2023) argue that urbanization not only raises the volume of housing needed but also alters the quality and spatial distribution of demand. As urban structures transform, housing preferences, standards, and expectations are similarly redefined.

Income Levels and Economic Capacity

Household purchasing power plays a crucial role in determining both the volume and category of housing demanded in urban areas. Odum et al. (2024) explain that income levels influence access to housing markets, mortgage options, and rental housing, thereby shaping the socio-economic segmentation of urban residential areas. Higher-income groups typically stimulate demand for premium housing, whereas lower-income earners are inclined toward more affordable options, including informal housing. This income-driven distinction strengthens spatial inequality within the urban housing system.

Variations in national and local economic conditions also impact housing supply, particularly through the availability

of construction financing and investment incentives. Effe & Tjprc (2021) observe that strong economic climates encourage active real estate development, promote housing finance programs, and boost public-private housing initiatives. Conversely, economic recessions reduce housing output by restricting investment and raising material costs. Therefore, the relationship between income levels and economic performance influences both the demand and supply dimensions of the housing sector.

Land Availability and Security of Tenure

The availability and lawful access to land constitute fundamental factors shaping housing supply in urban areas. Deveci et al. (2023) state that effective land administration systems facilitate prompt land access, allowing housing developers to undertake organized residential construction. Well-defined property rights, accurate survey frameworks, and reliable land titling processes minimize conflicts and enable large-scale housing projects. When land is legally obtainable, it functions as a driver of spatial expansion and planned urban development. Tenure security strengthens housing demand by motivating individuals and households to invest in homeownership and permanent settlement. Ogunbayo et al. (2024) maintain that secure land tenure fosters trust among potential homeowners and financial institutions, thereby increasing demand for mortgage-supported housing. Assurance of land ownership also supports the formalization of settlements and urban consolidation. Consequently, land accessibility and tenure security operate as institutional foundations sustaining a stable housing system.

Public Policy and Institutional Regulation

Public policy structures play a vital role in defining the dynamics of housing demand and supply by setting standards, incentives, and regulatory guidelines. Olawale et al. (2024) highlight that housing policies, zoning regulations, tax systems, and other regulatory tools shape the speed, direction, and affordability of urban residential growth. Policy measures such as subsidies, rent regulation, and land-use reforms directly affect market operations and determine housing access for various population groups. Institutional effectiveness influences the extent to which housing policies are executed, supervised, and maintained.

Akinwande et al. (2024) assert that strong institutions in planning, financing, and oversight of housing development can foster inclusive housing markets. Efficient institutional systems promote accountability, transparency, and adherence to development standards. The interaction between policy frameworks and institutional capacity therefore establishes regulatory settings that sustain balanced housing demand and supply.

Infrastructure Development and Urban Service Delivery

The availability and standard of infrastructure exert a substantial effect on the attractiveness of housing and, as a result, shape demand trends in urban environments. Ikiriko et al. (2023) describe how proximity to roads, electricity, water provision, and waste management facilities increases the practical utility of residential properties. Infrastructure not only elevates residents' quality of life but also governs the commercial appeal of particular housing sites. Locations with reliable services frequently attract greater demand and command elevated property prices. Infrastructure further influences housing supply through its role in determining the spatial practicality of construction initiatives. Odum et al. (2024) maintain that developers favor sites already equipped with infrastructure in order to lower building expenses and secure effective connectivity. Synchronizing housing projects with infrastructure development promotes greater urban operational efficiency, lessens strain on informal settlements, and facilitates planned urban expansion. Infrastructure therefore performs a dual function in regulating the interplay between housing supply and demand dynamics.

Impacts of Insufficient Housing Provision and Overcrowding in Urban Residential Areas

Dense Populace

Emerging directly from a shortage of available housing, overcrowding exerts a profound influence on both the physical layout and social fabric of residential urban neighborhoods. When housing supply falls short of demand, numerous families are forced to occupy limited residential areas, leading to increased levels of congestion. Olaniyi & Agbaje (2024) note that this spatial constraint diminishes the functionality of homes and restricts residents' unrestricted access to vital domestic facilities. Masrom et al. (2024) argue that the resulting strain on indoor living conditions generates disputes over shared resources, diminishes personal privacy, and adversely impacts physical and mental health. Consequently, the spatial and structural pressures arising from overcrowding heighten the overall structural fragility of these areas and contribute to a further deterioration in neighborhood quality. Such changes in private and shared spaces serve to accentuate the deep-seated systemic inequalities embedded within the urban housing framework.

Insufficient Housing Supply

The socio-economic impacts arising from poor housing are compounded by their influence on household productivity, income level fluctuations, and capacity to attain urban opportunities. People living in congested housing conditions often have decreased educational attainment,

reduced productivity in the workplace, and a heightened vulnerability to poverty.

Akinwande and Hui (2023) note that poor housing conditions are associated with decreased cognitive function among school-going children and poor health outcomes among adults. Ehiemere et al. (2025) highlight the interdependence of housing instability and economic stagnation, as poor living standards block the path to mobility by limiting the access to secure work, dependable transportation to work, and necessary social services. Under these circumstances, the linkage between housing quality and economic opportunity highlights the importance of proper shelter as a basic driver of advancement for individuals and groups of people in urban areas. The relationship between poor provision of housing and over-crowding has the profound impact of affecting the physical beauty and structural stability of residential neighborhoods. The need to house growing populations in limited environments often leads, in turn, to poor-quality construction, increased land-use intensification, and spatial disorder. According to Adedeji (2023), the unregulated Expansion of housing causes fragmentation of the urban environment, reduces green space, and goes against the principles of spatial planning

Effects of inadequate Fundamental Infrastructure on Urban Residential Housing

Residential buildings in urban areas determine their prices not solely by their physical attributes but also by how well they are integrated into an extensive infrastructure network that sustains livelihood. Fundamental infrastructure such as water supply, sanitation, transport networks, drainage facilities, and electricity constitute essential components of urban life that directly affect residential quality of life. Akande et al. (2021) contend that the true residential value of urban property is realized only when it is located within systems that ensure essential services and accessibility. Furthermore, Oluwadare et al. (2023) emphasize the crucial role of infrastructure in shaping spatial equity, which regulates the distribution of resources, opportunities, and services across neighborhoods. Urban housing represents a spatial arrangement closely connected to infrastructural standards, and where infrastructure is insufficient or absent, the functional stability of residential zones is undermined, producing widespread socio-spatial consequences. Inadequate drainage, poor sewage systems, and unreliable piped water supply further aggravate conditions, leaving even well-constructed houses exposed to environmental forces. Ezeanah (2021) maintains that poorly built homes are more susceptible to disease vectors, contribute to unhealthy living environments, and generate physical discomfort for occupants. Akande et al. (2024) also argue that infrastructural shortcomings weaken the resilience of

residential communities by limiting their capacity to adapt to social and environmental transformations. As a result, the strain placed on households not only deteriorates residents' conditions in the short term but also jeopardizes long-term investments in urban housing. Thus, the adequacy of physical dwellings and the sustainability of urban environments are significantly shaped by infrastructure as a moderating factor. The availability of accessible roads, reliable electricity, and efficient water supply typically stimulates investment and increases property values along residential corridors. Ikiriko and Enwin (2023) assert that infrastructure fundamentally drives spatial dynamics within property markets by improving mobility, lowering transaction costs, and enhancing locational desirability. Ezeudu et al. (2020) illustrate that occupancy levels and rental growth were greater in urban districts offering high-quality services, stronger earnings, and evident market stability. This relationship emphasizes the role of infrastructure within housing economics, influencing both citywide planning strategies and household dynamics. Infrastructure networks that underpin collective living have traditionally determined operational efficiency and residential cohesion. Key community assets such as street lighting, public parks, transport systems, and waste collection services strengthen social interaction and build social capital. Akande et al. (2021) argue that infrastructure extends beyond physical structures, functioning instead as a spatial enabler of urban citizenship, civic participation, and social order. Oluwadare et al. (2023) point out that inadequate infrastructure negatively affects urban social relations by isolating communities, increasing insecurity, and eroding public trust. In such situations, residential buildings become detached from civic life, limiting their capacity to foster cohesive, inclusive, and empowered neighborhoods. Consequently, infrastructure serves as an essential support framework for housing within the broader social and urban context. The growth and sustainability of urban residential developments depend largely on the coordinated evolution of infrastructure that adapts to shifting urban demands and demographic changes. Strategic planning for future expansion, rehabilitation of aging systems, and incorporation of resilience into service delivery are necessary to preserve the structural stability of residential communities. Ezeanah (2021) maintains that infrastructure is dynamic and must be addressed within an evolving environment through flexible governance and purposeful investment approaches. Integrating residential housing with reliable infrastructure is therefore crucial to achieving sustainable, livable, and equitable urban futures.

MATERIALS AND METHODS

Research Design

This study adopted a descriptive research design. The design was selected because it focuses on observing and describing participants’ behavior without attempting to manipulate or influence it (Jongbo, 2018), making it appropriate for the present study.

Population of the Study

The target population for this study are Landlords, government officials and Tenants in Warri, Delta State. According to the most recent demographic estimate obtained from the Delta State Ministry of Lands and Housing Annual Report (2024), there are an estimated 805 Landlords, government officials and Tenants in Warri, Delta State. This population size will be used to determine the sample size of the study.

Sampling Frame

The sampling frame for this research consists of a detailed and current register of landlords, tenants, and appropriate government officials directly engaged in residential housing issues in Warri, Delta State. It was compiled from records supplied by the Delta State Ministry of Lands and Housing, tenancy records kept by local landlords’ associations, and rosters of housing officers sourced from the Warri South Local Government Council. This frame guarantees that each member of the identified population has a known and non-zero probability of selection, thereby enhancing the precision and representativeness of the sample in achieving the study’s objectives.

Sample Size

In this study, the researcher adopted the Taro Yamane (1967) formula for determining the actual sample size from the above noted population. Taro Yamane (1967) provides a simplified formula to calculate sample sizes

Assumption:

95% confidence level

P = .5

$$n = \frac{N}{1+N(e)^2}$$

n = sample

N = population

e = error margin

n = sample

$$n=805/1+805(0.05)^2$$

$$n=805/1+805(0.0025)$$

$$n=805/3.0125$$

Table 1: Distribution of Questionnaire

Questionnaire	Frequency	Percentage
Questionnaire Distributed	267	100
Questionnaire Received and Validated	189	71
Questionnaire Rejected	78	29

Source: Field Survey, 2025

n= 267.219

Therefore the sample size of this study is 267 participants.

Sampling Technique

The study sample comprised 267 landlords, government officials, and tenants in Warri, Delta State, determined using the Taro Yamane (1967) formula. A stratified sampling technique was applied to the designated centers within the study area, while convenience sampling was employed to select individual respondents. This approach was adopted to minimize bias in administering the questionnaires to participants.

Data collection methods

The researcher distributed a total of 267 questionnaire to the respondents. The data collection exercise was conducted in a conducive premises to ensure ease of distribution and collection. This approach aimed to facilitate an efficient and organized process.

Questionnaire design/Instrument for Data Collection

This study utilized a questionnaire as its primary research instrument. The survey, consisting of a series of structured questions, was distributed to all enrolled participants.

The questionnaire was organized into two main sections:

The first section collected participants' demographic and personal information.

The second section focused directly on the study's objectives and was designed to generate data capable of addressing the research questions.

Respondents were instructed to indicate their answers by ticking the appropriate option/column. The researcher personally administered the questionnaire to all participants.

Method of Data Analysis

The collected data will be analyzed using both descriptive such as frequencies, percentages, means, and standard deviations, will be used to summarize and present the demographic characteristics of the respondents and their opinions. The results will be presented in tables, charts, and graphs for easy interpretation

RESULTS AND DISCUSSION

The data analysis depicts the simple frequency and percentage of the respondents as well as interpretation of the information gathered.

Table 1 above shows the summary of the data distribution and collection. A sum of 267 questionnaire was distributed for this study, a total of 189 was retrieved and validated. While 78 copies of the questionnaire was rejected due to incompleteness, and rough handling by the respondents. For this study a total of 189 was used for the analysis.

Analysis of the Respondents’ Background Demographic Analysis

The bar chart illustrates the gender distribution of a sample of 189 individuals, with males at 56.0% (106 individuals) and females at 44.0% (83 individuals), “Male” depicted in Forest Green and “Female” in Medium Sea Green, visually distinguishing the two categories.

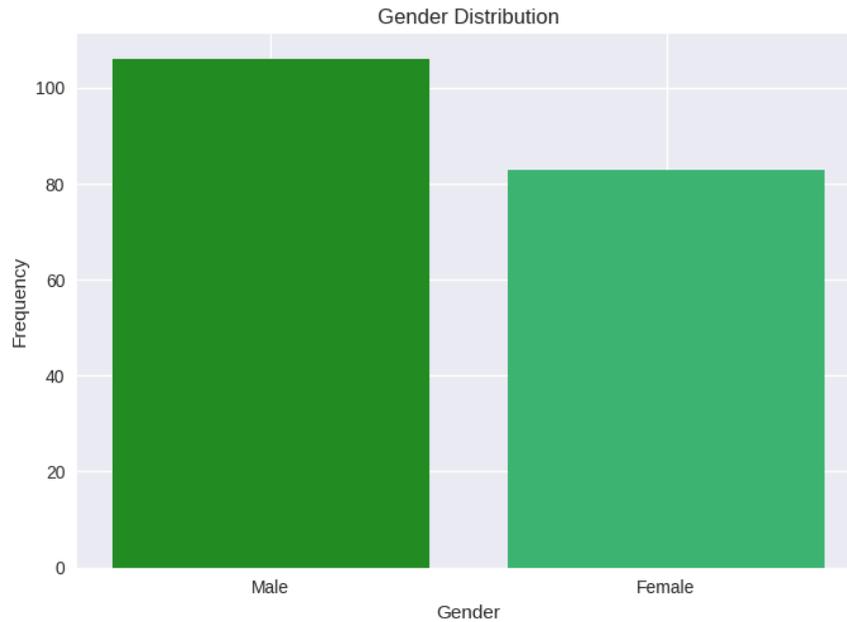


Figure 1: Gender of the Respondents

Age of the Respondents

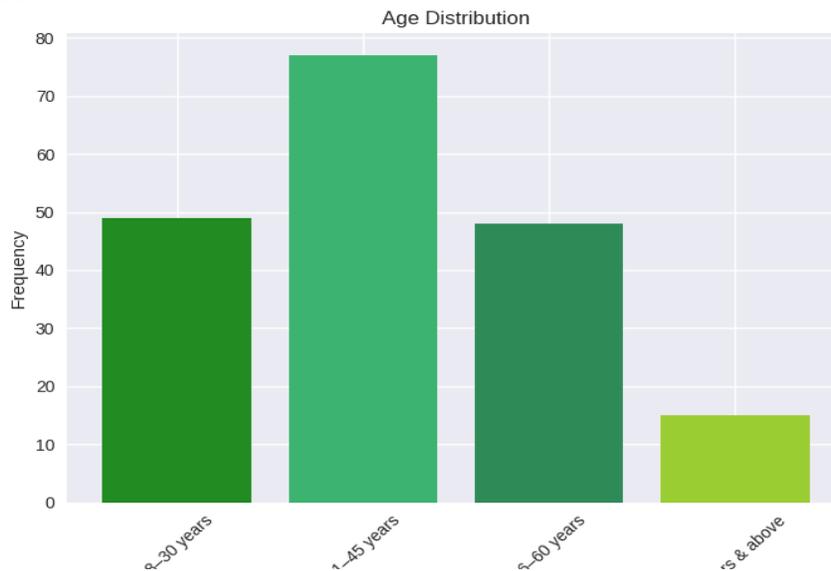


Figure 2: Age distribution of respondents

The bar chart (Figure 2) depicts the age distribution of a sample of 189 individuals, with the 31–45 years age group forming the largest segment at 40.9% (77 individuals),

followed by 18–30 years at 25.9% (49 individuals), 46–60 years at 25.3% (48 individuals), and 61 years and above at 7.9% (15 individuals).

Marital Status of the Respondents

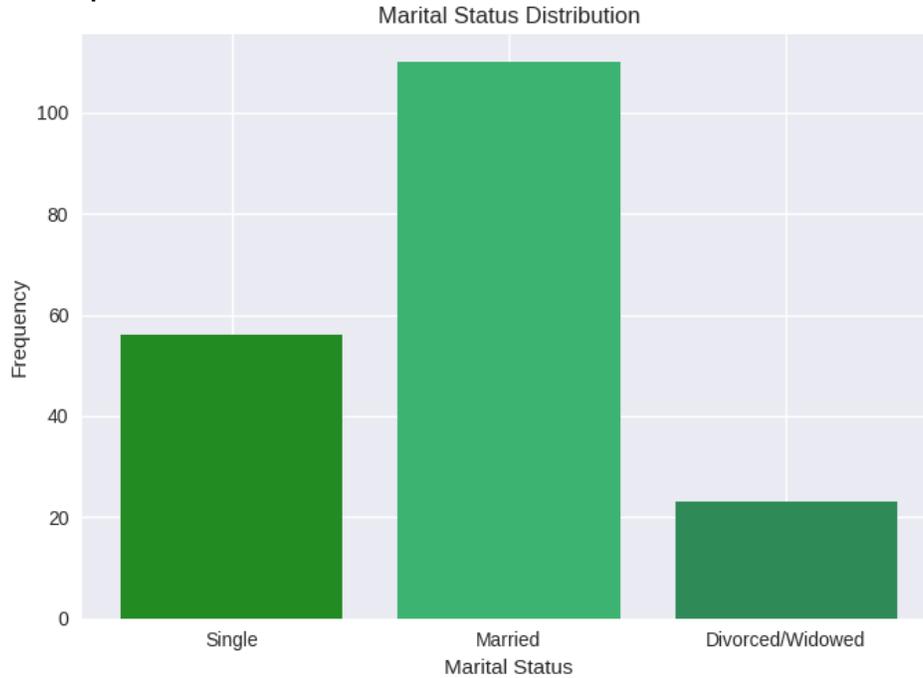


Figure 3: Marital status distribution of respondents

The bar chart illustrates the marital status distribution of a sample of 189 individuals, with Married individuals forming the majority at 58.3% (110 individuals), followed by Single at 29.6% (56 individuals), and Divorced/Widowed at 12.1% (23 individuals).

Occupation of the Respondents

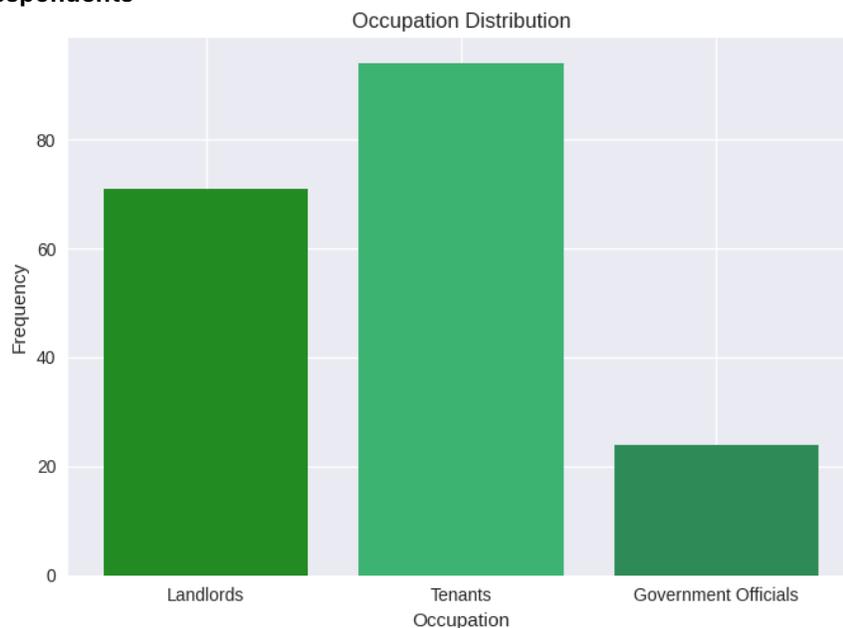


Figure 4: Occupation distribution of respondents

The bar chart depicts the occupation distribution of a sample of 189 individuals, with Tenants comprising the largest group at 49.9% (94 individuals), followed by Landlords at 37.5% (71 individuals), and Government Officials at 12.7% (24 individuals).

Analysis of the Objectives

Research Question One: What are the effects of housing shortages and overcrowding as challenges in urban residential areas of Warri?

Table 2: Analysis of Respondents’ Views on Housing Shortages and Overcrowding in Warri

S/N	Statement	N	Minimum	Maximum	Mean	Std.	Decision
1	Housing shortages increase rent prices in Warri.	189	1	4	3.22	0.88	Accepted
2	Overcrowding leads to poor living conditions.	189	1	4	3.22	0.87	Accepted
3	Housing shortages contribute to conflicts among tenants.	189	1	4	3.02	0.90	Accepted
4	Overcrowding causes health risks in residential areas.	189	1	4	3.14	0.89	Accepted
5	Housing shortages affect urban security and safety.	189	1	4	3.07	0.91	Accepted
6	Overcrowding strains available infrastructure.	189	1	4	3.19	0.88	Accepted

Source: Field Survey, 2025

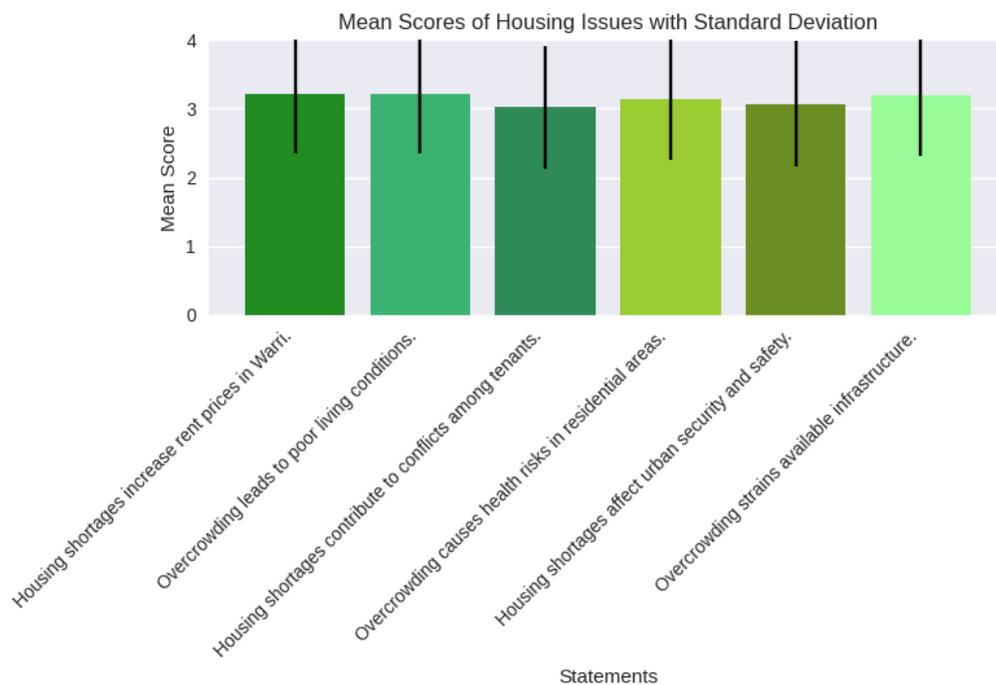


Figure 5: Mean scores of housing issues with standard deviation

Table 2 shows respondents’ views on housing shortages and overcrowding in Warri. The first statement that Housing shortages increase rent prices in Warri, has a mean of 3.22, indicating strong agreement. The second statement, that Overcrowding leads to poor living conditions., has a mean of 3.22, showing respondents believe strongly that it’s a major issue. The third statement that Housing shortages contribute to conflicts among tenants has a mean of 3.02, reflecting agreement that it’s a major problem. The fourth statement that Overcrowding causes health risks in residential areas, has a mean of 3.14, confirming respondents agree on its significance. The

fifth statement that Housing shortages affect urban security and safety, has a mean of 3.07, showing agreement that it’s a serious issue. Finally, the sixth statement, that Overcrowding strains available infrastructure, has a mean of 3.19, again above the cutoff. Since all mean scores are well above 2.50, it can be concluded that respondents perceive housing shortages and overcrowding as critical challenges in urban areas of Warri.

Research Question Two: How does lack of quality basic infrastructure affect urban residential housing in Warri?

Table 3: Analysis of Respondents’ Views on Lack of Quality Basic Infrastructure in Warri

S/N	Statement	N	Minimum	Maximum	Mean	Std.	Decision
1	Poor roads reduce accessibility to residential areas.	189	2	4	3.24	0.84	Accepted
2	Inadequate drainage leads to flooding in residential areas.	189	1	4	3.26	0.83	Accepted
3	Poor waste disposal affects health in urban communities.	189	1	4	3.22	0.85	Accepted
4	Erratic water supply affects quality of life.	189	1	4	3.20	0.86	Accepted
5	Unreliable electricity supply discourages investment in housing.	189	1	4	3.19	0.86	Accepted
6	Lack of recreational facilities lowers residential satisfaction.	189	1	4	3.16	0.88	Accepted

Source: Field Survey, 2025

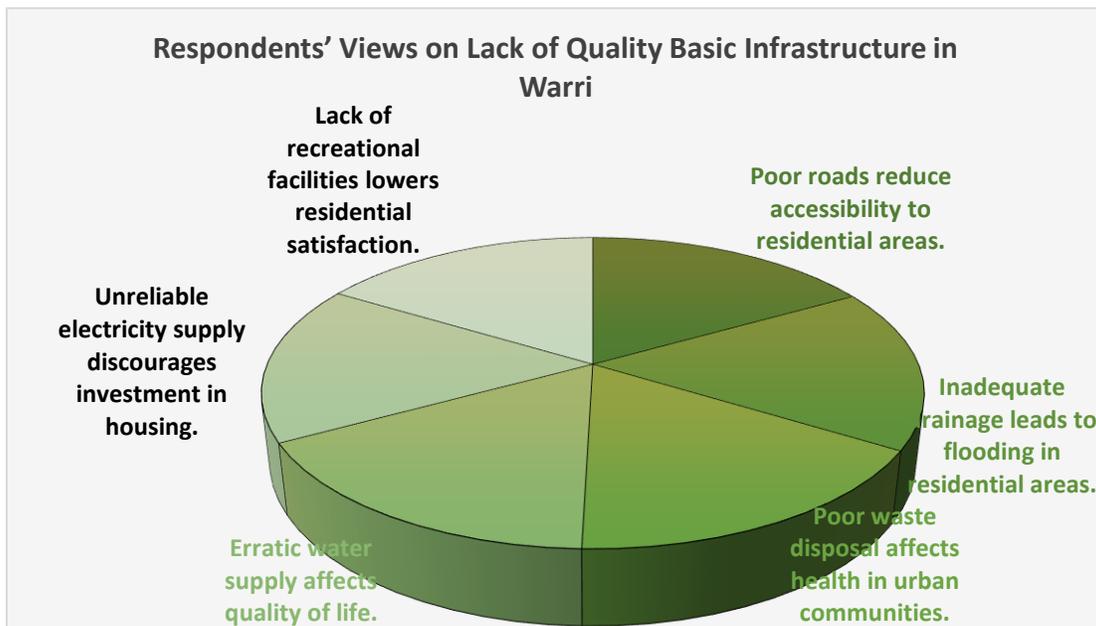


Figure 6: Respondents’ view on lack of quality basic infrastructure in Warri

Table 3 presents the respondents’ perceptions of the lack of quality basic infrastructure in Warri. The highest mean score of 3.26 was recorded for the statement that inadequate drainage leads to flooding in residential areas, indicating that this represents the most prominent concern among residents. This was closely followed by the view that poor roads reduce accessibility to residential areas, which received a mean of 3.24 and reflected strong agreement. Respondents also expressed serious concern about poor waste disposal negatively affecting health in urban communities, with a mean score of 3.22. The statement that erratic water supply impacts quality of life obtained a mean of 3.20, confirming clear agreement,

while unreliable electricity supply discouraging investment in housing scored 3.19, highlighting it as a widely experienced challenge. Finally, the lack of recreational facilities lowering residential satisfaction received a mean of 3.16, still indicating general agreement with this issue. Since all six statements achieved mean scores above the benchmark of 2.50, the results clearly demonstrate that respondents overwhelmingly regard the absence of quality basic infrastructure as a major problem in the urban areas of Warri.

Question Three: What is the affordability of housing as a challenge in urban areas of Warri?

Table 4: Analysis of Respondents’ Views on Housing Affordability in Warri

S/N	Statement	N	Minimum	Maximum	Mean	Std.	Decision
1	Rent prices are too high for average earners.	189	1	4	3.25	0.82	Accepted
2	Income levels do not match current housing costs.	189	2	4	3.22	0.84	Accepted
3	Affordable housing options are limited.	189	1	4	3.27	0.81	Accepted
4	High cost of building materials raises housing prices.	189	2	4	3.24	0.83	Accepted
5	Many tenants spend over 30% of income on rent.	189	1	4	3.21	0.85	Accepted
6	Government housing schemes are inadequate.	189	2	4	3.18	0.87	Accepted

Source: Field Survey, 2025

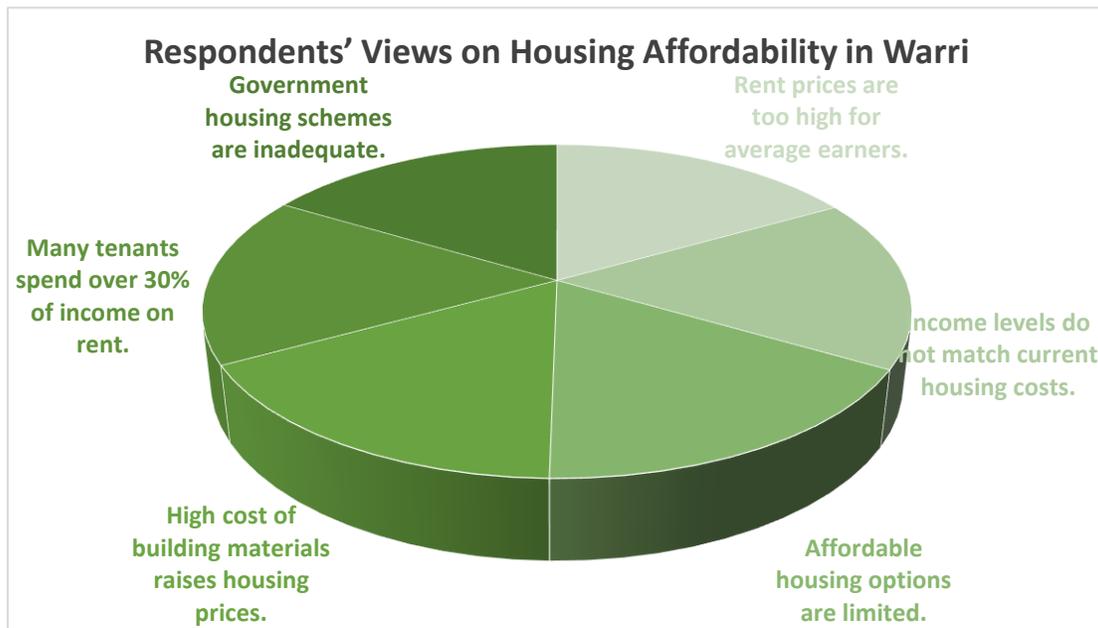


Figure 7: Respondent’s views on housing affordability in Warri

Table 4 displays respondents’ views on housing affordability in urban areas of Warri. The mean score for the first statement, that rent prices are too high for average earners, is 3.25, which shows strong agreement. The second statement, that income levels do not match current housing costs, has a mean of 3.22, indicating this is a significant issue for many residents. The third statement, that affordable housing options are limited, recorded the highest mean at 3.27, showing this is a major concern. The fourth statement, that high costs of building materials increase housing prices, has a mean of 3.24,

confirming agreement. For the fifth statement, that many tenants spend over 30% of their income on rent, the mean is 3.21, suggesting this is a common burden. Finally, the sixth statement, that government housing schemes are inadequate, has a mean of 3.18, indicating general agreement with this sentiment. All mean scores are above the cutoff mean of 2.50, demonstrating that respondents widely perceive housing affordability as a significant challenge in urban areas of Warri.

Research Question Four: What is the extent informal settlements affect urban housing in Warri?

Table 5: Analysis of Respondents’ Views on the Extent of Informal Settlements in Warri

S/N	Statement	N	Minimum	Maximum	Mean	Std.	Decision
1	Informal settlements increase population density.	189	2	4	3.24	0.82	Accepted
2	Informal settlements lack proper planning.	189	2	4	3.26	0.82	Accepted
3	Informal settlements contribute to poor sanitation.	189	1	4	3.21	0.85	Accepted
4	Informal settlements promote environmental degradation.	189	2	4	3.19	0.85	Accepted
5	Informal settlements pose challenges for urban authorities.	189	2	4	3.17	0.86	Accepted
6	Residents in informal settlements have limited access to services.	189	2	4	3.22	0.84	Accepted

Source: Field Survey, 2025

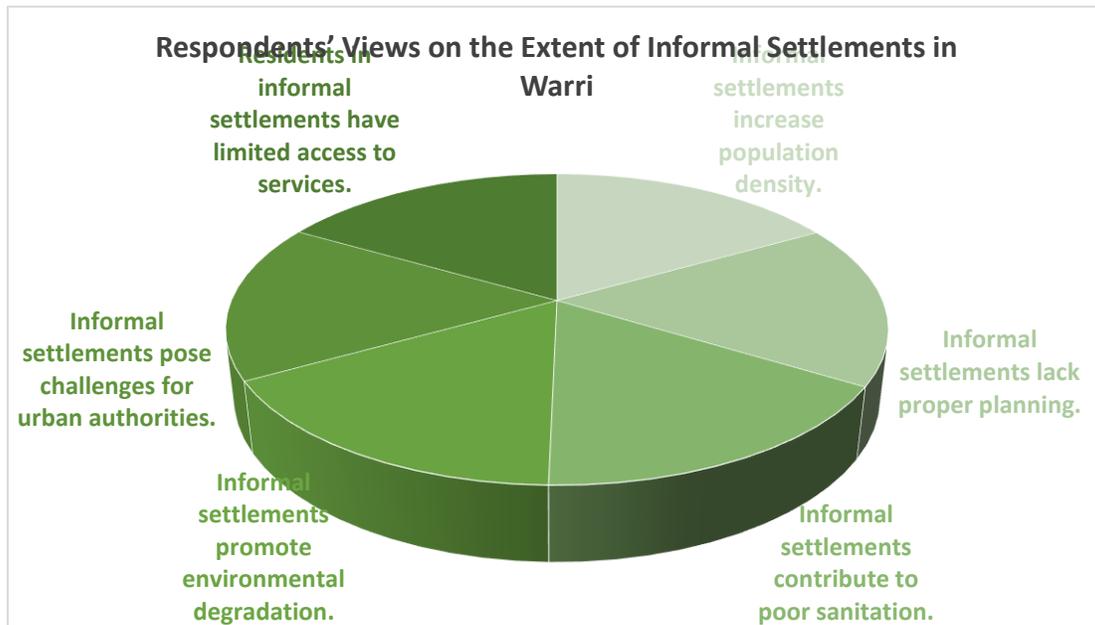


Figure 8: Respondents’ views on the extent of informal settlements in Warri

Table 5 shows respondents’ views on the extent of Informal Settlements in Warri. The first statement, informal settlements increase population density, has a mean of 3.24, indicating strong agreement. The second statement, that informal settlements lack proper planning, has the highest mean of 3.26, showing respondents believe strongly that informal settlements lack proper planning. The third statement, informal settlements contributes to poor sanitation has a mean of 3.21, reflecting that Sanitation is vital. The fourth statement, that informal settlements promote environmental degradation has a mean of 3.19, confirming respondents agree on its

significance. The fifth statement, informal settlements pose challenges for urban authorities has a mean of 3.17, showing agreement with the statement. Finally, the sixth statement, that residents in informal settlements have limited access to services, has a mean of 3.22, again above the cutoff. Since all mean scores are well above 2.50, it can be concluded that respondents agree that informal settlements strongly affects urban housing in Warri.

Research Question Five: What is the role of government and the private sector in mitigating housing-related problems in urban areas of Warri?

Table 6: Analysis of Respondents’ Views on the Role of Government and Private Sector in Warri

S/N	Statement	N	Minimum	Maximum	Mean	Std.	Decision
1	Government policies can improve housing availability.	189	1	4	3.23	0.83	Accepted
2	The private sector should invest more in affordable housing.	189	1	4	3.26	0.81	Accepted
3	Public-private partnerships are vital for housing development.	189	1	4	3.22	0.84	Accepted
4	Government provision of infrastructure supports housing growth.	189	2	4	3.22	0.84	Accepted
5	Government should enforce building standards strictly.	189	2	4	3.20	0.85	Accepted
6	Incentives should be given to developers to build low-cost housing.	189	2	4	3.25	0.82	Accepted

Source: Field Survey, 2025

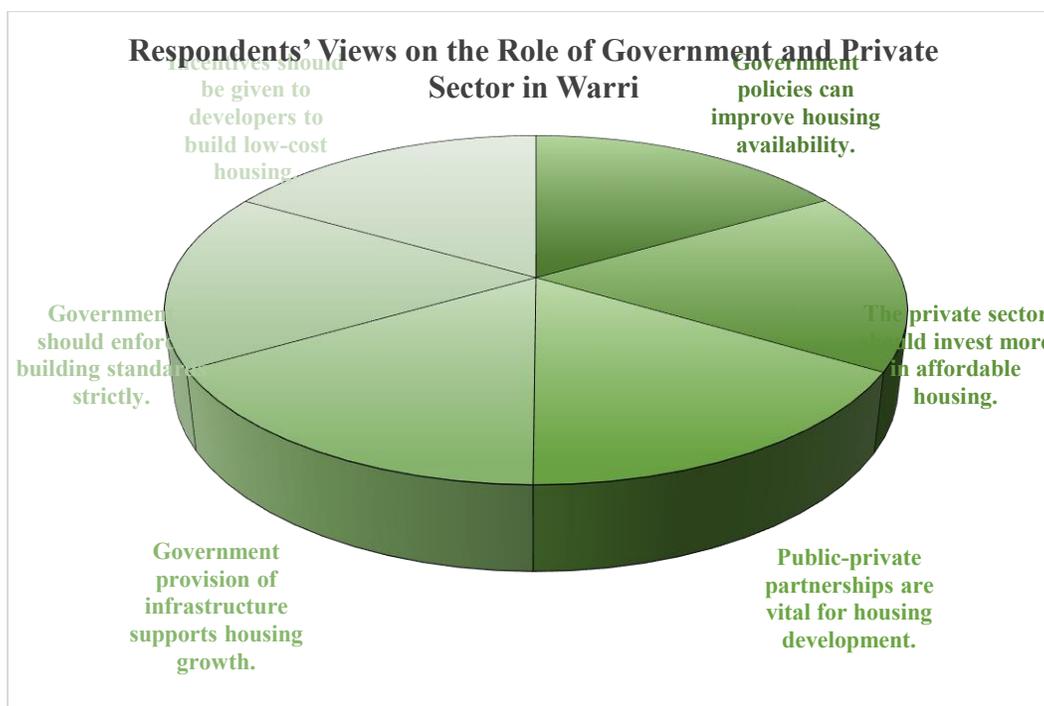


Figure 9: Respondents’ views on the role of government and private sector in Warri

Table 6 shows respondents’ views on the role of government and the private sector in addressing housing-related problems in urban Warri. The first statement, that government policies can improve housing availability, has a mean of 3.23, indicating strong agreement. The second statement, that the private sector should invest more in affordable housing, has the highest mean of 3.26, showing respondents believe strongly in the private sector’s role. The third statement, about the importance of public-private partnerships for housing development, has a mean of 3.22, reflecting agreement that collaboration is vital. The fourth statement, that government provision of infrastructure supports housing growth, matches this mean at 3.22, confirming respondents agree on its significance. The fifth statement, that government should

enforce building standards strictly, has a mean of 3.20, showing agreement on the importance of regulation. Finally, the sixth statement, that developers should receive incentives to build low-cost housing, has a mean of 3.25, again above the cutoff. Since all mean scores are well above 2.50, it can be concluded that respondents perceive both government action and private sector involvement as critical for mitigating urban housing problems in Warri.

CONCLUSION

In conclusion, this study has shown that urban residential housing challenges in Warri are real, multi-dimensional, and interrelated. Housing shortages, overcrowding, poor infrastructure, affordability issues, and the prevalence of

informal settlements are deeply embedded in the urban fabric and require coordinated action. The active involvement of both government and the private sector is indispensable in addressing these challenges to ensure that decent, affordable, and safe housing is accessible to all residents.

RECOMMENDATIONS

The government should strengthen policy frameworks and regulatory enforcement to ensure that new residential developments meet adequate standards, while simultaneously addressing existing housing shortages through well-targeted public housing projects.

Urban infrastructure such as roads, drainage systems, waste management, water supply, and electricity should be upgraded and expanded, with clear plans to reach underserved neighbourhoods and informal settlements. Private sector stakeholders should be incentivized through tax reliefs, subsidies, or public-private partnerships to invest more in affordable housing schemes that match the income levels of average urban dwellers. Urban planners and local authorities should formalize and upgrade informal settlements through inclusive upgrading programmes that provide secure tenure, basic services, and community facilities while preventing environmental degradation.

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