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Foreword

There is no better time than now for the compilation of a document on the subject of housing, considering the resolve of the Government to harmonise all extant initiatives currently being implemented by different stakeholders in the Nigerian housing sector into a single National Housing Strategy that will be implemented over a period of time.

- 2. Housing is a basic human need that plays a very important role in the economy for the citizenry. A call for safe and adequate shelter must represent the minimum objective to be considered as an essential factor for access to other rights. This compendium attests to the fact that Nigeria has a plethora of policy initiatives needed to reform the housing sector for greater prosperity. What remains to be done is to build the consensus to harmonise these policies and get stakeholders to work to build a viable housing ecosystem.
- 3. An objective assessment of the document reveals that it meets world-class standards with the painstaking data gathered. The noticeable challenges militating against affordable housing delivery in Nigeria were succinctly highlighted. These include poor land administration, infrastructure deficit, high construction cost, fragmentation and loose regulation, high housing demand, citizens' low purchasing power and lack of access to affordable financing options. Addressing these issues will require a coordinated, collaborative and cohesive approach among all stakeholders, which is the target of this book.
- 4. It is necessary to commend Messrs FMDQ Group PLC, PricewaterhouseCoopers (PwC) and all co-opted members of the Working Group drawn from the Ministry, Federal Mortgage Bank of Nigeria (FMBN), Federal Housing Authority (FHA), the World Bank Group, Family Homes Funds Limited (FHFL) and the Senior Special Assistant to Mr. President on Infrastructure for credible efforts put into the job. The housing needs assessment is long overdue. It is my belief that this report and that of the upcoming National Population and Housing Census will have multiplier effects on housing delivery.
- 5. In view of the enriched content of the document, it is recommended for all stakeholders in the built environment for implementation.

Babatunde Raji Fashola, SAN

Honourable Minister

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Glossary

Terms	Definitions
Affordable Housing	Standard Housing that does not cost more than 33.00% of a household's disposable income regardless of the household's income class
Blockchain	This is a distributed ledger technology that enables secure value (currency, data, survey answers) exchange between parties on a network. The decentralised architecture in blockchain technology enables trust and transparency which are fundamental principles for establishing efficient land administration and registry systems
Brokerage Fee	This is a percentage of the value of a property being rented or bought payable to a broker or an agent
Circular Economy	The circular economy is a model that extends the lifecycle of materials (like building materials for example). It involves sharing, leasing, reusing, repairing, refurbishing, and recycling existing materials for as long as possible
Co-sharing	A cooperative living/rental arrangement with spaces separate from a private room which the residents share such as lounge, kitchen, sitting rooms, and so on
Cost Overburdened Households	Cost overburdened households refer to those families who pay more than 33.00% percent of their income for housing and may have difficulties in affording necessities such as food, transportation, clothing, and health services
Dead Capital	Inactive assets with earning capabilities that are not being realised
De-risk	To eliminate risk or make less likely to involve a financial loss
Digitisation	Use of digital technologies to change a business model and provide new revenue and value-producing opportunities
Disposable Income	Amount of money a household has available for spending and saving after income taxes have been accounted for
Dollar (\$)	United States (US) Dollar
Effective Housing Demand	This is the willingness and ability of a household to pay for standard housing through rental or mortgage plans
Geographical Information System (GIS)	GIS is a digital system that analyses and displays geographically referenced information. It makes use of data that is attached to a specific location and useful in managing land resources. GIS considerably simplifies territorial planning and creates a basis for the adoption of more exact and scientifically reasonable decisions during land use
Housing as a Securitised Commodity	This involves repackaging of mortgages into securities that can readily be sold to investors in the capital markets
Housing Affordability Index	This index is a measure of a household's ability to spend within a specified percentage (33.00% in the case of Nigeria) of its annual income on rent or mortgage
Housing Cost	Portion of rent, mortgage principal and interest payments, estimated utilities costs, and taxes paid by the renter or homeowner
Housing Deficit	Shortage of standard housing for effective demand
Housing Ecosystem	Complex network of organisations – including suppliers, distributors, customers, competitors, government agencies, and so on – involved in the delivery of housing through cooperation

Glossary

Terms	Definitions
Housing Need	Ineffective housing demand due to inability to pay for housing units despite the willingness
Housing Value Chain	End-to-end economic linkages and impacts related to housing
Inadequate Housing Stock	This refers to the limited availability of housing stock/supply in a specific area, region, or country
Ineffective Housing Demand	This refers to the inability of a household to pay for a standard housing unit, despite its willingness
Mortgage-backed Bonds	Mortgage-backed bonds is a financial instrument backed by a pool of mortgages which are usually home loans
Mortgage Financing	Long-term loan by banks or other financial institutions used to finance the purchase of house
Nigerian Building Code	The National Building Code defines minimum standards for the design, construction, occupation, maintenance, and demolition of buildings to ensure the quality, safety, and proficiency of all buildings
PropTech	These are technology companies using their platforms to make housing supply more effective by providing options such as co-sharing and flexible payment options to young, mobile, and working-class segment of the population especially in urban areas
Purchasing Power Parity (PPP)	The measurement of prices in different countries that uses the prices of specific goods to compare the absolute purchasing power of the countries' currencies
Rent-to-own	Rent-to-own, also referred to as rental purchase or rent-to-buy, is an agreement in which a tenant commits to renting a property through a lease deal for a specific period, with the option of purchasing it before the lease runs out
Social Housing	Housing provided by the government for people living at and below the poverty line who cannot effectively demand housing. These are the people categorised under housing needs
Stakeholder(s)	An individual, group or organisation with influence on, and who are also impacted by housing sector activities
Standard Housing	Standard housing conforms to the Nigeria Building Code in respect to design, floor area, room capacity/households, fixed fittings including internal and external finishes. In other words, these are houses that satisfy all the conditions set for standard housing by a relevant authority
Sub-standard Housing	Sub-standard housing are houses built in urban areas with little or zero adherence to specified national building codes and key environmental conditions. In other words, these are houses that fall short of one (1) or more of the conditions set for standard housing by relevant authority
Sustainable Housing	Sustainable housing is generally used to describe the process of building houses to minimise any negative environmental impact by enhancing efficiency and moderation in the use of materials, energy, and development space
Tenure	Legal status under which an individual or household have the right to occupy their accommodation
Total Housing Stock	Total housing stock, also known as dwelling stock/supply, is the total number of dwellings (houses, bungalows, flats, apartments, etc.) in an area, region or country that are valued as residential or commercial

Glossary

Terms	Definitions
Underwriting Standards	These are guidelines set by lenders (e.g., deposit money banks and other lending financial institutions) to determine the credit worthiness of borrowers
Urbanisation	Increase in the proportion of people living in towns and cities
Value Engineering	Value Engineering is an approach of improving the value of a building project by examining the function of each building material or element and its associated cost. It is used in creating affordable homes by substituting expensive building materials with effective cheaper substitutes and adopting innovative construction techniques to deliver on housing construction

Executive Summary

Housing is one of the basic needs of man. It is an internationally recognised need that was endorsed in the 1996 Declaration of the United Nations (UN) Conference on Human Settlements (Habitat II) as a universal goal.

Housing is a right. It is a right enshrined by the United Nations as the right to adequate housing. Every human has a right to adequate housing that meets the criteria stipulated by the United Nations Human Settlements Programme (UN-Habitat), which includes the legal security of tenure, availability, affordability, habitability, accessibility, location, and cultural adequacy. However, while housing is a right, its expression is dependent on the ability of households and defined by the ability, capacity, and will of government. Without the support of government, housing provision remains extremely challenging for households and the private sector. The role of government is critical not only in the provision of housing but in creating the enabling environment for its provision.

In Nigeria, housing has been a major challenge that has remained unsolved. Although, there is no shortage of policies and programmes enacted to tackle this debacle, the issue of effective implementation has persisted. Housing remains a national challenge that has continually deepened with the increasing social and income inequalities that have resulted in a poverty gap estimated at 40.10% of the population in 2019. Households are, as such, faced with the dilemma of survival between food and adequate shelter. While addressing the challenge is worthy of national discourse, it brings to the fore the pervasiveness of the several structural deficiencies in infrastructure, governance, and policy implementation framework across the country. The housing debacle in the country cannot be solved through policy reforms alone but through strategic and committed implementation framework that places real progress over any political agenda.

The challenges in the housing ecosystem in Nigeria are multi-faceted; each challenge cannot be tackled in isolation. There is a need for a holistic approach that takes into consideration the critical linkages across the housing ecosystem. As such, in identifying these challenges, the value chain approach was adopted. The value chain approach is an adequate tool that helps in dissecting the housing ecosystem and in identifying the critical components and linkages that underlie the engine of the housing delivery process in Nigeria. Based on this approach, the following components were identified: Land, Infrastructure Deficit, Housing Construction, High Construction Cost, Fragmentation, Household Demand, Lack of Access to Affordable Financing Options, and Policy Inadequacy. These are discussed below:

Land: This is the foundation of the housing delivery process. It is a key economic resource that is fundamental to development and sustainable housing delivery. As such, its effective administration is not only crucial to development but requires instrumental governing laws that ensure its availability, accessibility, efficient use, transferability, and convertibility.

In Nigeria, the Land Use Act (the Act) is the principal legislation that governs land use and administration in the country. However, the law has been unable to address the issues of administration that have persisted in the country. Principally, the issues stem from the challenges faced in the implementation of the provisions of the Act which include but are not limited to the following:

- i. The lack of clear implementation guidelines leads to unnecessary bureaucracy
- $ii.\ The\ entrenchment\ of\ the\ Act\ in\ the\ Nigerian\ Constitution\ (the\ Constitution)\ makes\ any\ attempt\ at\ amendment\ cumbersome$
- iii. The requirement of the Governor's consent on all land-related transactions creates administrative bottlenecks and results in low rate of formalisation of land ownership in Nigeria
- iv. In addition, the fines laid out in the Act for offenses are too low to be punitive

According to Prof. Adeniyi, Chairman, Presidential Technical Committee on Land Reform and Management, about 97.00% of the land resource in Nigeria are unregistered but traded regularly. More so, the lack of public trust and tenure security are challenges that continually plague the administration process and has made land dead capital with limited earning capabilities as an asset and as a securitised commodity. According to PwC, these unrealised earnings (dead capital) is estimated to be more than \$300.00 billion – which is circa 60.00% of Nigeria's Gross Domestic Product (GDP).

Holistically, the Land Use Act has been deemed incapable of addressing the challenges with land in the country. There have been calls for its amendment, but this is a herculean task given that the Constitution requires the approval of two-thirds of the State House of Assemblies in the country for any amendment to be passed. However, it is recommended that the Land Use Act be amended to:

- a) include clauses that simplify the entire land administration process
- b) include systematic titling and registration
- c) reduce the reference to the governor for every change in land ownership
- d) include time limits for the necessary approvals to reduce the time taken for land acquisition

'Vanguard Newspaper (2018). 'Land Reform: Proposed registration will sanitise land administration — Committee Chairman', The Vanguard Newspaper, 6 June. Available at: https://www.vanguardner.com/2018/06/land-reform-proposed-registration-will-sanitise-land-administration-committee-chairman/(Accessed 16 May 2020)

- e) revise the applicable fines and include clauses that enforce appropriate implementation
- f) address issues relating to infrastructure development

Cues on simplifying administrative challenges can be taken from some forward-thinking state governments that have recently employed innovative techniques. For example, Kano and Kaduna States implemented proactive large-scale land regularisation system which has proven effective. In Edo, Kano, Kaduna and the Federal Capital Territory, the Geographical Information System (GIS) have taken over the role of land administration. These innovations have proven effective in easing the land administration process in the respective states despite the lack of amendments to the Land Use Act. This shows that there is no shortage of innovative solutions that can be implemented to address the challenges in land administration in Nigeria. Specifically, there are case studies that show that the use of technology such as blockchain will enable greater efficiency and transparency in the land administration process which will encourage households to formalise their land titles (See Appendix: Section 8, Georgia's Digitised Land Administration System).

Infrastructure Deficit: Infrastructural gaps, which include inadequate provision of motorable roads, pipe-borne water, electricity, sewage systems, etc., by government and its related agencies, have resulted in the predominance of private sector participation in the provision of such infrastructure and ultimately impacts the cost of housing delivery. In addition, the proliferation of sub-standard houses in the country is a result of the dearth of infrastructure in the land development phase of the housing delivery process and this is a challenge that cut across the entire economy.

Housing Construction: This is the bedrock of the housing delivery process particularly with respect to availability, quality, and affordability of housing supply. According to available data, Nigeria's total housing supply at the end of 2019 was estimated at forty-two million (42,000,000) units. Although, it may seem that there are enough housing units to cater for the circa forty-two million (42,000,000) households in Nigeria, PwC's analysis indicates that about 75.00% of the total housing stock (supply) is sub-standard based on the United Nation's eight (8) criteria required for permanent human occupation – Habitability, Safety and Security, Comfort, Sanitation, Accessibility, Infrastructure, Social Amenities, and Socio-Cultural Adequacy (See Appendix: Section 9, Housing Analysis). Considering the predominance of informal and unregulated players in the construction space, inadequate housing is a common theme in Nigeria, driven by high construction costs and frail regulatory framework for ensuring housing quality.

High Construction Cost: This is driven by material and labour costs, and infrastructure development cost. These jointly account for 85.00% (material & labour – 65.00%; infrastructure development – 20.00%) of total housing construction cost and has almost doubled – 85.00% increase, according to an independent market survey carried out by PwC – over the last five (5) years due to currency depreciation hinged on macro-economic volatility. These challenges impede the housing delivery process and impact affordability. However, it was observed that in a bid to reduce construction cost and increase margins, there are incidences of increased compromise on building standards, quality of materials and skilled labour, particularly in the informal space resulting in sub-standard houses. While these challenges are avoidable, the extant weak regulatory framework for standards enforcement is a drawback and needs to be adequately addressed.

Fragmentation: This is a common occurrence within the Nigerian housing ecosystem, and it extends into the housing distribution value chain. Although housing distribution serves as the bridge between housing demand and supply, it is affected by fragmentation and loose regulations. This fragmentation results in high add-on charges in the process of home acquisition such as brokerage/agency fees, which is usually a percentage of the value of the property being bought or rented. Along with other ancillary agency costs, these fees could range from 15.00% to 35.00% of the value of the property with rigid financial arrangements of one to two-year lump sum rental prepayment, further worsening the housing affordability challenge. These issues persist due to the loose regulations that have failed to curb the stringent requirements from landlords or homeowners which do not align with the cashflow realities of most households in Nigeria (who earn daily or monthly incomes).

In addition, there is a lack of repositories for available housing units which makes searching and obtaining suitable homes daunting for individuals/households. Although private companies manage existing housing repositories, they are typically limited to prime locations and private properties. In-depth and broader housing repositories that cover the wide range of public and private properties available and across all locations are required. However, the infusion of technology will be useful in addressing the issue of repository, tenure, convenience, and bias in the housing sector.

Housing Demand: This is based on two requirements - ability to pay and willingness to pay. These key requirements define access to housing. However, in Nigeria, the purchasing power of households has been reducing over the past five years due to adverse macro-economic conditions. Specifically, over 80.00% of Nigerian households have been impacted negatively and their annual purchasing power has declined significantly. The issue of affordability is thus critical to resolving the housing challenge as a substantial portion of Nigerian households are unable of owning homes.

Lack of Access to Affordable Financing Options: This is in form of mortgages at manageable rates coupled with high cost of land, the high cost of construction materials contributes to making houses expensive and above the affordability threshold for most households in the country.

Mortgages are the core source of home financing in other climes. Mortgage to Gross Domestic Product (GDP) ratios for South Africa, United States of America (USA) and United Kingdom (UK) are at 30.00%, 60.00%, and 70.00% respectively. Meanwhile in Nigeria, mortgage to GDP ratio hovers at about 0.50% - one of the lowest in the world. In Nigeria, mortgages are unattractive and unaffordable to households and housing developers due to relatively high interest rates and high equity contribution requirement. This is highlighted in the Central Bank of Nigeria's report for 2019 which revealed that a total of one hundred and thirteen thousand (113,000) mortgages were outstanding as of 2019 despite the number of households with housing needs being more than ten million (10,000,000). Although, schemes such as the National Housing Fund (NHF) were designed to aid access to housing finance, NHF loans per capita is very low and continues to trail Nigeria's growing population. The lack of access to mortgage finance has led to the preference for personal savings as a source of housing finance in the country.

Policy inadequacy: The Nigerian housing market has a plethora of policies aimed at addressing all the foregoing issues and improving key fundamentals such as access and affordability. However, these policies are fraught with inadequacies and implementation issues and have failed to address the housing challenges in the country. Notwithstanding, the policies provide the foundation for the Nigerian housing ecosystem and highlight the actions that have been taken to address the key challenges. A review of the extant policies and programmes/initiatives reveal that most of them are geared towards providing financing, which is critical for the sector. Other policies and programmes such as the National Building Code, Vision 20:2020, were developed to address the quality and availability of housing for all Nigerians. While some of these policies have yielded positive results for the sector, full implementation remains a concern. The policies/programmes/initiatives are also impacted by the lack of political will for implementation by successive government administrations and limited collaboration by key stakeholders across the ecosystem.

Consequently, the challenges have persisted because of lack of effective, collaborative and targeted actions aimed at tackling the root causes across the housing value chain by all relevant stakeholders. The need for collaborative action is ever more critical given the level of fragmentation in the sector. A coordinated and collaborative effort is of critical importance in ensuring that these issues are addressed both holistically and across the divide in the housing ecosystem.

It is against this backdrop and vis-à-vis the renewed global case for housing via the Sustainable Development Goals (SDGs) of the UN that it has become imperative for Nigeria to have a National Housing Strategy (NHS). The NHS establishes what the vision for housing should be – *Quality Housing for all Nigerians* – drawing from the National Housing Policy of 2012 and extensive engagement with key stakeholders across the housing ecosystem. The housing vision rests on five (5) key pillars:

- *i. Affordable* implies that no Nigerian should spend more than 33.00% of their annual disposable income on rental or mortgage payments. This ensures that the individual or household can afford to maintain a decent standard of living in other non-housing areas
- ii. Standard indicates that housing for all Nigerians must meet the minimum design and construction requirements as established in the Nigerian Building Code. Also, housing must satisfy the living conditions as set out by the United Nations' Habitat
- *iii.* Accessible implies that the infrastructure such as good roads, facilities and basic amenities required for quality housing is made available to all Nigerians
- *iv. Fit for population* suggests that the housing supply should take into consideration the requirements of Nigerians across income levels, age groups, culture, and locations; and drive better outcomes for all
- v. Sustainable implies that quality housing is achieved when both present and future needs of Nigerians are put into consideration

In addition to the highlighted pillars, nine (9) broad strategic objectives were developed to anchor the required initiatives for the Nigerian housing ecosystem within the next ten (10) years. These broad strategic objectives are:

- i. Harmonise all existing housing initiatives/programmes
- ii. Improve land administration and titling process
- iii. Reduce housing construction cost
- iv. Improve housing quality across the country
- v. Bridge the housing deficit
- vi. Establish housing assistance models to address social housing need
- vii. Enhance access to housing finance for home acquisition

- viii. Promote flexible payment options
- ix. Deepen capital market activities

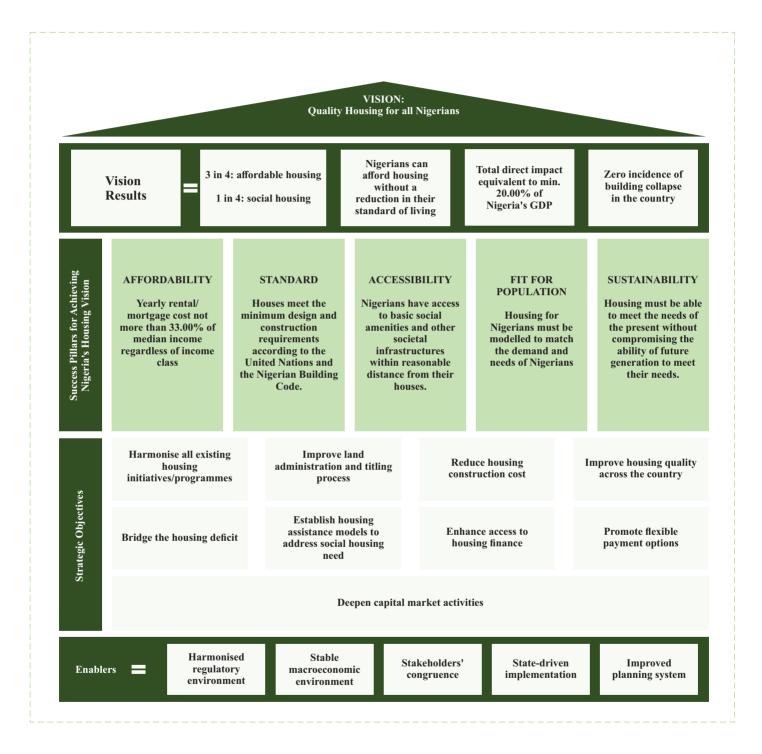
The strategic objectives were further cascaded into initiatives mapped to different government offices, agencies, and relevant stakeholders for implementation within the planning period. Some of the key initiatives are:

- i. Set up a private sector funded implementation body made up of public and private sector stakeholders to oversee the implementation of the country's National Housing Strategy (NHS)
- ii. Digitise the land administration process in the country to enhance efficiency in land administration
- iii. Leverage existing vehicles with the mandate to support infrastructure development e.g., Infrastructure Corporation of Nigeria Limited (InfraCorp) to guide the development of basic housing infrastructure and address the issues of building/land infrastructure for housing construction
- iv. Develop the local input market for critical materials required for construction to help drive down construction cost
- v. Establish limited profit companies to champion affordable, low cost and social housing schemes on behalf of state governments
- vi. Restructure the current National Housing Fund to effectively mobilise funds for housing construction
- vii. Develop and approve framework for the creation of mortgage-backed securities to provide long-term financing options for the housing ecosystem
- viii. Develop strategies to ensure effective implementation and strict compliance with the National Building Code (NBC) across all States of the federation
- ix. Ensure periodic reviews of the NBC to enhance alignment with global housing standards

The foregoing strategic objectives and initiatives can only be achieved with the right blend of actions and support both from the public and private sector players in the ecosystem. In specific terms, these critical supports/success factors have been grouped as follows:

- i. Strong political will from the Federal Government (especially the Presidency) to demonstrate the importance of housing for the socio-economic revival of the country
- ii. Stable macro-economic environment this is essential to keep prices stable, reduce interest/mortgage rate as well as growing per capita income needed for economic prosperity
- iii. Stakeholders' congruence to ensure all key stakeholders are working towards a common goal
- iv. State-driven implementation given Nigeria's federal structure and the powers conferred on state governors on land administration, each state of the Federation needs to properly align with the overall national objective and lead the implementation of same within their territory vis-à-vis the specific nuances (culture, religion, weather conditions, etc.)
- v. Harmonised regulatory environment and improved planning system

Figure 1: Nigeria's Housing Strategy Framework



1. Introduction and Background

Housing is a basic human need and housing for all Nigerians can be achieved through a collaborative and inclusive approach

Housing is a basic need and right of every human being

Every citizen should have access to a decent and affordable house as enshrined in the United Nation's Declaration of Human Rights. Access to a decent and affordable house is essential not just to the overall health and wellbeing of citizens but also supports a well-functioning society and generates sustainable economic prosperity for nations.

The factors affecting housing in Nigeria are pervasive and detrimental to the economy

Like many developing economies, Nigeria is unable to fully provide decent and affordable housing for its citizens. Nigeria has a dual challenge of inadequate housing supply to meet its teeming population growth, and sub-standard housing which does not meet the conditions of Habitability, Safety & Security, Comfort, Sanitation, Accessibility, Infrastructure, Social Amenities, and Socio-cultural Adequacy as set out by the United Nations and World Health Organisation (WHO).

The latter appears to be a greater challenge compared to the issue of housing deficit. According to PwC analysis, as of 2019, 75.00% (31.60 million) of the 42.00 million housing units in Nigeria were discovered to be sub-standard (*See Appendix: Section 9, Housing Analysis*). This implies that addressing the housing challenge in Nigeria must involve a blend of urban renewal or housing upgrade schemes and building of new houses to meet the country's growing population needs.

The challenges in the housing sector cut across the value chain and range from land acquisition and high construction costs to inadequate home financing options, including limited access to affordable mortgages or periodic rental payments. These hurdles have persisted within the last three decades despite attempts by successive governments to address them.

Addressing these issues will require a coordinated, collaborative, and cohesive approach amongst key stakeholders

Findings from engagements with key stakeholders across the value chain revealed that Nigeria has a plethora of policy initiatives needed to reform the housing sector for greater prosperity. Thus, there is a consensus that harmonising these policy initiatives and fostering collaboration amongst stakeholders is necessary to building a viable housing ecosystem in the country.

It is against this backdrop that a **National Housing Strategy** has been developed to foster collaboration amongst the key stakeholders in the Nigerian housing market, to consolidate all relevant policy measures and to promote new strategies that will engender an inclusive housing ecosystem.

This National Housing Strategy document has been divided into three (3) parts:

- The first part provides an assessment of the current housing market/ecosystem with an emphasis on the key obstacles within the sector based on empirical analysis and discussions with relevant stakeholders across the housing value chain
- The second part highlights the vision for housing in Nigeria, key strategic pillars and initiatives required across various aspects of the value chain to achieve the overall housing vision
- The document wraps up with an implementation roadmap on how Nigeria can address a significant part of her housing challenge within the next decade

2. Setting the Context

2.1 Housing Ecosystem

Sustainable housing delivery is hinged on the efficient interworking of its ecosystem.

From land acquisition to construction and housing delivery to households, the housing ecosystem underpins the interrelationships that are crucial to housing development and addressing housing challenges.

The Nigerian housing ecosystem is decentralised due to policy measures of previous administrations and exists at the state and federal levels. At each level, the ecosystem is made up of Land, Construction, Distribution, Demand and Financing value chains. **Figure 2** (see next page) shows how the housing ecosystem in Nigeria is currently structured and how the activities of the various stakeholders lead to the housing delivery process.

The housing ecosystem begins with the land value chain where land is acquired from either the government or communities

Title to the acquired land is perfected at the land bureau while the planning and urban development authority issues building permits for the construction process. Once building permits are issued, the construction companies, state housing corporations and the Federal Housing Authority develop the housing structures which are then distributed by real estate companies to the final consumers. The informal sector also constructs and distributes houses and accounts for a substantial portion of the housing supply chain.

To acquire a home, households either build off-plan or buy with funding from the National Housing Fund, cooperative societies, loans from commercial banks or personal savings. They can also rent from landlords. Rental housing is a common theme in Nigeria due to the high cost of home acquisition. Consequently, despite the desire to own homes, households are unable to do so due to the high cost of home acquisition, income limitations, lack of access to affordable financing, amongst other challenges.

Despite the challenges, building off-plan through the incremental housing process is also a widespread practice in Nigeria

This is highlighted in **Figure 2** (see next page) as the informal housing delivery chain, which emerged because of the challenges in the ecosystem that deter homeownership. However, this has also resulted in housing development without building permits and nonconformity with building standards which leads to a proliferation of sub-standard housing structures in the country.

Throughout the housing delivery process, the financing value chain made up of mortgage banks, Federal Mortgage Bank of Nigeria, funds such as the Family Homes Fund Limited, and cooperative societies provide financing support. This financing support is made possible through the capital market and institutions such as the Nigeria Mortgage Refinance Company PLC and the Mortgage Warehouse Funding Limited, which funds mortgage banks.

The financing value chain stands isolated from other aspects of the value chain with no visibility into the activities of the land, construction, and distribution value chain. This limited visibility results in information gaps that impacts the supply of housing finance, the associated interest rates, and the high cost of housing units.

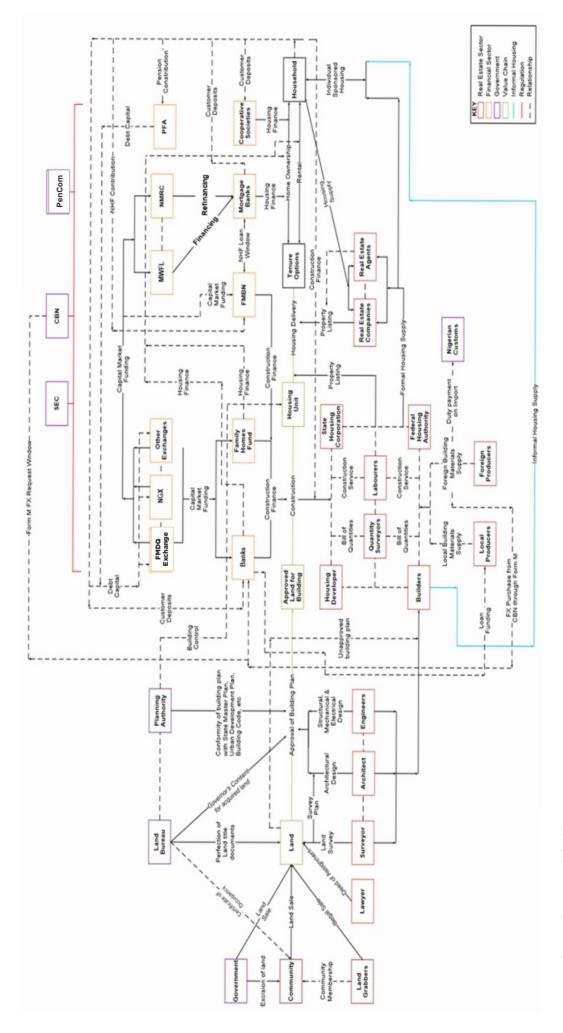
The housing challenge can be addressed regardless of the nature of its structure, but coordination is key

The current decentralised structure of the housing sector is partly responsible for the silo operational models of various stakeholders that operate within it. As a result, it is challenging to coordinate activities across the ecosystem, bearing in mind the state and federal divides. This coordination challenge has resulted in a lack of collaboration amongst the stakeholders, thereby exacerbating the housing challenge in the country.

Nigeria's housing challenges can be addressed regardless of the nature or structure, but coordination is key. The current lack of coordination and decentralised structure of the housing sector ultimately translates to inefficiencies typified by duplication of efforts, funding gaps and weak regulatory/policy enforcement challenges, amongst others.

Nigeria's housing ecosystem is complex and the lack of collaboration among stakeholders continues to hinder its efficiency

Figure 2: Nigeria's Current Housing Ecosystem Schematic



See narration on pages 114 - 117

Note: SEC: Securities and Exchange Commission; CBN: Central Bank of Nigeria; PenCom: National Pension Commission; FMDQ Exchange: FMDQ Securities Exchange Limited; NGX: Nigerian Exchange Limited; MWFL: Mortgage Warehouse Finance Ltd.; NMRC: Nigeria Mortgage Refinance Company; PFA: Pension Fund Administrator; FMBN: Federal Mortgage Bank of Nigeria; NHF: National Housing Fund

Structural reforms in the ecosystem are crucial to resolving the challenges in the housing market

There is no shortfall of initiatives and policies to address the challenges of housing

However, the extant initiatives and policies have not addressed the housing challenges in the country. At the root, the implementation of the policies is a problem. The absence of a properly defined, organised and collaborative structure continually impedes any attempt to implement the initiatives to address the housing challenges.

In Nigeria, the lack of a collaborative structure is a challenge which cuts across every segment of the economy

These structural deficiencies have resulted in duplicated functions/initiatives and implementation gaps that have continually widened over the years. With a population estimated to be more than two hundred million (200,000,000), the identified structural challenges have far-reaching consequences for the adequate provision of housing and the wellbeing of Nigerians.

Housing delivery cannot be achieved without the right structure and harmonisation of objectives to provide direction and guidance for stakeholders. This is a core challenge in the housing delivery process as efforts fail to achieve the intended objectives due to structural issues that impede progress.

There is a need to address not just the gaps in the ecosystem but for restructuring which would foster collaboration

Coordinated and concerted efforts towards commonly defined goals would most certainly impact positively on implementation and output. The goal towards addressing the housing challenge thus begins with the need for structural reforms holistically and across the entire ecosystem.

2.2 Land Assessment

Land is a key economic resource fundamental to development and sustainable housing delivery but has been affected by the shortcomings of the Land Use Act.

Land is a key economic resource fundamental to development

Land is a resource that is highlighted in the World Bank Index for Doing Business as an important enabler for economic growth.

According to the World Bank Index for Doing Business (2019) which measures the ease of doing business across one hundred and ninety (190) countries, Nigeria ranks 186th in the world in terms of ease of registering properties. The ranking reflects the current state of the country's land administration system across several metrics which includes an average of twelve (12) procedures and ninety-two (92) days to register landed properties, costing up to 11.00% of the property value and with a score of eight (8) out of thirty (30) in terms of the quality of its land administration system.

In comparison, sub-Saharan Africa has an average of 6.10 procedures and 51.6 days in registering landed properties, costing 7.30% of property value and a score of nine (9) out of thirty (30) in terms of the quality of its land administration system. The difference highlights the critical need to address the challenges relating to land in the country.

Land availability is essential to sustainable housing delivery

To achieve sustainable housing delivery, there must be efficiency in the use and administration of land resources. This is because land could be a veritable source of unlocking finance for the entire housing ecosystem when made a tradable asset.

The foregoing underscores the need for progressive land reforms/policies in Nigeria, especially with respect to land administration and titling. The Singaporean land reforms, and housing model offers a significant learning opportunity for Nigeria in this regard. A review of the Singaporean model showed that the country was able to address the issues around land administration and housing delivery through a mix of policy and structural changes such as legislation on the compulsory acquisition of land and digitisation, and transparency in the land registry. The implementation of targeted policy measures backed by strong political will were fundamental in the land reform process.

The Land Use Act has been unable to address the issue of multiplicity of land tenure systems in the country and has resulted in administrative bottlenecks

The Land Use Act is key to sustainable housing delivery in Nigeria and addressing the shortcomings of the law is the first step to tackling the housing challenge in the country.

One of the objectives of Nigeria's Land Use Act upon its promulgation in 1978 was the merging of the various land tenure systems in the country. This was aimed at addressing the issues of access and to create a unified tenure system that eased land administration. However, this has not been achieved as there is still a predominance of communal and informal tenure systems. This can be attributed to a lack of public trust, tenure insecurity and the bureaucratic process in the formalisation of land ownership and associated costs.

For example, according to Prof. Adeniyi, Chairman, Presidential Technical Committee on Land Reform and Management, about 97.00% of the country's land resource are unregistered but traded regularly. While in the rural areas, there is high disregard for the legal proceedings around land formalisation. This results in restricted ownership and the issue of ease of convertibility. These issues have been attributed to the implementation of the provision of the Land Use Act, which requires the Governor's consent on all land matters in the state. With respect to this provision, governors (with the exception of a few states) have failed to grant general consent on specific matters, particularly sales agreements and mortgage deeds or delegate this power to ensure efficiency. This shortcoming is the major pitfall of the Act as it creates administrative bottlenecks.

Also, the issues of the Land Use Act stem from the implementation of the provisions of the law as the Act lacks implementation guidelines and is steeped in too much bureaucracy. The entrenchment of the Act in the Constitution makes any attempt at amendment cumbersome. Furthermore, the requirement of the Governor's consent on all land related transactions has created not only administrative bottlenecks in land administration but has also resulted in low formalisation of land ownership in Nigeria. In addition, the fines laid out in the Land Use Act for offenses are too low to be punitive.

Today, formalisation of land rights is low in Nigeria due to these administrative bottlenecks which have resulted in lengthy and costly land registration processes and precipitating land as dead capital in the country.

There is a consensus by stakeholders that the Land Use Act needs to be amended to address the land administration challenges in the country

The need to amend the Land Use Act is a concern shared by stakeholders in the housing ecosystem. There have been calls for its amendment, but that is a herculean task given that the Constitution requires the approval of two-thirds of the State House of Assemblies in the country for any amendment to be passed.

However, it is recommended that the Land Use Act be amended to include clauses that simplify the entire land administration process, include systematic titling and registration, reduce the reference to the governor for every change in land ownership. Specifically, there is the need to amend the provisions that stipulate that the Governor's consent is required in assignment of title, mortgage, transfer of possession and sub-lease as this will shorten the time spent on land administration, include time limits for the necessary approvals in order to reduce the time taken for land acquisition, amend the fines therein and include clauses that enforce appropriate implementation. It is also recommended that the Land Use Act be expanded to address issues of infrastructure development.

The idea is to be able to create administrative remedies for people, ease the processes and timeline in plot titling and subsequent transaction (consents), make compensation more responsive institutionally instead of condoning post-title siege on developments by landowners, harmonise the Land Use Act with the community Land Tenure practices and the need to shift interest from ownership to access to housing.

Urban planning is crucial to land development and in building sustainable cities. It is highlighted in the United Nations Sustainable Development Goals on Sustainable Cities and Communities.

In Nigeria, the Urban and Regional Planning Act (URP Act) of 1999 governs urban planning in the country.

The URP Act is supported by the National Urban Development Policy of 2012 and together they stipulate the role of government in urban land management, defining the responsibilities of the three tiers of government in relation to urban planning.

Challenges in the land administration system have affected urban planning amongst other issues

Although these requisite frameworks are in operation, their implementation have been affected by challenges in the country's land administration system. Specifically, the inability of the formal land administration system to make adequate land available, especially to marginalised groups such as women and the poor, has hindered development.

Also, failure of government to create these governing institutions, compensate landowners for compulsorily acquired land, tenure insecurity, lack of properly surveyed and demarcated urban land and bureaucratic land formalisation processes have plagued the planning landscape in Nigeria.

Nigeria's growing population presents new risks

Nigeria's growing population and its high-risk exposure to climate change due to asset and industry concentration in low-lying areas highlights the heightened need for urban planning. There is a significant knowledge gap on urban planning processes and regulations in the country. Also, urban planning institutions lack the requisite capacity to plan and enforce regulations and are typically known to impose restrictive planning and development requirements with high costs of compliance.

Overall, this has created an atmosphere of public distrust, lack of transparency, uncontrolled developments, slum proliferation, weak enforcement of land use, environmental degradation, and inadequate urban infrastructure.

State governments are addressing the planning issues through urban development programmes

Although numerous state governments are addressing some of these issues through urban renewal programmes, oversight over physical planning in their states and adoption of technological solutions such as the GIS, the impact has been weak. Old and redundant master plans and the inherent zoning requirements highlight a major gap that has hindered progress. Also, initiatives such as the Sustainable Cities Programme have been implemented in cities such as Ibadan, Enugu, and Kano to address urban development. Across the country, partnership with United Nations Human Settlements Programme (UN-Habitat) to prepare structured plans for cities have enabled states such as Anambra, Nasarawa and Osun to benefit from such programme.

In Lagos, the World Bank funded the 2004 Lagos Metropolitan Governance Project under the New Partnership for Africa's Development (NEPAD) Cities programme, which was able to revive the culture of adopting strategic land use development plans.

While some progress has been made to date, there are still significant gaps across the country where outdated urban plans are prevalent. Addressing the housing deficit challenge requires sustainable solutions in addressing the urban planning issues in the country.

Land in Nigeria is also dead capital underpinned by land administration challenges and infrastructure deficits

The manual land registration processes and outdated land registry systems have deepened the effect of the administrative challenges resulting from the Land Use Act

Today, land registration across the country is still largely manual, requiring paper forms and physical processes that result in operational delays with high economic costs. More so, these processes are supported by outdated and restricted land registry systems which are potential sources of tenure insecurity challenges as land titles can be tampered with, misplaced, stolen, or exposed to hazards such as fires, and flood. These challenges affect public trust in the formalisation process and impede the ability of stakeholders particularly within the finance value chain from providing support due to the inability to ascertain the genuineness of land titles.

Although, some states have adopted the use of technologies such as the GIS and Electronic Document Management Systems (EDMS), these solutions only ease land administration, and do not expressly address the manual land registration process. Digital solutions that address the registration flow and enable the creation of a digital land registry system must be adopted, e.g. in the United Kingdom, Digital Registry (digitalregistry.org.uk) aids the land registration process for Her Majesty's Land Registry (HM Land Registry).

The tenure and administrative challenges have made land illiquid, thus affecting its marketability both as an asset and securitised commodity

The illiquid nature of land has created a situation in the country known as Dead Capital.

Dead Capital simply refers to inactive assets that have earning capabilities that are not being realised. The illiquid nature of land in Nigeria, caused by administrative bottlenecks, qualifies it to be termed as Dead Capital.

According to PwC, the value of dead capital in Nigeria is estimated to be more than US\$ 300.00 billion, which translates to 60.00% of Nigeria's Gross Domestic Product (GDP).

Today, there are no established formal markets in Nigeria wherein land is traded both as an asset and a securitised commodity. The current land market lacks structure and is highly fragmented with various players trading outside government oversight and regulation which creates room for land disputes. While land administration reforms and the use of technology could ease the overall process and improve land access, there is a need for transparency particularly with respect to price determination mechanism, enabling laws, effective regulation and the development of a formal market that creates the necessary structures that address the marketability and illiquidity challenges.

The infrastructure shortfall in the country is another hindrance to land development and affordable housing in the country

Land development is dependent on the availability of the necessary infrastructure such as roads, pipe-borne water, electricity, sewage systems. However, the limited availability of these infrastructure has resulted in the private sector providing such at a cost that impacts housing delivery negatively.

Today, the infrastructure cost for land and housing development could range between 20.00% to 25.00% of the total cost of housing delivery across the country. This invariably increases the cost burden on developers and raises the affordability bar for most home seekers.

Chart 1 shows that infrastructure is a key cost driver in the housing delivery process across the country. This is, however, unsustainable given the country's rising population is expected to reach four hundred million (400,000,000) by 2050. Thus, it becomes imperative to have deliberate and targeted initiatives towards investing in critical infrastructure that will support land development as well as reduce construction cost for developers for Nigeria to adequately address its housing challenges.

Some of these challenges are being addressed through various initiatives and policy measures albeit on a small scale and in isolation. A collaborative widespread approach is required

20.000 25.000 30.000 5 000 10 000 15 000 Bauchi State Borno State Katsina State Kano State Niger State FCT Ebonyi State Enugu State Rivers State Akwa Ibom State Ovo State Ogun State Lagos State 000, 14 ■Housing Development Cost ■Infrastructure Cost

Chart 1: Cost of Infrastructure and Housing Development Across States in Nigeria 2020

Source: NBS

States with a Geographical Information System managing their land administration process are more efficient in land registration

States like Kano, Kaduna and Edo State have implemented structural changes wherein land administration process is managed by their GIS. In comparison with other states where land administration is managed by the land bureau, the GIS has infused efficiencies in processes and operations that have not only reduced formalisation costs to as low as \$\frac{1}{2}\$,500.00 in places like Kaduna but also eased the issuance of land title documents within a 30-day period. This has proved crucial in reducing the overall cost of housing development in the state.

The implementation of an Electronic Document Management System (EDMS) could aid the efficiency of the land administration system/process

The EDMS could ease tenure insecurity and reduce processing time as documents could be easily retrieved and stored. This is the case for Lagos state which adopted this. In addition, the Federal Ministry of Works and Housing implemented the Federal Land Information System (FELIS) to maintain the records of federal government land across the federation, ensuring centralisation of records and document safety and integrity. However, it must be noted that while these actions are laudable, they only address issues around tenure insecurity and not necessarily the land registration process.

Large scale land registration has proven effective in addressing the low level of land title formalisation

In 2014, Kano state was able to leverage Growth and Employment in States 3 (GEMS3) - Business Environment, a state level programme jointly funded by the World Bank and Department for International Development (DFID) Nigeria, to address the land titling and registration challenges in four (4) local governments in the state. The programme adopted a large-scale registration process called Systematic Land Title Registration (SLTR). The SLTR was implemented as a cost-effective, scalable, and systematic registration process wherein the State's Geographical Information System (GIS) staff visited land and property owners to register owners of such and to issue Certificates of Occupancy. The programme was successful as over fifteen thousand (15,000) Certificates of Occupancy were issued for over fifty thousand (50,000) households resulting in the complete regularisation of land titles in the four (4) Local Government Areas in the state.

In neighbouring Kaduna state, a similar programme titled Systematic Property Registration Programme (SPRP) was implemented in 2017 at a cost of N5,000.00 for men and 2,500.00 for women to address the land administration challenge with similar results and Certificates of Occupancy issued within thirty (30) days.

Overall, the process has reduced the land registration process from months to four (4) weeks and reduced the overall cost of housing development in the states. Although full digitisation is needed for efficiency, the process has proven effective.

The Model Mortgage Foreclosure Law (MMFL), Electronic Mortgage Asset Registry (eMARS) system, and the Formula 131 on land registration are key to unlocking the mortgage market

The MMFL is critical to de-risking the mortgage sector because it eases the issuance of certificates of occupancy, the transfer of land and property and ultimately the creation of mortgages. Currently, the law has only been adopted by Kaduna, Ekiti, Nasarawa, Ogun and Lagos (modified version) States following advocacy by the Nigeria Mortgage Refinance Company (NMRC) PLC and the Central Bank of Nigeria on its adoption. Meanwhile discussions in other States, including Akwa Ibom, Ogun, Kwara, and Niger States, are ongoing.

The eMARS will enable the digitisation and centralisation of access to title documents across the financing value chain. This system would de-risk the mortgage market and enable fund to flow into the land value chain. This system is currently being developed through a partnership between the World Bank and NMRC.

The Mortgage Banking Association of Nigeria (MBAN) is advocating for the adoption of formula 131 which means land titling should not cost more than 1.00% of land value, not take more than three-days (3-days) and be available at one (1) access point.

Land administration challenges and infrastructure deficits continue to affect the land value chain and its potential economic capital. Without reforms, sustainable and affordable housing delivery cannot be achieved. As such, reforms must be implemented through collaboration with stakeholders in the value chain.

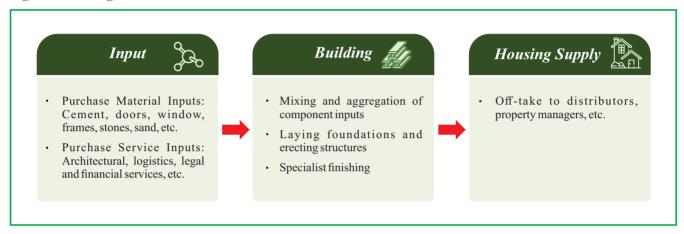
2.3 Construction Landscape Assessment

Housing construction plays an important role in the housing ecosystem particularly with respect to availability of standard housing supply

Housing construction is the bedrock of housing supply in the country

The housing construction market is categorised into three (3) sub-segments as shown in **Figure 3** below. The first segment basically entails the supply of all key materials/inputs required for housing construction, while the second segment involves the construction of properties for residential/commercial purposes, which are then transferred to property managers to off-take/distribute, which forms the last segment of the construction chain.

Figure 3: Housing Construction Value Chain



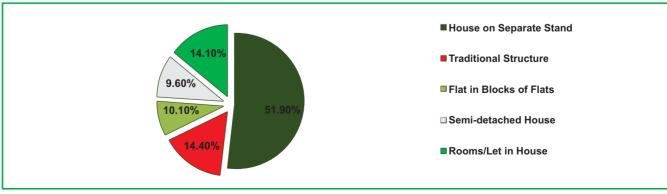
The efficacy of the housing construction market determines not just the scale of the housing supply but also the quality and affordability of the houses that have been built. However, the Nigerian housing construction market is fraught with inefficiencies. This is manifested in the structure of the market whereby over 80.00% of the total housing supply is from the informal activities carried out by individual builders and formal small-scale developers (institutionalised developers who typically construct five (5) to twenty (20) housing units at a time).

The distribution of total housing supply (stock) in the country also points to this as most (51.90%) of the total housing stock in the country are built on a separate stand which are detached housing structures e.g., duplexes, bungalows, etc., that are built on a single plot of land – please see **Chart 2**.

However, supply from the construction market lags housing demand in the country

Nigeria's total housing stock (supply) as at end of 2019 was estimated at forty-two million (42,000,000) units - 54.00% increase from the twenty-eight million (28,000,000) units counted during the 2006 census. More than half of the housing supply is concentrated in the North-Western and South-Western regions of the country (see **Chart 3**), which are also the two most populous regions in the country.

Chart 2: Housing Stock Split by Type (2019)



Source: NBS

Despite the growth in housing supply, the total number of houses constructed per year still falls short of population requirements. According to the Central Bank of Nigeria (2019), Nigeria needs to produce a minimum of one million (1,000,000) housing units per year to bridge the housing deficit in the country by 2033. However, they estimate that total housing supply per annum is only approximately two hundred thousand (c.200,000) units.

PwC analysis indicates that the majority (75.00%) of houses built in Nigeria are sub-standard when evaluated against the United Nations (UN) criteria of eight (8) standard requirements for permanent human occupation - Habitability, Safety and Security, Comfort, Sanitation, Accessibility, Infrastructure, Social Amenities, and Socio-Cultural Adequacy (See Appendix: Section 9, Housing Analysis). These challenges are more severe in the Northern regions of the country vis-à-vis the Southern regions (see Chart 3).

■ Standard housing ■ Substandard housing 0.20 mm 4.40 mm 0.10 mm 2.80 mm 1.10 mm 9.40 mm 1.70 mm 4.70 mm 4.00 mm 3.40 mm North West North East South West South South North Central South East

Chart 3: Housing Stock Split by Region (2019)

Source: NBS

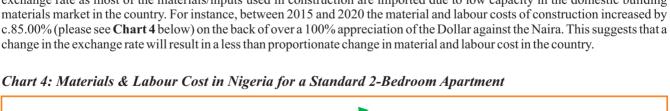
The subsequent paragraphs provide insights on the key drivers of the twin challenges of inadequate housing supply and substandard housing in the housing ecosystem.

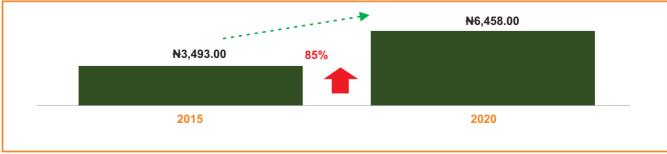
High construction cost and frail regulatory framework are the key impediments to housing availability, quality, and affordability

Construction costs principally revolve around:

- Material and labour costs
- Regulatory/compliance costs and
- iii. Infrastructure costs

Material and labour costs are the predominant drivers of construction costs, accounting for almost two-thirds (65.00%) of total construction costs. These costs are largely sensitive to variations in macro-economic factors, particularly with respect to exchange rate as most of the materials/inputs used in construction are imported due to low capacity in the domestic building materials market in the country. For instance, between 2015 and 2020 the material and labour costs of construction increased by c.85.00% (please see Chart 4 below) on the back of over a 100% appreciation of the Dollar against the Naira. This suggests that a





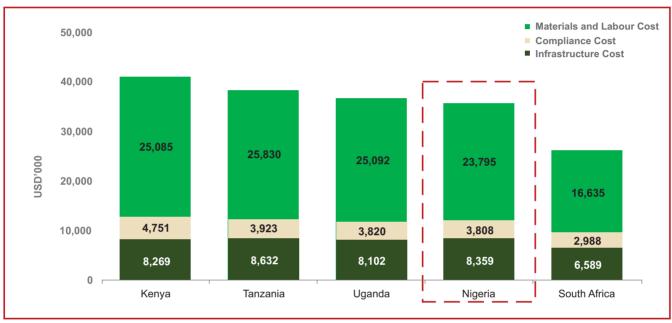
Source: Independent Market Survey

The foregoing has severe implications for the availability of standard housing as well as the affordability of same by the populace. Thus, developing the inputs (domestic building materials) market is essential for shielding the housing construction market from the vagaries of the exchange rate market and ensuring the cost of houses are within the affordability range for Nigerians.

South Africa could offer some learnings for Nigeria to reduce its materials and labour costs, which are circa 43.00% lower vis-àvis Nigeria's materials and labour costs (please see **Chart 5**).

South Africa has a developed manufacturing sector and can produce most of the inputs required for building construction locally. This has made the country's housing market competitive when compared to other countries in Africa.

Chart 5: Cost of Construction per Country



Source: The Centre for Affordable Housing Finance in Africa (CAHF)" Benchmarking Construction Costs across Africa 2018-2020'

Infrastructure inadequacy is another challenge in the housing construction value chain also impacting housing quality and affordability

Housing infrastructure, which includes road access, electricity, water, and sanitation systems are often lacking in most areas within Nigeria, data from the Nigerian Living Standard Survey supports this. The survey shows that in 2019, only 3.30% of households have access to piped water and just under 24.00% have access to sewage/septic tanks. The survey also shows that only 51.70% of households are connected to the national grid.

The current norm is that housing developers or individuals provide these basic infrastructures while constructing housing units instead of connecting to a central utility system. Hence, infrastructure cost increases the overall construction cost.

The combination of the foregoing factors has negatively impacted the housing construction market, particularly with respect to the availability of quality housing and its affordability.

Another factor impacting housing construction in Nigeria is the cultural preference for standalone buildings which are not the most cost-efficient model of housing in Nigeria

PwC estimates that over 50.00% of the housing stock in Nigeria are stand-alone (detached) housing. In **Chart 6**, CAHF study shows that constructing a 2-bed five-storey walk-up apartment instead of a 2-bed detached bungalow can yield construction cost savings between 8.00% - 11.00% over (\$1,000,000.00) per housing unit (\$11,890,000.00 to \$10,650,000.00). The increase on Materials and Labour cost of \$1 million is more than compensated for by cost savings on Infrastructure Cost of \$2.33 million.

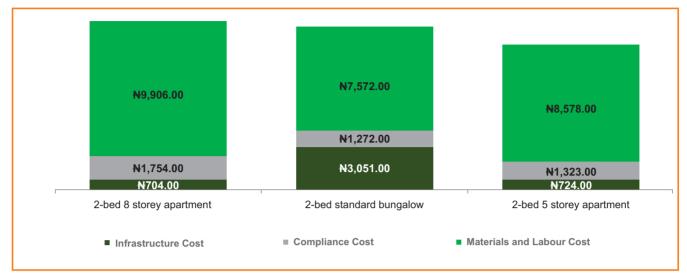


Chart 6: Construction Cost by Type – № '000 Nigerian Naira (thousands)

Source: The Centre for Affordable Housing Finance in Africa (CAHF)" Benchmarking Construction Costs across Africa"

Poor adherence to building standards worsen the quality of houses built

Regulation in the housing construction space includes the registration of contractors and skilled workers with relevant professional bodies, and the monitoring of construction work and standards in Nigeria.

Although, the Federal Ministry of Works and Housing is the apex regulator and the de facto headquarters of the National Building Code established in 2006, building development control is independently under the purview of each state government.

However, states are overwhelmed by the task of monitoring and controlling building works within their respective jurisdictions and have not yet explored the possibility of collaborating with private building professionals to effectively monitor the standard of buildings as in developed climes.

Majority of informal building construction are conducted on unregistered land for which occupants hold no formal title, which also means no building approvals or construction permits are obtained. The informal builders who carry out these constructions are often in oblivion of building regulations or safety codes and most likely end up building sub-standard housing units.

PwC's analysis of sub-standard housing stock across the country revealed that the challenge of sub-standard housing is more prevalent in the Northern regions of the country vis-à-vis the Southern regions. Many of the stakeholders within the housing ecosystem have attributed the predicament to a plethora of issues from both the demand and supply side of the housing value chain. The demand side challenges are driven by depressed household income induced by rising inflation and declining per capita income. Consequently, most households find it difficult to afford decent housing whilst maintaining expenses for other necessities of life. For the supply side, the key constraints include poor urban planning/mapping, rising material and labour costs, weak regulatory oversight and bureaucratic processes relating to land administrations and other building approval processes.

Bureaucratic procedures in approving construction affects the lifecycle of projects and leads to inefficiencies

Building permits are required for every housing construction project to ensure that the project plans are in compliance with local (state) standards for land use, construction, and zoning. However, developers face multiple bureaucratic barriers in obtaining building approvals and construction permits.

According to the World Bank Ease of Doing Business (2020), the process for obtaining building approvals in Nigeria comprises of fourteen (14) procedures spanning eighty (80) days and costs 8.00% of the value of the building. Mauritius, whose building approval process comprises of twelve procedures, takes 95.5 days and costs only 0.4% of the building value, is the leading country in Sub-Sahara Africa.

Given that most (over 80.00%) of the construction activities in the housing space are carried out in the informal sector by individuals, the current process incentivises these developers (informal builders and individuals) to boycott the formal channels and procedures to obtain the necessary building approvals and engage professionals to provide the right guidance for housing construction.

2.4 Household Demand Assessment

Nigeria's young and growing population makes it imperative to address the issues that impact housing availability and demand

Nigeria's 201 million population is set to grow at an annual rate of 2.40% to reach c.260 million by 2030

The United Nations (UN) estimates that Nigeria's population at two hundred and one million (201,000,000) people, as of 2019, which accounts for 47.00% of West Africa's population and 2.60% of the global population, is expected to grow to approximately two hundred and sixty million (c.260,000,000) people in 2030, at an annual rate of 2.40%.

The estimates were further disaggregated by urban/rural population. Nigeria's urban population accounts for 51.00% of the population, one hundred and three million people (103,000,000) growing at an annual rate of 4.00%. By the year 2030, it is expected that 59.00% of the population will be urbanised. This will inevitably put more pressure on existing infrastructure in urban agglomerations such as Lagos, Kano, Ibadan, and Abuja.

According to Euromonitor International, Nigeria's forty-three million (43,000,000) households will grow to fifty-nine million (59,000,000) in ten (10) years at an annual rate of 2.90%. Urbanisation and number of households are estimated to grow at a higher rate than population due to smaller household sizes, as the average household size reduces from five (5) persons to four (4) persons.

Nigeria's young population (c.44.00% below the age of 15 years) is an indication of the upcoming demand

Figure 4 below shows that majority of Nigeria's population are under twenty-five (25) years and the working-class demography (age 25 – 64) forms 34.00% of the population. Nigeria has an approximate total dependency ratio of 190 per 100 persons, a child dependency ratio of 183 per 100 persons and a potential support ratio of 13 per 100 persons.

0-14 44.00%
15-24 19.00%
25-64 34.00%
Over 65 3.00%

Figure 4: Age Composition in Nigeria

Source: United Nations

The UN further estimates that the median age will become twenty (20) years by the year 2030 implying that adequate provision must be made to cater for the upcoming demand.

Almost half of Nigeria's population are poor and have weak purchasing power

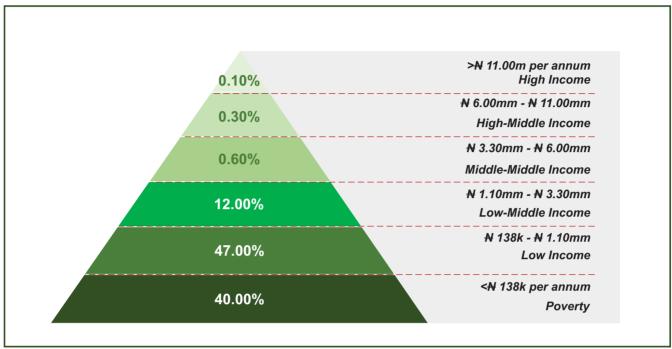
Figure 5 (see below) illustrates the distribution of household disposable income - Purchasing Power Parity (PPP) adjusted based on expenditure/consumption by income category.

Of the total forty-three million (43,000,000) households, over 85.00% have less than \$1.10 million purchasing power – where 40.00% which constitute seventeen million, two hundred thousand (17,200,000) households fall into the poverty income group and 47.00% which constitutes twenty million, two hundred thousand (20,200,000) households fall into the low-income group.

The World Bank classifies Nigeria as a low-income country as it only has 13.00% of its population as middle class and posits that a large share of the middle class in a country's population is associated with positive economic and social changes. The recent

economic slump vis-à-vis a higher population growth has led to a steady decline in per capita income since 2015. This coupled with double digit inflation has also eroded the purchasing power of the average Nigerian and made them poorer in recent years. Based on PwC's estimate, this trend will likely continue.

Figure 5: Household Income Distribution



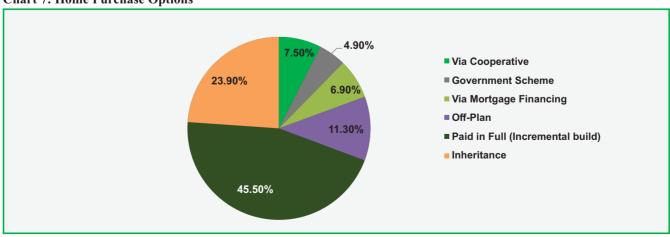
Source: Euromonitor, National Bureau of Statistics

Housing preferences and behaviours are likely to evolve in the future with respect to housing tenure and typology but currently, Nigerian households prefer to own houses through outright purchase or incremental build

A recent independent market survey by PwC revealed that four (4) out of ten (10) households in Nigeria own their accommodation. This is consistent with the general situation in Sub-Saharan Africa except for Kenya and South Africa which have 75.00% and 56.00% ownership rates, respectively.

The survey results (see **Chart 7**) show that most households that own homes, paid in full for their homes. This was followed by those who inherited (23.90%), purchased off-plan (11.30%), accessed a cooperative (7.50%), obtained mortgage financing (6.90%), and accessed a government scheme (4.90%) respectively. This implies that most Nigerians rely on incremental build over time to become homeowners which further highlights the absence of affordable mortgages to acquire homes. Thus, it takes the average Nigerian longer to own a home and at a cost typically higher than what it would be if there was a functioning mortgage system in place.

Chart 7: Home Purchase Options



Source: PwC Independent Market survey

In addition, results from the survey revealed that most households that do not own homes (98.00% of respondents) would still prefer to own land and build homes incrementally over time.

Rapid urbanisation and Nigeria's young population are likely to trigger a range of shifts in housing tenure preference/demand.

Urbanisation is estimated to grow at 4.00% annually, driven by migration from rural areas and new household formation within urban areas. With over 60.00% of the population below twenty-five (25) years old, the next five (5) – ten (10) years will witness many people come of working age and being thrust into the housing market. This will inevitably result in smaller average household sizes but an increase in the overall number of households.

Migrants and new households are less likely to have the resources for home ownership and tend towards prioritising mobility for economic purposes. Hence, these new households will require smaller living spaces/housing units with lower rent prices.

The cultural preference for stand-alone bungalow-type accommodation must evolve to cater to these vibrant, mobile, and small households' requirements. Alternative solutions such as co-living spaces are currently cropping up around business districts in Lagos. Data and technology can continue to unlock and re-purpose otherwise unaffordable family-sized houses before housing developers begin to streamline construction to fit changing market needs.

Despite the changing dynamics, the solution to the affordability challenge will still require income levels and general macroeconomic indices to improve.

Housing demand is either effective or ineffective, depending on a household's ability to pay for a housing unit – assuming willingness to pay is a given

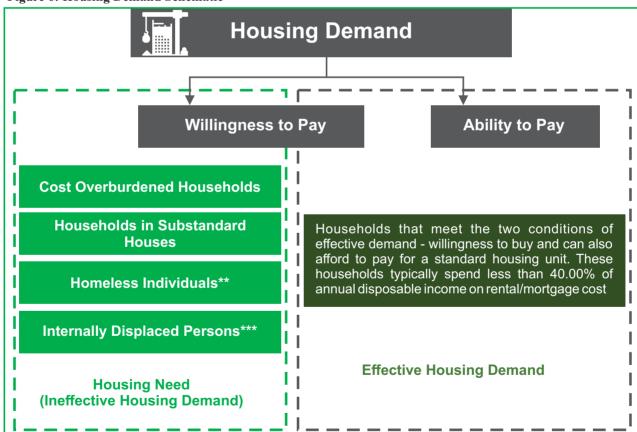


Figure 6: Housing Demand Schematic

Affordability is dependent on a household's income compared with the average housing cost in a specific market (state)

Housing is a basic human need, and it is assumed that every household is willing to pay for a standard housing unit. Based on the foregoing, Nigeria's housing market comprises all households and is segmented into effective and ineffective demand based on the ability to pay for standard housing. The United Nations Human Settlements Programme (UN-Habitat) defines the ability to pay (affordability) as housing cost that does not compromise the enjoyment of other human rights. In other words, to maintain an adequate standard of living and afford other necessities. The UN-Habitat advises that households should not spend more than 30.00-40.00% of income on housing.

To measure this ability to pay, PwC developed a housing affordability index that compares household income with the average rental/mortgage prices in a state.

The housing affordability index is a measure of a household's ability to spend within 33.00% of its annual income on rent or mortgage. The methodology calculates the indicative average income of households within a defined income range, so that the average rental and mortgage prices across the states and the Federal Capital Territory (FCT) can be compared.

Affordability index is 100 if the average rental/mortgage price is 33.00% of the indicative income. Values above 100 indicate the rental/mortgage price is more than 33.00% of household income while values below 100 indicate the rental/mortgage price is less than 33.00% of household income.

Effective housing demand incorporates the willingness and ability of a household to pay for standard housing - via rental/mortgage plans

Chart 8 shows the split of Nigerian households into two segments: effective and ineffective demand. Effective demand is represented by green to the left of the affordability baseline (affordability index of 100) and highlights the number of households estimated by PwC to have affordability index of less than one hundred (100). This means these households can afford to pay for a housing unit either through rent and/or mortgage.

The chart further shows that the estimated effective demand is estimated at seventeen million (17,000,000) in households: 100.00% of the High-Middle-income households in addition to 63.00% of the low-income households. Of these seventeen million (17,000,000) households with the ability and willingness to pay for standard housing, only nine hundred and seventy-five thousand (975,000) households are likely to be able to afford mortgage facilities based on current realities, while the remaining sixteen million (16,000,000) households are limited to rental plans.

Affordability Index Below 100 Affordability Index Above 100 **Effective Demand Ineffective Demand** 17 million Households 26 million Households 15.80 million 11.20 million 8.00 million 5.20 million 2.60 million 0.28 million 0.14 million 0.09 million High Middle Low -Poverty IDPS + High Low-Income Income Middle (Sub-Standard Housing) Middle Middle Homeless Income Income Income

Chart 8: Housing Affordability per Income Group

Source: NBS, Euromonitor, UNHCR: The UN Refugee Agency, PwC Analysis

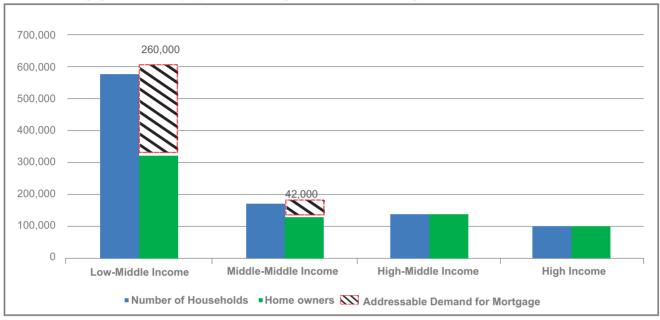
Approximately 31.00% (302,000 households) of the 975,000 households that can afford mortgage facilities, constitute the addressable mortgage market in Nigeria

Chart 9 below illustrates the results of PwC analysis on mortgage affordability by income group and home ownership (See Appendix: Section 9, Mortgage Affordability Analysis for details). Of the nine hundred and seventy-five thousand (975,000) households that can afford mortgage facilities in Nigeria, PwC estimates that 100% of the high-income and upper-middle income groups are already homeowners, while 45.00%, approximately two hundred and sixty households (c. 260,000) and 25.00%, approximately forty-two thousand (c.42,000) households of the Lower-Middle and Middle-Middle Income groups respectively likely do not own homes.

Against this backdrop, PwC posits that the current addressable demand for mortgage in Nigeria is circa three hundred and two thousand (c. 302,000) households, made up of households predominantly in the low-middle and middle-middle income groups. In the future, this number can be affected positively by several factors.

- i. Increase in income levels across Nigeria vis-à-vis slower increase in housing prices
- ii. Longer mortgage tenors (PwC used a national average of 7 years for its analysis)
- ii. Lower mortgage interest rates

Chart 9: Mortgage Affordability by Income Group and Home Ownership



Source: NMRC Uniform Underwriting Standards, Nigeria Property Listing Sites, NBS, Euromonitor, PwC Analysis, Independent Market

Based on the assessment of effective housing demand vis-à-vis available standard supply, Nigeria has an estimated net housing deficit of 6.6 million units

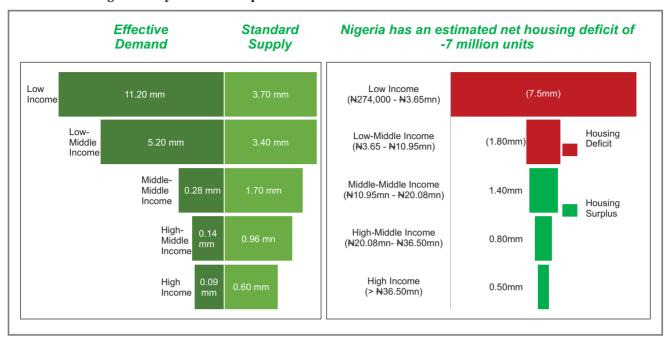
Chart 10 shows the standard housing supply which was analysed using the available total housing stock and the information available on sub-standard housing in Nigeria to obtain the housing deficit.

The housing deficit analysis was carried out across income bands to determine where the housing deficit is most prevalent. The income band distribution assessment only considered disposable income based on assumptions of average income, expenses, and savings. Undisclosed income such as inheritances, assets, and stocks, which we have termed supplementary income, were not considered as this information could not be reliably estimated across all income groups.

The net housing deficit is primarily driven by a shortage of standard housing supply for low- and middle-income households (with a cumulative deficit of 9.30 million deficit). This deficit is partially offset by the cumulative two million, seven hundred thousand (2,700,000) surplus for the higher income households. (For detailed methodology, See Appendix: Section 9, Housing Analysis)

This showcases the relative focus on providing housing for higher income groups compared to lower income groups. The potential of earning a high margin from constructing few luxury housing units is perhaps more attractive to developers than lower margins from multiple modest housing units, which leads to unoccupied housing units due to affordability mismatch for poorer households. Additionally, a wealthy household can afford to buy or rent more than one housing unit, which increases the likelihood of unoccupied housing units (housing surplus).

Chart 10: Housing Deficit by Income Group



Further disaggregation by region highlights that most of the housing deficit are in the Southern regions of Nigeria

Chart 11 shows the severity of the housing deficit per region. 47.00%, approximately three million, one hundred thousand (c. 3,100,000) of the net housing deficits is situated in the South-West as demand for housing rises due to rapid urbanisation and other supply related challenges (especially in the highly populated Lagos). The North-West follows with circa one million, four hundred thousand (1,400,000) deficits, then South-East, North-Central and North-East with one million (1,000,000), eight hundred thousand (800,000) and five hundred thousand (500,000) units' deficits, respectively.

Despite high population numbers, households with effective demand for housing in the North-East and North-West is low as well as the standard housing stock. This is attributable to the poverty rate in the region and informs the low housing deficit.

3.10 M

1.40 M

1.00 M

0.80 M

0.50 M

South West North West South East North Central North East South South

Chart 11: Housing Deficit by Region

Source: Nigeria Property Listing Sites, NBS, Euromonitor, PwC Analysis

Drilling further down to the states reveal that across the thirty-six (36) states and the Federal Capital Territory in Nigeria; there is a housing deficit for all low-income households, a mix of surplus and deficit for middle-income households and a housing surplus for High-income households in over 97.00% of the states. Table 1 shows the top five (5) states with housing deficit: Oyo (912,000 units), Osun (574,000 units), Ogun (573,000 units), Imo (546,000 units) and Ondo state (494,000 units).

It is worth noting that figures reflected in regional and state housing deficit analysis are net figures after adding the gap (deficit and surplus) across household income groups. For example, a state such as Lagos may have high deficit figures for low-income households but housing surplus for middle- and high-income households will reduce its overall deficit.

Table 1: States with the highest Housing Deficeit

S/N	States	Deficit (in units)
1	Оуо	912,000
2	Osun	574,000
3	Ogun	573,000
4	Imo	546,000
5	Ondo	494,000
Situation in	other populous states in Nigeria are as follows;	
6	Kano	456,897
7	Kaduna	368,334
8	Lagos	322,730
9	Katsina	260,254
10	Bauchi	167,765

Ineffective housing demand indicates the inability of a household to pay for a standard housing unit, despite its willingness

From Chart 8 above, a housing affordability index greater than one hundred (100) indicates that a household has insufficient income to pay for a standard housing unit without compromising its quality of living. Every household below the poverty line in addition to thirty-six percent (36.00%) of low-income households form the ineffective demand segment of twenty-six million (26,000,000) households. Consequently, households captured within the ineffective housing demand segment are adjudged to have a housing need.

Nigeria's housing need occasioned by ineffective demand (due to inability to pay for housing units despite the willingness) is estimated at 26.40 million units - more than 3-times the housing deficit

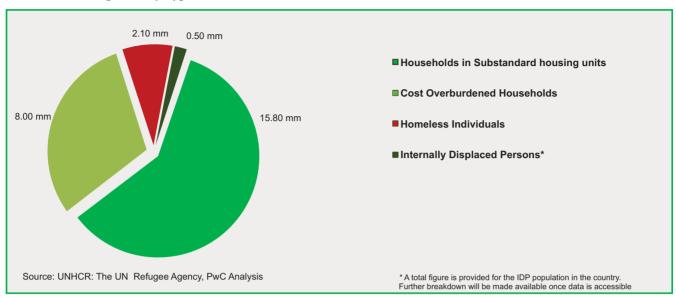
Housing needs covers households in sub-standard houses, homeless individuals, Internally Displaced Persons (IDPs) and cost overburdened households. While housing deficit is the challenge faced by the effective demand segment of the housing market, this document terms the challenge faced by the ineffective demand segment as housing needs. Housing needs refers to the number of housing units required to accommodate cost overburdened households, households in sub-standard houses, homeless people and IDPs. The households affected by these four factors are typically low-income or within the poverty bracket.

Chart 12 categorises the households affected by housing needs. Firstly, it is estimated that there are eight million (8,000,000) units of cost overburdened households and this occurs where a state's average rental price is between 33.00% and 100.00% of the indicative household annual income in a state.

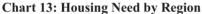
Secondly, the chart depicts that fifteen million, seven hundred thousand (15,700,000) units result from households in substandard housing, which was derived by estimating the number of households whose income is lower than the average rental price, excluding the IDPs and homeless people. Based on the affordability index developed by PwC, this is where the average rent is greater than 100.00% of household income (index of over 303.03).

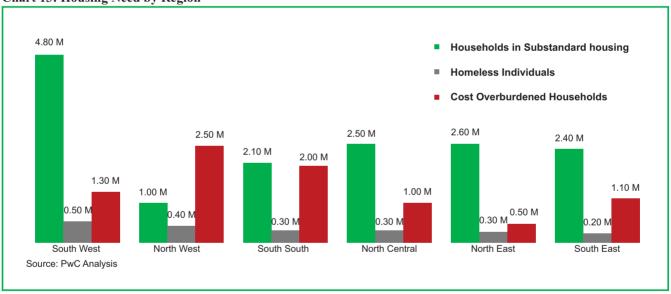
Finally, homeless individuals and IDPs account for two million, one hundred thousand (2,100,000) and five hundred thousand (500,000) units, respectively. The United Nation Refugee Agency estimates three million (c.3,000,000) people were internally displaced in Nigeria as of 2019. Assuming these IDPs trail the average household size in Nigeria of five, the housing need is six hundred thousand (600,000) units.

Chart 12: Housing Need by Type



From a regional perspective, the Northern regions are more burdened with housing needs in relation to the Southern regions





The housing need distribution by region displayed in **Chart 13** above shows that North-West Nigeria has the highest housing need of approximately six million, six hundred thousand (c. 6,600,000) units primarily driven by households in sub-standard housing. The South-South has the second highest housing need, approximately four million, three hundred thousand (c. 4,300,000) units, driven by a high number of cost overburdened households. (See Appendix: Section 9, Housing Analysis). This is attributable to the higher rate of inflation compared to the household income growth in the states. The remaining four (4) regions; South-West, North-Central, South-East, and North-East have housing needs of three million, nine hundred thousand (3,900,000), three million, nine hundred thousand (3,800,000) and three million, three hundred thousand (3,300,000), respectively.

Across four (4) of the six (6) regions, the major factor affecting housing need is sub-standard housing. This emphasises the need for more affordable housing to reduce the dependence on sub-standard housing. Although, it is possible to have the ability to pay for standard housing and still occupy sub-standard housing, engagement with stakeholders and the market survey carried out by PwC suggests this is unlikely because end users mainly make quality trade-offs when there are limited funds.

It should be noted that IDP numbers are excluded from the regional analysis due to lack of access to disaggregated data by states or regions.

Nigeria needs to provide about 4.90 million standard housing units yearly to address both housing deficit and housing needs within the next ten (10) years. By 2030, it is projected that Nigeria will have 15.80 million net housing deficit and 33.00 million housing need if new houses are not provided

Research by PwC reveals that if within the next ten (10) years there are zero new housing constructions/renovations and the number of households grows at the current yearly rate of 2.90% - without a change in the income distribution, Nigeria's net housing deficit (effective demand) is likely to reach fifteen million, eight hundred thousand (15,800,000) units while the housing need (ineffective demand) is expected to reach thirty-three million (33,000,000) by 2030.

It is unlikely that there will be no new constructions in ten (10) years, but this assumption is necessary to provide a wholesome picture of the effort required to address housing challenges in Nigeria. The report also shows three (3) clear forms of housing "which include affordable, low-income, and social housing" will need to be provided to address the housing deficit and housing needs.

The housing deficit can be addressed by providing about 1.60 million affordable housing units annually for the next ten (10) years

PwC defines affordable housing as standard housing units in a specific location that can be paid for (annual rent/mortgage) by 33.00% - 40.00% of that location's average household income. Different locations (i.e., regions, states, or cities) will have differing average incomes and as such differing prices for affordable housing.

Based on the PwC affordability index, households that require affordable housing have index scores from eighty-seven (87) to one hundred (100). Most of the estimated housing deficit for households fall within these scores (majorly low-income group). To this end, it is practical for affordable housing to be the form of housing targeted to reduce the housing deficit for effective demand.

Chart 14 depicts the number of housing units required per region yearly from 2021 to 2030. The South-West requires more than two-times the affordable housing any other region requires, with seven hundred and two thousand (702,000) housing units per year. Lagos guarantees that there is a growing effective demand for affordable housing in this region which also affects neighbouring areas in states such as Oyo and Ogun. Other regions require the following yearly affordable housing units: South-East – two hundred and fifty-two thousand (252,000), North-Central – one hundred and eighty-five thousand (185,000), North-West – two hundred and three thousand (203,000), South-South – two hundred and eight thousand (208,000) and North-East – one hundred and thirty-three thousand (133,000).

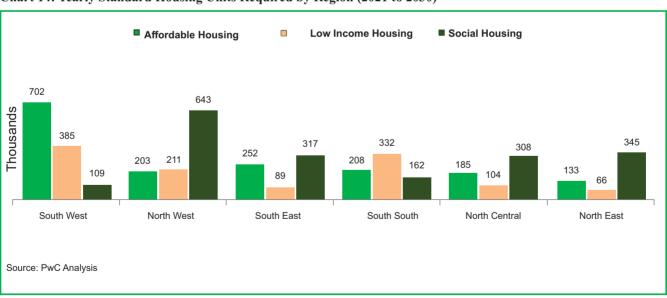


Chart 14: Yearly Standard Housing Units Required by Region (2021 to 2030)

Housing needs can be addressed by providing 1.40 million Low-Income and 1.90 million social housing units annually for ten (10) years

Low-income housing can be defined as standard housing subsidised for sale or rent to households whose incomes are above the national poverty line (*137,400.00 per annum) but cannot effectively demand for housing at market rate. Based on the PwC affordability index, eligible households fall within income ranges of index 101 to 303 (cost overburdened households and some households in sub-standard housing above the poverty line). Practically, subsidising housing for this class must be driven by incentives to developers.

From **Chart 14** above, it is estimated that over the next ten (10) years, on a yearly basis, the South-West requires three hundred and eighty-five thousand (385,000) low-income housing units, the South-South requires three hundred and thirty-two thousand (332,000) low-income housing units, the North-West requires two hundred and eleven thousand (211,000) low-income housing units, the North-Central requires one hundred and four thousand (104,000) low-income housing units, the South-East requires eighty-nine thousand (89,000) low-income housing units and North-East requires sixty-five thousand (65,000) low-income housing units.

Also, PwC defines **social housing as subsidised standard housing for rent to households or individuals living below the poverty line or that have peculiar needs.** This form of housing is unlikely to be market-driven and requires involvement from the government in partnership with dedicated social housing institutions to ensure homeless individuals, IDPs, poor people in sub-standard housing and people with peculiar needs have access to standard housing.

It can be gleaned from **Chart 14** that relatively high poverty levels and displacements due to insecurity issues make the North a key focus for social housing provision. The North-West, North-East, and North-Central require just under 70.00% of the total social housing in the country.

The provision of housing units does not have to be new constructions. Upgrades and conversion of properties are viable contributors to the provision of required standard housing units. It is essential to identify sub-standard houses that can be upgraded to standard housing by infrastructure improvement and accessibility to basic amenities.

2.5 Household Distribution Assessment

Housing distribution serves as the bridge between housing demand and supply, and has two broad segments – formal and informal

Housing distribution today is largely informal, fragmented and not standardised

The distribution segment of the housing value chain connects the demand and supply spectrum of the housing ecosystem. The housing distribution process in Nigeria is split into formal and informal.

Formal housing distribution consists of organised agents typically registered with the relevant government agencies and serving primarily corporate and high-end households. Some developers have forward integrated their operations and are directly involved in the sale/distribution of their properties. Formal distribution could take either of the two forms indicated below (see Fig. 7) and the transactions are easily tracked and reported to the appropriate authorities.

The Informal housing distribution segment on the other hand is highly fragmented and unorganised. Here, distribution is in three (3) forms as depicted in Fig. 7 below:

Formal Housing Distribution Option 1 Property **Home Seeker** Agent **Home Owner** Manager Option 2 **Property Developer** Agent **Home Seeker Informal Housing Distribution** Option 1 **Home Seeker Home Owner** Option 2 Agent **Home Owner Home Seeker** Option 3 Online housing **Home Owner Home Seeker** marketplace Source: PwC Research

Figure 7: Housing Distribution in Nigeria

The first form of informal housing distribution is characterised by home seekers who find homeowners directly without middlemen. The home seekers in this case, may be relatives or people within the homeowners' immediate network. However, this is not a common form of housing distribution in home ownership and is more likely to play out in outright home purchase situations as against rental conditions.

The second form which is the most common is characterised by individual housing agents who are not registered and support middle to low-income households with their house search. Here, home seekers procure services through middlemen called 'agents' through family and friends to help find suitable homes. The agents typically earn a commission between 5.00% and 10.00% of the property's purchase/rental value when a deal is sealed.

Recently, there has been the emergence of online property platforms, where home seekers can view listed properties according to their preferred specifications such as location, size, price range and make a choice thereafter. This form of housing distribution is still informal but could easily be organised/structured to foster access to suitable homes for households.

Nonetheless, the unstructured and fragmented nature of the informal distribution space exposes potential homeowners to abuse and fraud which has broadened the trust deficit in the housing ecosystem and worsened the housing affordability challenge overall.

Overall, the housing distribution market is loosely regulated, and this is more prevalent in the informal segment of the market

Table 2: Characteristics of the Formal and Informal Housing Distribution Market

Features	Formal Distribution	Informal Distribution
Market Structure	 Client base is made up of corporate organisations and strong brand loyalty Suppliers in this segment are well structured corporations with reporting responsibilities 	 Client base consists of low-end customers who are mostly individuals in the middle-and low-income classes and possess weak brand loyalty Suppliers and distributors here are individuals with little or no supervision Services are disorganised and prone to issues of fraud as the agents here are usually undocumented
Agent/Broker Concentration	 These include property managing organisations as well as property developers who double as distributors. Agent concentration here is not as high as what is prevalent in the informal segment, hence switching costs for clients may be high Some brokers have extensive influence across the value chain for the clients they serve 	 Here, the agents are individuals found offline or via the online housing marketplace Agent concentration is high in the informal distribution segment, therefore, switching cost is low for home seekers (households/individuals). Homeowners may decide to ask different agents (distributors) to find them a tenant or buyer
Price	 The nature of operation in the formal distribution segment is one that caters for high end customers and corporate clients. The prices here are usually exorbitant and out of reach of the average home seeker 	 In the informal distribution segment, the nature of operation that caters to the low- and middle-income households. Under this segment, agents collect fees, which are usually a percentage of the value of the property or rental charges and increases the cost of housing
Competitive Landscape	 Competitive rivalry is high with little or no differentiation in the quality/nature of services offered to end users 	 Competitive rivalry is higher relative to the formal agency network as the market is not organised which allows for easy entry and exit of anyone interested (disinterested) in the brokerage business
Customer Experience	 Customers in this segment are dealt with professionally and often have contracts and agreements that specify the terms for transactions, which helps to checkmate potential sharp practices on transactions 	 Interactions between home seekers and agents in this segment may not suffice to create an impressive customer experience. The agents do not represent a brand and so their business activities may often lack professionalism. Transactions here are more prone to fraud due to their undocumented nature

High construction costs and add-on charges are a deterrent in the process of home acquisitions

Brokerage fees are typically a percentage of the value of the property being rented or bought. Given the high cost of housing construction in Nigeria, brokerage fees tend to be high, and worse in cases where prospective home seekers are required to make brokerage payment over a two-year period along with other ancillary agency costs.

These costs invariably worsen the housing affordability challenge in the country and lead to a low occupancy rate for residential properties in certain locations in the country.

Widespread unavailability of repositories of available homes makes searching and obtaining suitable homes daunting

Although there are existing home repositories by private companies, these are not quite consolidated as a one-point reference for home seekers, neither are they robust or complete enough to cover the wide range of public and private properties available.

This creates the following distribution challenges:

- public properties are out of reach of home seekers because they are not listed in privately owned repositories
- social houses are also left out, and this may be attributed to the fact that the privately owned companies stand to gain nothing from these class of properties
- certain locations within the country are excluded from the existing repositories because they may not be prime locations

Consequently, the entire process of house-hunting becomes overwhelming for home seekers who must go through hoops and loops of searches before finding a suitable home that is within their affordability range and meets their specifications.

Stringent requirements from homeowners encumber the ease of obtaining accommodation

The stringent requirement here is primarily with respect to the home tenure system in practice. Most homeowners typically request for rent prepayment of a year or two from home seekers. This prepayment request is far from the cashflow realities of most workers or households in the country. Thus, this very rigid tenure system makes home rental daunting and not easily affordable for prospective home seekers.

Aside from the rigid tenure system, there are also issues relating to bias based on gender, age, employment, marital status, tribe, or religion by property owners in letting or renting out their properties to prospective home seekers.

To lighten the burden of renters, it is recommended that legislations be passed to restrict landlords from charging yearly rent and include guidelines for the gradual departure from a yearly rental system to a monthly rental system in line with income realities. While this would be a win for renters, landlords who are at risk of defaulting tenants need to be protected. To this end, the legislation needs to also include clear guidelines for ring-fencing income and direct deductions and well as introduce a proper leasing system and processes on how lease disputes would be quickly addressed when they arise.

For example, in a bid to encourage landlords to accept rental payments on a monthly basis, the Lagos State Government (LASG) introduced a Monthly Rental Payment Scheme in December 2021. Under the Scheme, the LASG set aside ₹5.00bn to ensure that landlords receive their annual payments of house rent upfront, while the tenants can then repay the state government monthly at no extra interest costs. However, this may not be sustainable nor easily replicated across states unless adequate steps are taken to ensue that any potential risks in the scheme are adequately dimensioned and mitigated.

Increased use of technology is creating an enabling environment for housing distribution companies to thrive

The emergence of online platforms to connect homeowners or developers to households in need of houses/apartments has brought about convenience and made the prospect of finding suitable homes attractive as it has shortened the lead time to buy/rent a property.

The adoption of online platforms can be attributed to the growing number of young home seekers and their affinity for technology. The rising competition from online brokers is compelling the traditional housing agents/brokerage companies to explore the use of technology in offering their services.

The increasing use of technology in housing distribution has resulted in improved and innovative service delivery as prospective home seekers are not only able to conduct online peer reviews before deciding on the broker/agent to engage but are also able to review the broker/agent's indicative terms before engaging.

The technology space is witnessing an influx of investments/grants typically channelled towards simplifying processes. This has made it easier for online brokers to continually refine and expand their service offerings to meet growing customer needs.

Likewise, emerging PropTech companies are leveraging technology to offer flexible monthly payment options

Some companies are using technology to address the challenge of rigid tenure in the housing ecosystem. These companies, through the right partnership with developers and the promise for greater returns, have been able to offer rental tenures that match the monthly cash outlay of prospective home seekers.

In addition, these technology companies using their platform to make housing supply more effective by converting hitherto expensive un-occupied houses to co-sharing apartments for young, mobile, and working-class segment of the population especially in urban areas. This invariably increases occupancy rates as well as enhances housing affordability within Nigeria.

These PropTech firms are leveraging insights from changing customer behaviour or requirements of households in Nigeria which are predominantly young and typically in search of smaller apartments vis-à-vis available housing supply.

2.6 Financing Assessment

Financing is a critical component of the housing value chain given its role as an enabler

Financing 'oils the wheels' of the housing value chain (land, construction, distribution, and demand) and facilitates all activities within the ecosystem. **Figure 8** below depicts the financing impact across the value chain.

	Land	Construction	Distribution (Brokerage)	Households/ Demand
Description	Land is a crucial input in housing. Land in Nigeria is governed by the Land Use Act of 1978 which vested all urban land within a state in the state governor, and all non-urban land in the local governments in which they are found.	Construction is the most extensive segment of the value chain. It comprises of a range of players including input providers (e.g., cement, sand.), architects, home accessories providers, developers, contractors, etc.	This entails the sale and rent of properties — housing units. The players here are popularly called Agents and they earn a commission for successfully renting/selling a property.	This represents the individuals/househ olds that buy/rent properties. They are typically classified into Low, Medium, and High depending on their income level.
Major Financing Requirements	Land purchaseInfrastructure set-up support	Development/construction of housesInfrastructure development	 Home acquisition financing support 	Home acquisition financing support
Sources	 Cooperative societies (Individuals) Personal savings (Individuals) Commercial Banks Development Finance Institutions 	 Commercial banks Federal Mortgage Bank of Nigeria Primary Mortgage Banks Federal Housing Authority Family Homes Funds Limited Mortgage Finance Warehouse Limited 	 NHF (National Housing Fund) Cooperative societies Personal savings 	 Commercial banks Primary Mortgage Banks Family Homes Fund National Housing Fund Cooperative societies Personal savings

Within the land segment of the value chain, financing is required majorly for land purchase. Land is a tradeable asset and could serve as a form of security for households/individuals and construction companies needing to generate finance. However, land is currently 'dead capital' and is unable to unlock financing for the sector.

Construction is the most extensive segment of the ecosystem and involves capital intensive activities that require substantial financing. The rising cost of materials and labour due to macroeconomic instability further contributes to the financing needs of the segment.

Although financing is beginning to play an increasingly important role in housing distribution as the emergence of innovative business models for housing distribution has seen players in this segment provide financing support in various forms to home seekers.

The demand for housing is directly influenced by individual and household income levels. A PwC analysis of income distribution across Nigeria revealed that c.87.00% of households fall within and below the low-income category, thus

emphasising the need for suitable, flexible, and innovative financing options if the housing challenge is to be resolved (See Appendix: Section 9, Housing Analysis).

A mature housing financing system can serve the housing ecosystem in two broad ways. Firstly, it can solve the issue of providing affordable housing at scale. And secondly, with its unique connection across the housing value chain, it can serve as a vehicle to align housing demand needs and preferences with housing supply.

In Nigeria typically, housing is self-financed across the supply and demand sides of the value chain

The major providers of housing in Nigeria depend on incremental and lump funding from prospective homeowners to finance construction projects

According to the World Bank, small-scale developers (c.12.00%) and locally based/informal contractors (c.80.00%) are the main housing providers in Nigeria.

Housing provided by informal contractors are predominantly characterised by individuals (prospective homeowners) who build incrementally – a room or two at a time – based on cash inflows. Usually, this is funded by personal savings of the individuals who initiate these housing constructions.

Housing development in the formal market is dominated by small and medium scale developers who focus mostly on the low-middle-income customer segments. Unlike the handful of large-scale developers (who focus on upper-middle to High-Income earners) that can access long-term financing, the small to medium scale developers are deemed high credit risk by prospective lenders. Consequently, when they try to access finance, the interest rates are usually too high and short-termed, causing them to seek other means of financing.

To address these financing challenges, purchase of housing off-plan (before the property is built) has become attractive for developers. But this limits the effective demand for housing and exposes the prospective buyers to the risk of developer fraud.

In the same vein, a recent survey (see Chart 15) carried out by PwC across the six geopolitical zones within Nigeria revealed that c.70.00% of Nigerians who own homes either inherited their homes or paid for them in full, as opposed to utilising external financing options.

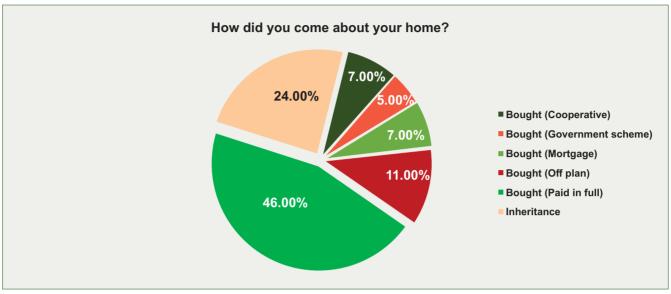
Our research has indicated that the higher income class individuals are able to purchase homes outright due to their income class and regardless of the economic situation e.g., inflation, the middle-income class are able to afford homes due to rise in housing developers who offer off-plan arrangements. There has been an update in the number of homes obtained by the middle class through these arrangements. Although the continuous economic situation in the country impacts the process, there is still several people who can afford these arrangements especially when combined with formal and informal loans.

Most of the lower class remain unable to purchase homes and their ability is further impacted by the economic situation of the country.

Most Nigerians do not own homes despite their desire, and sometimes best efforts, to do so. They are often faced with challenges such as high cost of land, high cost of construction materials, inability to access mortgages, government, and corporate loans at manageable rates amongst many other issues.

The PwC survey further revealed that only 7.00% of respondents paid for their homes via mortgage systems. A larger portion of respondents (70.00%) indicated that they either inherited or paid in full for their homes.

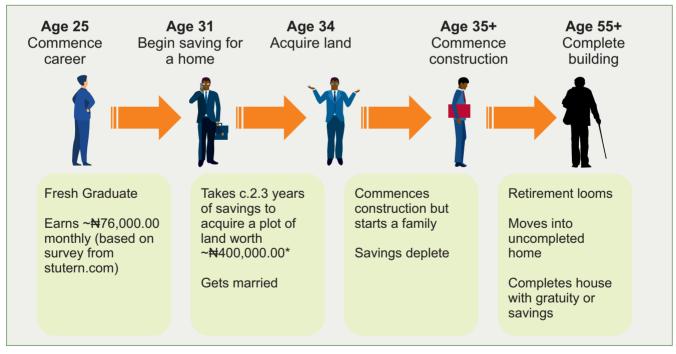
Chart 15: Housing Demand Survey



Source: Independent Market Survey, PwC Analysis

The foregoing challenges coupled with the low-income levels of the average Nigerian results in the dependence on personal savings over a long period of time to purchase a house. Based on current realities, it will take at least **twenty-five (25)** years for the average Nigerian worker to own a home, assuming all savings are spent on home purchase only (see **Figure 9**).

Figure 9: Current Journey to Home Ownership (Illustration)



^{*}Weighted cost of land was obtained by using the weighted average cost of land across the Northern and Southern regions of the country. Inflation in land costs is expected to equal income growth rate

Current options across the financial markets (primary, secondary, and tertiary) are still not sufficient to address the housing financing needs of Nigerians. The primary market provides the funds needed at the base level of the housing finance pyramid

The primary market for housing financial includes Primary Mortgage Banks, Deposit Money Banks, Development Finance Institutions, Cooperative Societies, etc. These institutions provide financial support to households and interested entities for home acquisition/lease over a period.

Primary Mortgage Banks (PMBs) and Deposit Money Banks (DMBs) are designed to offer liquidity for the advancement of home ownership among Nigerians through mortgage financing.

The monocultural nature of the Nigerian economy exposes it to the vagaries of the international oil market which creates instability with respect to prices in the economy and affect the mortgage/housing finance space. Economic volatility typically leads to higher inflation occasioned by exchange rate fluctuation. In response, the Central Bank of Nigeria (CBN) had to increase its benchmark lending rate to as high as 14.00% in July 2016 to check inflation and maintain exchange rate stability. This leads to a pass-through effect on the cost of mortgages in Nigeria in the form of higher interest rates for households and developers. Thus, mortgages are less attractive and unaffordable to households and developers.

PMBs and DMBs operate by giving out short to medium-term loans at interest rates ranging from 20.00 - 27.00% per annum, conditioned by high inflation rates in Nigeria. Although, the National Housing Fund (NHF) loan administered by the Federal Mortgage Bank of Nigeria (FMBN) has the lowest mortgage interest rate (6.00%) in the country, Nigeria's Mortgage to Gross Domestic Product (GDP) is still one of the lowest in the world, hovering at about 0.50% as opposed to South Africa's 30.00%, U.S 60.00% and U.K. 70.00%. According to the Federal Mortgage Bank, as of June 2021, there have been twenty-two thousand, five hundred and thirty-eight (22,538) mortgages, seventy thousand and thirty (70,030) housing microloans and thirty thousand, nine hundred and fifty-four (30,954) housing units while circa one hundred and thirteen thousand (c.113,000) mortgages were outstanding as of 2021 which further highlights the low mortgage penetration rate. In situations where mortgage loans have been given out, the Central Bank of Nigeria reports that non-performing loans as of 2019 was as high as 59.69%. This is partly attributable to the high interest rate of 27.00% and the equity requirement of 30.00% for mortgage loans.

In addition, undercapitalisation of mortgage finance banks, particularly regarding the Federal Mortgage Bank of Nigeria (FMBN) has hindered the ability to create mortgage-backed risk assets for the housing market. As well, the capital base of national mortgage banks is c.US\$34 million—almost half of the minimum capital for commercial banks.

Informal options such as the traditional cooperative societies, age/trade groups, traditional moneylenders, friends, or family to build their homes, are convenient and accessible sources for many households. However, these do not have the financial capacity required to accommodate the largescale impact of individual household developments. Given that housing is a necessity, households that cannot effectively demand standard houses, typically end up occupying sub-standard houses which worsens the housing challenge in the country.

Government schemes such as the National Housing Fund (NHF) are designed to help Nigerians in paid employment access low interest, government funded loans. Under the NHF, the maximum amount obtainable is \$15.00 million and the borrowed capital is repayable over a maximum of thirty (30) years at an interest rate of 6.00%. Also, individuals under this scheme are expected to contribute 2.50% of their monthly salary to the fund through the Federal Mortgage Bank of Nigeria. As of June 2021, twenty-two thousand, five hundred and thirty-eight (22,538) mortgages, seventy thousand and thirty (70,030) housing microloans and thirty thousand nine hundred and fifty-four (30,954) housing units have been created from the NHF which severely lags from the housing need in the country.

Development of other finance options in the primary market (such as the credit cooperatives) and improvements of the capital markets will help achieve the desired goal of providing affordable housing

According to a recent report by CAHF, thirteen million (13,000,000) households, 52.00% of urban households earn less than PPP\$1,000.00 per month, meaning that their housing affordability is realistically only for housing products costing below \$\frac{1}{2}.00 \text{ mm/PPP\$5,500.00}. Worsened by the consistent exchange rate depreciation, increase in Value Added Tax (VAT) charges from 5.00% - 7.50% amongst others; the purchasing power of Nigerians continue to dwindle which makes household affordability low. This further explains the reason behind the very high ineffective housing demand (i.e., where the average rental/mortgage cost within a location surpasses 33.00% of a household's annual income).

To address this, other sources of finance that play important roles in the Nigerian housing markets must be promoted, such as savings and credit cooperatives and rent-to-buy financing options. Furthermore, improvements of Nigeria's capital markets and flow of funds into housing finance (mortgage finance and other more appropriate instruments) are also effective ways of solving the problem of affordability.

The secondary market refinances part of the primary market and plays within the construction value chain

Financial institutions within the secondary market provide an outlet to refinance primary mortgages over a longer tenor in addition to financing large construction activities. The Nigeria Mortgage Refinance Company (NMRC), Family Homes Fund Limited (FHFL), Commercial Banks and Mortgage Warehouse Funding Limited (MWFL) are the prominent players in this space.

The Nigeria Mortgage Refinance Company (NMRC): This is an institution with the core function to leverage funding for enhanced mortgage access by refinancing the mortgage portfolios of member primary mortgage institutions and commercial banks, in collaboration with key stakeholders across the housing value chain.

Family Homes Fund Limited (FHFL): This is designed to address the issue of housing deficit by providing accessible financing for affordable housing projects to developers committed to constructing low-cost housing.

Mortgage Warehouse Funding Limited (MWFL): This is a special purpose company with the aim of creating an intervention mechanism at the short end of the mortgage funding curve in support of other efforts of the housing sector stakeholders. Their activities are designed to complement those of the Nigeria Mortgage Refinance Company (NMRC), by providing a reliable and parallel source of short-term funding for financing primary mortgage institutions.

These financial institutions continue to support the financing value chain of the housing sector, however, the limited funding, adverse macro-economic conditions, shortage of quality risk assets, weak legal and regulatory frameworks for mortgage foreclosure across the country and the riskiness of the mortgage sector continue to weaken their ability to provide housing finance

The tertiary market provides an avenue to inject liquidity and circulate money across the entire housing value chain.

The tertiary market is a critical aspect of the mortgage system as it facilitates the trade and transfer of mortgage-backed assets essential for guaranteeing sustainable long-term liquidity for the overall housing ecosystem. Capital market entities like FMDQ Group PLC and the Nigerian Exchange Group (NGX) provide the infrastructure for tertiary financing. They achieve their objective by offering a comprehensive range of products and through activities that power the Nigerian economy.

The tertiary market which serves as a veritable outlet to channel long term financing across the housing ecosystem is currently inactive in the country with very few listed Real Estate Investment Trusts (REITs) on the Nigerian capital market.

The key challenge here is the ecosystem's inability to generate tradable mortgage assets occasioned by issues around land titling, ownership, poor historical yields on rental income vis-à-vis inflationary pressures, etc. Hence, most mortgage offerings in the Nigerian market are short to medium-term which invariably increases the burden of owning or renting a standard home in the country. This, coupled with the ineffective primary and secondary markets, significantly limits the mortgage banks' capacity to create risk assets.

These challenges create the affordability and access debacle relating to mortgage financing in the country and are responsible for the low mortgage penetration rate of less than 1.00% to date.

Deliberate activities towards strengthening the economy would have a positive effect on the ability of Nigerians to access finance and purchase affordable homes

The economic state of the country influences the performance of the housing sector. This is because of the linkages between the housing sector and other sectors of the economy. While the housing market cycle tracks economic cycles, there is potential to leverage housing for further economic growth, employment creation and overall social development.

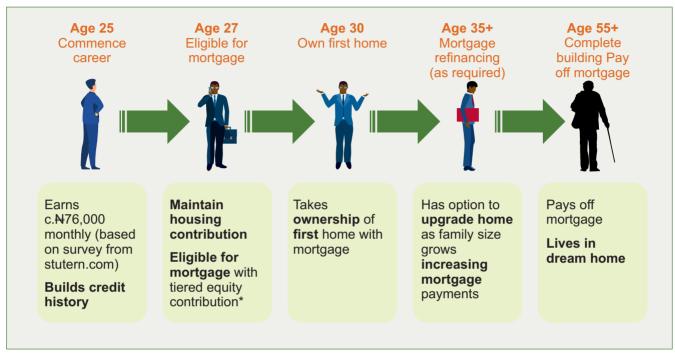
However, a chunk of the housing stock within the country are constructed through individual efforts due to the challenges with affordability and accessing housing finance.

Government efforts to deepen the capital markets, stabilise the interest rates and provide more sophisticated financial products are essential in strengthening the economic state of the country.

Home seekers desire access to affordable financing options to purchase houses and reforming the mortgage market is central to enhancing household demand in the country

Home seekers desire a housing ecosystem that makes it easy to access mortgages and other home financing options (see **Figure 10**).

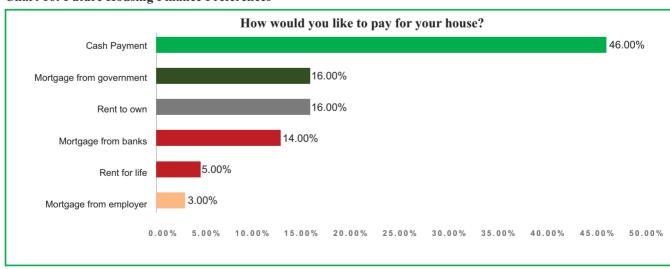
Figure 10: Desired Journey to Home Ownership (Illustration)



^{*}Tiers will be determined by applicant's credit and eligibility rating

In the same survey carried out by PwC across the six (6) geopolitical zones in Nigeria, it was discovered that c.49.00% of respondents who do not own homes will prefer to acquire a house through external financing options (e.g., mortgage from government, banks/employer, or a rent to own scheme). This clearly implies that most households are willing to obtain a mortgage to acquire a home if the opportunity is available.

Chart 16: Future Housing Finance Preferences



Source: Independent Market Survey, PwC Analysis

2.7 Policy Assessment

Nigeria has several policies, programmes/initiatives aimed at addressing specific challenges across the housing value chain

Review of Past and Current Housing Policies and Programmes/Initiatives

Nigeria has developed a plethora of policies aimed at addressing the various issues facing the housing market by improving key fundamentals such as access and affordability. However, these policies have failed to address the housing challenge in the country because they are fraught with inadequacies and have proved difficult to implement.

Notwithstanding, the policies provide the foundation for today's housing ecosystem and highlight the actions that have been taken to address the housing challenges.

Land Use Act

In 1978, the Federal Government handed the responsibility for housing implementation to the states and the Land Use Decree was promulgated.

Issues on speculation on communal land, land tenure, government land acquisition, etc., prompted the government to respond with the promulgation of the Land Use Decree in 1978 as a national land policy. The decree (now Act) eased access to land for housing and social projects by vesting the right over land to state governors, who were to hold the land in trust for the benefit of the people and be responsible for land allocation. More so, the Act vested the control and management of land in urban areas to the state governors and "all other land" to the relevant local governments. Land transactions as such required the consent of the governor before ownership could be transferred.

Although the Land Use Act addressed some of the challenges that birthed it, it strung up new challenges as it relates to its implementation. The requirement of the Governor's consent on all land transactions created an administrative bottleneck that continues to affect the land value chain today. In addressing these challenges, various states such as Kaduna and Edo State have adopted digital centric approaches to ease the land administration process and have established agencies with administrative efficiencies obtainable in the private sector to drive this. This approach has enabled significant improvement in the land administration processes in the states and can be extended across the country.

Nigerian States Urban Development Programme

In 1979, the Nigerian States Urban Development Programme (NSUDP) was implemented with assistance from the World Bank to mainly support the newly created states (Bauchi, Benue, Gongola, Imo, Niger, Ogun, Ondo, and Lagos) in growing their housing stock.

The programme had been incorporated in the government's fourth Five-Year Development Plan (1981-1985) and was aimed at providing shelter to low-income groups through the provision of serviced plots and building material loans on favourable terms as well as technical assistance and supervision. It was essentially a sites-and-services/soft building loan scheme. The programme also had an upgrade scheme to provide infrastructure services to deprived communities while also providing soft loans for home improvements.

The programme was aimed at laying the foundation for a national low-cost housing programme and to foster broader urban renewal schemes.

Apilot project was carried out in Bauchi with sites and services and area upgrading in Bauchi and Gombe, technical assistance at state and federal levels, and funds for feasibility studies in seven other states (Imo, Benue, Lagos, Ogun, Ondo, Gongola, and Niger). Specifically, the project in Bauchi was focused on affordable housing and related urban services for low-income households.

The project was considered successful with six thousand (6,000) families, one quarter of Bauchi's population benefiting from improved basic infrastructure such as roads, drains, water supply and electricity. More so, in the area of site and services, about one thousand, eight hundred and fifty (1,850) of the two thousand and fifty plots (2,050) plots were allocated with FMBN loans provided for beneficiaries to build low-cost houses.

National Low-Cost Housing Scheme of 1980

The National Low-Cost Housing Scheme of 1980 popularly known as the Shagari Low-Cost Housing, was aimed at providing affordable housing to low and medium-income groups. This programme was launched because the federal government was not satisfied with the efforts of the states.

The then Ministry of Housing and Environment was responsible for implementation, with a set target of two hundred thousand (200,000) housing units (40,000 per year and 2,000 per state including the FCT) from 1981 to 1985. However, only forty-seven thousand, five hundred (47,500) units (flats) were constructed.

According to the World Bank review of the housing scheme, "the scale of this programme, lack of involvement by state-level personnel to complement the efforts of Lagos-based Federal Ministry of Housing and Environment (FMHE) staff in its implementation, poor coordination, and cost control, delayed the programme, led to cost overruns, and effectively prevented FMHE from performing its main policy and programme functions". Following this review, construction was suspended in 1984.

Mortgage Institutions Act

In 1989, this law was promulgated with provisions for the establishment and licensing of mortgage banks to grant loans to individuals for the purchase or construction of residential houses; improvement or extension of an existing residential house; and to accept savings and deposits from members of the public. The decree liberalised the housing sector by enabling private investors to apply for licenses to create and operate primary mortgage institutions.

National Housing Policy of 1991

In 1991, the first major National Housing Policy was developed, with the goal of "ensuring that all Nigerians would own or have access to decent, safe, and sanitary housing accommodation at affordable cost by the year 2000".

This was to be achieved with the active participation of all tiers of government and a National Housing Policy Council to ensure proper policy implementation. The policy estimated the housing deficit at eight (8) million as at 1991 which was inclusive of policy estimates to meet the demand of both the urban and rural areas and focused on home ownership and strong private sector participation.

Nigerian Urban and Regional Planning Act

In 1992, The Urban and Regional Planning law was promulgated to define the legal framework for planning within the country while facilitating the preparation and implementation of development plans and planning schemes. However, this law has been affected by implementation challenges as states' have failed to domesticate the law. And for states where the law has been domesticated, there is weak enforcement which has resulted in the proliferation of sub-standard houses in the country.

The Federal Government needs to actively engage the states through the Nigerian Governors' Forum (NGF) to drive the need for urban planning to be a core agenda. This is in light of a rising rural-urban migration, potential negative impact of climate change on living conditions, and the need to build a sustainable environment and future for Nigerians.

National Housing Fund ("NHF" or "the Fund") Act

This law was enacted in 1992 with the objective of facilitating the mobilisation of funds needed to provide houses for Nigerians at affordable prices through the provision of long-term loans to mortgage institutions for on-lending to contributors of the Fund for the purpose of building, purchasing and improvement of residential houses.

The NHF marked a major landmark in addressing the affordability challenge by enabling Nigerians to access affordable finance for home ownership. The scheme has also been embraced by state governments with thirty-four (34) out of thirty-six (36) states contributing and while the last two (2) have shown interest in contributing to the Fund. However, banks, insurance companies, and the Federal Government who by law are required to contribute to the Fund have failed to contribute. The NHF is as such underfunded and incapable of providing the funding support needed to address the housing challenge.

As of June 2021, about twenty-two thousand, five hundred and thirty-eight (22,538) mortgages, seventy thousand and thirty (70,030) housing microloans, and thirty thousand, nine hundred and fifty-four (30,954) housing units have been delivered with an average of 30.00% of these statistics achieved in the past four (4) years. However, these results are a far cry from the housing deficit which is in excess of ten million (10,000,000).

The National Housing Fund (NHF) requires more funding especially through access to the capital market, the creation of innovative investment vehicles such as REITs to grow the Fund and a private sector led fund management team to maximise the impact of the Fund.

Urban Development Bank of Nigeria Act

In 1992, this law was promulgated, and it established the Urban Development Bank of Nigeria as a development finance institution tasked with the responsibility of fostering the rapid development of urban infrastructure in Nigeria. The bank is now known as "The Infrastructure Bank Plc" owned majorly by the private sector but with ownership interests by the Federal Government, State Governments, Local Governments, and the Nigeria Labour Congress as shareholders.

Federal Mortgage Bank of Nigeria Act

In 1993, this law was promulgated, and this established the Federal Mortgage Bank of Nigeria (FMBN) to provide long-term credit facilities to mortgage institutions in Nigeria, encourage and promote the development of mortgage institutions at the rural, local, state, and federal levels. The FMBN held the position of apex and regulator with Primary Mortgage Institutions (PMIs) as primary mortgage lenders. This two-tier structure was created as an offshoot of the National Housing Policy of 1991. However, in 2007, the FMBN ceded its supervisory functions to the CBN.

While some of these policies have yielded some positive results for the sector, full implementation remains a concern

The Proposed National Housing Policy of 2006

The proposed National Housing Policy of 2006 took into consideration the shortcomings (particularly the lack of political will) of the previous strategies and defined its goal as ensuring that Nigerians own or have access to decent, safe, and healthy housing accommodation at affordable cost which was similar in part to that of previous policies except that the policy was not tied to a specific period like the past.

This policy focused on developing and sustaining the government's political will, institutional reforms, capacity building whilst ensuring increased financial support to the housing sector, localised building material production, and adequate access to land for building.

Specifically, the policy emphasised the need for private sector participation in the housing value chain and introduced incentives such as the increase in the NHF loan amortisation period from twenty-five (25) to thirty (30) years; reduction in interest on NHF loans to PMBs to 4.00% from 5.00% and reduction of interest rates for loans to contributors from 9.00% to 6.00%.

Similarly, this policy fell short of the intended objective and failed to gain the approval of the Federal Executive Council as a full-fledged policy for implementation.

National Building Code

In 2006, a National Building Code was adopted in the country with the objective of defining minimum standards for the design, construction, occupation, maintenance, and demolition of buildings in order to ensure the quality, safety, and proficiency of all buildings.

The Building Code is not a law and as such requires adoption and law enactments by states to ensure compliance. However, several states have failed to domesticate the code in their development control operations.

Financial Sector Strategy 2020 ("FSS2020" or "the Strategy")

In 2006, the Financial Sector Strategy (FSS2020) was developed, and it articulated the vision for Nigeria's housing/mortgage industry by year 2020 "to have one of the safest, highest home ownership rates and most profitable mortgage markets among the emerging economies". The FSS2020 objectives for the mortgage market included establishment of a secondary mortgage market, attraction of affordable international credit to fund affordable housing programmes and advocacy for mortgage ready and affordable housing.

The Strategy has been effective to an extent in addressing the financing gap in the country with the establishment of the Nigeria Mortgage Refinance Company which has eased the liquidity constraints in the mortgage market. More so, there are efforts to establish a mortgage asset registry system to ease the operational efficiency of the mortgage market.

National Social Housing Programme (NSHP) 2020

The NSHP is the housing component of the Economic Sustainability Plan. Under the programme the government set a target to deliver three hundred thousand (300,000) housing units across the federation. This housing programme is in collaboration with the Family Homes Fund Limited acting as lead developers with partnerships across the housing value chain.

The programme is also focused on creating up to one million, eight hundred thousand (1,800,000) jobs in the construction value chain, increasing domestic production of construction materials and access to home ownership for low-income earners through reduced housing cost and alternative financing options.

The NSHP shows a clear and concerted effort by the government to address the social housing challenge in the country by providing low-cost housing with accompanying housing finance with a 15-year repayment period. Although this is a laudable achievement, it is a far cry from the country's twenty-six million (26,000,000) social housing gap.

Vision 20:2020

In 2008, the Vision 20:2020 was articulated and housing was a key consideration. Vision 20:2020's National Technical Group on Housing averred that "housing would be achieved through a private sector led housing delivery system anchored on mass construction of houses and strong mortgage finance".

The implementation plan centred on the addition of ten million (10,000,000) homes to the housing stock through the construction of an average of one million (1,000,000) housing units a year with 50.00% in urban centres. By the expiration of Vision 20:2020, the housing targets had not been achieved.

Nigeria's policies/programmes/initiatives have been impacted by the lack of political will for implementation by successive administrations

National Housing Policy 2012

In 2012, a new National Housing Policy was developed which was aimed at ensuring "all Nigerians own or have access to decent, safe and sanitary housing in healthy environment with infrastructural services at affordable cost, and with secure tenure".

The policy set a construction target of one million (1,000,000) houses annually to augment the country's housing stock. It also emphasised the central role of private sector financing, the government's redefined role as a regulator and the need for urban renewal, slum upgrading and environmental planning, etc.

Although, the National Housing Policy of 2012 has been lauded by some stakeholders, it has also fallen victim of the implementation challenges that tend to befall policies in the country. Despite the targets set out in the policy, the government has been unable to meet expectations.

The failure of the National Housing Policy of 2012 highlights the growing need for a collaborative approach towards addressing the country's housing challenge. This requires active engagement of all stakeholders across the housing value chain to define a clear and sustainable path to resolving the housing challenge and this is what this strategy aims to provide.

National Integrated Infrastructure Master Plan

In 2014, the National Integrated Infrastructure Master Plan (NIIMP, 2014 - 2043) was formulated in close collaboration with the country's major development partners, notably the World Bank, the European Union, African Development Bank, Department for International Development (DFID), and the United Nations (UN).

The plan identifies the infrastructural deficits impeding the country's competitiveness and outlines the investment requirements. It is projected that a \$350,000,000,000,000.00 investment would be required over the next thirty (30) years to tackle the housing deficit. Also, it sets a target to raise the housing stock from eleven million (11,000,000) to forty-one million (41,000,000) by 2043 and outlines private sector expectations in reviewing the Land Use Act, providing consistent power supply and heavy-duty transportations like rail and a revamped capital base for the Federal Mortgage Bank and Primary Mortgage Institutions.

The National Integrated Infrastructure Master Plan (NIIMP) was intended to serve as a roadmap for the country, however, it has been affected by a lack of strategic direction on implementation. Furthermore, the plan lacks performance review mechanism to measure the achievement of the plan and address variances. Also, this extends to the review of the plan in line with changing macro-economic conditions in the country. While the plan reflects the government's will to address the infrastructure challenges in the country, the absence of these implementation enablers could result in a stale plan that is not aligned with the country's current realities.

There are multiple initiatives in the housing sector but limited collaboration among key stakeholders

Table 3: Housing Sector Stakeholders – Initiatives and Challenges

Features	Programmes/Initiatives	Challenges
Office of the Surveyor General of the Federation (OSGoF)	 Routine submission of utility survey plans by institutions mandated to provide infrastructure to the OSGoF and State Surveyor General Construction standards requiring construction companies to assess the infrastructure within their coverage areas and to submit a cadastral surveying plan to the OSGoF for approval Introduction of the use of Photogrammetry and Remote Sensing survey techniques for a five-year periodic monitoring of cities and towns in Nigeria for the determination of urban growth and other related matters Five-year periodic as-built survey of any Landed Property for proper Land Inventory and Planning in Nigeria 	 The federal system of governance in the country requires the states to adopt these policies and implement in their jurisdiction Difference in policy objectives between the federal and state governments is a potential inhibiting factor to successful implementation
State Land Bureaus	 Administration of the Land Use Act and land allocation matters Public acquisition of land for state purposes and compensation for such in line with the Land Use Act Implementation of a Geographical Information System by twenty-one (21) states in the country Administration and Control of the State's Land registry Issuance and revocation of certificate of occupancy Resolution of land disputes through means such as the Alternate Dispute Resolution window of the courts 	 Inefficient Land administration process and improper classification of urban and rural areas Estimation of fair value of the land asset Weak implementation of urban and regional planning Lack of digitised land titling system Inefficient processing systems and politically influenced revocations Weak dispute resolution process Number of persons per square metre of floor space

Features	Programmes/Initiatives	Challenges
State Urban Planning & Development Authority	 Thirty-six (36) states have policies on urban planning and development Thirty-six (36) states have Urban Renewal programmes Control and monitoring of physical developments in the state including the Issuance of permits Preparation of state master and development plans. Thirty-four (34) states have master plans for the States Installation of Geographic Information System (GIS) by twenty-one (21) states in the country 	 Lack of maintenance of the urban renewal programmes Weak control and monitoring of physical development Lack of adherence to the master and development plans
Federal Housing Authority	 National Housing Programme of 1981/1982 National Site and Services Scheme (NSSS) National Prototype Housing Programme (NPHP) Nigerian Diaspora Housing Programme with planned development of a Federal Housing Authority (FHA) Diaspora city in Abuja, Lagos, Benin & Port Harcourt Land bank with over 3,500 hectares of lands in over 16 states and the FCT with land assets spread across the federation Housing projects (Zuba, Kwali, Bwari, Lugbe, Gwarimpa and Festac) Affordable housing projects with state governments and private companies 	 The lack of a coordinated housing development strategy that outlines the required efforts needed to tackle the housing deficit Limited funding to scale the development of low-cost housing projects
State Housing Corporations	 Development of both low and high cost housing estates in the states accessible through the mortgage financing option 	 Limited Funding Limited availability of low cost and affordable housing Low-income level
Real Estate Development Association of Nigeria (REDAN)	 National Real Estate Data Collation and Management Programme The yearly REDAN building EXPO to discuss issues within the housing development space and to showcase building materials and real estate projects Endorsement of estates and building products of its members that meets defined standards 	 Availability of adequate funding for housing development for its members

Features	Programmes/Initiatives	Challenges
Real Estate Development Association of Nigeria (REDAN)	 REDAN's Real Estate Investment Trust (REIT) scheme Access to the Estate Development Loan (EDL) from the Federal Mortgage Bank of Nigeria (FMBN) to its members Access to sell housing units to National Housing Fund contributors through the NHF Mortgage Loan Scheme Access to America's National Association of Home Builders resources 	 Availability of adequate funding for housing development for its members
Association of Estate Agents in Nigeria	 Property Information System (PIS) that establishes market trends and provides information for researchers and property investors Database for estate agents in Nigeria Standardisation of the estate agency practice in Nigeria to ensure best practice and reduce incidences of property related fraud Training of real estate agents on best practice 	 Informal housing arrangement and presence of informal housing brokers Continued patronage of informal real estate agents by Nigerian home seekers Lack of enabling legislation for oversight responsibilities
Private Real Estate Agent Companies	 Technology driven awareness platform to trigger housing demand Mortgage and alternative financing options for housing purchase through partnerships with primary mortgage institutions Private investment programmes for housing development Backward integration into the construction industry to synergise housing need with supply 	 Limited financing for housing development for estate agency companies with backward integration Limited housing demand due to affordability constraints
Federal Mortgage Bank of Nigeria	 National Housing Fund NHF Individual (Self) Construction loan Bankable Off-Takers Guarantee provided to real estate developers to access construction financing National Affordable Workers' Scheme for labour unions members Estate Development Loan Facility for the development of housing infrastructure for NHF contributors Home Renovation Loan and Construction Loan products 	 Limited capital funding of the bank has impeded its capacity and stopped estate developments

Features	Programmes/Initiatives	Challenges
	 Intervention housing loans for the Federal Staff Housing Loan Scheme Cooperative Housing Development Loan (CHDL) Rent-to-Own Scheme Implementation of the National Cooperative Housing Initiative of the Federal Ministry of Works & Housing which was focused on mobilising cooperative societies especially those in the informal sector to aggregate housing demand for members. The FMBN provides both construction and off-taker finance for participants under its NHF Scheme 	
Federal Ministry of Finance/ Nigerian Sovereign Wealth Fund • Family Homes Fund Limited	 Affordable Housing Fund which is a real estate finance product for public and private sector real estate developers Help-to-Own which is a long-term finance initiative for low-income households Rental Housing Fund which is an initiative which provides renters with an option to purchase after payment of at least two (2) month's rent Land & Infrastructure Development Fund which is for industrial & non-residential projects Housing development in Ogun, Nasarawa, Kaduna, Kano, Delta, and other states 	 Availability of adequate funding for housing development
Central Bank of Nigeria Nigeria Mortgage Refinance Company	 Standardisation of the mortgage origination and administration process through the issuance of a Uniform Underwriting Standards Issuance of a housing development debt instrument. The 15-year, №8.00 billion Series 1 Bond with a coupon rate of 14.90% in 2015 Housing Market System which integrates the financing operations of the key components of the entire housing value chain Mortgage and Housing Market Information Portal Mortgage refinancing scheme for primary mortgage institutions 	 Economic conditions in the country affects the ability to raise the needed debt capital to fund the mortgage refinancing efforts

Features	Programmes/Initiatives	Challenges
	 The №13.00 billion Mortgage Refinancing Scheme with the Federal Government Staff Housing Loans Board (FGSHLB) Affordable Home Ownership Partnership with state governments 	

The success of these policies and programmes/initiatives will be hinged on effective collaboration, harmonisation, and political will for implementation

The various policy measures and programmes indicate that there is a vision for housing in Nigeria. However, the lack of political will to follow through on implementation continues to linger. It is important to note that whilst the government has created implementation and monitoring frameworks for the National Housing Policy and Urban Development, little action has been taken to follow through on such commitments. In the case of the National Housing Policy, the government had committed to appointing a "Co-ordinating and Monitoring Committee" at least once every two (2) years to review the achievement of the housing policy and urban development goals. However, very little action was taken.

The issue of fragmentation is another cause for concern. There have been various programmes launched by several stakeholders in the housing value chain. While each of these efforts have contributed to the housing delivery, they also brought inefficiencies that have worsened the housing challenge. The need for collaboration and structure is ever more critical to ensuring a targeted approach to addressing the challenges in the housing sector.

The lack of political will remains the crux of the matter, as well as recommendations for law amendments, policy, and structural changes. There is an unwavering need for commitments to be matched with the strong will to implement.

3. Nigeria's 10-year National Housing Strategy

3.1 The Case for the National Housing Strategy

There are global and national imperatives for why Nigeria should have a comprehensive National Housing Strategy (NHS)

Global imperative

Housing is a globally recognised fundamental human need that transcends borders, race, or ethnicity. Housing can affect every other part of an individual's life and the community at large. The UN estimates that by 2050, urban population would be six billion, five hundred million (6,500,000,000) people, and 90.00% of urban expansion would be in the developing world. Also, an estimated number of eight hundred and twenty-eight million (828,000,000) people are said to live in slums, hence huge investments are consistently being made to tackle the issue of sub-standard housing.

The 11th Sustainable Development Goal (SDG) of the United Nation Development Programme (UNDP) is to "Make cities and human settlements inclusive, safe, resilient and sustainable". The United Nations Human Settlements Programme (UN-Habitat) works to achieve this goal in over ninety (90) countries, including Nigeria, through knowledge, policy advice, technical assistance, and collaborative actions.

Standard housing must satisfy eight (8) conditions, according to the United Nations (UN), for it to be suitable for permanent human occupation:

- Habitability Standard housing units must be compatible with the sustenance of human life and social interaction
- Safety & Security Standard housing units must provide physical protection from environmental and man-made risks
- Socio-cultural adequacy Housing units must align with the individual's culture and foster peace and dignity
- Comfort Standard housing units must provide physical and psychological comforts including safe spaces for cooking and eating
- Social Amenities Housing units must provide access to social amenities e.g., places of worship, peer support groups
- Sanitation Clean environment, safe from diseases and pests; means of food storage and refuse disposal
- Infrastructure Presence of certain common infrastructure such as drinking water, defined road networks and electricity
- Accessibility Access to roads, employment options, health services, child-care centers, and other social amenities

As a signatory to the UN SDGs, it is imperative for Nigeria to have a holistic framework/policy that create the right ecosystem that can guarantee adequate supply of standard houses that meet the eight (8) criteria stated by the UN and enshrined in the SDGs.

National imperative

There are two perspectives to this – social and economic imperatives. The social perspective views housing as the basic need and right of every Nigerian irrespective of their income levels. However, this does not seem to be the case in Nigeria. PwC estimates that there is an approximate housing deficit of nine million, four hundred thousand (9,400,000) for the low-income class group in Nigeria, which is in sharp contrast with the two million, two hundred thousand (2,200,000) and five hundred thousand (500,000) housing surplus for the upper-middle and high-income segments of the society.

A bigger challenge for the housing ecosystem in Nigeria is that of sub-standard houses – houses that fall short of the criteria defined for a standard house by the UN and National Building Codes. Of the circa forty-two million (42,000,000) housing stock in Nigeria, 75.00% are sub-standard based on PwC's analysis. Most of the sub-standard housing stock are in the north-western and north-eastern parts of the country largely due to the high percentage of low-income households and households living below the poverty benchmark. Likewise, inadequate infrastructure for housing and land development caused by poor planning and high levels of informality in the Nigerian economy are also key drivers of sub-standard housing in the country.

Given that Nigeria's population is projected to continue to grow at c.3.00% per annum in the foreseeable future, the situation could possibly deteriorate if adequate measures are not put in place to address the challenges of housing deficit and sub-standard housing in the country especially for the lower-income class as well as the poor and vulnerable members of the Nigerian society.

From the *economic perspective*, the housing value chain has the potential to support sustainable economic growth and development via a robust multiplier effect especially with respect to land and housing construction activities. For instance, reforming land administration and titling procedures could potentially unlock three hundred billion dollars (c.US\$300,000,000,000,000.00) worth of dead capital for the Nigerian economy which is equivalent to c.60.00% of Nigeria's total

Gross Domestic Product (GDP). Similarly, housing construction activities has the capacity to create jobs for artisans, engineers, builders amongst others. This is in addition to stimulating the local market/industry for critical input required in housing construction and in reducing the demand of foreign exchange for foreign input. Thus, the construction segment of the housing value chain can support the government's drive to reduce unemployment and create income on a sustainable basis, which generate overall positive multiplier effects for the economy.

The foregoing socio-economic rationale forms the fulcrum for Nigeria's NHS to consolidate all existing Housing policy efforts and chart the path for the country to achieve its commitment towards the United Nations Sustainable Development Goals (SDGs).

Figure 11: Nigeria Housing Strategy Framework

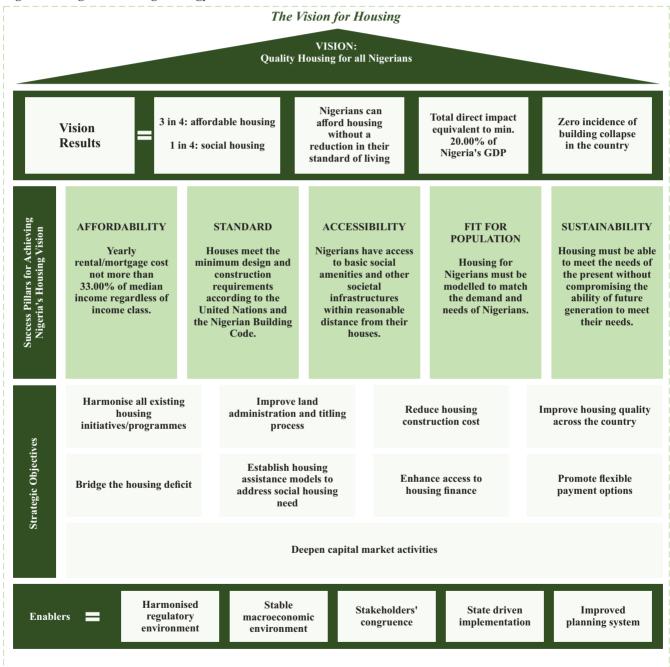


Figure 11 above sets out the National Housing Strategy framework. It visualises the building blocks required to support and achieve the vision for housing in Nigeria.

The National Housing Strategy for the next ten (10) years is anchored on a housing vision that will create prosperity for the housing ecosystem and economy in general

Nigeria's vision for housing as envisioned in this strategy document is simply to provide "Quality Housing for all Nigerians"

Nigerians deserve standard housing which is a right as espoused in the Universal Declaration of Human Rights and International Covenant on Economic, Social and Cultural Rights. To this end, Nigeria's vision for housing is to ensure all Nigerians rich and poor alike, occupy standard housing units. This implies that Nigerians will be able to buy or rent housing units without having to compromise on other important needs required for adequate living in the society. Furthermore, these housing units will be conducive and comfortable for human occupation.

This vision is underpinned by five strategic pillars.

- I. Affordable
- ii. Standard
- iii. Accessible
- iv. Fit for Population
- v. Sustainable

Affordable: This implies that no Nigerian should spend more than 33.00% of their annual disposable income on rental or mortgage payments. This ensures that the individual or household can afford to maintain a decent standard of living in other non-housing areas.

Standard: This indicates that quality housing for all Nigerians must meet the minimum design and construction requirements established in the Nigerian Building Code. Also, housing must satisfy the living conditions as set out by the United Nations Habitat.

Accessible: This implies that all Nigerians have access to basic social amenities such as good roads, educational services, health services, employment opportunities and so on.

Fit for Population: This suggests that the housing supply should take into consideration the requirements of Nigerians across income levels, age groups and locations, and drive better outcomes for all.

Sustainable: This implies that quality housing is achieved when both present and future needs of Nigerians are put into consideration.

Finally, these results cannot be achieved without a functioning housing ecosystem in which all stakeholders are properly aligned and working towards a common goal.

To make this vision a reality within the next ten (10) years, four enabling factors are essential:

- i. Harmonised regulatory environment
- ii. Stable macro-economic environment
- iii. Stakeholders' congruence
- iv. State driven implementation
- v. Improved planning system

In addition to the highlighted pillars, nine (9) broad strategic objectives were developed to anchor the required initiatives in the next chapter for the Nigerian housing ecosystem over the next ten (10) years. These broad strategic objectives are:

- i. Harmonise all existing housing initiatives/programmes
- ii. Improve land administration and titling process
- iii. Reduce housing construction cost

- iv. Improve housing quality across the country
- v. Bridge the housing deficit
- vi. Establish housing assistance models to address social housing need
- vii. Enhance access to housing finance for home acquisition
- viii. Promote flexible payment options
- ix. Deepen capital market activities

3.2 Initiatives

Key Objective 1: Harmonise all Existing Housing Initiatives/Programmes

The plethora of housing initiatives promoted by the Federal Government, State Governments, private organisations, local and international development agencies across Nigeria need to be centrally monitored and should flow from a robust national strategy. This way, any initiative regardless of its promoters will be geared towards achieving the sole purpose of providing housing for all Nigerians.

The relevant initiatives in this regard are stated below:

Table 4: Harmonisation of Existing Housing Initiatives/Programmes

	Policy – Harmonise	e all existing housing initiatives/program	nmes
S/N	Initiatives	Lead Stakeholder(s)	Key Performance Indicators
		Administration	
1	Present the NHS to the National Economic Council (NEC) to adopt through the Federal Ministry of Works and Housing.	 The Office of the Vice President Federal Ministry of Works and Housing Five-year periodic as-built survey of any Landed Property for proper Land Inventory and Planning in Nigeria 	 NEC communiqué on the adoption of the NHS
2	Set up a private sector funded implementation body made up of public and private sector stakeholders to oversee the implementation of the NHS.	 Public stakeholders (The Office of the President, Office of the Vice President, Federal Ministry of Works, and Housing) Private stakeholders (FMDQ Group PLC, Mortgage Banking Association of Nigeria, Real Estate Developers Association of Nigeria, etc.) 	 Official communication on the NHS implementation body
	Coo	ordination of housing efforts	
3	NHS implementation body to liaise with states for effective implementation of housing strategy.	State GovernmentsNECThe NHS implementation body	 Implementation of the NHS as state levels
4	Liaise with States' planning ministries to integrate the NHS with States' housing master plan/layout.	The NHS implementation bodyStates' Ministry of Planning	 Updated states' housing master plan with NHS

S/N	Initiatives	Lead Stakeholder(s)	Key Performance Indicators
5	Collect quarterly submissions on housing initiatives from private and public stakeholders. Submit report on housing efforts/initiatives in each state at the quarterly, biannual, or annual meetings of the NHS implementation body.	 Federal Ministry of Works and Housing NHS implementation body States' Ministry of Planning National Bureau of Statistics (NBS) 	 Quarterly report on housing efforts/initiatives at the state level
6	Maintain updated records of all housing efforts across the country by the public, private and development players on the National Real Estate Data Collation and Management platform. This could also include partnership with innovative data collation/technology agencies such as GRID 3. Each state to upload housing efforts / initiatives to the public national portal.	 Federal Ministry of Works and Housing NHS implementation body States' Ministry of Planning NBS 	 Portal uptime Number of uploads to the portal per year by each state
7	Create public awareness of the 10-year NHS. Specifically, the importance of the NHS, benefits of the NHS and the progress over the ten (10) year period.	 The NHS implementation body States' implementation committees 	 Publicly accessible ten (10) year NHS Number of portal visits and average time spent on the portal

Key Objective 2: Improve Land Administration and Titling Process

Proper land administration and titling processes are essential for the efficient functioning of the housing ecosystem and business environment in general. For instance, PwC's analysis indicates that improving land administration and titling process in Nigeria could unlock dead capital in excess of three hundred billion dollars (\$300.00bn) for financing in the housing ecosystem and economy in general.

Likewise, an efficient land administration process could potentially shed between 5.00% to 10.00% of total housing cost.

The relevant initiatives in this regard are stated below:

Table 5: Land Administration and Titling Process

	Land - Improve land administration and titling process				
S/N	Initiatives	Lead Stakeholder(s)	Key Performance Indicators		
1	Map out the end-to-end process flow for land administration in each state. This should take into consideration the following at the minimum: Streamlining processes Eliminating redundancies Improving communication	 States' implementation committees States' land bureaux 	Land administration process manual for each state		
2	Make use of the revised process manual to digitise the land administration and titling processes leveraging technology such as blockchain (See Appendix: Section 8, Georgia's Digitised Land Administration System). This will reduce the inefficiencies in registering land, validating requirements, and granting consent to prospective builders.	 States' implementation committees States' land bureaux 	 Average number of days it takes to obtain land title documents Percentage reduction in the overall cost of land administration Number of land titling applications 		
3	Create digital land registries to serve as open repositories for registered land titles in the State that will be connected to the national land registries (See Appendix: Section 8 Georgia's Digitised Land Administration System).	 States' implementation committees States' land bureaux 	 Public digital land repository for each state 		

Key Objective 3: Reduce Housing Construction Cost

Cost of materials is the key driver of housing construction cost in Nigeria, it accounts for circa 65.00% of total housing development costs. These costs are volatile due to the volatilities in the foreign exchange market as most building materials are imported into the country.

In addition, it will be difficult if not impossible for current housing construction techniques (largely manual) to deliver the number of houses required each year to address the housing gap.

Also, undeveloped lands i.e., land with little or no infrastructure development, presents another bottleneck which adds to the cost of constructing a house. PwC's independent market research indicates that these infrastructure development costs could increase total construction costs by 20.00% to 25.00%.

To this end, it becomes imperative for state governments to leverage existing vehicles with the mandate to support infrastructure development. This will ensure that basic infrastructure is available on a land before building approvals are given to developers for construction.

The vehicle will carry out important activities such as:

- Construction of access roads and walkways
- Landscaping
- Service connections
- External lighting (which must consider affordable and clean energy sources e.g., solar panel powered streetlights)
- Sewage and drainage development

Thus, for Nigeria to achieve its vision of affordable housing for all based on the objective of reducing housing construction cost, both material and infrastructure costs are key levers to be addressed.

Table 6: Reducing Housing Construction Costs

	Construction – Reduce housing construction costs				
S/N	Initiatives	Lead Stakeholder(s)	Key Performance Indicators		
	Commercialisation of alternative local materials				
1	Sensitise the public and other key housing stakeholders on the comparative advantage of local building materials which includes: Durability Low carbon emissions Thermal efficiency	 The NHS implementation body States' implementation committees Nigerian Building and Road Research Institute (NBRRI) 	 Branding and Communication Guide (BCG) for the use of local building materials Number of sensitisation activities carried out according to the BCG 		
2	Drive partnership between local manufacturers and NBRRI to commercialise local building materials. Including materials such as cement, stabilised earth blocks, laminated bamboo panels, burnt bricks, rubberised asphalt mat, etc.	 The NHS implementation body States' implementation committees NBRRI 	 Number of partnerships formed Number of local building materials commercialised and volume of each sold 		

S/N	Initiatives	Lead Stakeholder(s)	Key Performance Indicators
	(See Appendix: Section 8, Nepal Use of Sustainable Local Alternative Building Materials).		
3	Encourage the adoption of the concept of Circular Economy via the use of building materials converted from wastes e.g., plastic bottles-to-tiles, rice husks-to-particle boards, wastepaper-to-furniture, etc.	 The NHS implementation body States' implementation committees 	 Volume of local building materials converted from wastes and volume of each sold
4	Create Monitored Rebate Scheme (MRS) to support local entrepreneurs and innovators who develop materials and new techniques in the housing construction sector e.g., the recent \$\frac{N}{2}00.00\text{bn} intervention fund from the CBN.	 Central Bank of Nigeria (CBN) Bank of Industry (BOI) 	 Documented modalities for intervention fund Set up MRS Value of credit channelled towards local input industry/market Number of beneficiaries
	E	fficient land development	
5	Leverage existing vehicles with the mandate to support infrastructure development e.g., States' Infrastructure Corporations (State InfraCorps) to support the development of basic housing infrastructure. Provide incentives such as tax incentives to encourage development of low to medium income houses.	 NHS Implementation body States' housing agencies/ministries States' implementation committees Ministry of Finance Federal Inland Revenue Service (FIRS) 	 Guidelines on leveraging existing vehicles e.g., States' InfraCorps on basic housing infrastructure Incentives for the housing sector
6	States' InfraCorps to liaise with the Central Bank of Nigeria's InfraCorp to facilitate the development of housing infrastructure. The partnership will enable them: i. Create road access to housing locations. Build key infrastructure such as access roads, feeder roads, central sewage system, electricity on existing land before sale/lease of such lands ii. Lease developed lands on behalf of their respective governments for large scale residential construction which also has the potential to drive down construction cost	 States' housing Agencies/Ministries State Executive Council State House of Assemblies Central Bank of Nigeria States' implementation committees Rural Electrification Agency 	 Number of housing infrastructure development projects executed Reduction in infrastructure cost as a percentage of total construction cost Number of housing units with solar generated electricity

S/N	Initiatives	Lead Stakeholder(s)	Key Performance Indicators
	iii. Raise funds from the capital market for infrastructure development iv. Partner with the Rural Electrification Agency to electrify the social housing stock under the "5million Solar Power Naija" Federal Government initiative which is aimed at expanding access to energy for 5million households		
7	Encourage the Federal and State Governments to drive the urban planning agencies to: i. Review existing master plans ii. Articulate clearly defined urban plans that provide for adequate land for affordable housing development iii. Create efficient processes around obtaining development permits	 The NHS implementation body States' housing agencies/ministries States' Executive Councils States' House of Assemblies States' implementation committees 	 Number of states with updated master plans Number of urban plans created Number of development permits issued

Key Objective 4: Improve Housing Quality Across the Country

The United Nations Human Settlements Programme (UN-Habitat) defines a slum as a wide range of low-income settlements and/or poor human living conditions, which include the vast informal settlements that are quickly becoming the most visual expression of urban poverty. In a nutshell, slums comprise multiple sub-standard housing units with weak build quality and often associated with poverty.

According to PwC's analysis, 63.00% or twenty-seven million (27,000,000) of the total forty-two million (42,000,000) housing units in Nigeria as of 2019, are sub-standard (See Appendix: Section 9, Housing Analysis). Sub-standard housing units could also exist as a result of deteriorated housing structures due to poor maintenance practices, poor construction quality or outright non-adherence to safety standards.

Thus, proactively reducing the existing slums and sub-standard housing units and guarding against future sub-standard housing units will improve the housing quality across the country.

Table 7: Improving Housing Quality Across the Country

Construction – Improve housing quality across the country			
S/N	Initiatives	Lead Stakeholder(s)	Key Performance Indicators
	Н	ousing Standards Revision	
1	Review and update the National Building Code (NBC) to: Reflect the cultural, emerging demographic trends such as growing youth population, changing housing preferences, rural-urban migration—and religious peculiarities of regions and states in the country Incorporate sustainability themes as enshrined in the Building Energy Efficiency Guideline for Nigeria developed by the Federal Ministry of Works and Housing (See Appendix: Section 8, Nepal Use of Sustainable Local Alternative Building Materials) Establish a suite of tools (e.g., Housing Adequacy Index) to monitor and appraise the quality of housing based on the NBC and NHS	 The NHS implementation body The National Building Code Advisory Committee (BCAC) States' implementation committees 	 Availability of a revised National Building Code with sustainability themes
		Education and Advocacy	
2	Establish a framework to serve as a guide for regular sensitisation of builders and developers in the country on the need to adhere to the NBC.	 States' implementation committees States' housing agencies/ministries Council of Registered Builders in Nigeria (CORBON) 	 Guidelines for NBC sensitisation Number of workshops conducted per year in a state Number of attendees (including artisans)

S/N	Initiatives	Lead Stakeholder(s)	Key Performance Indicators
3	Revise the curriculum of National Board for Technical Education (NBTE) accredited programmes in various technical institutions to reflect contemporary building practices as it aligns to the National Building Code.	The NHS implementation bodyNBTEBCAC	 Revised training curriculum for the building industry
4	Encourage further partnerships between technical institutions and key research institutes such as NBRRI for effective research and development of alternative building materials.	 The NHS implementation body States' implementation committees NBTE NBRRI 	 Number of partnerships between research institutes and technical institutions
	En	forcement and Compliance	
5	Strengthen the capacity of existing Building Control Units in each state via regular trainings.	States' implementation committeesState housing agencies/ministriesBCAC	 Number of appraised buildings in each state Number of trainings for Building Control Units Zero incidence of collapsed buildings
6	Ensure law enforcement agencies assist the Building Code Enforcement Units in the discharge of its official duties.	 States' implementation committees State government housing agencies/ministries States' Building Control Units Nigerian security agencies 	 Zero incidence of collapsed buildings
	Ei	nforcement and Compliance	
7	Establish a database in conjunction with the National Bureau of Statistics (NBS) to capture information on the quality of housing across the country.	 The NHS implementation body States' implementation committees States' Physical and Urban planning agencies NBS 	 Availability of a database that captures housing data
8	Utilise insights from the database to plan and facilitate the upgrade of identified substandard houses.	 States' implementation committees States' physical and urban planning agencies States' housing agencies/ministries 	 Number of slums upgraded in each state Reduction in the number of sub-standard housing units

Key Objective 5: Bridge the Housing Deficit

PwC estimates that Nigeria has a shortfall of standard housing supply which has created a housing deficit of seven million, five hundred thousand (7,500,000) units for low-income households and one million, eight hundred thousand (1,800,000) units for lower-middle-income households. The primary drivers for the housing shortfall are:

- Inability to deliver affordable housing projects at scale
- Growing mismatch between housing supply and the requirements of the changing demography of the Nigerian population mix. Most buildings are big and suited for family use, which are not suited for Nigeria's young demography profile with a median age of nineteen (19)

To close the gap in adequate supply for households (that can effectively demand housing) in the country, PwC estimates that sixteen million (16,000,000) housing units have to be provided over the next ten (10) years (see section 2.4, housing demand assessment). This translates to one million, six hundred thousand (1,600,000) housing units per annum with an investment range of between \$10.30 trillion and \$21.50 trillion (according to PwC housing development cost analysis).

It is pertinent to note that High-Income households, upper middle-income households, and middle-middle-income households have a surplus of adequate housing supply to the tune of two million, seven hundred thousand (2,700,000) units as of 2019, which has resulted in empty houses/apartments especially in major cities across the country.

Table 8: Bridging the Housing Deficit

Construction – Bridge the Housing Deficit			
S/N	Initiatives	Lead Stakeholder(s)	Key Performance Indicators
	Provide 1.6 million standard housing	units per year over the next decade for	low-income households
1	Form strategic partnerships for housing development Establish Public Private Partnerships (PPPs) with selected large-scale developers where the government provides support. For example, provision of free/subsidised and serviced land, other state, and regulatory approvals	 The NHS implementation body States' housing corporations Property developers Federal Ministry of Works and Housing Federal Housing Authority Family Homes Fund Limited Federal Mortgage Bank of Nigeria 	 Number of affordable/low income houses constructe each year – reduction in the country's housing deficit
	Moa	lern construction techniques	
2	 Mainstream the use of industrial construction approaches by the selected developers or builders for large scale projects Introduce value engineering by substituting expensive building materials with effective cheaper substitutes and adopting innovative construction techniques to deliver on low-income houses 	 The NHS implementation body States' housing corporations Nigerian Building & Road Research Institute Private property developers 	 Number of affordable/low income houses constructe each year – reduction in the country's housing deficit

S/N	Initiatives	Lead Stakeholder(s)	Key Performance Indicators
	 Design and construct smaller housing units/apartments (studios) that fit the country's demographic profile 		
	Re	epurpose vacant buildings	
3	Explore the use of vacant property tax to induce owners of vacant houses to offer the houses for rent/lease.	 Federal Inland Revenue Service Ministry of Works & Housing The NHS implementation body 	 Percentage reduction in the stock of vacant houses Tax revenue generated from owners of vacant properties (See Vienna model)
		Innovative Financing	
4	States to provide guarantees that will enable the selected developers to raise long term financing for the housing projects (subject to the relevant fiscal guidelines and provisions) - States should explore the blended interest rate approach towards providing affordable mortgages to its citizens. E.g., the tripartite agreement between the Kaduna State Government, NMRC and FHA Microfinance Bank which offered low interest mortgages to public servants and residents of Kaduna State - Enhanced partnerships with PropTech companies (Muster, Spleet, etc.) to enable flexible payment options such as monthly payments	 States' housing corporations Federal Housing Authority Federal Mortgage Bank of Nigeria NMRC PropTech companies 	 Successful capital raise by housing developers Number of low interest mortgage loans disbursed Availability of monthly rental /mortgage payment options

Key Objective 6: Establish Housing Assistance Models to Address Social Housing Need

Social housing needs arise from households who need housing but lack the purchasing power to pay for a home, such demand is termed ineffective. Factors such as internal displacement, homeless individuals, poor living conditions (households living in sub-standard housing) contribute to the social housing need in the country.

PwC's analysis estimates that about twenty-six million (26,000,000) Nigerian households have a social housing challenge. This figure is likely to rise with increased urbanisation (See Appendix: Section 9, Housing Analysis).

PwC estimates that Nigeria will require thirty-three million (33,000,000) housing units (housing upgrade and new construction) over the next ten (10) years to meet the country's evolving social housing needs.

Assistance must be provided via a social housing scheme to ensure that secure and quality housing are accessible for these groups of people. While the government has taken steps as shown by the Nigeria Social Housing Programme to deliver three hundred thousand (300,000) housing units across the federation, this number needs to be ramped up to meet the social housing need.

To meet the capacity required by a social housing scheme, it is pertinent to establish limited-profit housing associations to construct and manage social housing across the country. Limited-profit housing associations are regulated non-profit entities whose activities and assets are directed towards fulfilment of the common good of housing. The limited profit associations may sell (via rent-to-own schemes) or rent houses to individuals eligible for social and low-income housing as defined by its regulatory body (e.g., the National Council on Lands, Housing and Urban Development- NCLHUD). The rental fees charged should equal the amount necessary to cover the building management cost.

The regulatory body will ensure that assets of the limited-profit housing associations are appropriated for the purpose of social and low-income housing. For example, most of the profits of the associations will be channelled to reserves with a limited interest rate for shareholders' equity. Developed countries in Europe such as Austria have been able to successfully establish social housing schemes with participation from the private sector through limited-profit housing schemes (See Appendix: Section 8, The Vienna Housing Model).

Table 9: Establishing Housing Assistance Models to Address Social Housing Needs

	Demand – Establish housing assistance models to address social housing needs								
S/N	Initiatives	Initiatives Lead Stakeholder(s) Key Performance Indicators							
P	Provide 3.1 million social housing units p	per year over the next decade for poor an	d vulnerable households						
1	Develop national guidelines for a suite of housing assistance models based on vulnerability due to income levels, health challenges, displacements, and other issues.	The NHS implementation bodyStates' housing corporations	 Presence of National guidelines on housing assistance models 						
2	Each state to domesticate the housing assistance model developed by the NHS implementation body.	 The NHS implementation body States' housing corporations National Bureau of Statistics (NBS) States' Bureau of Statistics 	 Presence of state guidelines on housing assistance models 						
3	Each state to partner with the NBS to determine households who qualify for social housing schemes.	The NHS implementation bodyStates' housing corporationsNBS	 Number of households who require social housing in each state 						

S/N	Initiatives	Lead Stakeholder(s)	Key Performance Indicators
4	Work with public and private stakeholders within the housing ecosystem to develop a framework for the establishment and operations of limited-profit housing companies. (See Appendix: Section 8, The Vienna Housing Model) The framework will include: - Ownership structure - Capital requirements - Specified business activities of the associations - The cost-coverage mechanisms - Profit appropriations - Target reserves - Dividend rate for shareholders - Transparency structure - Regulatory mechanisms - Guidelines to monitor operations of the limited-profit housing companies	The NHS implementation body States' housing corporations	 Framework for the setup and operation of limited-profit housing companies Number of limited-profit housing companies established
	Fund	ding social housing schemes	
5	Federal and State Governments to encourage limited-profit housing companies to build social houses by offering supply side subsidies (See Appendix: Section 8, The Vienna Housing Model).	 The NHS implementation body States' implementation corporations Limited-housing profit companies 	 Number of social housing units developed by limited-profit housing companies
6	Set up a sinking fund with contributions from the three tiers of government and organised private sector (a portion of the Company Income Tax and expand the NHF to include contribution from Banks and Insurance companies).	 The Central Bank of Nigeria Federal Ministry of Finance The NHS implementation body States' implementation corporations FIRS 	 Evidence of fund set-up Issuance of operating guidelines for the fund Frequency and volume of contributions to the fund by each contributor

Key Objective 7: Enhance Access to Housing Finance for Home Acquisition

Effective demand is central to a sustainable/viable housing market. Housing demand is termed "effective" if the household can pay for a house – either by rent or mortgage - at any point in time.

From a homeownership perspective, PwC's analysis indicates that only about nine hundred and seventy-five thousand (975,000) of the estimated seventeen million households (17,000,000) within the effective demand segment can afford mortgage facilities. Approximately 31.00% of the nine hundred and seventy-five thousand (975,000) households are likely to be first time homeowners, hence constituting the addressable mortgage market (See Appendix: Section 9, Mortgage Affordability Analysis).

PwC's analysis further indicates that household demand can be effective in a sustainable manner with access to affordable long-term financing schemes.

The National Housing Fund (NHF) is currently the biggest housing contributory scheme in Nigeria that aims to address the affordability challenge by enabling Nigerians to access affordable finance for home ownership. However, it is riddled with weak enforcement as the banks, insurance companies and the federal government - who by law are required to contribute to the fund have failed to regularly contribute.

As of June 2021, twenty-two thousand, five hundred and thirty-eight (22,538) mortgages, seventy thousand and thirty (70,030) housing microloans and thirty thousand, nine hundred and fifty-four (30,954) housing units have been delivered from the National Housing Fund (NHF) with an average of 30.00% of these statistics achieved in the past four (4) years. This is against a backdrop of rising housing gap in the country which is circa 9.30 million. Based on the foregoing, it is imperative to devise innovative ways to improve the performance of the housing contributory scheme. For instance, decentralising the National Housing Fund (NHF) through policy measures by the government to mirror the pension scheme – that is relatively successful in Nigeria.

While the housing contributory scheme favours the formal economy, the informal economy accounts for circa 65.00% of economic activities in Nigeria (according to the International Monetary Fund – IMF). Thus, more inclusive financing schemes that increasingly cater to the nuances of the informal economy will significantly broaden the access to household financing.

Table 10: Enhancing Access to Housing Finance

	Financing – Enhance access to housing finance						
	rinancing –	Ennance access to nousing mance					
S/N	Initiatives	Lead Stakeholder(s)	Key Performance Indicators				
1	Establish a new guideline that will revise the modus operandi of current national housing contribution scheme. This will entail the following at the minimum: - Mortgage banks to serve as Mortgage Fund Administrators (MFAs) that manage and invest employees' monthly contributions which will be warehoused with the FMBN acting as a Custodian - Provision of investment options that the MFAs can invest employees' contribution in - The MFAs to provide regular reporting to contributors on the performance of their contributions	 Central Bank of Nigeria The NHS implementation body States' implementation corporations Federal Mortgage Bank of Nigeria 	 Issued investment and operational guidelines for the housing fund Number of contributors to the housing fund Value of the housing fund Monthly reports on the housing fund contribution and investments 				

S/N	Initiatives	Lead Stakeholder(s)	Key Performance Indicators
	 Each employee should be given the liberty to increase their monthly contribution towards home ownership 		
2	Finalise the guidelines and operationalise the segment of the Pension Reform Act of 2014 that enables contributors to access their Retirement Savings Account (RSA) for the payment of equity contribution for residential mortgages (See Appendix: Section 8, The Singapore Housing Model).	 Nigerian Mortgage Refinance Company (NMRC) National Pension Commission (PenCom) Central Bank of Nigeria The Federal Mortgage Bank of Nigeria 	 Implementation of the issued guidelines on the use of RSA for mortgage down payment Value of transactions from the pension industry towards housing development
3	Revise the Uniform Underwriting Standards for the informal sector to enable mortgage repayment through micro payments payable either daily/weekly/monthly from their business proceeds towards securing houses/properties.	 NMRC Central Bank of Nigeria Primary Mortgage Banks Cooperative societies Limited-profit housing companies Microfinance banks 	 Increase in access to mortgage by self-employed and informal segment of the economy Mortgage penetration rate Number of new mortgages created for low-income earners
4	Strengthen the Housing Microfinance (HMF) Programme with risk management framework to ensure sustainable disbursement of HMF loans to low-income earners.	 Central Bank of Nigeria Federal Mortgage Bank of Nigeria 	 Mortgage penetration rate Number of new mortgages created for low-income earners HMF loan performance

Key Objective 8: Promote Flexible Payment Options

According to an independent market survey conducted by PwC, over 60.00% of Nigerian households occupy rented homes. Though majority desire to own homes, sustainable homeownership may not be possible for all household groups (financial and life-cycle wise). Hence, a better developed rental housing market offers an opportunity to address housing challenges and deliver affordable housing for all.

However, rental payment terms are very rigid in the country as most homeowners require one or two-years rental prepayment for their properties, with little or no financing options to make such prepayments.

Likewise, mortgages are mostly short to medium term with little room for long term mortgages in excess of ten (10) to fifteen (15) years. All these have significant negative implications for household housing demand.

Thus, incorporating flexibility in housing financing schemes and expanding the bouquet of options available will significantly improve household demand for housing.

Table 11: Promoting Flexible Payment Options

	Financing – Enhance access to housing finance							
S/N	Initiatives	Lead Stakeholder(s)	Key Performance Indicators					
1	 Amend the tenancy laws to: Allow for monthly payment of rent Direct deductions of rent Introduce leasing agreements A dispute resolution framework when lease agreements are breached Emerging PropTech firms should be integrated with the housing ecosystem to serve as a collection channel for monthly rental payment. 	 States' housing corporations States' Houses of Assembly Public & Private property owners PropTech Firms 	 Legislation on monthly rental payments Uptake in flexible/monthly rental payment options for households Framework/guidelines on dispute regulation for the rental market 					
2	Adopt rent stabilisation measures through the creation of rent pressure zones where growth in rent prices is regulated by a benchmark to factors such as general inflation. Rent pressure zones are delineated densely populated areas where rental prices are unstable.	 NHS implementation body States' implementation committee State housing corporations States' Houses of Assembly 	 Number of delineated rent pressure zones Regulation on rent pressure zones 					

S/N	Initiatives	Lead Stakeholder(s)	Key Performance Indicators
3	Adopt a subsidised rental model for the social housing scheme provided by the limited-profit housing associations to reduce the pressure on cost overburdened, low-income and vulnerable households. To supplement the cost of the rental subsidy, tenants will bear the cost of housing maintenance which will be regulated.	 NHS implementation body States' House of Assembly State housing agencies/ministries Limited-housing profit companies Public & Private property owners 	 Presence of a subsidised rental framework Establishment of the rental subsidy fund Uptake in rental subsidy by households
4	Expand the current home tenure options via innovative financing schemes such as rent-to-own. The Rent-to-Own scheme enables households via provisions in their tenancy agreement to convert their interest in such properties into equity/ownership after a predetermined period.	 Federal Bank Mortgage of Nigeria Family Homes Fund Limited Federal Housing Authority Limited-profit housing companies Public & Private property owners States' housing corporations 	 Availability of rent-to-own schemes across States Uptake in rent-to-own schemes for households

Key Objective 9: Deepen Capital Market Activities

The key challenge of the housing value chain is the inability to access funding at fair prices to drive the housing development process. Although the financial institutions currently serve this market, there is a considerable gap that has resulted in a negative impact on the cost of housing development. These issues are not isolated as they are inherently driven by land titling, ownership, poor historical yields on rental income vis-à-vis inflationary pressures, etc. Hence, these issues and the lack of structure and support impact the ability of tertiary markets to provide the much-needed funding for housing development.

The capital market provides an avenue to raise long-term funding for the housing ecosystem. The depth and breadth of the capital market with respect to product options makes it possible for players to raise capital in the form of bonds, REITs, and commercial papers to re-finance projects for long term sustainability of the housing ecosystem.

Table 12: Deepening of Capital Market Activities

	Financing - Deepen Capital Market Activities					
S/N	Initiatives	Lead Stakeholder(s)	Key Performance Indicators			
1	Large-scale property developers to leverage existing credit guarantee framework to issue long-term bonds to finance housing projects.	 Securities and Exchange Commission FMDQ Group PLC Development Finance Institutions Credit Guarantee Institutions e.g., InfraCredit 	 Volume and value of bonds issued in partnership with development finance and credit guarantee institutions Mortgage as a percentage of GDP (mortgage penetration) 			
2	Strengthen the NMRC to utilise existing funds from the capital market to re-finance residential mortgages.	Central Bank of NigeriaNMRCFederal Ministry of Finance	Value of re-finance mortgagesMortgage penetration			
3	Enhance listing administration procedures to reduce the lead time required to issue instruments like REITs or mortgage-backed bonds (MBS) from the capital market.	 Securities and Exchange Commission 	 Issued revised listing guidelines for REITs or mortgage-backed bonds Volume and value of REITs and MBS issued Number of days required to secure approval to issue REITs and MBS 			
4	Develop and implement a framework to kickstart the mortgage securitisation market in Nigeria that will allow financial institutions securitise mortgage loans which can be sold in the capital market	 Central Bank of Nigeria Securities and Exchange Commission FMDQ Group PLC 	 Framework on mortgage securitisation 			

S/N	Initiatives	Lead Stakeholder(s)	Key Performance Indicators
5	 Encourage all states in the country to pass and sign the mortgage foreclosure law in their respective territories Organise regular stakeholders' session with the state housing ministries/agencies on the importance of the mortgage foreclosure law and impact on economic activities in their States 	 The NHS implementation body NMRC States' Houses of Assembly FMDQ Group PLC 	 Number of states that have adopted the mortgage Foreclosure Law Credit/mortgage penetration

4. Implementation Plan

3.1 The Case for the National Housing Strategy

The implementation plan highlights the delivery timeline for the proposed initiatives. Initiatives within the year 2 category are the quick wins for the NHS.

Table 13: Housing Strategy Implementation Plan

Initiatives	Responsibility	Year 2	Year 4	Year 6	Year 8	Year 10
Present the NHS to the National Economic Council (NEC) to adopt	 The office of the Vice President Federal Ministry of Works and Housing 	~				
Set up a private sector funded implementation body made up of public and private sector stakeholders to oversee the implementation of the NHS	 Public stakeholders (The Office of the President, Office of the Vice President, Federal Ministry of Works, and Housing) Private stakeholders (FMDQ Group PLC, Mortgage Banking Association of Nigeria, Real Estate Developers Association of Nigeria, etc.) 	✓				
Liaise with states' planning ministries to integrate the NHS with states' housing master plan/layout	The NHS implementation bodyStates' Ministry of Planning	~				
Create public awareness of the ten (10) year NHS. Specifically, the importance of the NHS, benefits of the NHS and the progress over the ten (10) year period	The NHS implementation bodyStates' implementation committees	~				
Collect quarterly submissions on housing initiatives from private and public stakeholders. Submit report on housing efforts/initiatives in each state at the quarterly, biannual, or annual meetings of the NHS implementation body	 Federal Ministry of Works and Housing NHS implementation body States' Ministry of Planning National Bureau of Statistics (NBS) 	✓	✓	~	✓	~
Maintain updated records of all housing efforts across the country by the public, private and development players on the National Real Estate Data Collation and Management platform. This could also include for partnership with innovative data collation/technology agencies such as GRID 3	 The Secretariat of the NHS implementation body Secretariat of the States' implementation committees 	✓	~	✓	✓	~

Initiatives	Responsibility	Year 2	Year 4	Year 6	Year 8	Year 10
Each state to upload housing efforts/initiatives to the public national portal		~	~	~	~	~
Map out the end-to-end process flow for land administration in each state. This should take into consideration the following at the minimum Streamlining processes Improving communication	States' implementation committeesStates' land bureaux	✓				
Make use of the revised process manual to digitise the land administration and titling processes leveraging technology such as blockchain (See Appendix: Section 8, Georgia's Digitised Land Administration System)	States' implementation committeesStates' land bureaux	~	✓			
Create digital land registries to serve as open repositories for registered land titles in the state that will be connected to the national land registries	States' implementation committeesStates' land bureaux	~	~			
Sensitise the public and other key housing stakeholders on the comparative advantage of local building materials	 The NHS implementation body States' implementation committees Nigerian Building and Road Research Institute (NBRRI) 	~	✓	✓	✓	✓
Drive partnership between local manufacturers and NBRRI to commercialise local building materials	 The NHS implementation body States' implementation committees NBRRI 	~	✓			
Create Monitored Rebate Scheme (MRS) to support local entrepreneurs and innovators who develop materials and new techniques in the housing construction sector e.g., the recent №200.00bn intervention fund from the CBN	 Central Bank of Nigeria Bank of Industry (BOI) 		✓			

Initiatives	Responsibility	Year 2	Year 4	Year 6	Year 8	Yea
Leverage existing vehicles with the mandate to support infrastructure development e.g., States' Infrastructure Corporations (State InfraCorps) to support the development of basic housing infrastructure Provide incentives such as tax incentives to encourage development of low to medium income houses	 NHS Implementation body States' housing agencies/ministries States' implementation committees Ministry of Finance Federal Inland Revenue Service (FIRS) 	✓				
States' InfraCorps to liaise with the Central Bank of Nigeria's InfraCorp to facilitate the development of housing infrastructure. The partnership will enable them: i. Create road access to housing locations. Build key infrastructure such as access roads, feeder roads, central sewage system, electricity on existing land before sale/lease of such lands ii. Lease developed lands on behalf of their respective governments for large scale residential construction which also has the potential to drive down construction cost iii. Raise funds from the capital market for infrastructure development Partner with the Rural Electrification Agency to electrify the social housing stock under the "5million Solar Power Naija" federal government initiative which is aimed at expanding access to energy for five (5) million households	 States' housing Agencies/Ministries State Executive Council State House of Assemblies Central Bank of Nigeria States' implementation committees Rural Electrification Agency 					

Initiatives	Responsibility	Year 2	Year 4	Year 6	Year 8	Year 10
Encourage the Federal and State Governments to drive the urban planning agencies to: i. review existing master plans ii. articulate clearly defined urban plans that provide for adequate land for affordable housing development iii. create efficient processes around obtaining development permits	 The NHS implementation body States' housing agencies/ministries States' Executive Councils States' House of Assemblies States' implementation committees 					
Review and update the National Building Code (NBC)	 The NHS implementation body The National Building Code Advisory Committee (BCAC) States' implementation committees 	✓	✓			
Establish a framework to serve as a guide for regular sensitisation of builders and developers in the country on the need to adhere to the NBC	 States' implementation committees States' housing agencies/ministries Council of Registered Builders in Nigeria (CORBON) 	✓				
Revise the curriculum of National Board for Technical Education (NBTE) accredited programmes in various technical institutions to reflect contemporary building practices as it aligns to the National Building Code	The NHS implementation bodyNBTEBCAC	~	~			
Encourage further partnerships between technical institutions and key research institutes such as NBRRI for effective research and development of alternative building materials	 The NHS implementation body States' implementation committees NBTE NBRRI 	~	~	✓	✓	

Initiatives	Responsibility	Year 2	Year 4	Year 6	Year 8	Year 10
Ensure law enforcement agencies assist the Building Code Enforcement Units in the discharge of its official duties	 States' implementation committees State government housing agencies/ministries States' Building Control Units Nigerian security agencies 	~	✓			
Ensure Law Enforcement agencies assist the building control units in the discharge of official duties	 State government housing agencies/ministries States' Building Control Units Nigeria Police Force 	~	✓	✓	✓	~
Establish a database in conjunction with the NBS to capture information on the quality of housing across the country	 The NHS implementation body States' implementation committees States' Physical and Urban planning agencies NBS 	~	✓			
Utilise insights from the database to plan and facilitate the upgrade of identified substandard houses	 States' implementation committees States' physical and urban planning agencies States' housing agencies/ministries 	~	✓			
Form strategic partnerships for housing development Establish Public Private Partnerships (PPPs) with selected large-scale developers where the government provides support. For example, provision of free/subsidised and serviced land, other state, and regulatory approvals	 The NHS implementation body States' housing corporations Property developers Federal Ministry of Works and Housing Federal Housing Authority Family Homes Fund Limited Federal Mortgage Bank of Nigeria 		✓		✓	

Initiatives	Responsibility	Year 2	Year 4	Year 6	Year 8	Year 10
The use of industrial construction approaches by the selected developers or builders for large scale projects Value engineering by substituting expensive building materials with effective cheaper substitutes and adopting innovative construction techniques to deliver on low-income houses Design and construct smaller housing units/apartments (studios) that fit the country's demographic profile	 The NHS implementation body States' housing corporations NBRRI Private property developers 					
Explore the use of vacant property tax to induce owners of vacant houses to offer the houses for rent/lease	 Federal Inland Revenue Service Ministry of Works & Housing The NHS implementation body 	~	~	✓	✓	✓
States to provide guarantees that will enable the selected developers to raise long term financing for the housing projects (subject to the relevant fiscal guidelines and provisions) States should explore the blended interest rate approach towards providing affordable mortgages to its citizens. E.g., the tripartite agreement between the Kaduna State Government, NMRC and FHA Microfinance Bank which offered low interest mortgages to public servants and residents of Kaduna State Enhanced partnerships with PropTech companies (Muster, Spleet, etc.) to enable flexible payment options such as monthly payments	 States' housing corporations FHA Federal Mortgage Bank of Nigeria NMRC PropTech companies 					

Initiatives	Responsibility	Year 2	Year 4	Year 6	Year 8	Year 10
Develop national guidelines for a suite of housing assistance models based on vulnerability due to income levels, health challenges, displacements, and other issues	The NHS implementation bodyStates' housing corporations	~	~			
Each state to domesticate the housing assistance model developed by the NHS implementation body	 The NHS implementation body States' housing corporations NBS States' Bureau of Statistics 	~	~			
Each state to partner with the NBS to determine households who qualify for social housing schemes	The NHS implementation bodyStates' housing corporationsNBS	~	~			
Work with public and private stakeholders within the housing ecosystem to develop a framework for the establishment and operations of limited-profit housing companies	The NHS implementation bodyStates' housing corporations	~				
Federal and State Governments to encourage limited-profit housing companies to build social houses by offering supply side subsidies (See Appendix: Section 8, The Vienna Housing Model)	 The NHS implementation body States' implementation corporations Limited-housing profit companies 	~				
Set up a sinking fund with contributions from the three tiers of government and organised private sector (a portion of the Company Income Tax and expand the NHF to include contribution from Banks and Insurance companies)	 Central Bank of Nigeria Federal Ministry of Finance The NHS implementation body States' implementation corporations FIRS 	~				
Establish a new guideline that will revise the modus operandi of current national housing contribution scheme	 Central Bank of Nigeria The NHS implementation body States' implementation corporations Federal Mortgage Bank of Nigeria 	~	~			

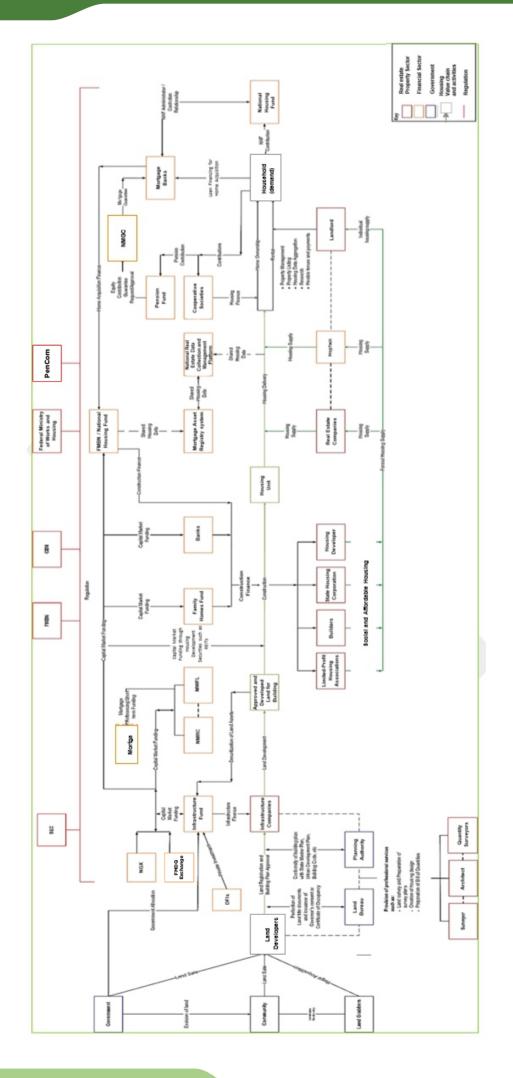
Initiatives	Responsibility	Year 2	Year 4	Year 6	Year 8	Year 10
Finalise the guidelines and operationalise the segment of the Pension Reform Act of 2014 that enables contributors to access their Retirement Savings Account (RSA) for the payment of equity contribution for residential mortgages	 Nigerian Mortgage Refinance Company (NMRC) National Pension Commission (PenCom) Central Bank of Nigeria (CBN) Federal Mortgage Bank of Nigeria (FMBN) 	~				
Revise the Uniform Underwriting Standards for the informal sector to enable mortgage repayment through micro payments payable either daily/weekly/monthly from their business proceeds towards securing houses/properties	 Nigerian Mortgage Refinance Company (NMRC) Central Bank of Nigeria Primary Mortgage Banks Cooperative societies Limited-profit housing companies Microfinance banks 					
Strengthen the Housing Microfinance (HMF) Programme with risk management framework to ensure sustainable disbursement of HMF loans to low-income earners	Central Bank of NigeriaFederal Mortgage Bank of Nigeria	~	~			
Amend the tenancy laws to; allow for monthly payment of rent direct deductions of rent introduce leasing agreements and a dispute resolution framework when lease agreements are breached Emerging PropTech firms should be integrated with the housing ecosystem to serve as a collection channel for monthly rental payment	 States' housing corporations States' Houses of Assembly Public & Private property owners PropTech Firms 		\			

Initiatives	Responsibility	Year 2	Year 4	Year 6	Year 8	Year 10
Adopt rent stabilisation measures through the creation of rent pressure zones where growth in rent prices is regulated by a benchmark to factors such as general inflation Rent pressure zones are delineated densely populated areas where rental prices are unstable	 NHS implementation body States' implementation committee State housing corporations States' Houses of Assembly 	~				
Adopt a subsidised rental model for the social housing scheme provided by the limited-profit housing associations to reduce the pressure on cost overburdened, low-income and vulnerable households To supplement the cost of the rental subsidy, tenants will bear the cost of housing maintenance which will be regulated	 NHS implementation body States' House of Assembly State housing agencies/ministries Limited-housing profit companies Public & Private property owners 					
Expand the current home tenure options via innovative financing schemes such as rent-to-own The Rent-to-Own scheme enables households via provisions in their tenancy agreement to convert their interest in such properties into equity/ownership after a predetermined period	 Federal Bank Mortgage of Nigeria Family Homes Fund Limited Federal Housing Authority Limited-profit housing companies Public & Private property owners States' housing corporations 		~			
Large-scale property developers to leverage existing credit guarantee framework to issue long-term bonds to finance housing projects	 Securities and Exchange Commission FMDQ Group PLC Development Finance Institutions Credit Guarantee Institutions e.g., InfraCredit 		✓	✓	✓	✓
Strengthen the NMRC to utilise existing funds from the capital market to re-finance residential mortgages	Central Bank of NigeriaNMRCFederal Ministry of Finance	~	~	~	~	~

Initiatives	Responsibility	Year 2	Year 4	Year 6	Year 8	Year 10
Enhance listing administration procedures to reduce the lead time required to issue instruments like REITs or mortgage-backed bonds (MBS) from the capital market	• Securities and Exchange Commission (SEC)	✓	✓			
Develop and implement a framework to kickstart the mortgage securitisation market in Nigeria that will allow financial institutions securitise mortgage loans which can be sold in the capital market	 Central Bank of Nigeria Securities and Exchange Commission (SEC) FMDQ Group PLC 	~	~	~		
Encourage all states in the country to pass and sign the mortgage foreclosure law in their respective territories Organise regular stakeholders' session with the state housing ministries/agencies on the importance of the mortgage foreclosure law and impact on economic activities in their states	 The NHS implementation body NMRC States' Houses of Assembly FMDQ Group PLC 	✓	~	✓		

5. Schematic of Nigeria's Future Housing Ecosystem

Figure 12: Nigeria's Future Housing Ecosystem Schematic



Note: SEC: Securities and Exchange Commission; CBN: Central Bank of Nigeria; PenCom: Pension Commission; FMDQ Exchange: FMDQ Securities Exchange Limited; NGX: Nigerian Exchange; MWFL: Mortgage Warehouse Finance Ltd.; NMRC: Nigeria Mortgage Refinance Company; PFA: Pension Fund Administrator; FMBN: Federal Mortgage Bank of Nigeria; NHF: National Housing Fund

Appendix

6. Narrative for Current Housing Schematic

1. Purchase of Land

- a. Land is released by the government to the community through an excision process.
- b. Land is sold by the community to interested parties for housing development.
- c. Land sold by the community is also illegally resold by land grabbers who are members of the community to other parties.
- d. The land sale/purchase process has the following prerequisite activities:
 - i. Ownership of a valid Certificate of Occupancy by the community
 - ii. A land survey completed by a surveyor
 - iii. The Deed of Assignment prepared by a lawyer
- e. The new landowners' approach the Land Bureau to perfect the land title documents. The output of this process is the issuance of a Governor's consent.

2. Approved Land for Building

- a. Once the land title documents are perfected, the landowners approach the planning authority for the approval of their building plan.
- b. The issuance of the building plan is subject to the following requirements:
 - i. Survey plan designed by a surveyor
 - ii. Architectural design drawn by an Architect
 - iii. Structural, Mechanical & Electrical Design drawn by their respective engineers
 - iv. Payment of stipulated fees
- c. The planning authority ensures building plan is in conformity with the State Master Plan, Urban Development Plan, Building Code, etc.
- d. The building plan approval requirement is sometimes skipped, resulting in unapproved building plan.

3. Construction of Housing Unit

- a. The construction process is handled by participants in the public and private sectors which include:
 - i. Housing Developers
 - ii. Builders
 - iii. States' Housing Corporations
 - iv. Federal Housing Authority
- b. To construct a housing unit, the above entities require the following

Table 13: Housing Strategy Implementation Plan

S/N	Initiatives	Lead Stakeholder(s)	Key Performance Indicators
1	Building Materials	 This is either sourced: Locally from local raw materials manufacturers. These companies are supported through loan funding from the commercial banks Imported from foreign raw materials producers. This would require purchase of FX from CBN using Form M and through the commercial bank. Also, duties must be paid to Nigeria Customs Service for the imported materials 	 Commercial Banks Central Bank of Nigeria Nigeria Customs Service Importers of building materials
2	Construction Finance	 This is used to facilitate the construction process. The construction entities can access finance through the commercial banks, Family Homes Fund Limited and the Federal Mortgage Bank of Nigeria through their Estate Development Finance offering Households also finance housing construction through personal savings In addition, housing is also financed using capital market funding through the FMDQ Exchange, NGX and other exchanges platforms 	 Commercial Banks Family Homes Fund Limited Federal Mortgage Bank of Nigeria Households Mortgage Banks Cooperative Societies
3	Approved building planning	 The Physical Planning Authority's approval is required before the housing unit can be constructed 	 States' Physical Planning Authority Planning Departments of Housing Development Agencies Architects Engineers Town planners
4	Bill of Quantities	 This document itemises and costs the resource requirements in terms of labour and material resources to deliver the housing unit as designed by the Architect. This is prepared by the Quantity Surveyor who also acts a project manager for the construction process 	 Project Managers/Quantity Surveyors
5	Building Professionals	 They are responsible for the housing construction 	 Labourers Engineers Architects Builders Engineers (Civil, Structural, Mechanical & Electrical) Quantity Surveyors, etc.

- c. The housing units constructed by the construction entities using the approved building plan form the formal housing supply
- d. The housing units constructed by builders and developers using unapproved building plan form the informal housing supply
- e. The individual sponsored housing also forms part of the informal and formal stock of housing supply
- f. These individual sponsored housing which could be vacant could form part of the available stock and serve as a source of housing supply
- g. The constructed housing units are subject to the building regulations and code of the respective states

4. Household

- a. The constructed housing units are delivered to households through the following distribution channels:
 - i. Direct listing by developers
 - ii. Real Estate Companies
 - iii. Real Estate Agents
 - iv. Individual housing agents
- b. Households can access housing units through the following tenure options:

Table 14: Household Options for Accessing Housing Units

S/N	Tenure	Financing Options	Financing Structure	Accessibility of Financing Options
		 Loans from cooperative societies 	 The loans are funded through customer deposits 	 Through regular deposits
		 Mortgage loans from Primary Mortgage Banks (PMBs) 	To be able to provide these mortgages, the PMBs are funded through:	 Good Credit history
			 Short term financing from the Mortgage Warehouse Funding Limited (MWFL). 	
1	Home Ownership		 Long term financing/mortgage refinance from the Nigeria Mortgage Refinance Company (NMRC) PLC. The NMRC refinances the PMIs mortgages providing long tenure coverage. 	
			• To fulfil their support roles, the MWFL and NMRC are debt capital investments channels from the capital market, regulated by the Securities and Exchange Commission (SEC)	
			The debt capital is from households and institutional investors such as the Pension Fund Administrations (PFAs) which are funded through pension contributions from households. The pension funds are regulated by the National	
			Pension Commission (PenCom)	

S/N	Tenure	Financing Options	Financing Structure	Accessibility of Financing Options
		 National Housing Fund (NHF) loan from Federal Mortgage Bank of Nigeria 	 The loans are funded through household contributions to the NHF. The loans are accessible through the NHF loan window between the FMBN and the mortgage banks. Also, the FMBN accesses additional funding from the capital market. 	• Contributions to the NHF
		Loans from the Family Homes Fund Limited (FHFL)	 These loans are made available through partnerships with developers in the form of construction finance and other home ownership initiatives. The Family Homes Fund limited is funded through the capital market 	• FHF determined criteria
		 Personal Savings 	*N/A	*N/A
2	Rental	 Rental Loans from Commercial Banks 	 The loans are funded through customer deposits and capital market funding 	Through regular depositsGood Credit history

^{*}Not Available

7. Narrative for Future Housing Schematic

1. Purchase of Land

- a. Land is released by the government to the community through an excision process
- b. Land is sold for housing development to interested parties

2. Land Titling and Approval

- a. The newly created infrastructure companies by each state, mirroring the Central Bank's Infrastructure Company, will be responsible for the development of infrastructure such as central sewage, pipe borne water, road, power lines, etc.
- b. Landowners approach Land Bureaux/planning authorities to complete the following processes:
 - i. Perfection of land documentation and issuance of Governor's consent or Certificate of Occupancy. This is completed through a back-end connection to the Land Bureau
 - ii. Approval of building plan and issuance of development permit. This is completed through a back-end connection to the Ministry or agency responsible for planning and urban development. The permit is issued subject to defined requirements and conformity with:
 - 1. State Master Plan
 - 2. Urban development Plan
 - 3. Settlement Plan
 - 4. Building Code

3. Land Development

- a. Following the issuance of the necessary approvals and permits, the infrastructure company reviews the landowners housing development plans which include survey plans, housing design, purpose of the development, location, etc., to:
 - i. Ascertain the presence of existing infrastructures
 - ii. Define the development process and
 - iii. Ascertain the cost implications
- b. Based on the assessment above, the infrastructure company issues a development bill to the landowner.
- c. The infrastructure company accesses the infrastructure fund for development finance.
- d. The infrastructure fund will be made up of securities based on the developed land assets (i.e., asset-backed securities) floated on the capital market through either:
 - i. FMDQ Securities Exchange Limited
 - ii. Nigerian Exchange Limited
- e. The infrastructure fund can be subscribed to by market participants which include:
 - i. Government (i.e., Federal and State)
 - ii. Institutional Investors
 - iii. Development Finance Institutions
 - iv. Retail Investors

4. Construction

- a. The developed land is made available to the following players for the construction process:
 - i. Limited-Profit Housing associations which will be responsible for providing social and low-income housing
 - ii. Builders who will be responsible for providing individual housing projects
 - iii. State Housing Corporation which will be responsible for providing low- and middle-income housing
 - iv. Housing Developers which will be responsible for providing low, middle- and high-income housing
 - v. Federal Housing Authority which will be responsible for providing low, middle- and high-income housing
- b. The construction process is financed by the following players:
 - i. Commercial Banks
 - ii. Family Homes Fund Limited
 - iii. Federal Housing Authority
 - iv. Institutional & Retail Investors and Development Finance Institutions through subscription to the housing development securities such as REITs
- c. The financiers are funded through the capital market.
- d. Housing units developed by the above players forms the formal housing supply

5. Housing Delivery

- a. The developed housing unit is made available to the real estate companies e.g. PropTechs for delivery to households
- b. The formal housing supply extends to private landlords in the form of individual housing supply
- c. The real estate companies provide the following services to private landlords:
 - i. Property Management
 - ii. Listing Companies
 - iii. Housing Data Aggregators
 - iv. Research
 - v. Flexible tenure and payments

6. Housing Demand

- a. Households demand for housing unit with the following tenure options:
 - i. Home Ownership this is provided by real estate companies
 - ii. Rental this is provided by private landlords
- b. The home ownership option can be financed via:
 - Cooperative societies where members can have access to housing finance for acquisition of a home. The
 households would be required to make savings and contributions to the societies to be able to access this financing
 source

- ii. Mortgage Banks provides mortgage loans to households. The finance chain would require:
 - 1. Access to the household's NHF contributions based on the mortgage bank managing that the household's NHF contribution
 - 2. Mortgage guarantee provided by Nigeria Mortgage Guarantee Company (NMGC)
 - 3. Provision of the equity contribution guarantee by the pension fund administrator for the household based on the pension contribution in their retirement saving account

8. Housing Case Studies

The Singapore Housing Model

Singapore is a densely populated, island city-state in Southeast Asia, located at the end of the Malayan Peninsula between Malaysia and Indonesia with a landmass of 724.2 km². The country is a multi-cultural society with ethnic groups which include ethnic Chinese, Malays and ethnic Indians and has a population of 5.7 million⁴ out of which four (4) million are residents. Singapore is a developed country and had a GDP of US\$491.2 billion in 2018⁴ and a per-capita GNI at US\$81,222.00⁴. Ranked 9th on the UN Human Development Index⁵, the country has made strides in education, healthcare, trade, and housing wherein 91.00% of the residents (i.e., 3.6 million) own their homes.

The Challenge

The Singapore housing crisis was characterised by several factors which included:

- The country's scarce land area
- The growing population
- World War II and the Malayan Emergency
- Weak policy measures
- Limited financing to support infrastructural development
- Low construction output
- Weakened private sector contribution
- High real estate prices
- Weakened real estate market

These factors restricted the government's ability to tackle the housing deficit using standard policy measures focused on infrastructural investments. More so, they highlighted a critical fact that as populations rise without corresponding growth in resources, the government's ability to make key development investments such as housing infrastructure is impeded. Also, the effect of urban migration (of which as of 1947, 74.60% of the nine hundred and thirty-eight thousand (938,000) Singapore population resided in the city) if not checked could create a housing crisis that would result in worsening socio-economic issues. However, while the crisis revealed these facts, it also highlighted supply side constraints and the strong correlation between economic and infrastructure development and the strategic effect of strong policy changes.

What Singapore did

Singapore already had in effect a Land Ordinance Act of 1920 which had empowered the government to acquire private land for public purposes. However, landowners could increase the prices of their lands arbitrarily and this made cost of development of public projects exorbitant, difficult, or nearly impossible. To tackle this issue, the law was repealed in 1966 with the Land Acquisition Act. With this, the government was empowered to compulsorily acquire any land of private and commercial use for public development while compensating landowners.

The creation of a vehicle for infrastructure development was also a key highlight of the supply side growth efforts. In 1960, the government established the Housing Development Board (HDB) through which the Housing and Development Act was implemented. The objective of the board was clear: provide affordable housing for the low-income group. The Board created a Five-Year Building programme (1960 – 1965) which had as its goal fifty-one thousand and thirty-one (51,031) new affordable housing units to be built within the first years of its operation. This plan was created on the heels of its report that estimated that one hundred and forty-seven (147,000) housing units at fourteen thousand, seven hundred (14,700) units yearly would be required to tackle the housing deficit between 1960-1969⁶. At the end of the five-year building programme, the results were clear. The Board had exceeded its building target by three thousand, three hundred and ninety-nine (3,399) housing units and this result would reflect in its subsequent building programmes⁷.

The financing of the development project was a crucial factor in supplementing the housing supply. To do this, the government leveraged the stock savings of Singapore citizens. The savings were made available via the Central Provident Fund. The Fund was a comprehensive social security system created in 1955 as a pension plan that enabled working Singapore citizens and permanent residents to set aside funds for retirement, healthcare, and housing needs through contributions of a certain percentage of the employee's monthly salary from both employees and employers respectively. Contributions made into the fund were invested in government bonds and with the debt finance, the government was able to finance the infrastructure development.

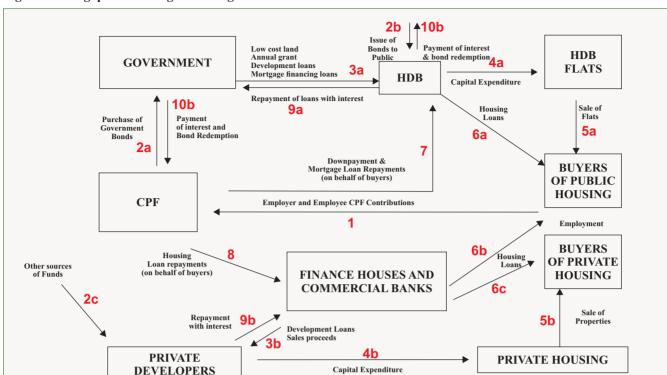


Figure 13: Singapore Housing Financing Model

Source: The Singapore Model of Housing and Welfare State

From a demand perspective, poor economic conditions affected the potential disposable income of households and in turn restricted access to housing. There had to be a broad objective for stimulating demand through economic growth. The Housing Development Board (HDB) leveraged the economic growth efforts of the Economic Development Board by implementing a restricted rent-scheme wherein low-income households could access and pay US\$20 for a one-room apartment monthly that had a sitting room, a bedroom, a bathroom and kitchen and offered gas, electricity and water services⁸. In 1964, it moved its objective towards facilitating home ownership through its Home Ownership Scheme which was instrumental in the development of the Singapore mortgage market. The scheme made the initial housing units available on a 99-year leasehold basis and at rates of US\$4,900.00 and US\$6,200.00 for two-room and three-room flats respectively, which were below the market rates that ranged between US\$20,000.00 to US\$45,000.00⁹

To further deepen the demand base, the board extended mortgage loans and insurance to purchasers of its leasehold housing units. The mortgage loans were based on 80.00% of 1984 HDB new flat (posted) prices but this was reviewed in 1993 to 80.00% of current valuation or the declared resale price of the flat, whichever is lower. The loans had a maximum repayment period of twenty-five (25) years and an interest rate priced at the Central Provident Fund savings rate plus 0.10% percentage point¹⁰. The Central Provident Fund had first claim on the property in the event of a default, thus protecting the Central Provident Fund savings of the purchaser. Prices were controlled to ensure the units remained affordable. The Board also offered a low premium mortgage reducing insurance scheme to protect the ownership interest of the owner's surviving family members in the event of death or incapacitation.

In 1971, the secondary market for the resale of the housing units was created. The market facilitated the transfer of housing units though with restrictions by the Board. The restrictions for sellers were a minimum occupancy period of three (3) years and a debarment of one (1) year from applying for public housing after sale and for buyers, prevailing eligibility requirements for home ownership. These restrictions were amended to a minimum occupancy period to five (5) years in 1973 and the debarment period to two and a half years in 1975.

Additional policy changes were implemented in the years to follow in other to stimulate demand, most notably:

- The abolishment of the debarment period in 1979 which was replaced with a 5.00% levy on the transacted price of the dwelling to reduce windfall profits
- Removal of citizenship requirement and income ceiling restrictions in 1989 to enable permanent residents purchase housing units in the secondary market
- Introduction of housing subsidies in 1994 to encourage purchase of housing units in the secondary market

The Straits Times March 25, 1961: \$20 one-room flats to house 20,000

⁹The Straits Times March 25, 1961: \$20 one-room flats to house 20,000 ¹⁰ Sock Yong Phang: The Singapore Model of Housing and the Welfare State

Conclusion

The Housing Development Board's success in growing the housing supply was a clear understanding of the housing crisis and the required actions needed to solve it. Strategy gains from the integrated approach to housing also enabled it to effectively manage the entire production-consumption value chain that resulted in lower costs, high public confidence, high production output and creation of a working housing model that created value. More so, the board's comprehensive approach enabled it to circumvent the duplication and fragmentation of duties, and bureaucratic rivalries associated with multi-agency implementation and enabled it to scale it efforts quickly.

The importance of a master plan and strict observance of it was also key in the Board's success. This enabled it to focus its development efforts on the effective administration of the plan. The public-housing development projects were built in line with the island's land-use master plan and carried out in two distinct phases which included: housing estates and residential new towns.

The changes in policies not only created the enabling environment, but they also highlight the potential use of pension funds for infrastructure development, the importance of a clearly defined housing plan, an effective land management system and the development of unconventional financing arrangements to aid access to affordable and inclusive housing. Thus, as of 2018, Singapore had a home ownership rate of 91.00%.

The Vienna Housing Model

Vienna is the largest city and capital of Austria with a land area of 414.9 km² and a population of one million, nine hundred thousand (1,900,000) in 201911. It is Austria's cultural, economic, and political centre with a diverse ethnic base made up of Serbians, Turkish, Germans, Polish, Romanians, Syrians, Hungarians, Croatians, Bosnians and other ethnicities which make up 39.60% of the population with the indigene Austrians making up the remaining 60.40%. The state is one of the nine autonomous provinces of Austria with a constituted authority and a law enacting arm of government and in 2016 generated a GDP of €90.1 billion Euros contributing 25.50% of Austria's GDP with a GDP per capita of €48,600. 12

The Challenge

The Vienna housing crisis was characterised by factors which include:

- Weak economic conditions
- Limited financial resources
- Growing population
- World Wars
- A privately controlled real estate market
- Arbitrary rent prices

Unlike Singapore, Vienna had the land mass to achieve the needed infrastructural development. However, the land rights were predominantly held in the hands of private sector with no supporting statute that enabled the compulsory acquisition of land for public good. More so, the prevailing economic conditions at the time meant there were limited financial resources available to fund any development project. Tackling the crisis required policy changes that took into consideration the economic realities and the creation of revenue streams that could support its infrastructure development objective.

What Vienna did

Austria's decentralised housing policy system meant Vienna had autonomy over its housing policy definition and implementation and that partly enabled it to respond to the housing crisis specifically the supply deficits. More so, the supporting laws by the federal government provided a robust legal framework for policy implementation. These legislations concentrated on social housing and residential improvement and facilitated the creation of legal frameworks for housing subsidies, housing law that regulated the practice of non-profit housing associations and real estate agencies, housing assistance for young families, and urban renewal and land acquisition which were enablers for the state's housing policy.

The housing construction tax (Wohnbausteuer) in 1923 was levied on the fixed rent of the property and graded according to the size of the apartment or commercial space rented¹⁴. Also, the state introduced various taxes which was levied on goods and property as against income. The goods and property included: real estate, capital gains, investment and rental income, luxuries (automobiles, horse, specialty foods, brandy, and various forms of entertainment as well as domestic servants, pets, etc.) The taxes coupled with the state's share of federal taxes (which is based on a fixed, earmarked proportion of the income tax, corporate tax and housing contributions paid by all employees) formed the funding base for the infrastructure development programmes.

The enactment of the Housing Promotion Act of 1968 (New Act in 1984) that defined the responsibility of the provinces which includes Vienna in promoting housing through supply-side subsidies primarily in the form of long tenure (25 to 50 years) and low interest (up to 6.00%) state loans for housing development. Also, it empowered the federal government to allocate and transfer housing and improvement funds to the provinces and this created the legal and financial framework for their respective housing policy implementation. The funds are then packaged as loans to housing associations after meeting state requirements to construct public housing¹⁵.

Recent measures by the Austrian government to supplement the housing stock nationwide include:

The creation of a housing investment bank (Wohnbauinvestitionsbank, WBIB) which provides low-cost long-term loans to non-profit and commercial building contractors for the construction of new housing

From a demand perspective, the emergence and engagement of housing associations in the Vienna housing market and the enactment of the Limited-Profit Housing Act sought to address the affordability challenge. The Limited-Profit Housing Act was a federal legislation, but it was executed by provinces, who managed the relationship between housing associations and eligible households.

Evan Bonn

Vienna City Administration

Björn Härsman, John M. Quigley: Housing Markets and Housing Institutions; An International Comparison

Eve Blau: The Architecture of Red Vienna, 1919-1934

E. Aufhauser, M. M. Fischer & H. Schonhofer: The Vienna Housing Market: Structure, Problems, and Policies

The housing associations were non-profit organisations that provide low-cost housing though subsidies from the government and bided for the housing contracts through tenders. Also, regulations were put in place to ensure a supply of affordable housing units which include:

- The definition of accepted limited-profit activities by the association
- Compulsory re-investment of their own funds in the housing development
- Principles concerning economy and functionality to prevent inefficient behaviours with oversight measures such as income ceiling for the association's managers and limits of cost of administration, planning and building
- Rent and price setting according to the principle of cost-coverage with small margins. Also, the maximum and minimum allowable rent was defined
- Limitation of profits by shareholders

Conclusion

Austria realised the importance of affordable housing and discovered that it was pertinent to secure private-sector involvement. As of 2018, there is a predominant rent model in Austria with over 80.00% of the population using rental schemes of public housing and subsidised private sector housing infrastructures, government bonds and with the debt finance, the government was able to finance the infrastructure development.

Nepal's Use of Sustainable Local Alternative Building Materials

The Federal Democratic Republic of Nepal is a landlocked country in South Asia. It is mainly in the Himalayas and includes parts of the Indo-Gangetic Plain. It borders China and Bangladesh with a land mass of 147,516 km². The country is multi-ethnic with more than fifteen (15) ethnicities and has a population of twenty-eight million (28,000,000,00). Nepal is one of the least developed countries and had a GDP of thirty billion (US\$30.00bn) Dollars in 2019 and a per-capita GNI at one thousand and ninety (US\$1,090.00) Dollars. The country is ranked 147th on the Human Development Index with over 50.00% of its population multidimensionally poor or vulnerable to multidimensional poverty.

The Challenge

In 2011, the United Nations Human Settlements Programme (UN-Habitat) estimated that Nepal required the construction of 1 million homes from 2011 to 2021 with an annual urban growth rate of 3.62% and urban population being represented by circa 18.00% of the population.

One of the main barriers to addressing this need was the high construction cost. Building materials make up majority of the construction cost (>70.00%) and are majorly imported from neighbouring countries, India, and China. In addition to the high costs, the most important contemporary materials such as brick, cement and steel have very high embodied energy. Conventional fire brick used for construction in urban centres of Nepal require fossil fuel energy which gives off carbon dioxide (CO₂) emissions contributing massively to the carbon footprint.

To address the twin challenge of construction cost and sustainability, affordable and low carbon materials needed to be promoted and sustained.

What Nepal did

In 2012, Nepal developed a National Shelter Policy. This had one of the strategies to use energy efficient and low carbon construction technology leveraging on the climate change policy 2011 whose main goal is to improve livelihoods by mitigating and adapting to the adverse impacts of climate change and adopting a low-carbon emissions socio-economic development path.

The government of Nepal with financial support of Department for International Development (DFID) and the European Union (EU) initiated the Nepal Climate Change Support Programme (NCCSP) with main objective to implement the Climate Change Policy 2011 and develop and implement necessary strategies. NCCSP is to support the government to formulate and implement important climate change strategies including Low Carbon Economic Development Strategy. Under the Low Carbon Economic Development Strategy, building was identified as a key area of focus in the development of the strategy.

To this end, the Department of Urban Development and Building Construction (DUDBC) developed a draft of Green Building technical guidelines that addresses the following:

- Energy efficient site layout and building orientation
- Use of recycled and reused material for housing construction
- Use of locally available materials
- Use of building materials with less embodied energy

In small pockets of Nepal, private organisations and individuals have begun using alternative local materials to build houses and schools. For example, Samata Sikshya Niketan; a privately managed community school has thirty-eight thousand (38,000) students in nineteen (19) different schools around the country¹⁸. All the school buildings, compounds and furniture are made from bamboo. Also, the Habitat for Humanity (HFH) started using bamboo housing to improve the living standards of the rural poor. This project covered the Mahottari, Dhanusa, Siraha, Saptari, Sunsari, Morang, Jhapa, Ilam and Pachthar districts. The houses constructed in these areas are one storied, two room, two-way or four-way sloped roof houses. The building materials used include technical guidelines that addresses the following:

- Wood
- Bamboo
- Concrete
- **Bricks**
- Corrugated Galvanised Iron (CGI) roofing sheets
- Mud tiles

¹⁷United Nations Human Development Report 2019: Nepal
¹⁸Case Study on Hollow Concrete Block Housing, Bamboo Housing and Other Traditional Housing Technologies in Nepal

By July 2009, HFH constructed five thousand (5,000) houses and reached the milestone of the twenty thousand (20,000) houses by 2012 using low-cost bamboo housing techniques. This depicts the potential of bamboo houses and the bamboo market. In 2017, driven by the overall success HFH further built one hundred thousand (100,000) houses in Nepal using low cost and eco-friendly housing techniques such as bamboo housing¹⁹.

Apart from Bamboo Housing, Hollow Concrete Block (HCB) as an alternative to clay burnt bricks is set to gain ground. HCB are the precast concrete blocks produced from appropriate mixture of cement, sand, and aggregates (finely crushed stone chips) with manual or mechanical compressions that have hollow cavities in between the cells. Houses made with these blocks are 30.00 - 40.00% cheaper than those made with fire bricks²⁰.

There have been attempts to introduce Compressed Stabilised Earth Block in Nepal for years, however this has not come to fruition despite being cost effective and biodegradable. Citizens typically perceive the earth block as inferior compared to the brick and cement. Efforts to sensitise and promote the material are being looked into by the Nepal government.

Conclusion

There are policies and regulatory framework in Nepal to encourage local alternative building materials, but these have not been enough to ensure widespread adoption. The Nepal National Building Code could be revised to include references to local building materials and criteria (better in quality, strength, effectiveness, fire resistance, durability, safety, maintenance, and compatibility) required to be checked for quality assurance. Furthermore, the limited availability of low carbon materials, information asymmetry, along with the lack of readily accessible and reliable information comparing alternative structural materials and systems, pose as a barrier to the widespread adoption of these local alternative building materials.

Thus, widespread adoption of sustainable local alternative building materials can be made possible by improving awareness and knowledge and encouraging developers to invest in long-term low carbon construction future along with the provision of code and regulation compliance for these sustainable building materials to motivate more developers to adopt these materials. Additionally, government intervention such as providing subsidies can encourage the adoption of these alternative materials.

20 Ibid

¹⁹ Case Study on Hollow Concrete Block Housing, Bamboo Housing and Other Traditional Housing Technologies in Nepa

Georgia's Digitised Land Administration System

The Republic of Georgia is a densely populated country in Europe with a population of three million, seven hundred and twenty thousand (3,720,000) in 2019 and located at the crossroads of Western Asia and Eastern Europe with a landmass of 69,700 square kilometres. It is a developing country which in 2019 had a Gross Domestic Product (GDP) of US\$17.84 billion and a per capita income of US\$4,805.96. The country has been making changes across every segment of its economy infusing technology to improve administration and to maximise efficiency. Particularly, the country has adopted the use of blockchain technology in its land administration which has enabled it to create an efficient and internationally recognised system. According to the World Bank's Ease of Doing Business 2018 report, Georgia is one of the countries in the frontier benchmark for efficiency of land administration procedures and the associated low registration cost which can be attributed to its reforms and the adoption of technology.

The Challenge

Prior to the digitisation of the land administration system in Republic of Georgia, the system was riddled with tenure insecurity issues due to the duplication of efforts in the administration process. The land administration and registry system were managed by two government agencies namely the Bureau of Technical Inventory and the State Department of Land Management who had their own closed land registry systems. These agencies had an overlap in functions, and this often resulted in the duplication of efforts, fraudulent change of land records, bureaucratic processes, and an over-arching lack of public transparency. This inadvertently created administrative system that stifled land formalisation and credit formation resulting in dead capital.

What Georgia Did

In order to address the pertinent issues in the land administration system in the country, the government established the National Agency of Public Registry (NAPR) in 2004. The NAPR replaced the Bureau of Technical Inventory and the State Department of Land Management and was structured to engineer an efficient land administration process in the country. Specifically, the NAPR introduced a series of land reforms across the country which included simplified land registry processes, private sector participation in land related services, advocacy to amend enabling laws of drafting and certifying property transactions and the digitisation of the country's archive of land titles.

An offshoot of these reforms was the introduction of a digitised database called NAPReg that enabled the capture of land property information such as name, address and cadastral code, and access to land registry information such as property titles and satellite photos. The NAPReg database enabled the agency to create an accurate and reliable system of records which would provide critical in its later reforms. More so, it enabled reduction in the land registration processing time to about 1-4 days and cost of the registration processes. However, despite these reforms, the process gains were minimal owing to public distrust of government due to incidences of tenure insecurity from internal data manipulation, risk of cyber-attacks, the agency's centralised data management model, etc. In other to address this issue, the government adopted the blockchain technology.

Blockchain is a distributed ledger technology that enables secure value (currency, data, survey answers) exchange between parties on a network. At the core of the technology is a decentralised architecture that enables trust and transparency which are fundamental principles for establishing efficient land administration and registry systems. More so, the decentralised and cryptographically embedded nature of the technology highlights the irrefutability of data transferred on the platform as each computer (referred to as node) on the network maintains a full data record ensuring data cannot be manipulated at a central point. These features proved critical to Republic of Georgia's decision to address the issue of public distrust and the tenure insecurity issues.

In 2016, the government entered a partnership with Bitfury; a technology company to move its land registry system to a blockchain platform. The project was phased, and the first phase involved the application of the blockchain technology to the land registry system. In implementing this phase, Bitfury adopted an approach of implementing a data timestamping layer on NAPR's existing digital land registry system. This approach enabled it to build on the NAPR existing digital land system and focus on improving customer experience while critically ensuring data security. The output of this approach was that people could access the NAPR system to register their land title, complete the process within ten (10) minutes and the system would issue land certificates that were irrefutable since they have been time-stamped (i.e., it only existed from the time it was created and was authorised by NAPR) and added to the blockchain.

The first phase of the project was considered a success and that progress was highlighted in the World Bank's report "Doing Business 2016". The report ranked Georgia, third among one hundred and eighty-nine (189) countries in the ease of property registration which required one (1) procedure, one (1) day of processing and a cost of 0.10 % of the total property value. In comparison with developed countries such as the United States, United Kingdom, and Germany, where it took on average of 4.4, 6,5 procedures; 15.2, 21.5, 39 days and a cost of 2.40%, 4.60%, 6.70% respectively to register properties.

The Republic of Georgia's adoption of blockchain technology in its land administration system highlights the potential impact of technology and digitising processes. More so, this success has motivated the government to embark on a second phase which will integrate the technology to improve the process of land sales and transfers. This new phase is expected to enable Georgian

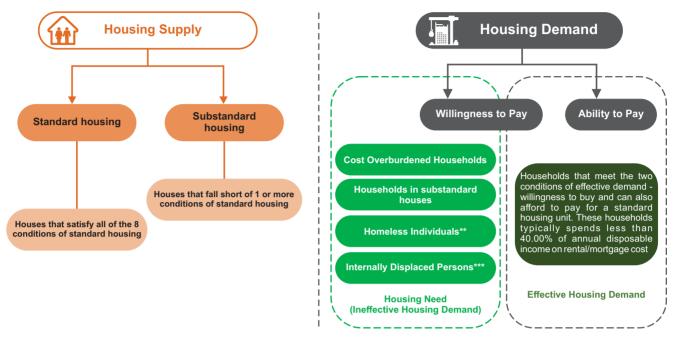
citizens to access their property information on the NAPR website and perform land sales with all the information on land sales and transfer information available to the public. Overall, it is expected to further improve the country's land administration system and to unlock the dead capital in the country.

Conclusion

The output of Republic of Georgia's reforms was commendable with a total of 1.5 million land titles in the Republic of Georgia published on the blockchain as of 2018 and signifies how technology can improve land administration processes. Similarly, Rwanda implemented reforms through the adoption of a computerised Land Information System and as of 2016, its land administration system had improved to three (3) procedures, thirty-two (32) days processing time and cost 0.10% of property value. The Republic of Georgia presents a strong case for adoption of technology in improving land administration systems and countries such as Brazil, Ghana, Sweden are examples of countries applying technology in land administration.

9. Housing Analysis

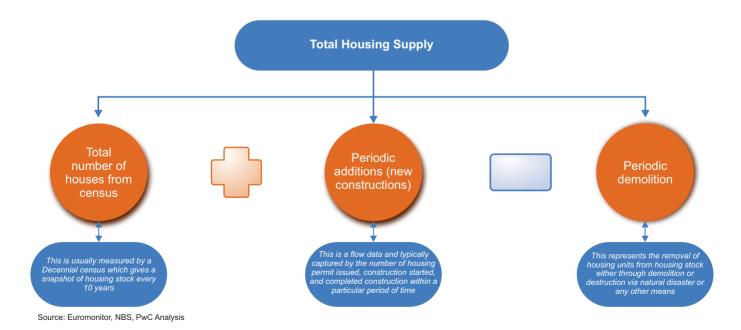
Figure 14: Housing Condition Methodology



^{*}We have assumed that willingness to buy is a given for all households

Housing Supply Methodology

Figure 15: Housing Supply Methodology



^{**}Concealed Households and individuals sharing accommodation have not been isolated and could potentially increase the Housing Need by several million units
***A total figure is provided for the IDP population in the country.

Housing Stock Methodology

Figure 16: Housing Stock Methodology

Approach

We obtained the **2006 Census data** as a basis for estimating the total housing stock of Nigeria. We calculated the ratio of houses per state to the total number of houses

In 2006, the total housing stock in Nigeria was approximately **twenty-seven (27) million** across all the thirty-six (36) states

We further estimated Additions (Constructions) to the Housing Stock from 2006 up untill 2019

Between 2006 and 2019, a total of approximately fifteen (15) million housing constructions were completed in Nigeria across all thirty-six (36) states

Using the ratio calculated in Sep 1, we broke down the estimated housing constructions into estimated portions per state within Nigeria

Current total housing stock in Nigeria is estimated to be approximately **forty-two (42) million**, across all thirty-six (36) states within the country and the FCT

Regional Distribution of Housing Stock by Housing Type

Table 16: Regional Distribution of Housing Stock by Housing Type

	House on Separate Stand	Traditional Structure	Flat in Block of Flats	Semi-detached House	Rooms/Let in House	Total per geopolitical zone
North West	4,741,248	2,090,527	585,047	1,446,544	744,007	9,607,373
North East	2,599,987	1,407,425	337,512	515,659	362,526	5,223,109
North Central	3,391,185	809,046	555,937	512,317	584,224	5,852,709
South West	4,277,808	648,050	1,270,211	652,740	2,584,327	9,433,146
South East	3,216,961	427,271	555,018	386,272	575,261	5,160,783
South- South	3,622,049	654,720	925,404	525,761	1,060,416	6,817,350
Total Per housing type	21,849,237	6,037,039	4,229,129	4,039,292	5,910,762	42,065,459

- House on Separate Stand: Individual housing structures e.g., duplex
- Semi-detached House: A house that shares one common wall with the next house
- Traditional Structure: Houses built with mud/wood/straw/palm fronds/raffia
- Rooms/Let in House: Private rooms with shared facilities
- Flat in Block of flats: Apartment units in a high-rise block

State Distribution of Housing Stock in Nigeria per Housing Type

Table 17: Distribution of Housing Stock in Nigeria per Housing Type

	Abia ('000)	Adamawa ('000)	Akwa Ibom ('000)	Anambra ('000)	Bauchi ('000)	Bayelsa ('000)	Benue ('000)	Borno ('000)	Cross River ('000)	Delta ('000)	Ebonyi ('000)	Edo ('000)
House on Separate Stand	575	449	744	757	607	288	641	583	542	551	405	541
Hut Structure	62	207	140	99	373	78	269	314	109	112	99	69
Flat in Block of Flats	111	57	180	164	74	61	80	83	101	188	40	139
Semi- detached House	49	85	103	102	140	37	124	108	79	122	69	71
Rooms/Let in House	116	66	120	158	80	64	90	89	141	304	56	216
Total	913	864	1,287	1,280	1,274	528	1,204	1,177	972	1,277	669	1,036

Source: NBS, PwC Analysis

	Ekiti ('000)	Enugu ('000)	Gombe ('000)	lmo ('000)	Jigawa ('000)	Kaduna ('000)	Kano ('000)	Katsina ('000)	Kebbi ('000)	Kogi ('000)	Kwara ('000)	Lagos ('000)	Nasarawa ('000)
House on Separate Stand	402	659	334	820	511	995	1,161	742	410	621	398	1,028	326
Hut Structure	52	82	155	84	349	223	451	353	219	78	63	174	53
Flat in Block of Flats	108	107	46	133	58	133	169	89	44	111	81	548	43
Semi- detached House	59	78	54	86	211	150	394	297	119	67	56	206	51
Rooms/Let in House	117	136	41	109	81	171	204	109	53	89	103	1,335	43
Total	738	1,062	630	1,232	1,210	1,672	2,379	1,590	845	966	701	3,291	516

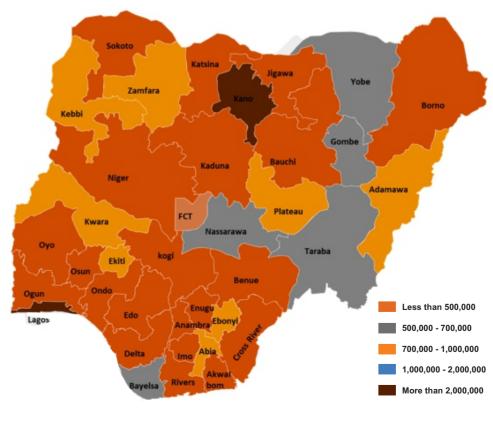
Source: NBS, PwC Analysis

	Niger ('000)	Ogun ('000)	Ondo ('000)	Osun ('000)	Oyo ('000)	Plateau ('000)	Rivers ('000)	Sokoto ('000)	Taraba ('000)	Yobe ('000)	Zamfara ('000)	FCT ('000)
House on Separate Stand	669	615	628	650	955	515	956	514	336	291	408	221
Hut Structure	165	88	95	76	164	153	147	285	159	199	210	28
Flat in Block of Flats	87	152	120	132	209	70	257	52	44	32	41	84
Semi-detached House	92	84	84	81	138	84	114	117	64	64	159	38
Rooms/Let in House	84	381	216	149	386	89	214	64	44	43	62	86
Total	1,097	1,320	1,143	1,088	1,852	911	1,688	1,032	647	629	880	457

Source: NBS, PwC Analysis

Chart 17: Map of Nigeria depicting Housing Stock per State

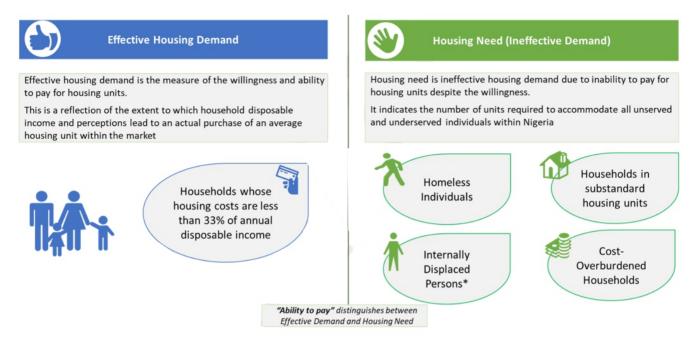
KEY FACTS · Kano and Lagos states have the highest number of housing stock - 2.4 and 3.3 million respectively · Abuja, the FCT of Nigeria has the lowest recorded housing stock of circa 457 thousand · The average housing stock per state is 1.2 million · 21 of 36 states in Nigeria have between 1-2 million housing stock



Source: NBS, PwC Analysis

Housing Demand Methodology

Figure 17: Housing Demand Methodology

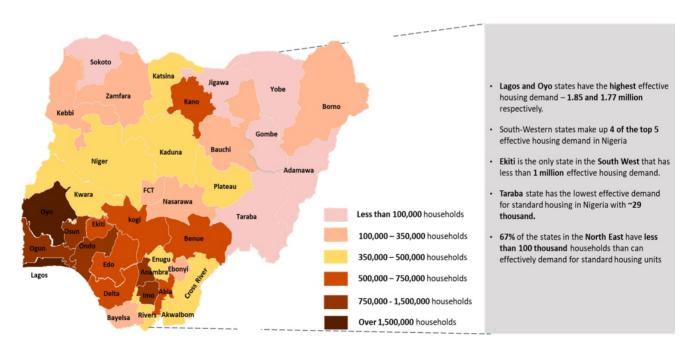


* A total figure is provided for the IDP population in the country.

Source: NBS, PwC Analysis

Effective Housing Demand by State

Chart 18: Map of Nigeria depicting Housing Demand per State



Effective housing demand in Nigeria per Income Group North Central

			Number of F	louseholds that can effecti	vely demand for housing	– North Central	
	Total Effective Demand	Poverty (<\138,000)	Low Income (N 138,000 – N1.1m)	Low-Middle Income (N1.1m – N3.3m)	Middle-Middle Income (N3.3m – N6m)	High-Middle Income (N6m – N11m)	High Income (>N11m)
Benue	642,917	0	482,584	145,859	7,843	3,959	2,672
FCT	90,984	0	0	82,771	4,451	2,246	1,516
Kogi	328,494	0	195,402	121,077	6,510	3,286	2,218
Kwara	261,199	0	155,373	96,274	5,177	2,613	1,764
Nasarawa	110,671	0	65,832	40,791	2,193	1,107	747
Niger	314,202	0	235,845	71,283	3,833	1,935	1,306
Plateau	193,931	0	115,359	71,480	3,844	1,940	1,310
Total	1,942,398	0	1,250,395	629,535	33,851	17,085	11,533

Source: NBS, Euromonitor, PwC Analysis

North East

			Number of Ho	useholds that can effec	tively demand for hou	sing – North East	
	Total Effective Demand	Poverty (<№138,000)	Low Income (N 138,000 – N1.1m)	Low-Middle Income (N1.1m – N3.3m)	Middle-Middle Income (N3.3m – N6m)	High-Middle Income (N6m – N11m)	High Income (>N11m)
Adamawa	80,475	0	47,870	29,662	1,595	805	543
Bauchi	193,714	0	115,230	71,400	3,839	1,938	1,308
Borno	128,205	0	76,262	47,254	2,541	1,282	866
Gombe	94,570	0	56,255	34,857	1,874	946	639
Taraba	29,011	0	17,257	10,693	575	290	196
Yobe	70,194	0	41,754	25,872	1,391	702	474
Total	596,170	0	354,628	219,738	11,816	5,964	4,026

North West

			Number of Hou	useholds that can effec	tively demand for hou	sing – North West	
	Total Effective Demand	Poverty (<₦138,000)	Low Income (N 138,000 – N1.1m)	Low-Middle Income (N1.1m – N3.3m)	Middle-Middle Income (N3.3m – N6m)	High-Middle Income (N6m – N11m)	High Income (>N11m)
Jigawa	66,594	0	39,613	24,545	1,320	666	450
Kaduna	410,644	0	244,269	151,356	8,139	4,108	2,773
Kano	517,098	0	307,592	190,593	10,248	5,173	3,492
Katsina	300,489	0	178,744	110,755	5,955	3,006	2,029
Kebbi	194,797	0	115,874	71,799	3,861	1,949	1,315
Sokoto	53,998	0	32,120	19,903	1,070	540	365
Zamfara	103,428	0	61,524	38,122	2,050	1,035	698
Total	1,647,049	0	979,736	607,073	32,643	16,476	11,122

Source: NBS, Euromonitor, PwC Analysis

South East

			Number of Hou	useholds that can effec	tively demand for hou	sing – South East	
	Total Effective Demand	Poverty (<₦138,000)	Low Income (N 138,000 – N1.1m)	Low-Middle Income (N1.1m – N3.3m)	Middle-Middle Income (N3.3m – N6m)	High-Middle Income (N6m – N11m)	High Income (>N11m)
Abia	646,800	0	485,499	146,740	7,890	3,982	2,688
Anambra	725,742	0	431,702	267,496	14,384	7,260	4,901
Ebonyi	145,904	0	109,518	33,102	1,780	898	606
Enugu	284,567	0	169,272	104,886	5,640	2,847	1,922
lmo	963,086	0	722,908	218,497	11,749	5,930	4,003
Total	3,397,172	0	1,918,899	770,721	41,443	20,917	14,120

South-South

			Number of Hou	seholds that can effect	ively demand for hous	sing – South South	
	Total Effective Demand	Poverty (<₦138,000)	Low Income (N 138,000 – N1.1m)	Low-Middle Income (N1.1m – N3.3m)	Middle-Middle Income (N3.3m – N6m)	High-Middle Income (N6m – N11m)	High Income (>N11m)
Akwa Ibom	494,470	0	294,132	182,253	9,800	4,946	3,339
Bayelsa	217,282	0	129,249	80,086	4,306	2,174	1,467
Cross River	303,578	0	180,581	111,893	6,017	3,037	2,050
Delta	655,976	0	390,202	241,781	13,001	6,562	4,429
Edo	459,464	0	273,309	169,350	9,106	4,596	3,103
Rivers	419,461	0	141,949	252,460	13,575	6,852	4,625
Total	2,550,230	0	1,409,422	1,037,825	55,805	28,166	19,013

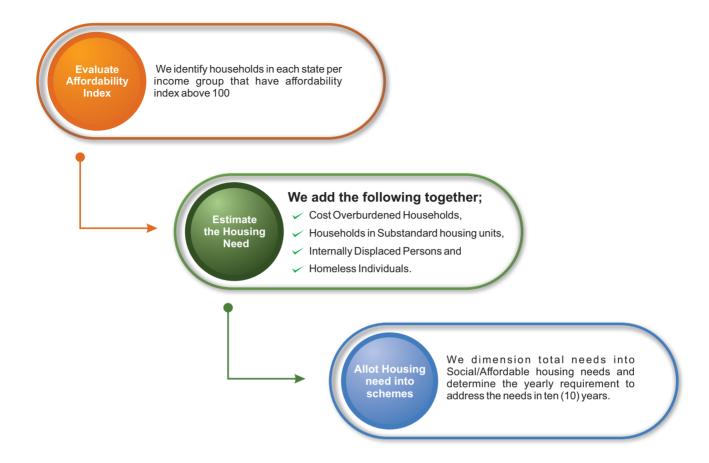
Source: NBS, Euromonitor, PwC Analysis

South-West

			Number of Hou	seholds that can effec	tively demand for hou	sing – South West	
	Total Effective Demand	Poverty (<₦138,000)	Low Income (N 138,000 – N1.1m)	Low-Middle Income (N1.1m – N3.3m)	Middle-Middle Income (N3.3m – N6m)	High-Middle Income (N6m – N11m)	High Income (>N11m)
Ekiti	589,098	0	442,186	133,649	7,186	3,627	2,448
Lagos	1,846,544	0	1,098,403	680,604	36,597	18,471	12,469
Ogun	1,184,342	0	888,986	268,693	14,448	7,292	4,922
Ondo	1,022,891	0	767,798	232,064	12,478	6,298	4,251
Osun	1,077,490	0	808,781	244,451	13,144	6,634	4,478
Оуо	1,769,589	0	1,328,282	401,469	21,587	10,896	7,355
Total	7,489,953	0	5,334,437	1,960,931	105,442	53,219	35,924

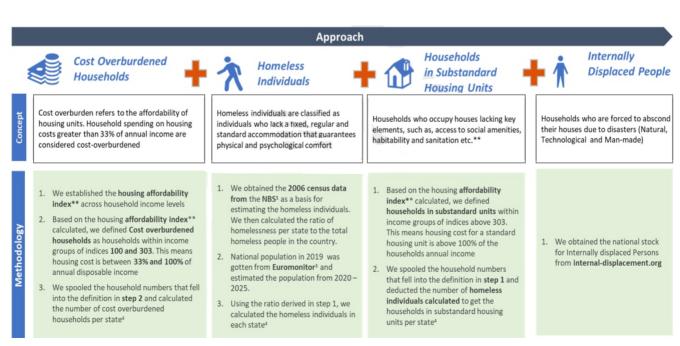
Housing Need Approach

Figure 18: Housing Need Approach



Housing Need Methodology

Figure 19: Housing Need Methodology



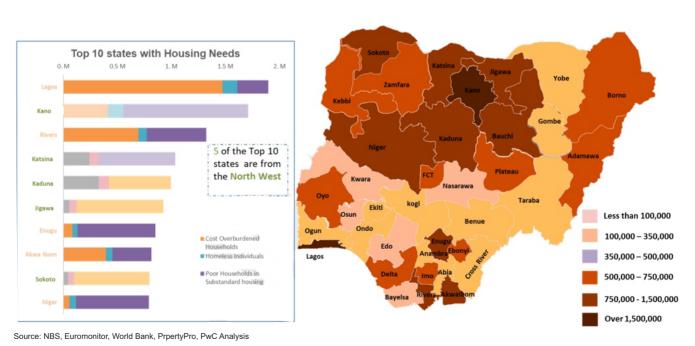
Housing Need by Region

Figure 20: Housing Need by Region



Housing Need by States

Chart 19: Housing Need by State



Allotment of Housing Need into Housing Schemes

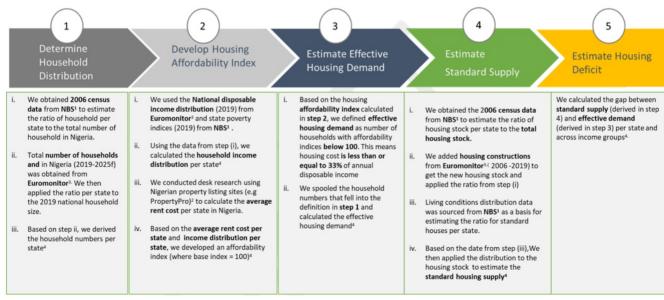
Figure 21: Allotment of Housing Need into Housing Schemes



Source: 1) National Bureau of Statistics (NBS), 2) PropertyPro, 3) Euromonitor, 4) PwC Analysis

Housing Deficit Methodology

Figure 22: Housing Deficit Methodology



Source: 1) National Bureau of Statistics (NBS), 2) PropertyPro, 3) Euromonitor, 4) PwC Analysis

Table 18: Housing (Deficit)/Surplus in Nigeria per Income Group – North Central

North Central	Total Deficit	Low Income (N 138,000 – N1.1m)	Low-Middle Income (N1.1m - N3.3m)	Middle-Middle Income (N3.3m – N6m)	High-Middle Income (N6m – N11m)	High Income (>N11m)
Benue	(414,681)	(401,207)	(71,201)	29,479	17,114	11,134
Kogi	(145,374)	(130,111)	(61,177)	23,434	13,621	8,859
Kwara	(128,314)	(107,993)	(52,806)	16,553	9,656	6,274
Nasarawa	(12,856)	(100,084)	(8,795)	13,802	7,924	5,169
Niger	(106,250)	(161,700)	(3,260)	30,173	17,265	11,273
Plateau	(21,238)	(53,785)	(14,990)	24,396	14,004	9,137
FCT	(4,353)	30,888	(54,433)	9,716	5,752	3,724
Total	(833,065)	(923,992)	(266,662)	147,554	85,336	55,569

Source: NBS, Euromonitor, PwC Analysis

Table 19: Housing (Deficit)/Surplus in Nigeria per Income Group – North East

North East	Total Deficit	Low Income (N 138,000 – N1.1m)	Low-Middle Income (N1.1m - N3.3m)	Middle-Middle Income (N3.3m – N6m)	High-Middle Income (N6m – N11m)	High Income (>N11m)
Adamawa	(62,877)	(41,595)	(23,905)	1,283	820	521
Taraba	(15,833)	(12,558)	(6,382)	1,580	927	601
Bauchi	(167,765)	(105,977)	(62,911)	404	458	262
Borno	(104,232)	(67,714)	(39,412)	1,379	931	584
Gombe	(81,738)	(51,679)	(30,659)	224	239	138
Yobe	(57,382)	(37,186)	(21,681)	704	481	301
Total	(489,826)	(396,792)	(184,952)	5,574	3,855	2,407

Table 20: Housing (Deficit)/Surplus in Nigeria per Income Group – North West

North West	Total Deficit	Low Income (N 138,000 – N1.1m)	Low-Middle Income (N1.1m – N3.3m)	Middle-Middle Income (N3.3m – N6m)	High-Middle Income (N6m – N11m)	High Income (>N11m)
Jigawa	(35,975)	(28,696)	(14,530)	3,687	2,161	1,402
Kaduna	(368,334)	(229,183)	(137,516)	(1,220)	(201)	(214)
Kano	(456,897)	(286,128)	(170,901)	(404)	386	150
Katsina	(260,254)	(164,398)	(97,594)	624	709	405
Kebbi	(173,414)	(108,250)	(64,804)	(364)	26	(22)
Sokoto	(27,883)	(22,809)	(11,360)	3,200	1,871	1,215
Zamfara	(81,159)	(53,584)	(30,838)	1,592	1,021	649
Total	(1,403,916)	(957,651)	(527,542)	7,116	5,972	3,585

Source: NBS, Euromonitor, PwC Analysis

Table 21: Housing (Deficit)/Surplus in Nigeria per Income Group – South East

South East	Total Deficit	Low Income (N 138,000 – N1.1m)	Low-Middle Income (N1.1m – N3.3m)	Middle-Middle Income (N3.3m – N6m)	High-Middle Income (N6m – N11m)	High Income (>N11m)
Abia	(337,360)	(375,169)	(45,520)	42,711	24,587	16,029
Anambra	(745,239)	(730,345)	(125,587)	56,558	32,794	21,341
Ebonyi	80,838	(28,674)	41,068	35,298	20,036	13,109
Enugu	75,373	(40,936)	12,853	53,220	30,386	19,851
lmo	(545,529)	(574,028)	(81,910)	56,533	32,622	21,255
Total	(1,018,595)	(1,749,152)	(199,095)	244,320	140,425	91,585

Table 22: Housing (Deficit)/Surplus in Nigeria per Income Group – South South

South South	Total Deficit	Low Income (N 138,000 – N1.1m)	Low-Middle Income (N1.1m - N3.3m)	Middle-Middle Income (N3.3m – N6m)	High-Middle Income (N6m – N11m)	High Income (>N11m)
Akwa Ibom	42,034	(102,842)	(6,757)	77,932	44,588	29,114
Bayelsa	2,823	(50,771)	(8,088)	31,686	18,148	11,847
Cross River	101,614	(36,110)	20,649	60,243	34,373	22,460
Delta	(123,640)	(200,399)	(67,649)	74,050	42,587	27,771
Edo	(27,592)	(119,325)	(28,081)	61,516	35,277	23,021
Rivers	284,206	108,943	(22,284)	101,493	58,116	37,939
Total	279,446	(400,504)	(112,211)	406,921	233,089	152,151

Source: NBS, Euromonitor, PwC Analysis

Table 23: Housing (Deficit)/Surplus in Nigeria per Income Group – South West

South West	Total Deficit	Low Income (N 138,000 – N1.1m)	Low-Middle Income (N1.1m - N3.3m)	Middle-Middle Income (N3.3m – N6m)	High-Middle Income (N6m – N11m)	High Income (>N11m)
Ekiti	(247,386)	(320,349)	(21,872)	48,692	27,922	18,221
Lagos	(322,730)	(555,089)	(182,150)	212,586	122,218	79,705
Ogun	(573,150)	(671,067)	(68,766)	85,498	49,137	32,048
Ondo	(493,654)	(579,100)	(58,946)	74,066	42,565	27,761
Osun	(573,719)	(629,162)	(79,663)	69,235	39,877	25,994
Оуо	(912,068)	(1,022,534)	(120,965)	118,640	68,277	44,516
Total	(3,122,707)	(3,777,301)	(532,363)	608,717	349,996	228,245

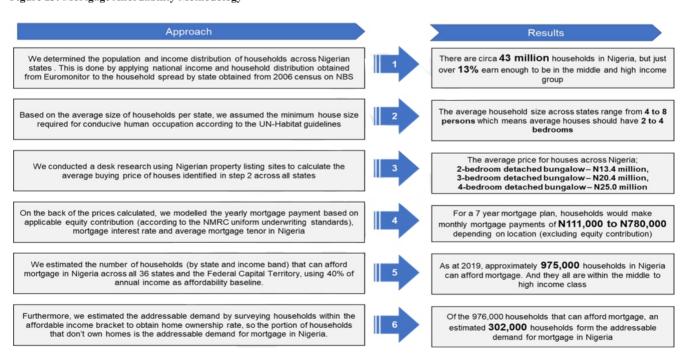
Table 24: Room Requirements for each Household Category by Size

Household size	1	2	3	4	5	6	7	8	8+
Single room (Shared facilities)	х	x							
Studio Apartment	х	x							
Mini Flat	х	x							
2- bedroom Apartment		x	x	x					
3- bedroom Apartment			x	x	x	x			
4-bedroom Apartment				x	x	x	x	х	x
5- bedroom Apartment					x	x	x	х	x

Source: NBS, Euromonitor, World Bank, PropertyPro, PwC Analysis

Mortgage Affordability Methodology

Figure 23: Mortgage Affordability Methodology



Source: NBS, Euromonitor, Nigeria Property Listing Sites, Idependent Market Survey, PwC Analysis

Table 25: Mortgage Affordability in Nigeria per Income Group – North Central

North Central	Yearly Mortgage (₦)	Poverty (≪138,000)	Low Income (₦ 138,000 – ₦1.1m)	Low-Middle Income (₦1.1m – ₦3.3m)	Middle-Middle Income (N3.3m – N6m)	High-Middle Income (N 6m – N 11m)	High Income (>₩11m)	Total Households
Benue	N1,553,573.99	-		70,792	7,843	3,958	2,673	85,266
Kogi	N1,864,288.79			18,936	6,511	3,286	2,218	30,951
Kwara	N2,996,178.40	-	·	4,714	5,176	2,612	1,764	14,266
Nasarawa	N5,201,698.62	-	1.0		439	1,106	747	2,292
Niger	4 3,329,087.12				3,833	1,934	1,306	7,073
Plateau	N2,052,937.05	-		11,179	3,844	1,940	1,309	18,272
FCT	N7,461,316.50	-	-	·	-	994	1,516	2,510
Total				105,621	27,646	15,830	11,533	160,630

Table 26: Mortgage Affordability in Nigeria per Income Group – North East

North East	Yearly Mortgage (₦)	Poverty (<\138,000)	Low Income (# 138,000 – #1.1m)	Low-Middle Income (\1.1m - \3.3m)	Middle-Middle Income (N3.3m – N6m)	High-Middle Income (N 6m – N 11m)	High Income (>\U00e411m)	Total Households
Adamawa	₩1,821,991.76	-		14,396	1,596	805	544	17,341
Taraba	₩1,821,991.76		-	1,673	575	290	196	2,734
Bauchi	N1,821,991.76	-		11,167	3,840	1,938	1,308	18,253
Borno	4 2,888,537.92	-		2,314	2,541	1,282	865	7,002
Gombe	N2,888,537.92	-		1,707	1,874	946	639	5,166
Yobe	N2,888,537.92	-	-	1,267	1,391	703	474	3,835
Total			·	22,767	11,817	5,964	4,026	44,574

Table 27: Mortgage Affordability in Nigeria per Income Group – North West

North West	Yearly Mortgage (₦)	Poverty (<№138,000)	Low Income (¥ 138,000 – ¥1.1m)	Low-Middle Income (N1.1m – N3.3m)	Middle-Middle Income (N3.3m – N6m)	High-Middle Income (N 6m – N 11m)	High Income (>N11m)	Total Households
Jigawa	N4,327,813.25	-		-	264	667	450	1,381
Kaduna	N6,207,360.35	-		-		4,108	2,772	6,880
Kano	N6,242,038.34	-	-	-	-	5,173	3,492	8,665
Katsina	N4,327,813.25			-	1,191	3,005	2,029	6,225
Kebbi	N3,994,904.54	-		-	1,942	1,949	1,315	5,206
Sokoto	N3,994,904.54				538	540	365	1,443
Zamfara	N3,994,904.54			-	1,031	1,035	698	2,764
Total					4,966	16,477	11,121	32,564

Table 28: Mortgage Affordability in Nigeria per Income Group – South East

South East	Yeariy Mortgage (₦)	Poverty (≪138,000)	Low Income (№ 138,000 – №1.1m)	Low-Middle Income (¥1.1m – ¥3.3m)	Middle-Middle Income (N3.3m – N6m)	High-Middle Income (N 6m – N11m)	High Income (>\mathbb{\text{N}}11m)	Total Households
Abia	N3,994,904.54			1.	3,970	3,982	2,689	10,641
Anambra	N2,385,845.77			41,835	14,383	7,259	4,901	68,378
Ebonyi	N2,496,815.34		·	1,621	1,780	899	607	4,907
Enugu	N4,213,375.88	-	-	·	2,838	2,847	1,922	7,607
lmo	№1,442,604.42			106,045	11,749	5,930	4,002	127,726
Total				149,501	34,720	20,917	14,121	219,259

Table 29: Mortgage Affordability in Nigeria per Income Group – South South

South South	Yearly Mortgage (₦)	Poverty (<₦138,000)	Low Income (₦ 138,000 – ₦1.1m)	Low-Middle Income (#1.1m – #3.3m)	Middle-Middle Income (₦3.3m – ₦6m)	High-Middle Income (N 6m – N 11m)	High Income (>₦11m)	Total Households
Akwa Ibom	N5,045,647.66			-	1,960	4,946	3,339	10,245
Bayelsa	N1,997,452.27			12,525	4,306	2,173	1,467	20,471
Cross River	N4,924,274.69			-	1,203	3,037	2,050	6,290
Delta	N5,201,698.62	-		•	2,600	6,562	4,429	13,591
Edo	N3,218,117.55	-			9,107	4,596	3,102	16,805
Rivers	N10,857,540.21			-		-	4,625	4,625
Total				12,525	19,176	21,314	19,012	72,027

Table 30: Mortgage Affordability in Nigeria per Income Group – South West

South West	Yearly Mortgage (₦)	Poverty (<₦138,000)	Low Income (₦ 138,000 – ₦1.1m)	Low-Middle Income (#1.1m – #3.3m)	Middle-Middle Income (N3.3m – N6m)	High-Middle Income (₦6m – ₦11m)	High Income (>₩11m)	Total Households
Lagos	N6,408,492.70					18,471	12,470	30,941
Ogun	N2,254,901.67	-		42,023	14,448	7,293	4,922	68,686
Ondo	N3,329,087.12				12,478	6,298	4,251	23,027
Osun	№1,553,573.99	-		11,363	12,478	6,298	4,251	34,390
Оуо	N2,370,310.03			62,788	21,587	10,895	7,355	102,625
Ekiti	N1,664,543.56			64,865	7,187	3,627	2,449	78,128
Total				299,682	76,162	53,218	35,925	464,987















FMDQ Green Exchange

Leading the Transition to a Sustainable Future

FMDQ Green Exchange, launched by FMDQ Securities Exchange Limited (a wholly owned subsidiary of FMDQ Group), is a virtual information repository platform dedicated to driving the growth of green and sustainable securities, and providing reliable green data in the Nigerian financial markets.







FMDQ Group

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