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STRATEGIES FOR ENABLING PRIVATE SECTOR-DRIVEN AFFORDABLE URBAN HOUSING IN ABUJA, NIGERIA.

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Abstract

Despite replacing the government's direct provision of housing with an enabled private-driven approach for over three decades, the housing deficit in Nigeria has continued to increase to a figure estimated to be between 17 million and 22 million units. Abuja, the Federal Capital of Nigeria alone accounts for 10% of this deficit despite the significant number of unoccupied houses in the city. This research investigated the reason behind this failure and proposed recommendations to address the issue. The data for this research was collected using multiple qualitative methods – phenomenology, case study, and workshop in a Generic Qualitative Inquiry (GQI) approach; thus, semi-structured interviews were administered in two stages to 13 participants comprising public and private stakeholders in the housing sector to characterise the problem and define the solutions. Structured questions were presented to another 18 participants for discussion in a workshop, and semi-structured interviews were administered to the case study project participants (the MFF and 11 residents of its estates). The research revealed that the persistent housing deficit is due to low investment in and poor access to affordable housing. It shows that poor operational framework, which manifests in poor funding of agencies charged with enabling the private-driven affordable housing is responsible for its poor performance. Therefore, the factors affecting the performance of private-driven affordable housing include administrative bottlenecks in facilitating the availability and registration of serviced land for developers, land speculation encouraged by poor funding of agencies and resulting in commercialised public land allocation, high transaction cost and registration of land resulting in poor choice of location for affordable housing to reduce cost, the Land Use Act (LUA) limitation of the powers of Federal government on land, which affects the spread of affordable housing efforts across the country, poor and delayed approval of loan arising from delay in processing and securing approval of land registration, poor access to NHF mortgages due to low income resulting in poor demand capacity, low investment in, and wrong conceptualisation of affordable housing to the detriment of end user housing need. These findings indicate the need for a decentralised housing system to maximise state and local government powers on land to facilitate affordable land for housing and for meeting end user housing needs, which vary across the country.

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my writing, thanks for being the best friend ever. To my siblings whose daily chats and posts on our WhatsApp group provided comical relief to break the serious and monotonous process of this research, thanks and may God bless you. Joseph and his family were incredible support, offering last-minute assistance when I was financially down; I will fondly remember this.

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List of Acronyms

Introduction

Even with several government efforts in the past, housing provisions in Nigeria have yet to cater for the needs of the low-income, leaving a huge gap in that market. Therefore, in the 1980s, when the signs of declining revenue became evident, the government saw the need to harness private resources in the delivery of affordable housing (Daniel & Hunt, 2014: 204); and by the early 2000s, following the adoption of the Global Shelter Strategy (GSS), which introduced the framework for the enabling housing approach, the use of private efforts in housing became officially recognised in Nigeria (Jambol, Molwus, & Daniel, 2013: 291). Subsequent housing policies and particularly the 2012 National Housing Policy (NHP), expressed features of a housing approach that is private sector-driven, with the government facilitating such movement. However, despite such positive steps in the direction of housing provision, the housing situation has continuously worsened such that the deficit has risen to a figure between 17 million and 22 million units (World-Bank 2018: 3, Ajayi 2019: 232).

Several indices make the current housing situation grim and portend severe challenges especially for future urban housing; they include the continuing rapid population growth, the economic downturn, and poor income (CAHF, 2021: 193). The population of Nigeria was estimated at 212 million as of 2021 out of which 52% of the population live in urban areas. Urbanisation is increasing at the rate of 4.1%, (A. Aliyu & Amadu, 2017: 150; CAHF, 2021: 193; Iwuagwu Ben & Iwuagwu Ben, 2015: 43; Olayiwola, Adeleye, & Ogunshakin, 2005) and is spurred by rural-urban migration arising from the quest for a better living in the cities as opposed to the rural areas (CAHF, 2021: 193). For example, Abuja, which became the capital of Nigeria recently has witnessed a sharp rise in intra and inter-regional migration as people look for better economic prospects and safety due to the insecurity in the north (Gbonegun, 2021b; Iheonu, 2022). Consequently, its population has increased with an annual growth rate of 8% on the average (OBG, 2019), creating further pressure for affordable housing. Furthermore, due to the poor transport system between Abuja and its satellite towns, and the need to be closer to job opportunities, many migrants have ended up in Abuja city (Morah, 2020: 10). Unfortunately, almost all of them are ending up in the squatter settlements or traditional villages creating a divided city between the poor and the rich out of Abuja (ibid).

In addition to urbanisation is a poor living wage, which aggravates the poverty level as 42% of the Nigerian population lives below the poverty line (CAHF, 2021: 193; NBS, 2020: 5). Low income has affected access to the formal housing market and mortgages. Currently, the mortgage -to-GDP ratio is 0.5% (CAHF, 2021: 193), which is simply low when compared to some African countries like South Africa (31%), Botswana (2%) and Ghana (2%) (Ajayi, 2019: 224). What is worse is the fact that access to the most affordable mortgage in Nigeria- the National Housing Fund (NHF) is low and lopsided to the disadvantage of low-income households (Bala, Kuroshi, Madawaki, & Bustani, 2014: 151); this is validated by the statistics of the adult population (4%)[1] that can borrow formally (Ajayi, 2019: 223). Therefore, the combination of the pervading low income and poor access to mortgages has translated to only about 25% of the population able to access affordable homes as opposed to countries like Indonesia (84%), Kenya (75%) and South Africa (56%) (Ajayi, 2019: 223). Moreover, the high house prices and rents further compound these as tenants are paying as high as 60% of their income on rent (Moore, 2019: 206).

Despite the intention to accelerate the provision of affordable housing through the enabling private-driven housing approach, the market composition of houses for sale and rent is continuously shifting towards costly ones. As a result, there is significant number of unoccupied properties in the cities which are for sale or rental that urban dwellers cannot afford (Adegoke & Agbola, 2020: 178) forcing a majority into unhealthy living options such as makeshift houses and squats (CAHF, 2021: 194; Moore, 2019: 205; Aliyu and Amadu, 2017: 150; Olayiwola et al., 2005). In Abuja, despite the rapid expansion in the real estate market, housing deficit has continuously increased; and even when its cities are dotted with significant number of unoccupied houses that is put at not less than 600 units by an informal survey (Ewodage, 2020), the deficit now accounts for 10% of the housing deficit in Nigeria, with a figure hovering between 1.7 million and 2 million units (Ewodage, 2020; Gbonegun, 2021b).

While an estimated 700, 000 units are required annually to keep up with the growing Nigerian population, the formal sector can only supply an estimated 100,000 units

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[1] This is based on 2017 World Bank world development indicators (CAHF, 2021: 193)

annually (World-Bank, 2018: 3). This raises important questions about the possible reasons for the underperformance of the enabled private-driven approach to housing despite its adoption for more than three decades. The yearly backlog of supply deficit and the constraining factors already highlighted threaten the future of urban housing in Nigeria if steps are not taken to channel private investment towards affordable housing effectively.

Aim and objectives

The research aims to identify effective strategies for enabling private sector-driven affordable housing in Abuja so that the policy goal of tackling the housing deficit may be realised. The specific objectives are to:

- Identify the problems of the private sector-driven approach to affordable housing;
- Explore the framework and strategies for housing and the effects on private sector-driven affordable housing;
- Identify the barriers to private sector involvement in affordable housing; and
- Provide recommendations regarding how to effectively enable the private sector to provide affordable housing in Nigeria.

Accordingly, this research will provide answers to the following research questions:

1. What are the problems of the private sector-driven affordable housing in Nigeria?
2. What are the effects of the existing housing framework and strategies on private-driven affordable housing?
3. What are the barriers to private investment in affordable housing? and
4. What strategies might be employed to advance the private-driven affordable housing in Nigeria?

The objectives of this research have the potential to make three primary contributions to the enabled private sector-driven affordable housing. First, identifying the problem with the existing policy approach to housing will help direct more appropriate solutions. Secondly, exploring the housing framework will help reveal possible gaps that militate

the stakeholders' performance. Finally, understanding the areas of concern and the challenges of private developers will help to achieve the fourth objective.

Overview of the research methodology

The research assumed that the present performance of the private driven affordable housing in Nigeria might be linked to a poor enabling framework and strategies. Hence, it was necessary to approach the problem by identifying the aspects of the framework that militate against private sector performance and the implication for affordable housing delivery. Doing this implies a subjective assessment of the situation, allowing for the definition of reality from the stakeholders' perspectives without neglecting the generically held realities in the field of study. Furthermore, a pragmatic approach to the inquiry meant that understanding and solving the research problem would require the use of multiple methods of investigation, which in this case, included multiple qualitative methods to provide a wide range of detailed information necessary for defining appropriate solutions. The research methods and the justification are documented in Chapter 3 of the thesis.

Area of the Study

The research was conducted in Abuja city for two major reasons. First is its status as the Federal Capital of Nigeria, which has drawn federal workers from Lagos (the former capital of Nigeria), and other parts of the country to it, creating additional pressure on housing (Oni-Jimoh, Liyanage, Oyebanji, & Gerges, 2018). Second is that as the seat of government, it is the source of all government policies and the first port for implementing them; however, despite its privileged status, it is yet to cater for the housing need of its inhabitants, which is why studying it is both apt and beneficial for advancing affordable housing in other parts of the country. Abuja became officially recognised as the Federal Capital Territory (FCT) of Nigeria in 1991 because of its location in the central part of the country (See Figure 8-1 in Appendix 1) and the spacious land area ($8000km^2$) compared to Lagos (the former capital) ($67.12km^2$) (Abubakar, 2014: 81). Originally, it was sparsely populated with approximately 500,000 inhabitants and the conception of its master plan was intended to resettle these inhabitants outside the territory (FCDA, 2020). However, due to the cost of

compensation, the resettlement plan was changed to integration. This new plan was based on two categories: the relocation of the inhabitants of the villages earmarked for the capital city, the game reserve area, the reservoir watersheds and Abuja airport and the upgrading and integration of the rest into the satellite settlements (Abubakar, 2014: 82; Jibril, 2006: 5).

Consequently, construction commenced on a new resettlement site in Jibi (Jibril, 2006: 5) for some settlements like Jabi, Kadi and Gwarinpa (within phase II of the city), which were earmarked for resettlement outside the Federal Capital City (FCC). By the end of 2002, most of the houses were ready for occupation. However, they became occupied by the security personnel brought into Abuja ahead of the general elections in 2003; thus, the intended beneficiaries were displaced and had to look for alternative forms of shelter. These significant shifts in government decisions, inadequate development control, and weak implementation of regulations resulted to the problems of informal settlements and squatters in the FCT (See Table 8-1, Figure 8-2 and Figure 8-3 in Appendix 1) (Adeponle, 2013: 146; Jibril, 2006: 5).

The Abuja master plan was designed as a crescent-shaped development with a central urban area (Figure 8-4 in Appendix 1). Accordingly, the FCT was designated into four phases, with phase 1 in the centre (See Figure 8-5 in Appendix 1). The development of Phase I (comprising the Central Area, Garki, Wuse, Asokoro and Maitama) began in the early 1980s and has witnessed the most development than other phases/areas (See Figure 8-4 in Appendix 1) (Adama, 2012: 994; Adeponle, 2013: 148). This lopsided development and the master plan specification, which meant that a few could afford to build in certain parts of the city (ibid), transformed Abuja into two socially divided city with the inner developed core mainly occupied by the elites of the society and a majority of the poor struggling to make a living mainly in the informal sector (Abubakar, 2014: 81). Furthermore, the premature change in the movement of the capital from Lagos to Abuja in 1982/83 instead of 1986 the original date agreed affected the development of the "Accelerated District" (within the phase 1), which was originally designed to accommodate workers (Jibril, 2006: 8). Consequently, shanty towns and squatter settlements eventually emerged in places like Karu/Nyanya, Karmo and Gwagwa (ibid)

Before its designation as the capital of Nigeria, Abuja was utterly rural, with little or no infrastructure, and was sparsely populated too, with only about 500 000 inhabitants (FCDA, 2020). The design was scaled to have a population of 1,600,000 and expandable at its side to 3,000,000 (Ibid; Adeponle, 2013: 148), but over the years, urbanisation has led to an astronomical growth estimated at the rate of 8.32% per annum in 2017 (OBG, 2019). While there is no data from the National Bureau of Statistics (NBS) on the current population of Abuja, its population as of 2018 was estimated at 4.35m (Ibid), which already exceeds the expandable 3,000,000 figure designed for the city. Some of the factors that account for the population expansion of Abuja include natural growth, in-migration due to perceived better economic opportunities, underinvestment in smaller towns and villages surrounding the FCT, and the relative safety of the area when compared to other conflict-torn regions (Abubakar, 2014: 81; Essen, 2019b; OBG, 2019).

In 2018, 20% of the FCT's population lived in Abuja city centre, while the remaining 80% resided in the urban peripheries such as Jikoyi, Gwagwalada, Karu and Dutse Alhaji Apo, Lokogoma, Kabusa, Area I, Jabi, Asokoro axis, Guzape, Gwarinpa, Utako, Kado, Nyanya and many others (OBG, 2019, Essen, 2019b). Consequently, the rapid growth and insufficient investment in affordable housing led to a rising proliferation of informal settlements. Indeed, Abuja's affordable housing shortfall is now estimated at between 1.7 and 2 million units, with most housing development projects remaining unaffordable for a significant section of the population (OBG, 2019). Although the Federal Capital Territory Administration (FCTA) is a Nigerian ministry that administers the FCT, it is headed by a presidentially appointed minister (ACCI, 2020). The Federal Capital Development Authority (FCDA) manages the building and infrastructural development of the urban area. In contrast, the council chairpersons administer the six different area councils of Abaji, Abuja Municipal, Bwari, Gwagwalada, Kuje and Kwali (See Figure 8-4 in Appendix 1) (Abubakar, 2014: 83).

Scope and delimitation of the research

Whilst the solutions to private-driven affordable housing have been well documented, those derived within contextual realities in Nigeria and with the stakeholders' interests in mind must be better captured. The research attempts to identify the problem with

the strategies and framework for urban housing in Abuja, Nigeria and to propose strategies for improving affordable housing provisions for its teeming urban population. The research explores the framework and strategies for affordable housing and the investment environment, including the barriers to private-driven affordable housing. Furthermore, leveraging the development of Abuja as the capital city and the source of the national policy that affects other parts of Nigeria, the study develops solutions that capture the stakeholders' interests by adopting multiple qualitative methods to extract relevant information from both public and private sector agencies in Abuja. Although the research explores the barriers to private development (that is, the challenges that private developers face), it does not cover the challenges of other aspects of the private sector that affect the housing system. Furthermore, this research does not cover affordable housing in the rural areas.

Thesis structure

This thesis is divided into eight chapters:

Chapter one provides the context for understanding the rationale and the planning of the basic structure for housing in Nigeria through examples of successful housing provision in some countries. Next, it provides a historical analysis of housing programmes in Nigeria and the factors that shaped the current housing system. Thereafter, it reviews the investment market and relevant macroeconomic variables affecting housing investment. Finally, it analyses the enabling framework, including the regulatory and legal framework, and the outcome is a deeper understanding of the challenges to private investment.

Chapter two provides an overview of the national housing policy to better assess the government's goals and strategies to fulfil affordable housing provision. It defines affordable housing in the context of the research and provides the basis on which the solutions are developed. The chapter also reviews the fundamentals of affordable housing, which need to guide the design of affordable housing programmes. It uses the affordability threshold, incomes of workers, and house prices to show the challenges that households face. Doing so reveals the nature of the housing situation and the direction of interventions.

Chapter three provides a detailed description of the research methodology, defining the research methods used, the philosophy behind the methodology, the instrument of data collection and how data was analysed. It also describes the limitations of the methodological approach and the precautions taken to minimise them.

Chapter four focuses on the results from the interview with 18 participants (comprising public and private sector participants and the end users) and some relevant discussions from the collaborative workshop. It provides an overview of the framework and strategies for enabling private developers and the challenges that militate against each sector's contribution to the success of affordable housing. Furthermore, it establishes the root cause of the poor performance of the enabling private-driven approach to housing. Finally, it links it to policy development, making a case for a collaborative approach to designing policies and strategies.

Chapter five discusses the recommendations from the interviews with the private and public sector participants and lays the foundation for designing solutions to the affordable housing problems. Finally, the solutions are discussed as discrete responses to the problems analysed in chapter four.

Chapter six presents and discusses the results of the discussion from the collaborative workshop with 15 stakeholders in the housing sector; it provides specific considerations that guide the implementation of the solutions discussed in chapter five. These considerations emanate from an intense stakeholders' interrogation with the solutions in the light of their needs and the prevailing circumstance in Nigeria, which are valuable guides for policymakers.

Chapter seven summarises the solution into a single framework tested on the case study through an interview; it also discusses the conditions for the scalability and replicability of the solution.

Chapter eight provides the overall research conclusions, recommendations, and some suggestions for future research.

Limitation and Assumptions.

The limitations and assumptions of this research are:

- Limited availability of and access to updated and relevant statistical data, which arises from the poor record-keeping culture in Nigeria (Adepetun, 2019; Nelson, 2019);

- The focus of this research is primarily on enabling private developers to provide affordable housing rather than the private sector as a whole;

- Due to the sporadic and small number of private developers active in building affordable housing, the number of interviews based on the experience of these experts is limited;

- The research does not consider the economic effects on private development. Instead, it evaluates barriers and strategies based on the provisions of the NHP, the framework for housing and the strategies.

1 Housing in Nigeria: Historical Influences and Implications of Private Sector

The discussion in this chapter provides a background information on the historical housing in Nigeria for a better understanding of the current housing situation. This action is premised on understanding a problem as the first step to its solution; hence, digging into the history of housing in Nigeria helped to provide a better understanding of the factors that shaped the current housing policy and inform guidelines for better housing performance. The chapter is divided into seven sections responding to the following objectives:

- To explore different trains of political thought that have different views on the role of the state towards housing;
- To provide a detailed account of the history of housing in Nigeria, highlighting the significant features that informed the current housing policy;
- To provide an analysis of the Nigerian Investment market and the indicators that affect housing investment;
- To discuss the implications of these on private investment.

1.1 The Place of Housing in the Scheme of Welfare in Nigeria

> 1. *"It is housing disconnected from its social function, housing as a commodity. "I look up at these developments and I see gleaming towers of glass and steel, I see architects in their machismo building the best, funkiest, coolest buildings. I believe in good design, but I see this and I see huge, huge sums of money, for me staggering sums of money, being poured into these places not as homes but as an investment". (Leilani Farha, the UN special rapporteur for housing)*

Although housing is recognised as a right in Article 25 of the Universal Declaration of Human Rights (United-Nations, 2015: 52) and Article 11 of the International Covenant on Economic, Social and Cultural Rights (ICESCR) (United-Nations, 1966), the importance accorded to it varies among countries, with some states entrenching it in their constitution and others making it a law by which states are made accountable to their citizens. Countries like Brazil, India, Canada, Netherlands, France, Seychelles

and South Africa recognise the socio-economic right to housing as a law or entrenched in their constitution (Maxwell, 2019). Similarly, some parts of the USA have fragments of their law relating to housing rights for certain groups of people; the same applies to Nigeria, where the right to housing is entrenched in its constitution (Const. Chapter 4, Section 16 Subsection 2d: FRN, 1999) (Constitute, 2011).

In order that the right to housing should be clearly understood, the General Comment No 4 of the United Nations Committee on Economic, Social and Cultural Rights prescribed specific attributes of housing that go beyond viewing it as a physical construct or commodity. These attributes require that housing should be understood in relation to the inherent dignity of human person; hence, it should provide security, peace, and comfort and preserve the dignity of human beings (UN-Habitat, 2014: 6-10; United-Nations, 1991: 2-3). Therefore, some features like the security of tenure, availability of services, affordability, habitability, accessibility, location and cultural adequacy provide a clear description of what constitutes adequate housing in the context of human right (Maxwell, 2019). However, notwithstanding this further elaboration on the desired attributes of housing, the persistent challenges in many countries show that the perception of housing and the way it is expressed is diverse regardless of whether or not it is constitutionally or legally recognised; therefore, successful housing take more than legal recognition to decisive steps towards achieving those housing attributes of housing as a human right (UN-Habitat, 2014: 6).

Nevertheless, a pro-housing rights law commits states to the responsibility of progressing the provision of housing for the citizens (UN-Habitat, 2014: 6) and creates a legal system that empowers groups or persons to enforce their rights (Chenwi, 2015: 74-75; Thiele, 2002: 714). However, constitutionalised housing right does not guarantee successful housing provision, as evidence from different countries suggests. In Nigeria, for example, affordable housing is still elusive for many and the living condition deplorable (United-Nations, 2019) despite its constitutionalised housing right. Also, in South Africa, many are homeless, and the eviction rates are high despite being praised for its progressive housing laws (Chenwi, 2015: 68-69); furthermore, in some parts of Europe, the affordable housing gap persists despite their long history of social housing programmes. Therefore, housing should go beyond

mere legal recognition to deliberate and decisive actions that link housing provision to achieving specific societal objectives (UN-Habitat, 2020: 43; URBED-Trust, 2018: 5).

Housing is essential in human existence, and several positive outcomes, such as affecting the sense of worth, good health and mental wellbeing of the society, prosperity, and healthy communities are linked to adequate housing (Chenwi, 2015: 68; Gopalan & Venkataraman, 2015: 1; Tunstall et al., 2013: 5-8). On the contrary, poor housing programmes or low access to decent housing engenders social vices and economic retrogression; hence, countries can be motivated by these benefits to realise specific societal goals through housing. The government must preserve and enforce the rights of its citizens, and its level of commitment to this duty reflects in the policies, strategies, and instruments for enforcement. Similarly, the level of attainment of successful housing provision in a given society relates to the level of priority and conviction that housing is a tool for societal development, as evidenced in Singapore and Vienna, where successful public housing is attributed to its governing philosophy that gets the fundamentals right (Fischer, 2021).

Singapore is a multi-ethnic Chinese, Malay and Indian city-state. When it gained independence from the British in 1959, only 9% of the population lived in public housing; however, this rose to more than 80% in 2019 (ibid). Singapore's successful public housing reflects a homeownership rate of 91% as of 2015 (RICS, 2019: 57), which is closely linked to the priority given to it and the government decisive actions. The post-colonial housing in Singapore was marked by heavy state intervention, which did not only intend to mitigate housing shortages but also to realise integration across ethnic and social classes (RICS, 2019: 60; UN-Habitat, 2020: 5-6). Therefore, the housing policy reflected features that promote homeownership (RICS, 2019: 60)[2], mixed-income, beautiful green spaces, and high-quality public transportation that links residents to education and community centre. The impact on the citizens' sense of well-being and belongingness is evident in the city's consistently high ranking in

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[2] In 1964, believing that home ownership would engender a sense of belongingness in the society, the government introduced a subsidised home ownership programme which enabled the residents to own a 99-year lease on their units. The Housing and Development Board (HDB) imposed a price cap on the units and offered loans that allowed homeowners to pay less in monthly mortgage payments than they would have done in rent. In addition, housing grants were given to eligible households at the point of purchase

liveability score (Fischer, 2021). Making these possible is the government's ability to buy land for cheap combined with the emphasis on standardisation and efficiency in construction and management.

Similarly, Vienna's approach to housing is governed by the same guiding principles as that of Singapore; in 1920, when the country's socialist government rose to power in the wake of the First World War (WW1), the government prioritised housing along with jobs and social services. With this mindset, the government aimed to create aesthetically- pleasing housing complexes that were previously accessible to the well-to-do for working class, and by improving the living condition of the citizens in this way, hoped to engender loyalty from them (Peteritas, 2013). In addition, there was also the mindset that housing is a way to link the residents to their communities and the larger cities through designs; hence, providing both private and public living spaces enhanced community interaction. Furthermore, through aggressive buying up of land throughout the city, government can acquire a massive pool of land for subsidised housing, and the highly favourable loan conditions[3] for affordable housing development have triggered fierce competition among developers.

Contrarily, Nigeria has been struggling to get its housing programmes right. The history of housing programmes in Nigeria recorded little or no success. The reasons, among many, have been attributed to a lack of political will and failure to organise a housing policy that responds well to the Nigerian situation. There is also the question of perception of the concept of housing by both the government and the general public as housing has tended not to have the same political profile as perhaps health and education would in the following:

> [2.] *"…it is very ironic that the Labour union will be advocating for the salaries of people, the high cost of food items in the market, but no group has come to say why housing cost is high? … So, are we saying that housing is an elitist thing?" (PM2)*

Private developers and investors are dominating the housing systems, often divorcing housing from its social function by treating it as a commodity for speculation (United-Nations, 2019b: 3); furthermore, the actions and choices of the government also

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[3] Upon the selection of an appropriate developer for the intended development, land is provided at an affordable price as well as a loan, which covers 35% to 40% of the project's cost at an interest rate of 1% which is repaid over 35 years (Peteritas, 2013).

indicate that housing is a less critical subject, as shown in the analysis of Anudu (2022) of the government sacrifice of homes for fuel subsidy (see Appendix 2 for complete analysis) and in the history of housing (Section 1.2.1). In addition, to demonstrate the unimpressive attention to housing by the government, the 2012 NHP in the review of past policies and programmes alluded to the frequent changes to the name and function of the Federal Ministry of Works and Housing as the dearth of affordable housing in Nigeria (FGN, 2012: 19). By presenting the chronological order of these changes, it showed that the responsibility of the ministry towards housing was undermined. Figure 1-1 represents the metamorphosis of the Ministry of Works (MoW) and Housing from 1975 to 2015. It shows that the name has been changed six times within a period of 40 years, from MoW to Federal Ministry of Works and Housing.

Key

FMHUDE- Federal Ministry of Housing, Urban Development and Environment

MOW- Ministry of Works

FMWS- Federal Ministry of Works and Survey

FMH- Federal Ministry of Housing

FMWUD- Federal Ministry of Housing and Urban Development

FMEHUD- Federal Ministry of Environment Housing and Urban Development

FMWH-Federal Ministry of Works and Housing

Figure 1-1: Chronological evolution of the FMWH (Adapted from FGN, 2012: 19)

However, in the face of growing societal challenges like insecurity, crimes and the Covid outbreak, the government has committed huge resources to address them without much success; can the government look up to Singapore and Vienna experiences for direction? Although there may be reservations in using Singapore and Vienna as examples for Nigeria due to the differences in their government structure, system, and political ideologies, one feature is common among them and that is, the seeming similarity in land ownership concept, which grants powers to acquire land for developmental purposes to the government. Evidently, Singapore and Vienna have

maximised the singular power to the advantage of housing provision, which is an exemplar for Nigeria.

1.2 History of Housing Provision in Nigeria

Accounts of the history of housing provision in Nigeria are scattered and varied, which makes a systematic review almost impossible; however, the key message in these accounts is the colossal failure of past housing programmes, which affect the present housing situation. The history of post-independence housing in Nigeria is best discussed under two different eras: the state-led housing system (1960-1990) and a market-led approach (1991 to date) because each was marked by different ideological stance, policy framework, strategies, and action, all of which shaped the current housing system and its challenges. (Daniel & Hunt, 2014: 203; Jambol et al., 2013: 285).

1.2.1 The State-led Housing Era

The state-led housing era reflected a socialist political ideology and the Keynesian central economic planning leading to a housing programme that was arbitrarily designed and implemented as a five-year development plan by the government without due consideration and assessment of how they could be accomplished given the prevailing developmental circumstances (Jambol et al., 2013: 287). Besides this, the lack of a true spirit of nationalism and ethnocentricity, which drive most government plans and actions, gave rise to faulty plans, provisions, implementation problems, and subsequent failure of the government housing efforts (Ikejiofor, 1999: 179).

Between 1960 and 1990, housing efforts were expressed as five-yearly National Development Plans (NDP).. These were later replaced with three-year overlapping National Rolling Plans (NRP) (Jambol et al., 2013 287). It is believed that this era witnessed more development plan targets without a robust plan for achieving them. Hence, even when the first and second development plans failed, a third plan was designed and commissioned without thoroughly assessing the failed ones (Ikejiofor, 1999: 180). Moreover, improved government revenue from the increases in crude oil prices in the mid-70s encourage the flagrant misuse of funds (Ibid). Therefore, plans generally did not aim to satisfy housing needs because the implementation and

allocation structures encouraged speculation and excluded informal workers (Jambol et al., 2013: 291). Generally, the state-led housing era's performance was replete with numerous impediments giving rise to aimless plans, inadequate provisions and subsequent failure. Table 1-1 and Table 1-2 show the different housing programme periods, the allocated budget amount for the housing targets and the performance outcome. In the second National Development Plan (NDP), ₦2.63 million was earmarked for realising 54, 000 housing units, which failed. Thus, there were four major influences, which characterised the state-led housing era; they include inappropriate policy framework and institutional concerns, unstable funding mechanism, project implementation and allocation process. Table 1-3 summarises these key features of the state-led housing era, their manifestation and effect on the housing (Jambol et al., 2013: 287).

Table 1-1: Federal government budgets and milestones (Jambol et al., 2013: 289)

Period	Budget amount	Number of houses projected	Outcome
1st NDP (1962-68)	-	24,000	2% success rate
2nd NDP (1970-74)	N2.634m	54,000	-
3rd NDP (1975-80)	N1.830bn	66,000	23.3% success rate
4th NDP (1982-86)	N 2.686bn	440,000	13.3% success rate
5th NDP (1987-89)	Projects were suspended due to the economic recession and the government's focus turned to the implementation of the Structural Adjustment Programme (SAP)		
1st NRP (1990-92)	-	-	-
2nd NRP (1991-93)	Consolidating on SAP and dealing with macroeconomic issues		
3rd NRP			
4th NRP (1994-96)	N2.0bn	121, 000	1.6% success rate
5th NRP (1997-99)`	-	-	-
6th NRP (1999-2001)	-	-	-

The state-led era was heavily centralised because the federal government planned and implemented the housing programmes arbitrarily. Furthermore, the implementation structure was poor and the implementation roles were overcentralised

in few agencies, with limited number of individuals empowered to decide on what and how things should be done. Generally, there was poor contract administration system and the practice of awarding contracts without any established procedures was pervasive. Thus, housing programmes became avenues for wasteful spending; political settlements, issue and re-issue of contracts- 'ghost contracts', and inflation of contract cost became the dominant features of this era, especially in the 3rd and 4th NDPs (Ikejiofor, 1999: 180). Consequently, most contracts were abandoned without any legal consequence for defaulters. The flagrant misuse of funds in this way was attractive, and other levels of government who were left out in the early NDPs struggled with the federal government over who should execute the fourth NDP. Most state governments attempted to frustrate the plan by providing land that presented accessibility and security challenges for the execution of the 4th NDP in their states, which led to the massive failure of the programme (FGN, 2012: 13; Ikejiofor, 1999: 180).

Table 1-2: Housing programmes in Nigeria from 1962 to 2019 (Based on Ajayi (2019: 225-229); Moore (2019: 207-211); Iwuagwu Ben and Iwuagwu Ben (2015: 44); Olayiwola et al. 2005); Ikejiofor (1999: 180-181); United-Nations (1993: 48-51); Adenrele (1990: 18-19)

Programme/policy period	Target	Result
1st NDP (1962-1968)	To construct 24, 000 housing units across the states of the federation	500 units realised before the outbreak of the Biafra civil war
2nd NDP (1970-1974)	To construct 54, 000 units across the federation with 10, 000 in Lagos and 4, 000 in each of the 11 states' capital	The government in power was overthrown and the target was not met
3rd NDP (1975-1980)	Reappraised the 1970-1974 NDP and incorporated it into the 1975 plan (To construct 202, 000 housing units annually with 46, 000 in Lagos (capital city), 12, 000 in Kaduna (North-west of Nigeria) and 8, 000in each of the states' capital	28, 000 units were realised, poor performance was due to partisan politics, which marked the brief period of democratic government. Contracts were awarded to ruling party affiliated contractors, most contracts were abandoned due to lack of expertise

1981/82 National Housing Programme	To construct 40,000 units across the federation annually with 2,000 units per state and the capital city, Abuja	Only 37,650 units were either completed or at various stages of completion; programme was marred by politicisation and military take-over of government in 1983
1986-1999	To construct 121,000 units of various types of housing across the country for all income groups	1,136 units were realised halfway through the programme. The programme was eventually suspended due to poor performance
1991 National Housing Policy	Replaced the 1981/1982 policy and aimed at ensuring that Nigerians own or have access to affordable housing by the year 2000	
Civilian rule, 1999-2010	To construct about 10,271 units through the Public-Private Partnership (PPP) arrangements across the country	2000 serviced plots through PPP site and service in Ikorodu, Lagos. Completion of 4,400 housing units in Abuja, Port Harcourt, Akure, and Abeokuta through PPP.
	To construct 500 units in the presidential mandate housing scheme in all 36 states and federal capital	The scheme did not take off in many states; 100 units were constructed in Ogun state
2006 National Housing Policy	Focussed on the use of the private sector as a catalyst for housing delivery while the government was to focus on infrastructure	Several institutional and structural changes were made but the implementation ended abruptly when the administration ended in 2007
2007-2010 (Yar'dua regime)	Building on the existing 2006 policy, planned to encourage private investment in housing by amending the	These plans remained unimplemented until the president's death

	land use Act, re-organising the Federal Housing Authority (FHA) to provide mortgage insurance for affordable housing	
2010-2015 (Jonathan's administration) 2012 policy	The policy, introduced mass housing to cater for all regardless of their income and social housing to cater for the low-income earners and 10,000 mortgages were launched for affordable homes scheme	The 10,000 mortgages scheme was however derailed by the inconsistency of government policies
2015-2019 (Buhari's administration)	Launched the FHF to provide affordable mortgages for the low-income earners across the federation, to construct 2,700 in the short-term and 20,000 units pilot social housing scheme Initiated the FISH as an inter-ministerial and PPP project	32 civil servants received their keys at the end of 2018 out of 55,000 subscribers

Public expenditure on housing appeared officially on records in the early 70s at the second NDP as an afterthought allocation in the national budget, even though other welfare items had always received budget attention before this time. Although inconsistent, subsequent allocations failed to realise impressive outcomes, as shown in Table 1-1. Similarly, the participation of the state government in funding housing started in the 2nd NDP. Like the federal government, they were not consistent with funding housing since they depended on federal allocation (Jambol et al., 2013: 289). Generally, housing received the least attention compared to other welfare items; this is evidenced in the aggregate expenditure of 11 states on welfare items during the second NDP. Table 1-4 shows the aggregate expenditure of states on welfare services and housing, combined with town and country planning has the least attention. Moreover, the government structure meant that the LGAs were and are still excluded from housing provisions.

Table 1-3: Key variables influencing housing project implementation (Jambol, et al., 2013: 290-291)

Key variables	Manifestation of problems	Effects
Poor organisational framework	(1) Use of top-down model of design and implementation of projects; (2) Monopoly over the administration of project implementation by Federal Government agencies; (3) Small group of individuals became too powerful and exerted considerable influence over the implementation process; (4) The volume of projects to implement at a certain time outweighs the administrative capacity of implementation agencies; (5) Local Government Agencies, Community Based Organisation and Non-Governmental Organisations were left out	Over-centralisation of roles in a few agencies, lack of probity, accountability, transparency and failures
Inadequate procurement regulation	(1) A lack of a uniform procurement regulation and permanent arrangement for control and surveillance; (2) The proliferation of Tender Boards which have limited mandate and power to decide contract de facto resting with politicians and bureaucrats; (3)The procurement process was handled by officers that lacked relevant skills and knowledge.	Bribery, corruption, contract collusion, 'ghost contracts', 'ghost Contractors', inflations of contract cost and kickbacks.
Land acquisition issues	(1) The land tenure tries to take away land ownership from individuals and kinship groups; (2) The land tenure gave too much power to Governors to grant statutory rights on land, to give consent transfer of landed properties; (3) Land ownership tussles between kinship groups and governments cause a delay in land acquisition for housing development; (4) Seeking consent from Governor before carrying transaction creature delay for investors.	Delays in the land acquisition process, inadequate compensation payment to dispossessed land owners and reluctance (of kinship groups and individuals) to sell land to the government and private investors

Table 1-4: Aggregate expenditure of 11 states on welfare services during the 2nd NDP (Jambol et al., 2013: 289)

Service	Aggregate expenditure
Health care	N87.362m
Education	N179.542m
Town and country planning incl. housing provision	N27.576m

Finally, the allocation arrangement for housing was faulty. It lacked integrity in that it failed to distribute housing and services equitably in part due to overly bureaucratic processes, which served to exclude the disadvantaged groups. A similar situation applied with the federal allocation of residential plots through site and service scheme to the States where some were excluded (Daniel and Hunt, 2014: 204). In general, the major features of poor allocation in a state-led housing era are summarised under the following (Jambol et al., 2013: 290-291):

- Uneven spread of housing projects[4];

- Unequal access opportunities for intended beneficiaries[5];

- Exclusion and deprivation of households that earn their income from informal occupation[6]; and

- Exclusion and deprivation of households that earn their income from informal occupation[7]

1.2.2 Market-led Housing Approach

The performance of the state-led housing programme was poor because of the political structure, the increase in government revenue, which encouraged flagrant misuse of funds, and the centralisation of the housing system. Therefore, the change in Nigeria's housing policy was meant to address these problems. However, it was particularly necessitated by the economic downturn of the 1980s, which resulted in changes in the macroeconomic framework for national development and the delivery of social services (Metz, 1992, cited in Daniel and Hunt, 2014: 204). The introduction of an enabling approach within the framework of neoliberalism was thought to be the solution to the failures of past housing programmes (Ibid: 205). Thus, there were

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[4] In the third Plan, 46,000 units were allocated to Lagos, the capital city, 12,000 were allocated to Kaduna State, and 8,000 allocated to 17 states (Table 1-2). Similarly, in 2010 when the FHA completed 35,609 housing units spread across 50 project sites, only 22 out of 37 states benefitted from these houses. About two-thirds of the houses were allocated to the present Abuja and Lagos, while the remaining were spread across 20 states (FGN-FHA, 2010, cited in Jambol et al., 2013: 291; Daniel and Hunt, 2014: 204).

[5] Nigerian housing programmes are worker-focused, but the low cadre workers were often deprived of access to housing services. For example, the examination of the allocation formula adopted during the third NDP by Lewis (1977), cited in Jambol et al. (2013: 291), revealed that a household with a combined public sector income of less than ₦1500 was crowded in one bedroom house unit regardless of its size. Furthermore, housing programmes intended for low-income groups were hijacked by senior bureaucrats, politicians and military officers (FG-NHP, 2012: 13; Ikejiofor, 1999: 183).

[6] Nigerian housing programmes are worker-focused but exclusively on formal workers in the public sectors (Admiluyi, 2010: 157). Often, no attention was given to households who earn their incomes from informal sector occupations. This category of people is often deprived of access to housing services provided by the government (Ikejiofor, 1999: 183)

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widespread deregulation and privatisation programmes to roll back the state's frontiers while allowing the private sector to take the centre stage.

The concept of an enabling approach to housing was introduced in 1988 with the adoption of the Global Shelter Strategy (GSS) to the year 2000 (UN-Habitat, 2012: 1). The strategy coincided with the economic downturn in Nigeria, and its concept seemed an attractive option for reducing government spending. Consequently, the government introduced the 1991 National Housing Policy (revised in 2006 and then again in 2012), which was built within the framework of neoliberalism (a response to the recession). The policy assumed that a liberalisation programme would promote the growth of private institutions which could partner with government agencies to finance the supply of low-income housing (Jambol et al., 2013: 291). Based on this assumption, some changes in the funding mechanism for housing, the provision of government subsidies and the administrative role of government agencies were made (Daniel and Hunt, 2014: 205).

The housing finance system was based on the enabling approach and was designed to operate on a liberalisation programme that transferred the ownership of public finance institutions to the private sector while the government instituted legal and regulatory reforms to stabilise the private finance institutions. Consequently, 1999 saw the privatisation of most public institutions, with the Federal Government instituting legal and regulatory reforms to stabilise such programmes; for example, as of 2005, six cement companies, five brick and clay making companies, three steel rolling mills and two stone quarries were privatised. Similarly, regarding finance, five public deposit money banks were privatised and three public insurance companies divested (Daniel and Hunt, 2014: 205). The Federal Mortgage Bank of Nigeria (FMBN) roles were redefined by the provisions of the National Housing Fund (NHF) Act of 1992 and the FMBN Act of 1993. The NHF Act was promulgated to create a pool of continuous funds from which loans could be granted to its contributors on affordable repayment terms. On the other hand, the FMBN Act empowers the bank to collect, manage, and administer the fund as an agent of the government (FGN, 2012: 49).

About the provision of development subsidies, the government at all levels would collaborate with landowners and developers to produce more practical proposals to

housing at the local level (Daniel and Hunt, 2014: 205); this means that the government should take responsible steps toward acquiring land and making it available for housing development. Furthermore, land and infrastructure subsidies were provided along with tax exemptions to facilitate affordable housing provisions for private developers. Decentralisation was introduced as a key operational strategy to address the poor performance of the centralised implementation structure that characterised the state-led era; this is in line with the adopted practices by countries that already introduced the enabling shelter strategy in their system (Daniel and Hunt, 2014: 205). For example, countries like Uganda, Zimbabwe, Brazil, South Africa, and Ethiopia and so on introduced some form of decentralisation in the enabling strategies. Decentralisation in the context of federalism has existed in Nigeria, but the introduction of the enabling strategy led to a structuring of Nigeria's form of decentralisation (Ibid). Hence, the new concepts for Nigeria were deconcentration, delegation and devolution (ibid). Devolving the responsibility for housing provision to the local level is in line with the enabling shelter strategies, which advocate for a more local and participatory response to housing (UN-Habitat, 2012: 1 & 3). Therefore, the government proposed that housing provision should be decentralised to allow other levels of government to facilitate and drive housing policies from the state level against the earlier centralised approach.

1.3 Housing Investment Market

The housing market exists due to the need to improve housing conditions and address the housing shortages; it is a set of socio-economic relations in the field of distribution and exchange through which the sale of goods (housing) is carried out (Vladmirovna & Danilova, 2021: 449). Such socio-economic relations are carried out within an enabling framework and regulated by civil legislation governing the interaction of the stakeholders involved. A perfect market offers an environment for the smooth interaction between the variables of supply and demand and is influenced by the policy framework, which supports the system. Therefore, discussing the housing market system in Nigeria is necessary for understanding and revealing the performance gaps of private-driven affordable housing.

Nigeria's housing market is best understood by its attributes (Figure 1-2). These include (i) the consumer profile, which describes the capacity to initiate a demand for housing and reveals the preferred dwelling types. In this case, up to 50% of the population cannot initiate effective demand. (ii) The supply sector, its ability to fulfil the market demand, which in this case is not impressive, and (iii) the instruments both structural and legal framework that facilitate the exchange of goods and services within the housing market.
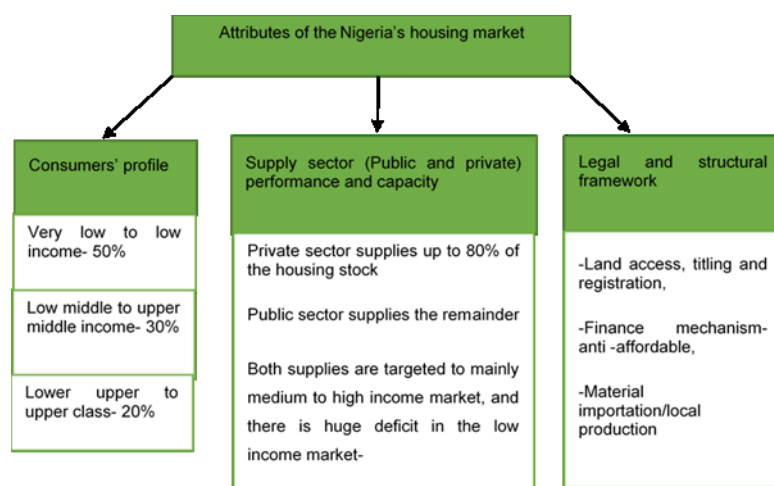
Figure 1-2: Attributes of the Nigerian housing market based on various sources

1.3.1 Consumer Profile (Capacity for Demand)

Nigeria's population is estimated at 212 million as of 2021, and more than half of the population lives in urban centres (CAHF, 2021: 193). About 80% of the urban population lives in substandard conditions (Raschke, 2016: 6; World-Bank, 2018: 3), while 58.8% of the urban population lives in slums (CAHF, 2020: 8), which signifies poor access to housing and a massive demand for affordable housing. Generally, poor access to housing is hinged on low disposable income, poor salary and high cost of living. According to CAHF (2021: 194), the income pyramid shows that 75% of Nigerians earn less than ₦ 25,000 (US$ 251) while 25% earn more than that (Compare

this with Table 1-5 and Figure 1-3); this presupposes an income distribution among households that is unequal, with a Gini coefficient[8] of 35.1 points (Ibid: 193).
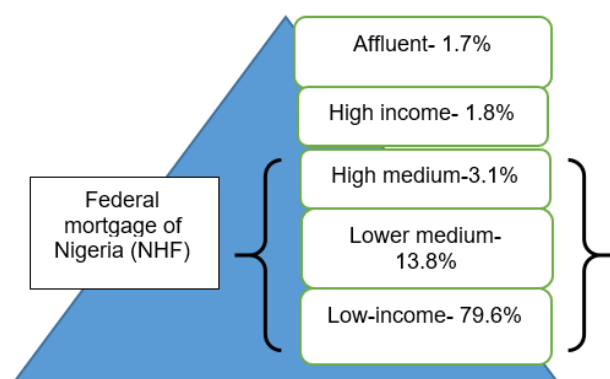
Figure 1-3: Income distribution of Nigeria's population (Dangiwa, 2020)

Table 1-5: Income distribution of Nigerian households (World-Bank, 2016: 12)

Income bracket ₦	% of population	Number of population		
		All	Urban	Rural
Above 1.8 million ($12, 000)	1.1	2,406,507.0	2,373,646.0	2,478,226.0
between N1.1m & N1.8m ($4,000 & $12,000)	3.7	1,344,260.0	1,364,208.0	1,298,776.0
between 600,000 & 1.1m ($4,000 & $7333)	15.2	779,087.4.9	790,078.2	765,136
between 340,000 & 600,000 ($2260 & $4000)	30.0	450,355.2	456,840.9	445,434.9
below 340,000 ($2260)	50.0	213,446.5	225,663.4	208,422.2

Furthermore, over 40% of the population is said to be living below the poverty line of ₦137, 430/annum (US$334), according to the National Bureau of Statistics (NBS) report (NBS, 2021: 5). In addition, the rising unemployment rate (33.3%) (NBS, 2021:3), the low minimum monthly wage of ₦30,000 ($72.9), and unguaranteed income due to weak formal job creation, underemployment and insufficient skill development are decreasing the income of many (Raschke, 2016: 7) and affecting their capacity to afford mortgages, which can improve access to affordable housing.

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[8] Gini coefficient is a comparison of cumulative proportions of the population against cumulative proportions of income they receive. It ranges between 0 for perfect equality and 1 for perfect inequality (OECD, 2023)

Furthermore, apart from the income-related constraint to mortgages, there is also the issue of non-banked income as more than half of the adult population[9] neither have mobile money nor a banking account (REALL & CAHF, 2020: 13). Besides, there is no social welfare system as in the UK and USA where housing vouchers and housing benefits are respectively used to assist the low-income families pay their rent (Perkins, 2022; Wilson & Barton, 2019a: 31); this means that the option of a mortgage as a means of enabling access to housing is out of the question for such people.

In 2019, the mortgage portfolio was at 0.17% of the GDP, with the total outstanding number and value estimated to be 32, 260 and ₦269.68 billion (US$749.1 million), respectively (REALL and CAHF, 2020: 13). The market-rate mortgages range from 17% to 25% per annum, and the loan repayment period is between 10 and 20 years, with lenders demanding a 30% to 50% equity contribution. To reduce loan delinquencies arising from the pandemic, the Central Bank of Nigeria (CBN) created policy measures[10] to boost repayments and provide more liquidity, thereby improving access to finance. Despite the fact that the CBN policy is intended to boost mortgage operations, market-rate mortgages are still out of reach of the low-income. The policy option that was intended to promote access to mortgages for the low-income is the government-subsidised mortgage, the National Housing Fund (NHF).

Provided and managed by the Federal Mortgage Bank of Nigeria (FMBN), the NHF is the most affordable mortgage in the country. It provides affordable mortgages for the low-income to enable them to access housing. It provides loans of up to ₦15 million (US$38 836) to contributors to the NHF scheme. The scheme is a social saving scheme designed to mobilise long-term funds from Nigerian workers, banks, insurance companies and the government. The fund is accessed through the Primary Mortgage Banks (PMB) at a fixed 6% interest rate over 30 years. The FMBN provides zero equity for loan amounts of up to ₦5 million (US$ 12 945) and a 10% equity for loans from ₦5

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[9] According to a survey by EFInA in 2018, 59.4 million of the 99.6 million adult population in Nigeria neither have mobile money or a bank account, which suggests the need for a strategy towards the non-banked population to increase the uptake of mobile money (REALL and CAHF, 2020)

[10] Some of the CBN's policy measures include the extension of moratoriums by one year for all principal repayment of CBN facilities, reduction of the interest rate for one year from 9% to 5%, creation of ₦50 billion (US$129.0 million) targeted facilities for Small Medium Enterprises (SMEs); credit support to the healthcare industry and strengthening the loan deposit rates for banks (REALL and CAHF, 2020: 13)

million to ₦15 million to subscribers after contributing 2.5 percent of their basic salaries for six months. Although the NHF mortgage conditions are reasonable, eligibility criteria (section 2.6) tend to technically exclude the low-income group through its provisions (Sgrenci, 2020). Therefore, access to mortgages is low as only very few (4% of the adult population) can afford it due to the low disposable income (CAHF, 2021: 193).

1.3.2 Supply of Housing

The supply of housing in Nigeria can be viewed from formal and informal sectors. The formal supply sector includes supply from the private sector and various agencies of the public sector. The supply from the informal sector comprises efforts from individuals, families, co-operatives and community development efforts (see Table 1-6). Although the government involvement in housing dates back in history, such efforts were marred by inefficiencies and corruption, leading to lower housing outcomes (FGN, 2012: 13; Ikejiofor, 1999: 183; Makinde, 2014: 51). The private sector developers have, therefore, always been involved in housing to supplant the poor performance of government, and its activities account for about 90% of the urban housing (Adegun & Taiwo, 2011: 458; Makinde, 2014: 51). Generally, the private sector involvement in housing provision comprises both formal and informal segments. The informal segment, which is the most popular, accounts for between 70-90% of the houses in the country, and the significant part of their developments are non-conventional and do not comply with established procedures and the existing legislation (Adegun and Taiwo, 2011: 458).

Table 1-6: Housing supply structure (Makinde, 2014: 55)

Formal (public sector)	Formal (private sector)	Informal sector
Federal Ministry of Works and Housing	Real Estate Development of Nigeria	Individuals
Federal Housing Authority	Primary Mortgage Institutions	Families
States Ministries of housing	Corporate bodies	Co-operative societies
States Housing Corporations	Co-operative societies, NGOs	Community development efforts

On the other hand, the formal private segment, which consists of corporate institutions that are involved in large-scale production, and which are responsible for housing development, including those delivered by the government, have failed to address the housing needs of low-income earners (Adegun & Taiwo, 2011: 458; Ibem, 2011: 202; Makinde, 2014: 51), and current housing efforts from both sectors are still lagging in that respect. At the state level, Housing Corporations (HCs) primarily operate as government property developers and so does the Federal Housing Authority (FHA) at the federal level. The HCs were funded mainly from the government budget allocation, and their units are usually sold for cash and often target the middle income sector of the market (Makinde, 2014: 55). However, with limited funding from the government, they have transformed into commercialised housing development agencies for the government. Buyers usually pay cash or make instalment payments during the period of construction. Similarly, the FHA performs a similar role as the HCs, but at the federal level. Following the privatisation programme of the government, it has become commercialised in accordance with Decree No 25 of 1988 (FHA, n.d). Although a federal development agency, its projects are scattered across the country; in total, its past projects amount to 35,269 units (See Appendix 3 for the location and status of the units).

Generally, a conservative estimate of 700,000 units is expected to keep pace with the growing housing need, but the output from both formal and informal sectors is put at between 100,000 and an optimistic 200,000 units (NBS, 2015: 6; World-Bank, 2018: 3). Thus, the output is low compared to the estimated annual requirement.

Table 1-7: Average prices of houses developed by private developers in some selected cities in Nigeria-2020 (Adapted from RIRFHUD (n.d))

Bedrooms	Average price of houses		
	Abuja	Lagos	Kaduna
2 bedrooms		26,670,000	16,912,494
3 bedrooms	51,740,00		29,637,327
4 bedrooms	84,330,000	62,740,000	35,796,239
5 bedrooms	142,680,00	87,970,000	49,280,015

Table 1-8: Price of houses provided under the National Housing Programme across the states of Nigeria (Adapted from FMWH (2020))

House type	Price		
	1 bedroom	2 bedrooms	3 bedrooms
Flat in condominium	7,222,404	9,148,378.4	13,241,074
Bungalow	9,268,751.8	12,398,460.2	16,491,155.8

Furthermore, the average price of houses from both public and private sectors in Nigeria (see Table 1-7 and Table 1-8) shows that housing is unaffordable for a majority considering the prevailing low income. The backlog of supply arising from such practice over the years has created a massive gap in the affordable end of the market, which offers enormous investment opportunities if appropriately harnessed. Despite the present challenges of the government, which has rolled back the frontiers for formal recognition of the private sector in affordable housing, the outcome has not been impressive because the current economic environment is not favourable to private investors (Ajayi, 2019: 234; CAHF and REALL, 2020: 7). Generally, private investment is driven by profit and a satisfactory return on investment, which cannot be guaranteed in an affordable housing development (Witwer, 2007: 11). Furthermore, what is necessary for investors is the policy environment that they operate in since certain market-based decisions will require appropriate incentives to sustain their interest (ibid: 12). Similarly, they will also need sufficient evidence to show that a significant number of people can afford what they build (ibid: 13) and this is where specific demand-side initiatives are required.

1.4 Macroeconomic Policies and Legislative Factors affecting Housing

The economic growth of a nation is influenced by macroeconomic variables, which are controlled by macroeconomic policy (Ilugbusi, 2017: 177; Obayori, Nwogwugwu, & Omozuawo, 2016: 27815). Fiscal and monetary policies are some of the instruments that nurture a good business environment and boost and sustain economic growth.

These policies aim to maintain the internal and external value of the currency to maintain equilibrium and stability of the market and prevent high and volatile inflation that is unhealthy for the market (Obayori et al., 2016: 27815). The primary source of revenue for Nigeria is the proceeds from the sale of oil and gas; the resultant foreign exchange implies significant consequences on the growth of its economy since an increase or decrease in the price of the oil commodity will directly affect economic growth.

In the mid-70s and early 80s, when Nigeria witnessed a boom in the sale of oil, and the naira and dollar rate were at par (see Table 1-9) (Jambol et al., 2013: 288), the economy was buoyant as a result of increased revenue and to show that Nigeria enjoyed some periods of affluence, housing featured for the first time in the budgetary allocation even though the benefit of such action was not visible due to corruption.

Table 1-9: Inflation and exchange rates between 1973, 1991, and 2018-2021; adapted from CBN, 2022; Jambol et al., 2013: 288)

Year	Exchange rate to $1	Inflation rate (%)
1973	0.66	5.4
1982	0.67	5.6
1991	9.91	12.7
2018	331.8	12.09
2019	362.03	11.40
2020	433.70	13.25
2021	477.81	16.95
2022	424.48 (August 2022)	19.64 (July 2022)

In this era, the macroeconomic variables have suffered. The declining price of oil and the effects of the pandemic have triggered an economic recession (CAHF, 2020: 7 & 12) with severe consequences on the economy; there have been fluctuations in inflation rates and a consistent exchange rate devaluation as seen in Table 1-9, which were brought about by dollar shortages, insecurity, and supply bottlenecks arising from the closure of the borders (KMPG, 2021: 11). Some forms of adjustment by the government to keep the economy afloat have imposed limits spending through budget cuts (KMPG 2021: 41). These were expressed in the privatisation and commercialisation of some public agencies especially during the liberalisation period (Daniel and Hunt, 2014: 205). Furthermore, in order to maximise internally generated revenue, the government had to increase tax; for example, there was an increase in the VAT rate from 5% to 7.5% in 2020 (CAHF, 2020: 27), which means that several

sectors that drive housing development must take measures to cushion these effects on their investment. Consequently, these measures have repercussions for housing development, and private investors must make investment decisions that will be transferred to the end-users.

1.5 Other Market-shaping Indicators and Implications for Private Sector Housing

Involving the private sector in situations where the government is constrained by limited resources to realise specific developmental objectives (KMPG, 2021: 42) is no longer new; leveraging the resources of the private sector has become even more popular in the housing sector (Berry, Whitehead, Williams, & Yates, 2006: 307) since the adoption of the Enabling Shelter Strategy (GSS). Although the footprints of private activities have been visible for a long time in Nigeria, the continuous decline of public resources and government performance has made their engagement in housing formally recognised. Admittedly, their operation within the existing market could be more impressive; however, maximizing private resources in affordable housing will require specific considerations that can help investors navigate the challenging environment.

Affordable housing is intended to deliver housing that is affordable to the majority who cannot afford them under market rates; according to Milligan, cited in Berry et al. (2006: 308), it covers any form of government-assisted or privately provided housing that is aimed to assist those who are unable to attain or pay for housing without experiencing undue financial hardship. In Nigeria, affordable housing has become an important subject because of the vast demand gap (CAHF, 2021: 193; Oladiran, 2015: 3; Raschke, 2016: 5), which is a market opportunity for the investor. Although the sheer size of the housing problem involved might seem overwhelming and discouraging to the government, however, the enormous resources needed to mitigate the problem are beyond the capabilities of sole private engagement. The resource-intensive nature of housing and the risk (Omirin & Nubi, 2007: 52) involved in supplying the lower end of the market are some of the challenges in navigating the affordable housing market; moreover, the profit-seeking nature of the private sector means that such investment is impossible (Raschke, 2016: 8). However, since the high end of the market is

oversupplied (Ibid: 9), the affordable market can be made attractive to investors by addressing these market challenges.

1.5.1 Land and Infrastructure

Access to land remains a central issue in housing provision since land is governed by land tenure systems, which describe the relationship between a person or group to land (Lawal & Adekunle, 2018: 2). This means that the tenure system determines who should use the land, for what purpose, how long and under what conditions (Ibid). Access to land depends on its availability in strategic locations, its affordability, and the security by owner's right; hence, based on the concepts described by Lawal and Adekunle (2018: 3), the key elements that promote access to land are:

- The processes and procedures involved and how simple or complex they are;
- How affordable or otherwise is the cost of land.

Most land for development is acquired through formal and informal markets, land that is accessed through kinship, social networks, and inheritance falls under the informal primary source, while land from the formal primary source is from the public allocation made by the state and other authorities with control over land and landowners (Lawal and Adekunle, 2018: 3). For most developments in Nigeria, land is mainly sourced directly from informal (primary and secondary) sources which account for about 70% of land transactions (World-Bank, 2016: 20). It involves full contractual formalities between the parties but is still considered informal since it lacks the Certificate of Occupancy (CoO).

The process of land acquisition is governed by the Land Use Act (LUA) of 1978, which confers ownership of all land to the governors of each state (Makinde, 2014: 50); hence, the perfection of land transaction and registration process is in the issuing of a Certificate of Occupancy (CoO) to the potential owner by the governor of the state. Despite the intention that this will increase the availability of land, the LUA has resulted in a dualist approach to land administration system in Nigeria, and imposes a major constraint in the processing of land acquisition and ownership. This dualist land system arises on one hand from acquiring land from the customary landowners and

on the other hand from acquiring the consent of the governor through registration (Lawal and Adekunle, 2018: 5). In principle, it generally takes 12 procedures to register land and approximately 91 days to do so, but, in reality, it can take up to two years (World-Bank, 2016: 17). The period required to process the registration of land is essential because of its potential to facilitate access to other construction-related inputs like materials and finance.

Generally, obtaining a development loan from the bank requires a valid Certificate of Occupancy (CoO). When it takes a long time to acquire it, the result is both delay in the construction time and a variation in the overall cost of the project. Moreover, the cost of registering land is usually a percentage of the property price (ranging between 11.3% and 20%) as opposed to 1.1% in Ghana, 4.3% in Kenya and 7% in India (CAHF, 2021: 193, World-Bank, 2016: 17). In terms of affordability, land price is volatile and varies significantly with its location and the availability of infrastructure (CAHF, 2021: 195); the infrastructure stock in Nigeria is 40% behind the World Bank benchmark of 70% and reflects in insufficient road network linking commercial centres across the country (ITA, 2021). Therefore, the cost of unserviced land without adequate title in suburban areas ranges from ₦926/m^2 (US\$ 2.3/m^2) to as high as ₦7 716/m^2 (US\$19.17/m^2), so a plot of land (648 m^2) translates to ₦600 000 (US\$1,460) and ₦5, 000,000 (US\$12,419) respectively. On the other hand, for land with primary infrastructure and adequate title in urban areas, the price range is between ₦30, 000/ m^2 (US\$73/ m^2) to ₦200 000/m^2 (US\$487/ m^2) (CAHF, 2021: 194).

The prohibitive price of land in the cities is caused by its higher development value and is further exacerbated by its scarcity, which arises from speculative sales and the government taking over them for high income developments (Raschke, 2016: 6). As a result of the high land prices, most affordable houses are usually sited at the periphery of the urban areas, away from workplaces in the city as a remedy to higher land prices (Elegbede, Olofa, & Olojede, 2015: 11). The absence of essential services in these locations creates problems for the developer; generally, compared to urban areas, the suburbs and other remote locations present serious developmental challenges to investors due to bad roads, poor electricity and the lack of a rail system (CAHF, 2021: 195); consequently, developers are saddled with additional cost burden for providing

the necessary basic infrastructure to the site, which will generally be transferred to the end-users. For example, a breakdown of the cost of the Centre for Affordable Housing Finance (CAHF) house in Lagos is shown in Figure 1-4; it depicts how much is spent by a developer on different cost variables; infrastructure cost accounts for 16.04% of the total housing cost, making it the second largest share of the total cost of housing.
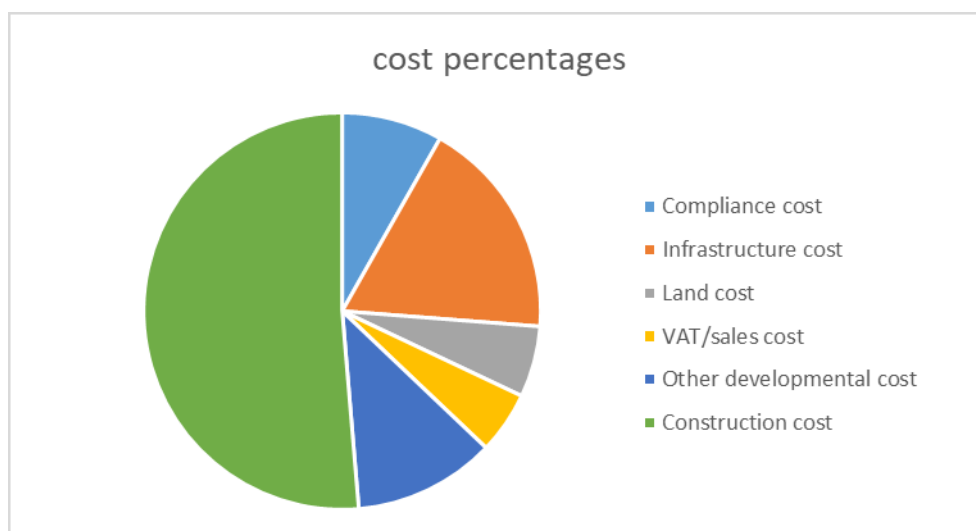
Figure 1-4: Cost breakdown of the standard CAHF house 2019 (CAHF, 2020: 24)

The government realises the challenges of inadequate infrastructure provision for affordable housing, Hence, although constrained by limited resources but inspired by the impressive outcomes in Brazil and India (KMPG, 2021: 46; Sanusi, 2012: 7-10), some initiatives are leaning towards encouraging private sector participation in infrastructure development. Since the problem of infrastructure development is deeply rooted in inadequate finance, some development finance institutions exist in Nigeria to promote and support the different sectors of the economy (Sanusi, 2012: 7). Among them is the Infrastructure Bank (IB), which was established in 1992 to provide financial solutions to support critical long term infrastructure projects. The bank is mainly owned by the private sector but has the three tiers of the government and the Nigerian Labour Congress (NLC) as shareholders; thus, it is a government-sponsored but private-led development finance institution. There is also the Infrastructure Concession Regulatory Commission (ICRC) which helps to enable the establishment of effective Public Private Partnerships (PPPs) between the government and its

ministration with the private-sector; such partnerships aim to accelerate investment in national infrastructure through private sector funding (ICRC, 2022; Izuwah, 2019: 149). Furthermore, on a smaller scale is the Infrastructure Development Fund (IDF) of the Family Homes Fund (FHF), which is offered to government agencies with landholding rights in the cities for the provision of infrastructure on land intended explicitly for affordable housing (FHF, 2019).

1.5.2 Construction Financing

The Nigerian housing finance market is organised along informal and formal areas. The formal sub-division comprises the upper-income groups, whose activities are located in the urban areas, and the lower-income groups, which depend on the subsidised NHF for access to housing (Makinde, 2014: 57). The informal area includes the rotating savings and loan associations, the traditional co-operative system, credit co-operatives and individual and family savings (ibid), which are options available to both upper and lower-income alike. However, several factors make mortgage (both subsidised and commercial options) lending difficult; they include the absence of clear property and security rights, mandatory governor's consent, high-interest rates and inadequate long-term funding sources (ibid). Generally, the proportion of the population that can borrow formally is 4%, and the ratio of mortgage to GDP is 0.5% (CAHF, 2021: 193), which signifies poor access to mortgages.

In terms of housing development, the financial implication is beyond what private savings and retained business earnings can support (Omirin & Nubi, 2007: 52). A reliable and sustainable source of long-term funding is required to facilitate housing development at a desirable scale. In Nigeria, developers in the formal sector generally rely on loans from deposit money banks for housing development despite the challenges inherent in them; consequently, the result in terms of the scale of production has been minimal (Ibid). Generally, in undertaking to lend, financial institutions will take into account the risks and returns attached to their loans (UN-Habitat, 2009a: 25). The risks will be governed by the credit-worthiness of the developer and the probability of them making the required payments on the loans. Therefore, the interest charged will reflect the risk attached to the lending, and any measures that reduce risks are likely to reduce borrowing costs (ibid). Access to

housing finance, as mentioned earlier, is militated by the availability of long-term funds, affordability and accessibility challenges. Commercial banks lack the high liquidity levels required for long-term financing due to the short-term maturity profile of deposits (CBN, 2020: 7; Udoekanem, 2013: 63); access is, therefore, constrained by higher interest rates (More than 25%) and short tenure (average three years) (CBN, 2020: 7; EFInA & FinmarkTrust, 2010: 33).

The accessibility challenges relate to other stringent conditions imposed by the regulatory framework LUA; access to funding is subject to the submission of a valid CoO on land as security for bank loans. The length of time for registering land is militated by the fact that all land registration must acquire the consent of the governor. Secondly, the Act has not guaranteed the security of title (EFInA and Finmark, 2010: 37) due to poor administrative protocols and poor land records (Adenikinju, 2019: 26); hence, these twin impediments have adverse consequences on the processing of loans by the banks and the housing development objectives. Furthermore, mortgage enforcement is lengthy and expensive and fails to qualify lenders for the right to the power of sale. Several recommendations have focused on de-constitutionalising the LUA so that the requirement for governors' consent on land transactions may be improved; secondly, it is believed that the removal of the foreclosure arrangement on real estate from the general common law provisions can facilitate mortgage enforcement, which deters lenders from their obligations (CBN, 2020: 20; World Bank, 2016: 23)

The constraints to accessing housing funds have triggered several deliberate improvements on the part of the government and market-trends induced remedies to diversify access to housing finance. To deal with the issue of access to affordable housing, the Federal Government created the Family Homes Fund (FHF) in 2018 to provide finance for affordable housing projects that closely align with the UN Sustainable Development Goals (SDGs). The FHF has several financial products to assist low-income homeownership and the funding of affordable housing development. The Affordable Housing Fund (AHF) is one of the financial products of the Fund and provides either debt or equity at cheaper costs to both public and private sector developers (CAHF, 2021: 194).

Furthermore, a more recent advancement to improve the post Covid housing market is the provision of a sum of ₦200 Billion (US$519 million) by the Central Bank of Nigeria (CBN) under the National Social Housing Programme (NSHP). The FHF will act as the loan obligor to provide funding for the private sector at a subsidised lending rate ranging from 5% to 9% per cent per annum; the loan will be repaid over three years and will be guaranteed by the Federal Ministry of Finance (FMF) (CAHF, 2021: 195; CAHF, 2020: 11). The loan will offer the opportunity for stakeholders in the private sector (ranging from the local manufacturing and building materials to developers) to provide a more cost-effective supply of materials for the development of affordable housing. The loan is also expected to help the FHF to actualise the planned 300 000 houses across the 36 states under the Economic Sustainable Plan (ESP).

Similarly, the Federal Mortgage Bank of Nigeria (FMBN) has existed since the 90s to encourage and promote the growth of Primary Mortgage Institutions (PMIs) and to collect and administer the National Housing Fund (NHF) to address the housing finance challenges in the low-income sector (Makinde, 2014: 53). Apart from the initial ₦5 billion fund from the federal government, the FMBN has relied solely on the contributors as the only source of funds (Chime, 2016: 12). Furthermore, contributors are expected to contribute 2.5% of their monthly salary to the fund and are entitled to a loan after six months. For example, if a grade level 10 step 15 public servant, who earns ₦127,951 monthly contributes ₦3,199 (2.5% of monthly salary) monthly, it will take up to 131 years to contribute ₦5 million to the fund. Such arrangement, in the absence of sufficient seed funds constitute a serious impediment to financing and accessing housing. However, over the years, the government has invested in other sectors while neglecting the housing sector (Chime, 2016: 12). Bedevilled by its low capital base and structural impediments, which led to deficient performance, the FMBN has undergone several reforms over the years to improve its effectiveness (CBN, 2020: 7). Currently, the FMBN makes available several financial products under the NHF ranging from affordable mortgage finance, rent to own, home renovation loan to Estate Development Loan (FMBN, 2022).

The Estate Development Loan (EDL), which was initially lent to private developers at 10%, is replaced with the Cooperative Housing Development Loan (CHDL) due to

misuse. This has put developers into precarious situation where they are forced to take loan facilities at higher cost to provide housing (Chime, 2016: 16). The CHDL loan is being implemented under the Federal Government (FG) National Cooperative Housing Development Scheme (NCHDS), in which the original EDL, now the CHDL, is advanced to the cooperatives through reputable developers. Under the scheme, workers are encouraged to organise themselves into structured cooperative societies to procure a piece of land and engage the services of housing professionals to design and develop houses that they can afford (Uwaegbulam, 2020). To qualify for the loan, the members of the cooperatives should have been contributors to the NHF (contributing 2.5% of their salaries to the fund), and such development for which the loan was advanced should not exceed the maximum loan amount (₦15 million) offered by the fund. Upon the completion of the development, the FMBN will package NHF mortgage loans of up to ₦15 million to members of the cooperatives.

Despite the challenges of finance, the CAHF (2021: 194) observed an upward trend in access to finance due to the drop in the prime and maximum lending rates to 11.24% and 28.64%, respectively; consequently, there was an increased investment in housing (Rewane, 2021: 53), which signifies a strong relationship between investment in housing and lower interest rates. Therefore it is necessary to maintain a conducive macroeconomic environment through the design of policies that will encourage a good business environment for increased investment. Sound macroeconomic policies are the tool used by the government to maintain low inflation, low interest and stable exchange rates (Ajayi, 2019: 234).

1.5.3 Construction Materials

The cost of building materials in Nigeria is volatile, and several factors contribute to it. However, in the analysis of Ihuah (2015: 220), the bane of building materials is attributed to its historical metamorphosis in the following:

> 3. *"The trends in current practice and throughout history is the move from house building materials being: natural to becoming more man-made and composite; biodegradable to imperishable; indigenous (local) to being transported globally; repairable to disposable; and chosen for increased levels of fire safety. These tendencies incline to proliferate the initial and long term economic, ecological, energy, and social costs of building materials in any economy"* (Ihuah, 2015: 220)

This analogy has endured and manifested in an ever-pronounced preference for conventional materials among developers and end users, regardless of the benefits of doing otherwise (CAHF, 2021: 194). As a result, the cost of materials generally accounts for a more significant proportion of the overall cost of housing (between 50% and 60%). It can be even as high as 75% due to the over-reliance on imported materials. Generally, approximately 50% to 55% of materials are imported (CAHF, 2021: 195) and together with other related factors like bad roads, high cost of petrol import duty, fluctuating exchange rates and inflation has seriously increased the cost of materials (Adenikinju, 2019: 26; Ajayi, 2019: 232; Akanni & Oke, 2012: 104; Ihuah, 2015: 221) with repercussions on the cost of construction.

Generally, the effect of the cost of materials on housing in Nigeria is due mainly to two factors; first, the construction technology is predominantly conventional, and utilises mainly cement-based materials and steel. Second, these materials are not locally available in sufficient amounts; hence, they are mainly imported. Importation is susceptible to fluctuating exchange rates, inflation rates, import duties, and other factors, which will generally affect the cost of materials, and by extension housing development and access to housing (Gbonegun, 2021a). Independent market surveys by the Guardian and the Nigerian Tribune newspapers reportedly show a significant increase in the price of major building materials; for example in Table 1-10, Nigerian Tribune survey shows that iron rod rose by 24% in 2022 from an unspecified date presumably earlier while the Guardian survey indicate 63% increase in the price of iron rod with a space of five months. Consequently, these have triggered a more than 30% increase in house prices as encapsulated in the following experience of a developer (Ayeyemi, 2022):

> 4. *...the rising cost of building materials has forced most developers to review their house prices upward in order to stay afloat...our mini bungalow in Teachers' and Broadcasters' villas housing estates, which sold at ₦4.5 million two years ago, is now at NGN6.5 million (Honeywell Gardens developer, 2022)*

Table 1-10: Survey of changes in some building materials price (Adapted from Ayeyemi, 2022; Gbonegun, 2021)

Materials	Price			
	Nigerian Tribune		The Guardian	
	Unspecified	2022	April 2021	September 2021
Granite	₦140,000/30 tons	₦320,000/30 tons		
50kg bag of cement	₦2,500	₦4,500		₦3,900-4,000
Iron rod	₦90,000/ton	₦385,000/ton	₦260,000/ton (12mm, 16mm)	₦415,000/ton
			₦355,000/ton (10mm, 25mm, 20mm)	₦425,000/ton
			₦355,000/ton (8mm)	₦420,000/ton
Long span aluminium roofing sheet (4.5 inches)	₦850/metre	₦2,850/metre		

The fact that the National Housing Policy (NHP) includes a commitment to encourage research and harness local materials and technologies indicates that housing development has relied chiefly on imported building materials with negative consequences on housing development. Although housing delivery efforts have been inhibited by prohibitive costs of building materials, addressing the challenge does not necessarily involve resorting to the use of locally available materials without due consideration of the applicable initiative, the cost of processing, and the sustainability of the local materials. Consequently, it became necessary to encourage local production and the research and development of appropriate local materials and technologies through the establishment of Nigerian Building and Road Research and Development Institute and the Building Materials Producers Association of Nigeria (BUMPAN). The BUMPAN would promote the production of building materials and stimulate effective economic growth and development (FGN, 2012: 58; Uwaegbulam, Nwannekanma, & Gbonegun, 2019).

Although the establishment of the Nigerian Building and Road Research and Development Institute (NBRRI) dates back to 1978 (NBRRI, 2021), its role in research and development was reaffirmed as necessary for facilitating affordable housing in the NHP (FGN, 2012: 58). Hence, it is expected that through research, it will develop sustainable materials and technologies for local use. Consequently, NBRRI has recorded remarkable achievements; its activities have evolved some hardware technologies ranging from building materials like cement-stabilised earth blocks,

laminated bamboo panels for flooring, wall partitions, cladding and ceiling and local roofing sheets to some local material-making machines like manual brick-making machine, electrohydraulic brick-making machine and concrete block-making technology (see Figure 1-5) (NBRRI, 2021).

Figure 1-5: Some NBRRI's inventions (NBRRI, 2021)[11]

Furthermore, the policy encouraged establishing building materials testing laboratories by the private sector as an integrated approach to promoting robust and quality local materials development (Uwaegulam, Nwannekanma, and Gbonegun, 2019). In return, the government would provide the necessary enablement to encourage and support such enterprises. Such enablement will be expressed in the provision of incentives, tax reliefs, and generous capital allowance, alongside the provision of loans at reduced interest rates. Unfortunately, besides the fact that these have not been adhered to, there has been minimal support in providing matching grants that will accelerate the NBRRI's efforts; in addition, the government has failed

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[11] Figure 1-5 are some of the inventions of NBRRI. The top left and right are the laminated bamboo panel for flooring and cement stabilised earth block. The bottom left and right images are before and after construction of a moveable house. The moveable house comprises a structural steel base substructure, frame column and beams, walling, door and windows as the superstructure, with the frame made of column and frames from metal sheets formed into U section that receives the blocks in groves and tie the structure together. The walling material consist of interlocking cement stabilised earth blocks made with laterite stabilised with 5-10% cement and compressed in a machine.

to utilise local materials in public projects leading to the continuous patronage of imported materials (Ibid).

Expectedly, local production of building materials has not sufficiently scaled to an appreciable level that can compete with imported materials; the industry is bedevilled with very few investments due to the high initial capital outlay in setting up factories, stricter licensing rules, high cost of finance, inadequate incentives, the high number of intermediaries, and inadequate infrastructural facilities (Eboh, 2021; Mojekwu, Idowu, & Sode, 2013: 364; Uwaegbulam et al., 2019). The market is, therefore, oligopolistic, with a few major players in the industry. For instance, the cement industry in Nigeria has three major competitors with a total production capacity of 47.8 million tonnes (see Table 1-11). The limited number of players is often cited as one of the causes of the rising cement price; hence it is reasoned that loosening the licensing rules will attract new entrants and trigger healthy competition that is necessary for a more stabilised market (Eboh, 2021; Uwaegbulam, Nwannekanma, and Gbonegun, 2019).

Table 1-11: Local cement production capacity (Adapted from (Adekoya, 2020; Eboh, 2021; Etim, Babaremu, Lazarus, & Omole, 2021: 5)

Producer	Installed capacity (Metric tonne)
Dangote	29.3 million
Lafarge Africa	10.5 million
BUA group	8.4 million

Furthermore, local cement production is only partially local in the strict sense of the word because gypsum, which is one of the cement's components is imported (Mojekwu et al., 2013: 360). The same applies to steel, which is a significant component of housing in Nigeria; local steel production is not impressive (2.2 million tonnes per annum) despite the number of local players that are involved (30 steel manufacturers) and the amount of public resources invested in revamping the sector (Adekoya, 2019; Ewepu, 2020; Yahaya, 2022). Besides, the industry relies on the importation of raw materials at a 15% duty rate (Adekoya, 2019). The country is said to be spending an average of $3.3 billion importing metals annually (Ewepu, 2020). The combined effect of these and the poor macroeconomic environment and policies on local production have negative consequences for affordable housing (Ajayi, 2019: 234; Olajide Olorunnisola, 2019: 59).

In light of these challenges, the cement-based model has proved to be both unaffordable and unsustainable and there is need for the use of innovative approaches in the housing system. Therefore, addressing the problem of housing, with regards to construction material and technology, will require more than just research and development of local and alternative materials and local production to achieve affordable housing development. Assuming the government increases support for research into local and alternative technologies, local production will still be hindered by the poor business environment, lack of constant electricity, inflation and exchange rates. Therefore, interventions that will enhance and empower the local building materials sector should be holistic so that whatever savings that are made from import leakages will not be lost by other impediments in the business environment. An integrated approach will ensure that all aspects or sources of the challenges to local building materials are taken care of while supporting workforce development to augment local materials development.

1.6 Summary and Conclusion

As a foundation for achieving the objectives of this research, this chapter aimed to understand the housing system and its effect on private-driven affordable housing in Nigeria. Therefore, by reviewing the literature on past housing programmes, current practices and the investment environment, the chapter concludes that:

1. The present housing system or framework is built upon the faulty structure of the past housing programmes and is expressed in the poor legal framework, administrative bottlenecks, poor implementation and monitoring mechanisms;
2. The poor investment environment and the non-implementation of the enabling strategies have combined to negatively affect the availability of construction resources with severe repercussions on affordable housing development.

Evidently, the historical structure, mistakes and challenges have been passed on to the present housing system; therefore, an adequate response to the present challenges will involve some structural changes. First, considering that government's resources are constrained and the housing policy runs on a private-driven effort, a centralised system of planning in which housing decisions were arbitrarily taken to

satisfy political interests can no longer be sustained. Both Singaporean and Viennese experience has shown how housing can be used as a tool for addressing societal problems; this means that the primary concern of the government as a facilitator of housing should be to understand what aspect of societal challenges can be addressed through housing and then to design good policies that will make them happen.

The provision of a conducive business environment that will govern and support socio-economic relations in the supply and demand for housing should be the government prerogative; hence, understanding some attributes of the housing market is imperative for designing a functional market atmosphere that will nurture and support the supply and demand for housing. Every housing market is characterised by demand, supply and the legal and structural framework that facilitates the exchange of goods and services within it; while the demand side deals with the consumers' profile, which describes the market need and the capacity for effective demand necessary for sustainable supply of housing, the supply side deals with the factors that can affect investment and the capacity to meet the housing demand.

The increasing number of the urban population of Nigeria would generally signify increased need for housing, however, the fact that a greater proportion of this population is on low income means that the demand side of the market is incapable of triggering and sustaining investment in affordable housing. Since the need for affordable housing is huge, it signifies an investment opportunity that can be harnessed by addressing the challenges of demand. Consequently, poor demand capacity has resulted in low investment in affordable housing with a visibly lopsided investment in its higher-income counterpart. Since the primary interest of investors is to make turnover and profit, the government should through its sound policies address those market challenges in order to encourage investment in affordable housing.

The supply of housing is influenced by the legislative and institutional structures, including macroeconomic policies that govern the housing market. Macroeconomic policies are intended to sustain economic growth; these instruments aim to maintain the internal and external value of the currency and prevent high and volatile inflation, which is unhealthy for the market. When the macroeconomic policies are poorly designed they trigger higher exchange rate, interest rates, import duties, taxes with

serious implications for housing development. The consequence is even worse for a country that has significant foreign relations and is highly dependent on imported materials. It is, therefore the responsibility of any government to ensure that its policies result in the realisation of equilibrium of the market forces.

The bane of affordable housing development is the high cost of the resources, which is directly linked to the legal and institutional framework; land is governed by the LUA, which constrains the land registration process resulting in both delays and unreliable land registration document militating housing development. On the other hand, building materials cost is constrained by inefficiencies of the institutional framework; the policy commits to addressing the challenges of the high cost of materials through research and development of local and alternative technologies in order to reduce dependence on imported technologies, however, poor enabling actions of the government and poor macroeconomic policies have resulted in the underperformance of these institutions while fuelling a continued dependence on imported materials with serious consequences on housing development

Finally, housing adds value to the economy and largely depends on input from the upstream sector, which means that any changes in the upstream sector have direct consequences on housing. It is obvious that despite not being directly involved in the provision of housing, the government's responsibility as a facilitator is enormous. By understanding aspects of societal problems that may be addressed through housing, the government can begin by directing policies to their advantage. Furthermore, in order to discover the potential of the housing industry, it is necessary for the government to demonstrate that it can encourage and support private housing development through sound macroeconomic policies; hence by maintaining low inflation, low-interest rates and stable exchange rates, it can encourage wider private participation in housing development.

2 Affordable Housing and Policy Context

It was obvious in Chapter one that the features of the past housing provision in Nigeria are much visible in the current housing system despite the difference in approaches of the two housing eras. Expanding further on this analysis, this chapter, provides a description of the concept of affordable housing in Nigeria in the policy context and analyses the framework and strategies designed for the realisation. The discussion in this chapter also provides a basis for understanding whether the government has effectively translated its housing objectives to implementation strategies and will form the analytical framework for empirical data interpretation (See Chapter 4). The discussion is divided into six main sections; sections 2.2 and 2.3 provide an overview of the National Housing Policy (NHP), and the basic strategies and framework for enabling affordable housing provision through the private sector. The rest of the sections of this Chapter provides a discussion on affordable housing in the research context, the affordability and the challenges, including the fundamentals of affordable housing to help direct inquiry for assessing the effectiveness of government's strategies and contributions to affordable housing.

2.1 Enabling Shelter Approach

Before the introduction of the concept of the "enabling approach to housing" governments played a dominant role in formulating and implementing housing policies and strategies, and in the production and allocation of housing (UN-Habitat, 2012: 1). However, the poor performance of governments as housing providers, and the need to integrate both users' need and input in providing housing that works for all (Hassan, 2011: 422) necessitated the introduction of the enabling shelter approach in 1998. Consequently, the adoption of the Global Shelter Strategy (GSS) introduced a new framework for facilitating adequate shelter for all in the year 2000. As the best approach to supply housing for all, the enabling approach addresses the housing system and not just the projects (ibid), therefore, it implies that the role of government in housing is to provide an environment and the supporting framework, which enable the market to work effectively and also enable other actors in the housing process to fulfil their own potential and optimise their own contributions to housing development (UN-Habitat, 2012: 3). Therefore, an appropriate indicator for assessing the

effectiveness of government's enabling responsibilities is that housing policies and framework enable other actors to fulfil their potential and their contribution in housing development.

In 2008, the UN-Habitat expressed that the United Nations Housing Rights Programme (UNHRP) development objective is to assist states and other stakeholders in ensuring the realisation of the rights to adequate housing in line with the features outlined in the international instruments (Hassan, 2011: 422). Many governments worldwide have adopted the enabling approach with varied success, and there is no doubt that the enabling approach has also become a dominant model in international advice on strategies for housing (ibid). However, the government's failure to realise housing for all in the past left a huge gap in affordable housing in Nigeria, and it coincided with the period of the adoption of the GSS, which together with the economic downturn (See section 1.2.2), triggered a change in the approach to housing in Nigeria. Therefore, recognising that the resources available to the private sector can also be harnessed to advance housing, subsequent policies from 1991 were built within the framework of neoliberalism to promote the growth of private institutions to partner with the government in the provision of low-income houses (Jambol et al., 2013: 291).

Under the enabling private-driven approach to housing, government direct provision of housing was drastically reduced to policymaking and the provision of enabling framework to facilitate housing. By limiting their role in housing in this fashion, the government would be committed to devoting its resources to providing the legal, regulatory, and funding framework and the necessary support that will guarantee effective participation of the private sector (UN-Habitat, 2012: 3). Generally, to assist governments in this facilitative role in housing, the UN-Habitat (2012: 4-5) and Hassan (2011: 422) listed areas where their intervention should focus. They include:

- Enabling the housing market by setting up the regulatory framework, reforming government institutions to focus on different goal;
- Ensuring the availability of the components of housing supply such as land, infrastructure, labour, building materials through technical assistance and training;

- Enable several mechanisms of housing finance and land;
- Involving all actors in the process, accepting informal sector as partner

Therefore, getting the framework right requires the government to thoroughly understand how the housing sector is structured and how it functions so as to design appropriate strategies that will support the market. As a guide for policymakers, the UN-Habitat (2012: 6) described the integrated nature of the housing market and how the variables interact and influence each other (see Figure 2-1). Hence, understanding that the trend in any one of the three segments - inputs, production, and demand affect the performance of the other two commits the government to formulate effective strategies for managing these relationships. Thus, government intervention is required to address high demand for affordable housing from the low-income group or prevent scarcity of housing, which arises from a failed market. Effective enabling strategies address market failures and improve the functioning of the housing sector. The indicator that the government is getting it right is that these strategies serve the interest of the stakeholders in the housing sector- consumers, producers, financiers, as well as the central and local governments (UN-Habitat, 2012: 7). Figure 2-2 also shows the relationship between the housing sector and government policies and strategies, and serves as a guide for the government for designing the housing framework and for predicting its effect on housing programmes.
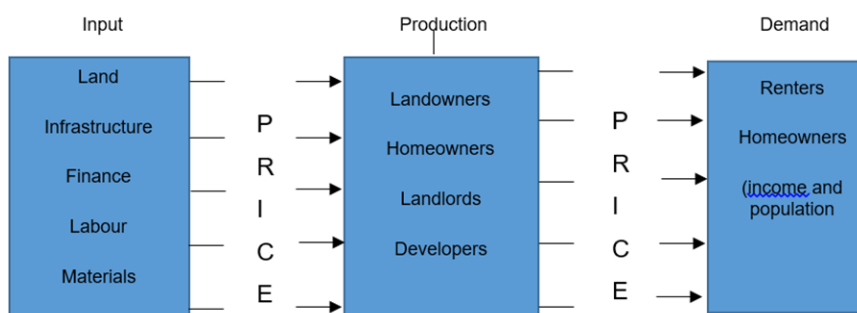
Figure 2-1: How the housing market works (UN -Habitat, 2012: 6)

The discussions in the following sections provide the basis for assessing government understanding of the housing sector and the appropriateness of its policies and strategies to support private investment.

The figure contains the following label definitions:

Housing policies and strategies	formulated and implemented by governments at all levels impact directly on housing demand, housing supply and housing outcomes
Housing demand	is determined by demographic conditions, e.g., the rate of urbanization, new household formation, household incomes
Housing supply	is affected by the availability of inputs and resources, e.g., land; infrastructure; building materials; labour; finance
Housing outcomes	include prices, physical conditions, levels of investment, tenure choice, residential mobility.
Socio-economic impacts	health and well-being; income levels; savings rates; capital formation.

Figure 2-2: A model of the housing sector (UN-Habitat, 2012: 7)

2.2 The 2012 Housing Policy at a Glance

The role of the government in enabled private-driven housing is to make policies and design an operational framework that will support the activities of stakeholders in the provision of housing that is adequate for the citizens (UN-Habitat, 2012: 3). Housing policy contains the actions of the government, including legislation and programme delivery on fulfilling the right to adequate housing (COH, 2021). These actions impact on housing supply and availability, housing standards and urban delivery. They also impact house prices and affordability and can result in an investment in social housing as well as encourage the private sector to operate and build more housing (ibid). The foregoing presupposes an adequate understanding of the housing needs, good knowledge of the market and how it works, to effectively design policies that are appropriate and enabling (See section 2.1). This section analyses the 2012 National Housing Policy (NHP) in order to understand government's intentions and plans for achieving them. Hence, it is logical to assume that the 2012 NHP represents government's understanding of the housing situation and the plans for addressing it.

The goal of the 2012 National Housing Policy (NHP) is to ensure that all Nigerians own or have access to decent, safe, and sanitary housing in a healthy environment with infrastructural services at affordable cost, with secure tenure (FGN, 2012: 39). Therefore, the policy thrust is to achieve this goal by encouraging active participation of the three tiers[12] of government in housing delivery and to provide the enabling environment for private investment in housing, which highlights a facilitative kind of housing policy that is similar to previous policies since 1991. Several objectives of the policies, which is shown in Table 2-1 indicate what and how the government intends to facilitate private housing efforts within the existing framework.

Table 2-1 implication of policy objectives

Objectives	Implication
Develop an efficient land administration system to make land ownership available, accessible, secure and easily transferable at an affordable price	This implies that the government appreciates that land is crucial to affordable housing and that its administration already poses several challenges to housing
Provide adequate and affordable housing finance to all Nigerians by developing efficient primary and secondary mortgage markets	Given the reality that homeownership is not feasible with savings, and the pervading low disposable income, a robust mortgage which include developing primary and secondary markets to provide sustainable funding for various housing needs is considered vital to promoting access to housing.
Reduce the cost of production of houses by developing and promoting appropriate designs, use of materials and production technologies in the housing sector	In order to make housing more affordable, the cost of production or inputs has to be reduced through strategies that are targeted at those cost related inputs like materials, finance, designs and technologies, this is in line with the enabling philosophy.
Improve the quality of rural infrastructure and its environment	The development of rural infrastructure will provide a good location for housing, reducing the cost of development for developers who might be driven to develop housing in remote location because of affordability challenges

Therefore, the policy objectives focus on making affordable and available, those resources for housing provision, depicting the significant role they play in realising affordable housing; they also highlight the challenges that these resources can present to housing provision. To realise these objectives, the policy expressed in concrete terms some institutional, legal and regulatory provisions that will drive affordable housing resources. The goal is, therefore, to reduce the cost of development to investors and, therefore stimulate affordable housing delivery and to improve access

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[12] The three tiers of government in Nigeria are the Federal Government, the State Government, and the Local Government

to housing. Consequently, the policy statements and strategies for delivering affordable resources are identified in the following sections.

2.2.1 Policy on Land

The policy recognises that land is a basic requirement for housing delivery and constitutes a greater proportion of the overall housing cost. It affirms that the problems associated with the acquisition of land for housing are availability, accessibility, and ownership rights, and links these to the Land Use Act (LUA). Therefore, the cost of acquisition of land and registration, including the infrastructural provisions are significant cost components of land, which are the focus of the policy. Hence, the goal of the policy is to make serviced land with secure tenure easily available, transferable and affordable through the following objectives:

- Amending the Land Use Act (LUA) or enacting supplementary legislations to facilitate the effective and efficient implementation of the LUA;
- Facilitating the availability of serviced land;
- Ensuring secure tenure of land;
- Strengthening and co-ordinating land registries at all tiers of government to adopt robust and dynamic land information system;
- Maintain proper record of land transactions by established land registries etc.

Therefore, all three tiers of government should commit to the following strategies:

- Develop an effective land registration system that is clear and will simplify existing land procedures for an effective title and consent delivery;
- Provide land for the delivery of affordable housing;
- Excise LUA from the constitution;
- Improve land mapping, planning and documentation;
- Establish a National Land Commission (NLC) to collaborate and provide technical assistance to states and local governments to undertake land cadastral nationwide etc.

2.2.2 Policy on Financing and Funding

The goal of the policy on housing finance is to facilitate a large pool of long-term funding for the provision and acquisition of housing units. This is against the backdrop of the huge financial commitment involved in housing and the low income capacity of the target end-users. Hence, by examining the past housing finance framework and its challenges, the policy commits to the development of an effective housing finance mechanism that will address the issue of affordability, ease of access to finance, and viability for financial institutions and developers. Therefore, the government will commit to mobilising domestic and international resources to expand the housing finance sector and the general objectives include to:

- Develop specific programmes that would finance no-income, low-income and medium-income housing (FGN, 2012: 54);
- Provide guarantees to support private sector participation in housing finance;
- Encourage financial innovations that would facilitate the provision of funds for housing on a financially viable basis;
- Use government guarantees to support private sector participation in housing finance.

Hence, the strategies designed to realise these objectives focused on strengthening the National Housing Fund Scheme (NHFS) by expanding the contribution base, the recapitalisation of the Federal Mortgage Bank by enforcing the financial contributions of the appropriate institutions and ensuring that the Ministries Departments and Agencies (MDAs) deduct the employees' contribution to the fund; establish a secondary mortgage market to enable the PMIs, promote the Real Estate Investment Trust Fund (REITF), enable laws that will encourage lenders e.g. Foreclosure and uniform underwriting standards. Furthermore, the strategy will continue to sustain the mandatory contribution to the NHF and ensure that all workers at both private and public sector engagement earning the national minimum wage should contribute 2.5% of their monthly income to the fund, which should also make them eligible to access fund for their housing need. Although the tone of the policy indicated the intention to improve access to finance or housing for the low to middle income, the strategies excluded those not in formal employment.

2.2.3 Policy on Construction Materials and Technology

The policy revealed a major impediment to the provision of housing in Nigeria, which is, that the supply of material is not substantial since it reflects a strong dependence on imported materials. Hence, to improve affordable housing delivery, a sustainable supply of building materials and the appropriate labour should be guaranteed. The policy thrust was to discourage dependence in imported materials along with the limitations associated with it and to encourage local production and supply, including the development of appropriate skill for their use. The goal of the policy on this subject was, therefore, to achieve sufficiency in the production of basic building materials from local sources with a view to stimulating effective economic growth and development, and also to have a structured manpower development that matches both local and international need.

Hence, the objectives of the policy include the promotion of research and development of appropriate design and technology, and to promote local production. The strategies to fulfil the objectives obligate the government to pursue actions that encourage research and local production through appropriate enabling actions and support; hence, the following:

- Adopt functional design standards that will facilitate cost reduction, while preserving the cultural peculiarities of potential users;
- Expand and improve manufacturing base of building materials production and existing industries producing building materials;
- Provide incentives like tax relief, generous capital allowance to private sector to encourage the production of local materials;
- Provide grants and investment into research;
- Provide loans at reduced interest rates to manufacturers;
- Strengthen the Building Materials Producers Association of Nigeria (BUMPAN) as a foundation for the development of robust small and medium industries for the production of building materials;
- Restructure and adequately fund the Nigerian Building and Road Research Institute (NBRRI);

- Encourage the establishment of building materials testing lab by the private sector.

2.2.4 The Concept of Social Housing in the Policy Context

The introduction of the concept of social housing in the 2012 policy differentiates it from the previous policies. It signifies that the government appreciates the magnitude of the housing challenges to be concentrated on the low income segment of the society, that social housing can be used as a tool for promoting a balanced society and can be a sustainable means of reducing the housing deficit. Hence, according to the policy, social housing will respond to the housing needs of those within the no-income, low-income and lower-medium-income groups who are categorised as shown in Table 2-2.

Table 2-2: Income categorisation and equivalent in terms of the National Minimum Wage (NMW), adapted from FGN (2012: 66)

Income category	Earning capacity	Earning capacity in terms of the NMW of ₦30,000
No-income	25% of the NMW	₦7,500 equal to ₦90,000per annum
Low-income	More than 25% of NMW but less than the NMW	From ₦7,600 to ₦30,000 per month equal to a maximum of ₦360,000 per annum
Low-middle-income	More than the NMW but no more than four times the NMW	From ₦31,000 to ₦120,000 per month, equal to a maximum of ₦1,440,000 per annum

To appreciate the implication of the government's target population on social housing, the NBS (2020: 5) and other estimates are used as a benchmark to work out the proportion of the population that is in need. Therefore, it is safe to assume that a conservative estimate of 50%[13] of the population need social housing. Hence, the policy goal is that the government will use social housing to demonstrate its social responsibility to a vast majority of the population who cannot afford housing, and reduce on a sustainable basis the housing deficit of 17 million units. The strategies listed in the 2012 policy for achieving this include the government to:

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[13] The National Bureau of Statistics (NBS) report estimated that 40.1% of the Nigerian population lives below the poverty line of ₦137, 430/annum (NBS, 2021: 5). It is, therefore safe to assume that those with no income in $(₦7,500 \times months = ₦90,000)$ as shown in Table 2-2 are expected to fall under this percentage, leaving the rest of those earning between ₦ 7,600 and ₦120,000 unaccounted for.

- Encourage public-private partnerships (PPP), Public-Public partnerships (Pb-Pb-P);

- Embark on building in stages, slum upgrading, rental, ownership, and co-ownership housing schemes;

- Use planning approval to mandate private developers and government to set aside specific percentage of their development to social housing;

- Donate land specifically for social housing;

- Encourage sufficiently long-term mortgage repayment period to improve access to mortgage;

- Encourage different private sector groups like the NGOs to build social housing estates with incentives;

- Promote the promotion and the use of co-operative societies and organised labour groups for meeting the housing needs of this group;

- Complete abandoned programmes by past governments and its agencies.

2.3 Operational Framework for Housing in Nigeria

5. *"…the physical construction and provision of houses and their disposal shall be private sector-driven with Government creating and sustaining the enabling environment. In this connection the Ministry shall be a purely Policy Ministry and shall not take part in physical construction of houses…" (FGN, 2012: 22)*

In line with the policy provisions, the framework for the implementation of housing provision in Nigeria is made up of an institutional framework that comprises public and private sector institutions; and regulated by a legal frame work- the Land Use Act (Makinde, 2014: 52). The main public sector institutions involved in housing consist of government ministries/departments that provide the regulatory and administrative functions, consequently, the players in the housing delivery are represented in Table 2-3. Specifically, the framework for housing is structured to facilitate private investment in housing through a tripartite arrangement; this requires the private developers to develop houses on land that is provided by the government using subsidised development funding from the National Housing Fund (NHF) (see Figure 2-3).
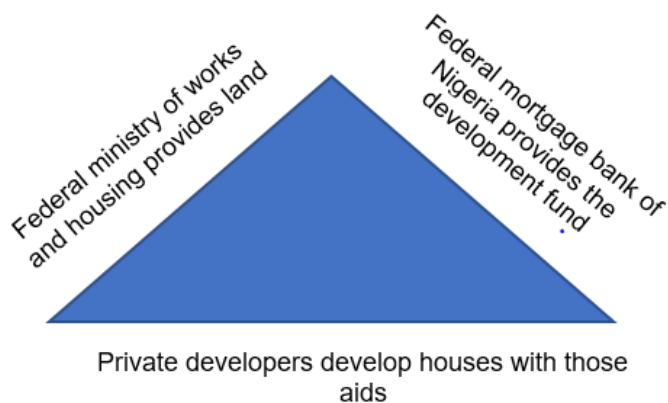
Figure 2-3: Tripartite arrangement of housing framework

Table 2-3: Key players in the housing delivery, adapted from Makinde (2014: 53)

Regulators	Financial institutions	Developers
Central Bank of Nigeria is the apex regulatory authority of the financial system	Federal Mortgage Bank of Nigeria	Federal Housing Authority
Federal Ministry of Works and Housing	Primary Mortgage Institutions	State Housing Corporations
Federal and State Ministry of Works and Housing	Commercial banks	State Ministries of Land an Housing
		Real Estate Developers

2.3.1 Federal Ministry of Works and Housing

The function of the Federal Ministry of Works and Housing (FMWH), apart from formulating and implementing the policies, programmes, and projects of the Federal Government of Nigeria (FGN) with respect to road transport, highways construction, and rehabilitation, is to provide affordable housing for Nigerians (FMWH, 2020). The ministry specifically performs its role in the provision of affordable housing through a tripartite arrangement. The ministry spearheads the provision of housing in Nigeria in line with the National Housing Policy (NHP) goal; hence, through different agencies and departments, it provides land and facilitates the funding of affordable housing. A detailed arrangement of how the ministry links with other institutions to facilitate affordable housing is shown in Figure 2-4. The figure specifically represents the Ministerial pilot housing scheme (MPHS) (See section 2.3.2), which is one of the

government's schemes for implementing the policy statement of providing land for affordable housing provision to private developers (See Section 2.2.4). Details of how the ministry facilitates this scheme are provided in Section 2.3.2, and an example of the scheme (MPHS) that was implemented under such arrangement is the 102 housing units in Suleja, Abuja where the ministry provided the land and the funding was provided by the FMBN to private developers for actual construction (Suleiman, 2015).

2.3.2 Federal mortgage Bank of Nigeria

The Federal Mortgage Bank of Nigeria (FMBN) is the apex mortgage bank of the country with the broad mandate to:

- Link the capital market with the housing markets;
- Encourage the emergence and promote the growth of viable primary mortgage loan originators to serve the needs of housing delivery in Nigeria;
- Mobilise domestic and foreign funds into the housing sector;
- Collect, manage and administer the National Housing Fund (NHF) in accordance with the provisions of the NHF Act 3 of 1992 (Dangiwa, 2020; Makinde, 2014: 53).
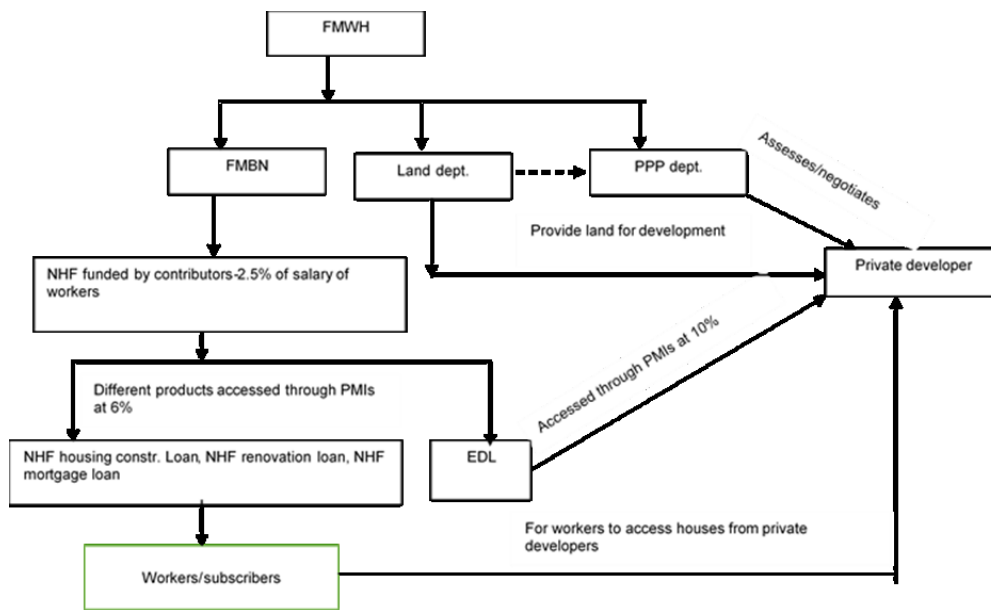
Figure 2-4: Detailed housing development arrangement

As discussed in Section 1.3.1, the FMBN manages the NHF, which is a social saving scheme that mobilises long-term funds from Nigerian workers, banks, insurance company and the government. The NHF was established in 1992 to address the housing finance challenges in the low-income sector, and the different products established to fulfil this mandate are represented in

Table 2-4. Access to the different products is through the channels shown in Figure 2-5. All the loan products of the FMBN are accessed through the Primary Mortgage Banks (PMBs).The NHF mortgage loan, construction loan, home renovation loan, and rent-to-own loan are accessed directly by the NHF contributors through the PMBs (Figure 2-7) for self-construction, home renovation and rental housing. The contributors can access a loan of up to ₦15 million depending on affordability. Affordability is defined by monthly income and years in service, and the loan is usually fixed at a 6% interest rate over a period of 30 years while monthly repayment is one-third of monthly income. Applicants must contribute 10% equity for loans above N5 million. The loan is secured with the subject property and is accessed through PMBs.

Table 2-4: Different NHF products (Dangiwa, 2020)

Product	Purpose	Rate	Tenor	Beneficiary	Max. loan amount
NHF mortgage loan	mortgage finance	6%	up to 30 years	NHF contributors	N15m
Home renovation loan	renovation, expansion	6%	5 years	NHF contributors	N1m
NHF construction loan	personal home construction	7%	15 years	NHF contributors	N15m
Rent-to-own	rental to home ownership	9%	30 years	NHF contributors	N15m
Cooperative Housing Development Loan (CHDL)	construction finance + infrastructure	10%	24 months	Cooperative societies	N500m [first transaction]/N15m
Estate Development Loan (EDL)	construction finance + infrastructure	10%	24 months	Real estate developers	N500 [first transaction]
Ministerial Pilot Housing Scheme (MPHS)	PPP/construction financing + infrastructure	10%	24 months	Collaboration with federal ministry of works and housing	N500m [first transaction]
Bankable off-takers' guarantee	credit guarantee	0.5%	n/a	Developers	No limit

The Estate Development Loan (EDL) shown in Figure 2-5 was initially advanced to public and private developers for affordable housing development at 10% interest rate over a period of two years. However, the product accumulated bad debt due to misuse and its failure to assist genuine investors (Adenikinju, 2019: 26; Chime, 2016: 16); as a result, it was replaced with the cooperative housing development loan (CHDL). The CHDL model shown in Figure 2-6 allows the private developers to work in collaboration with both the informal and formal cooperative societies. It entrenches an inclusive feature that accommodates the informal sector, which was absent in the original EDL model; furthermore, it eliminates possible speculative demand associated with poor allocation mechanism, thus ensuring that target demand is made and that the exit to investment for developers is created. The dynamics of accessing the CHDL involves:
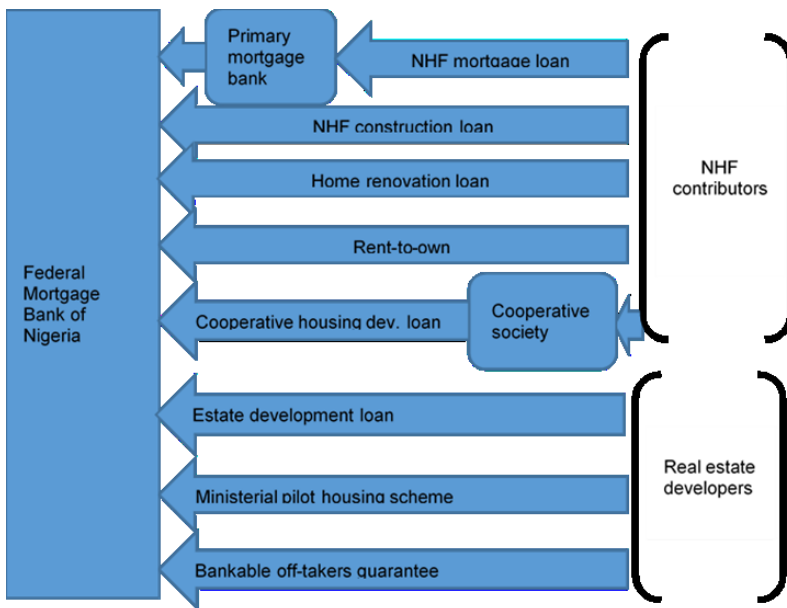
Figure 2-5: Loan application channels (Dangiwa, 2020)
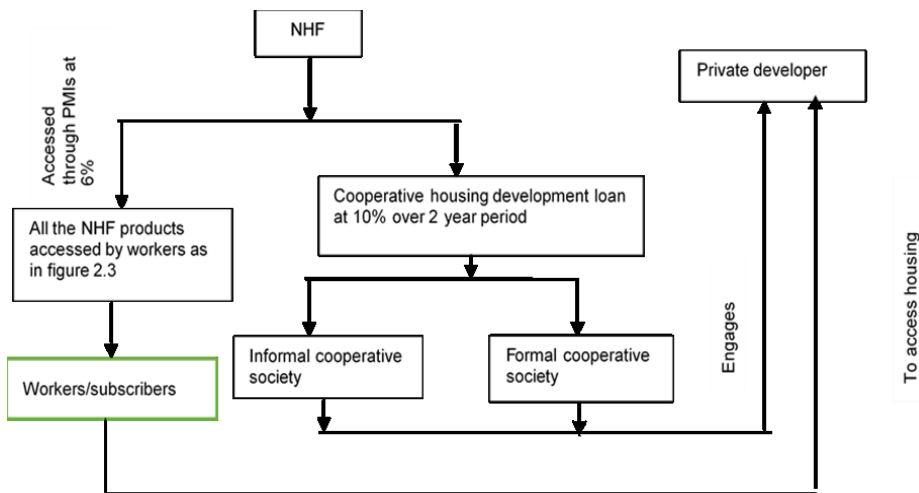
Figure 2-6: Dynamics involved in accessing the NHF loans

- The CHDL is accessed by the cooperative society in partnership with real estate developers;
- FMBN provides construction funding to developers appointed by the housing cooperative;

- FMBN processes NHF mortgage loans to cooperative members who are already NHF contributors;
- PMBs package loans for individual members of the housing cooperatives;
- Proceeds of NHF mortgage loans exit developer from the construction loan obligation to his lenders.
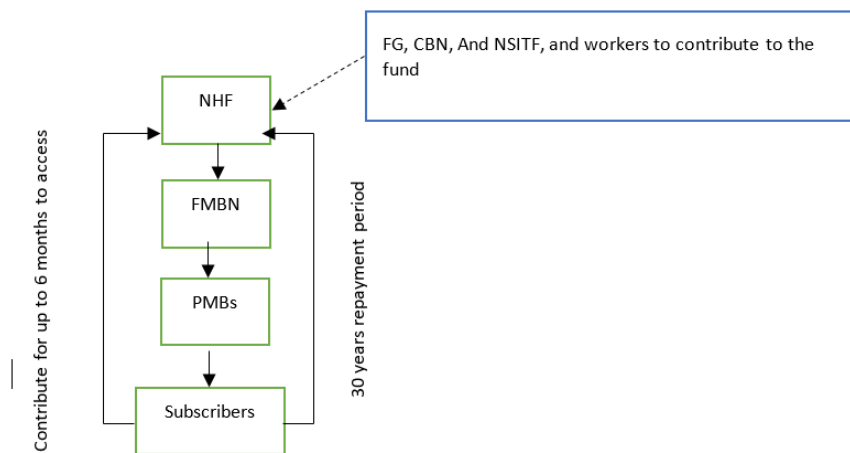
Figure 2-7: Structure and dynamics of accessing the NHF loan

This Ministerial pilot housing scheme (MPHS) product was developed as a public private partnership (PPP) with the FMWH to accelerate mass housing delivery in the six geopolitical zones[14] (Dangiwa, 2020). It involves the ministry to provide land and titles, while the FMBN provides mortgages to buyers and offers guarantees for developers to access construction funding from commercial banks (see Figure 2-8). The terms of the facility are similar to EDL, with the loan offered at 10% interest rate and a repayment period of 24 months (Dangiwa, 2020).

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[14] The six geopolitical zones are a type of administrative division grouping the Nigeria's States. The zones were not entirely carved out based on geographic location but rather States with similar ethnic group or common political history were classified in the same group. These zones are South East, South South, South West, North Central, North East, North West.
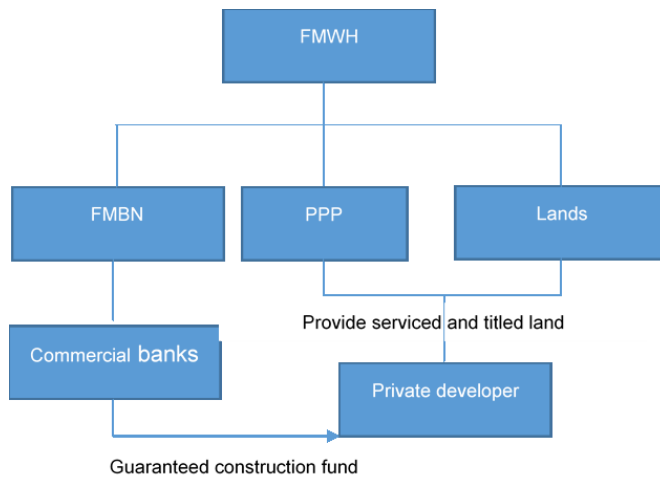
Figure 2-8: Ministerial pilot housing scheme funding model

2.3.3 Family Homes Fund

The FHF is a quasi-public sector institution established in 2017 to provide funds for affordable housing for the low income earners (FHF, 2019). The fund provides different products for various purposes as shown in Table 2-5.

Table 2-5: Functions of the FHF products, adapted from FHF website

Type of fund	Accessed by	Purpose of the fund
Land and infrastructure development fund	Government agencies with landholding for development in the cities	To provide infrastructure and services on land for the development of affordable housing in accessible locations
Rental housing fund	Very low-income earners	For very low-income earners who cannot own a house. The fund is provided for rental purposes with the option to buy off the house at a discount if their finances improve
Affordable housing fund	Public/ private sector developers	For the construction of affordable housing, and associated infrastructure development, including estate road, water, sewage, and external works.
Help to own fund[15]	Low to medium-income earners (earning between 500,000 and 1.7 million naira a year)	To help them buy a home

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[15] The dynamics of Help-to-own fund is that the FHF contributes 40% of the total cost of new homes for low-middle income individuals and requires no payment in the first five years. Afterwards, monthly payments are made starting from an interest rate of 3% and rising gradually to a maximum of 15% in the 20th year (see Figure 2-9).
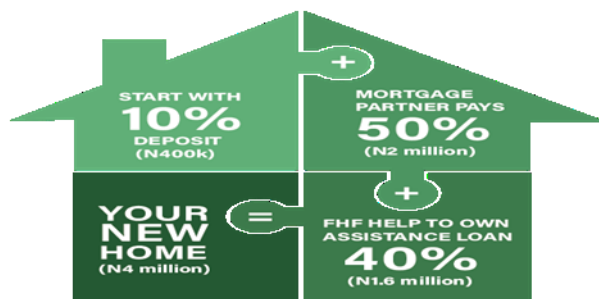
Figure 2-9: How 'help-to-own' works (FHF, 2019)

More recently, the CBN has approved the sum of ₦ 200 billion (US$ 486.7 million) under the National Social Housing Programme (NSHP) (CAHF, 2021: 195). This programme is the housing component of the President Buhari's Economic Sustainability Plan (ESP) aimed at delivering affordable housing and millions of jobs. The programme is targeted specifically at the low-income class and the FHF will implement the scheme. As part of the transaction scheme, the FHF is the loan obligor, and will work with the private sector to provide loans at a subsidised lending rate of up to 5% per annum over a three-year repayment period (Adegboyega, 2020; REALL & CAHF, 2020: 11). The loan will also be guaranteed by the Federal Ministry of Finance (FMF) (REALL & CAHF, 2020: 11).The transaction will provide opportunity for the local manufacturers and building materials entrepreneurs and professionals to provide more cost effective supply of materials and finishing for the projects. The aim is to reduce the cost associated with importation of materials by ensuring up 90% local inputs into the project delivery (Adegboyega, 2020). Hence, the fund will be accessed by micro, small and medium enterprises in the real estate value chain to bid for the development of 300,000 homes under the programme. Conversely, individuals or members of a cooperative society can access various types of homes ranging from one bedroom house (₦ 2,000,000), two bedroom house (₦2,750,000) and three bedroom house (₦3,500,000). Although the project is still underway, applications are now being received from interested potential homeowners. Under competitive qualification process, qualified applicants will contribute towards their homes while they await their delivery (FHF, 2019).

2.3.4 Private Sector Institutions

The private sector institutions with special role in facilitating affordable housing include the Real Estate Development Association of Nigeria (REDAN) and the Building Materials Producers Association of Nigeria (BUMPAN). With the emphasis on mass housing production, the REDAN was created in 2002 as a structure for organised private development activities (FGN, 2012: 24-25). Members of the association comprise not necessarily professionals but entrepreneurs who are willing to invest responsibly in housing; above all else, their main objective is to invest in housing in such a way that will encourage homeownership. Furthermore, their investment has to target the aim of meeting the critical housing needs of the various segments of the society (ibid). To ensure that the government enablement is effectively used, membership certification will be done by the FMWH, and this entitles members to be financially mobilised by the FMBN under the terms described in Table 2-4.

In order to facilitate affordable housing provision by the private developers by discouraging the importation of building materials, the BUMPAN was formally established in 2004 as an association of small and medium domestic producers of building materials. The objective was to lay a solid foundation for a robust, effective and economically viable small and medium scale industries for the production of building materials. Its activities would therefore facilitate the production of affordable houses, which would be within the reach of contributors to the National Housing Fund (FGN, 2012: 25). The government, in return provides incentives such as tax reliefs, generous capital allowance and loans at reduced interest rate to facilitate the manufacture and supply of affordable materials for construction (FGN, 2012: 58 & 59).

2.3.5 The Legal Framework

The Land Use Act of 1978 was originally intended to make land available and accessible for developmental purposes but its weakness have led to inefficient land management (Ghebru & Okumo, 2016: 6). The Act confers ownership of all lands on the State governors who grant the right of occupancy to the recipient. The right of occupancy is expressed with the endorsement of the Certificate of Occupancy (CoO). On the other hand, the local government grants customary right of occupancy on non-urban lands. It is also argued that these excessive powers given to both state and local

government is the bane of land administration in Nigeria since such powers allow them to arbitrarily confer or revoke the rights of land occupancy and to adjust or eliminate payable compensation leading to security problems in land ownership (Ibid).

Similarly, on account of the final approval to land registration being vested on the governor, the land registration system has been criticised as a lengthy and costly process (Makinde, 2014: 61; Moore, 2019: 214). According to Ghebru and Okumo's (2016: 12) report, land approval can take more than two years while the registration transaction is not effectively documented leading to unofficial costs that increase the overall land cost. This discourages land users from formalising their land rights. In recognition of this impediment, one of the inheritances of the civilian administration (2007 to 2010) from its predecessor was a backlog work on housing development with particular reference on land; consequently a seven point agenda was designed in which the fifth item dealt with land reform. Although land reform was an item in the agenda, it was disconnected from housing. Consequently, the committee on land reform was instituted to recommend changes for the optimisation of the LUA. Apart from amending the aspect of the Act that restricted the requirement of governor's consent to assignment, the committee's effort yielded less impressive outcome because the Act is a constitutional Act (FGN, 2012: 33-34).

2.4 The Concept of Affordable housing and Affordability in the Nigerian Context

The absence of a clear definition of affordable housing prevails in many countries; in the UK, it was used interchangeably with social housing to imply housing provided with public subsidies until a more specific definition distinguished social housing as requiring subsidies to deliver housing at sub-market rates (Wilson & Barton, 2022: 7). Regardless of the interchangeable use of both terms, the definition of affordable housing in Wilson and Barton (2022: 7) shows that it encompasses both social housing and a wide mix of housing intended to satisfy the housing needs of a wide range of low to middle-income classes in the following:

> [6.] *"...it typically encompasses not only social housing and low-income housing, but also financially assisted housing for middle-income households that find it difficult to purchase houses in the private speculative market" (Wilson and Barton, 2022: 7)*

The absence of a clear definition of affordable housing is not only applicable to the UK, because most countries in Europe reportedly have no formal or statutory definition of affordable housing. Although local interpretations and policy options are aimed at the delivery of housing that costs less than that provided by the market (Rosenfeld, 2017: 4); however, the absence of a precise and appropriate definition presupposes an absence of direction and targets in the supply of housing and can lead to challenges when trying to achieve specific outcomes (CIH, 2002). Notwithstanding this aberration, some countries like the Netherlands, Luxembourg, the Republic of Slovakia, USA and South Australia describe affordable housing in line with affordability as a ratio of the housing cost to the income of a household (PD&R, 2017; Rosenfeld, 2017: 9; SAHA, 2019) in which not more than 30% of the household income is spent on rent after taxes and subsidies.

The above definition interchanges affordable housing with the affordability of housing, and it does not give any clear direction for implementing supply targets necessary for meeting specific outcomes. However, it does indicate what proportion of household income, when committed to housing, is affordable (That is, a benchmark for assessing affordability). Generally, the UN-Habitat (2011b: 10) describes affordable housing as that which is adequate in quality and location and does not cost so much to prohibit its occupants from meeting other basic living costs or threaten their enjoyment of fundamental human rights. While this definition establishes the essential qualities of affordable housing (As a guide for supply), it also provides a benchmark for assessing affordability without affecting households' ability to meet other essential costs. In the next section, the discussion will focus on measuring affordability.

2.4.1 Measuring Housing Affordability

The cost of private sector housing of acceptable standards, when compared with the level and distribution of incomes, means that many households lack the resources necessary to effect a demand. Hence, without subsidised housing, they may fail to obtain housing of a decent standard (Wilson and Barton, 2022: 5). As a subsidised form of housing, affordable housing is erroneously taken to guarantee the housing

need of the low-income, but this is not the case as Stone (2010: 153) drew a line of demarcation in the following:

7. *"…In Britain and the United States, affordability is often expressed in terms of "affordable housing." But affordability is not a characteristic of housing—it is a relationship between housing and people. For some people, all housing is affordable, no matter how expensive it is; for others, no housing is affordable unless it is free" (Stone, 2010: 153).*

The foregoing expresses an essential consideration in the delivery of affordable housing (A mix of everything intended to meet different needs). However, in order to assess the affordability of housing for households, three measures are commonly used. Generally, the measures as described by the UN-Habitat (2011: 11) are associated with the housing cost component and the household income (Table 2-6). The house price-to-income ratio is calculated by dividing the median house income. high house price-to-income ratio signifies cost burden on housseholds and results from high land prices and construction costs (UN-Habitat, 2011: 12). Secondly, the house rent-to-income ratio is calculated by dividing the median annual rent by the median annual renter household income; both price-to-income ratio and rent-to-income ratio can be used to track housing affordability between or within countries over time.

Table 2-6 measuring housing affordability (Adopted from UN- Habitat, 2011: 12)

	Price-to-income ratio	Rent-to-income ratio	Housing-related expenditure as a % of income (Residual Income Approach RIA)
Measure	Median house price (median free market price of dwelling) divided by median household income	Median annual rent divided by median annual household income (median gross incomes of renter households)	Annual median household income divided by annual median housing expenditure (mortgage payments, rent, services, taxes, insurance etc.
Warning trend	Very high or rising ratios imply either that there is no effective housing market or that land is extremely scarce, which is generally attributed to regulatory inefficiencies or restrictions.	High values imply that supply is not keeping up with demand and affordability is poor. Low values mean controlled tenancies or a high proportion of public housing.	A high percentage indicates housing is negatively impacting meeting non-housing basic needs and the housing market is not functioning properly.
Significance	A key measure of housing affordability. Also generally regarded as the single indicator that gives the greatest amount of information about housing markets.	A key measure of housing affordability especially for low-income households who may be unable to purchase housing.	It can account for essential non-housing expenditures such as food, water, clothing, schooling, transport etc and the decisions households make regarding housing and non-housing expenditures.

Unlike the other two measures, the residual income assessment is represented as a percentage of household income spent on housing-related expenses; it shows the ability of a household to financially service housing without compromising on non-housing expenses (Ibid). Hence, housing is unaffordable if the residual income cannot meet other non-housing needs like food, health care, transportation, child care and other necessary expenses at some basic level (Herbert & Mc Cue, 2018). It is difficult to estimate what makes for basic consumption since this will differ with households' circumstances. Households with large numbers of children will generally have higher costs for food, healthcare and childcare and they will presumably cut back spending on other essential items if they spend more on housing. Furthermore, what accounts for basic level of consumption and the cost of basic level of consumption will vary with households and the size of the household (Kuma & Fabunmi, 2018: 102). M. E. Stone (2006b: 163) sees the residual income as the difference between housing costs and income rather than a percentage, however, a universally agreed benchmark of 30% is generally used to define the percentage of household income on housing (UN-Habitat, 2011a: 12) that will enable households meet other needs. This means that, housing related expenses (mortgage repayment for owner-occupiers, rent payments for tenants and direct operational expenses like taxes, insurance and service payments) are not more than 30% of a household income.

However, housing affordability is more complex than the use of house purchase price to household income to describe it; it is affected by many interacting variables, which policy must target (Figure 2-10). The figure shows that affordability is controlled by two main variables: capital (which includes house purchase cost) and occupation (which includes the cost of keeping or using the house). The ability to purchase a house is influenced by its purchase cost (made up of the cost of key inputs like land, infrastructure, finance, labour, material, and profit) and the ability to fund the purchase (determined by income capacity i.e., the ability to make down payment and service other costs). On the other hand, the ability to occupy and pay for the house is influenced by the material inputs (like land lease and rates, service cost and building maintenance) and finance inputs (like loan repayment period, interest rates, and household income – non-housing expenses) (UN-Habitat, 2011: 10). These variables will need to be kept within acceptable limits with sound policy and framework (ibid).
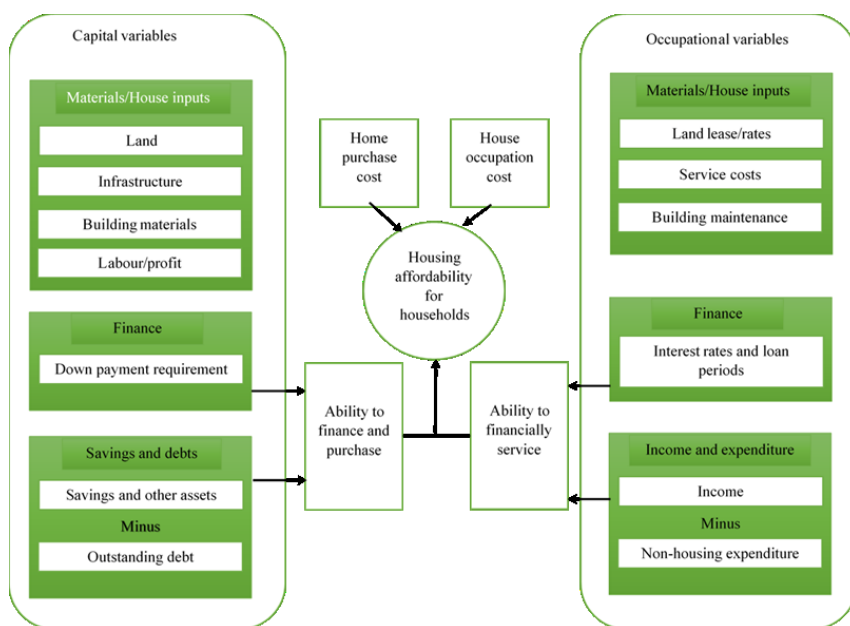
Figure 2-10: Basic components of housing affordability (UN-Habitat, 2011: 10)

The poor history of housing and the relative youth of affordable housing efforts in Nigeria make the definition of affordable housing difficult in the Nigerian context; however, an analysis of various indicators and the policy direction can help provide a working definition in the research context. The estimated housing deficit of 17 million units is said to be concentrated on families earning less than three times the minimum wage (Ajayi, 2019: 223; World bank, 2018: 3) and they constitute a large proportion of the urban population (CAHF, 2020: 8; World Bank, 2018: 3; Raschke, 2016: 6) who are subjected to poor living conditions because they cannot afford the available houses in the market. Secondly, the number of unoccupied houses is significant in the cities (Iruoma, 2021) indicating a housing supply effort that is tilted toward the high-income market (Raschke, 2016: 4). Generally, the supply of housing had always been private-driven, contributing to about 90% of the housing stock in the country (Makinde, 2014: 51). While the formal private sector supply caters largely for high-income housing, the dominant efforts of the informal sector cater for the supply of housing to all households that cannot be accommodated within the formal sector. (Adegun and Taiwo, 2011: 458).

Against the backdrop of the dominant private sector role in housing, the challenges to private investment, and the other factors that marred public provision of housing in the past, the NHP focuses among other goals, on the provision of social housing for the no-income, low-income and low middle-income; and enabling access to housing through various forms of assistance targeted at low-income households and housing suppliers like:

- Encouraging the formation of union groups and cooperative societies to enhance access to housing and funding;
- Improving access to mortgage by creating more affordable NHF products for end users and developers alike.

The direction of the policy strategies, some ongoing government's efforts in affordable housing, and the absence of a welfare system that bestows benefits on vulnerable citizens suggest a housing effort that is linked to meeting the housing need of low-income households that have steady and bankable income (Workers). Therefore, mindful of these indices, affordable housing in the context of this research is housing that meets the housing need of the low to middle-income households (with bankable income) in terms of location and quality, and in which the cost of housing (mortgage, rent) does not exceed 30% of their salary. In the subsequent sections, further analysis of affordability and possible affordability challenges will be made in the light of the existing government provisions, they will also guide the design of strategies that are appropriate.

2.5 Fundamentals of Affordable housing

The concept of affordable housing raises numerous questions and opinions that are varied. According to Bibby (2015), the failure to reach a consensus on affordability stems from the fact that it is governed by two realities; whereas one includes a subjective assessment of what a person can afford, the other focuses on the home and what type (tenure) of home it is. This description is similar to that of the UN-Habitat (2011: 10) which described affordable housing as that, which is adequate in quality and location and does not cost so much that it prohibits its occupants from meeting other basic living costs or threatens their enjoyment of basic human rights. In principle,

the elements (what a person can afford and the type of home) align with some fundamental questions that provide meaning and scope of affordable housing in any given context (M. E. Stone, 2006b: 153; Vale, Shamsuddin, Gray, & Bertumen, 2014: 22); they include:

- Affordable for whom?
- For how long will it be affordable?
- What is affordable? Is paying 30% of income an appropriate threshold for defining affordability for everyone?
- Who should be responsible for providing affordable housing-the government, private sector or non-profit organisations?
- How does affordable housing remain affordable?
- Should it look the same as market-rate housing- except that residents receive subsidies or should it be designed, sited, and built differently?

Linking affordable housing to these questions forces engagement with the ambiguities around it and offers an opportunity to sharpen operational definitions and methodologies that are useful for policy-making. Defining whom affordable housing is meant for triggers vital questions that help in planning and organising the resources for achieving a more targeted response (Mc-Kinsey, 2014: 16). Similarly, specifying the duration of affordability for affordable housing features in some policies as a more specific response to the provision of affordable housing through a planning system (CIH, 2002). In the UK, the planning system is used to facilitate the provision of affordable housing as a percentage of the housing units that are provided by private developers. In order to maximise profit, developers would set aside a percentage of their units to be sold initially at a discounted price and subsequently, at the market rate (Ibid). Hence, providing specific detail about the duration of affordability will help to ensure that private contributions under a planning system remain permanently affordable.

Several sources (Bibby, 2015; OECD, 2021: 2; PD&R, 2017) indicated that applying a threshold of 30% is not consistently meaningful across the income distribution, because unlike their high-income counterparts, a low-income household that is spending even 20% of their income on housing would be constrained from meeting

other basic needs. In this case, the question about how affordability can be achieved for the low-income will arise. Determining this, is a question of policy, strategies, and the prevailing circumstances, and can be resolved in different ways. First, identifying and supplanting the affordability gap for the low-income group through benefits will improve affordability (Perkins, 2022). Furthermore, public subsidies can be provided for the development of housing and finally, encouraging good mix of tenure will provide a wide range of housing options, which enhance access for the low-income (Bibby, 2015).

There are four recognised models for delivering affordable housing; they include consumer-led, incentivised private development, public-private partnerships, and public sector delivery (Mc Kinsey, 2014: 18). Depending on the goal being pursued and the prevailing circumstance, affordable housing can be delivered using any of or a combination of these models. While the provision of affordable housing has historically been the responsibility of the government, the government, in recent times, has shown an increased preference for engaging or forming partnerships with the private sector to deliver social services. However, despite the use of private resources for delivering social services, the government retains the sole responsibility to facilitate and provide the enablement necessary for their operation (See section 2.1).

In the UK for example, there is a wide range of engagement of the private sector in the delivery of different types of affordable housing, this has taken various forms depending on the goal being pursued. The Registered Social Landlords (RSL) or Housing Association (HA) is a group of private developers that are registered with and regulated by the Housing Corporation; they provide and manage affordable homes through public grants and private finance (CLG, 2006: 12). Furthermore, by using the S106 planning agreement, the local authorities facilitate the delivery of affordable housing through other private developers by granting conditional planning approval subject to the contribution of a percentage of their development to affordable housing (Monk et al., 2005: 1).

While the concept of a private-driven affordable housing provision in Nigeria dates to the 1991 policy, the implementation is relatively new. However, some programmes of the government that are aimed to boost affordable housing have involved the private

sector through public-private partnerships as seen in the Federal Integrated Staff Housing (FISH) programme, which was an inter-ministerial and public-private partnership project aimed at providing affordable housing for the federal civil servants across the country (FMARD, 2019). Furthermore, although not entirely successful, is the National Site and Service Scheme (NSSS) between 1999 and 2010 (FGN, 2012: 14; Table 1-2); and recently is the National Social Housing Programme (NSHP), which is intended to provide 300,000 housing units for the low-income through a public-private partnership arrangement.

2.5.1 Enhancing Affordability through Housing Mix and Tenures

Homeownership ranks high among the priorities of most households in Nigeria and takes up a huge proportion of their investment (Udechukwu, 2008: 182); however, housing for individual homeownership in the formal sector is not affordable (UN-Habitat, 2011: 27; Table 1-7). Therefore, households are left with the option of renting while, at the same time, saving whatever they can from their income to construct homes for themselves. Due to their low income, this may not be accomplished in their lifetime or may be poorly executed (UN-Habitat, 2011: 27). The financing options that households would generally defer to for their self-home construction are usually informal, comprising monthly savings from their income (usually insufficient) and traditional options like Esusu (an informal finance contribution system among a group of people in Nigeria) money lenders and social clubs. There are, however, formal financing options like the mortgage banks and the NHF construction loan but these are inaccessible and limited in the amount of loan they can offer due to low incomes and other conditions (See the analysis in section 2.6). This difficulty in homeownership flags up the need to pursue alternative and more flexible approaches to home ownership.

Despite the increasing difficulty in owning a home, several of the government's housing efforts focus on homeownership; for example, the government-provided affordable homes under the Federal Ministry of Works and Housing National Housing Programme (Table 1-8) is provided for ownership. The cost of these homes, when compared to the wages of workers is not an attractive option for those on a low-income. According to Bibby (2015); Mc Kinsey, (2016: 7 & 16), affordable housing

should be built on the principle of diversification of tenure, which increases access to housing by allowing for the provision of a range of affordable options that can suit households across all ranges of low-income. Apart from this, it is also an important element for securing better integration and a crossing of cultural and economic levels of society to build better homes (Vinicius de Freitas, 2016: 4). Affordable options manifest in those housing arrangements that will allow for gradual payments to be made, in other words, it includes a range of renting to semi-renting housing arrangements and government benefits or subsidies might be used to reduce the contribution of the recipients to a more affordable level (Quinn, Dickson-Gomez, McAuliffe, & Owczarzak, 2014: 468). Thus, there is a range of affordable housing options, and those in the UK are well-defined. They include social rented, affordable rented, intermediate housing (or intermediate rented), and shared ownership schemes (Bibby, 2015; CLG, 2006: 12).

- Social rented housing is provided by the Local Authorities (LA) and the Registered Social Landlords (RSLs) in the UK and rented well below the market level normally 50% to 60% below the market rate. They are made available only to households on the LA and RSL registers.
- Intermediate housing includes housing that is offered at a price below market rate but above those offered for social renting. In the UK, intermediate rented housing is offered to key workers who don't wish to buy (CLG, 2006: 10).
- Affordable rent was introduced in the UK to facilitate revenue for social housing in the absence of government subsidies. It allows social housing providers to charge up to 80% of the market rent level within a local area. This model replaced the grant supply subsidy for social housing with a revenue subsidy. It is aimed to maximise the delivery of social housing by making the best possible use of constrained subsidies. In other parts of Europe, the affordable rented option is meant to cover population groups on incomes that are not among the lowest such as those related to social housing (Rosenfeld, 2017: 13).
- Shared home ownership allows people to buy a share of a home (between 25% and 75%) and pay rent on the remaining share, this is useful for those who cannot afford the full mortgage on a property (CLG, 2006: 11). The household may buy

additional shares (stair casing) or may buy the final share (staircase out) upon the improvement of their financial circumstance.

2.5.2 Enhancing Affordability through Government Subsidies

Housing subsidies can work in different ways but they are intended to ease the cost burden of housing for the low income. As a policy tool, they are designed to make the cost of housing affordable for the low income end users. Housing subsidies can be directed towards the development of housing to subsidise the cost of inputs for the developer and to enable them deliver much more affordable units (UN-Habitat, 2009a: 24). On the other hand, they can be provided as vouchers or benefits or allowance to individuals who find it difficult to access housing on account of their poor financial circumstance (Perkins, 2022; Wilson & Barton, 2019b: 31). Housing developed with subsidies is very commonly referred to as subsidised housing, affordable housing, social housing, and public housing, they are usually associated with government programmes although they can also be run by non-governmental bodies too. When housing development benefit from government funding, it is expected that the units are set to a price affordable to the low income.

Housing subsidies for the development and operation of facilities that are targeted at the low income are popular in some countries, in England, grants were given to local authorities and housing associations, which allowed them to invest in new housing and the existing stock (UN-Habitat, 2009a: 24), in Vienna, these come in the form of the city's provision of land at an affordable cost and a loan that covers 35 to 40% of the project cost at an interest of 1%, which is repaid over a period of 35 years (Peteritas, 2013). Similarly, in Singapore, the government's ability to acquire land for public use has resulted to 90% state owned land, such that housing development benefits from the low cost of land (Fischer, 2021). Furthermore, the government provides the Housing Development Board (HDB) with annual grants from the budget to cover the deficit incurred for development, maintenance, and upgrading of estates (RICS, 2019: 57). In general, development subsidy can come as financial assistance to aid developers or as non-financial aids, they would generally be used to supplement or support capital and revenue finance.

While financial aids like loans and grants provide direct and indirect subsidies for capital for financing affordable housing, the non-financial aid comes as a measure to reduce the cost of land for new development (UN-Habitat, 2009a: 24). The direct loan subsidy is usually a direct payment provided at a sub-market rate of interest by the public sector while an indirect subsidy could be a public sector guaranteed loan provided by the private market; the guaranteeing of loan by the public sector reduces the cost of financing the loan through reduced interest rate (ibid). On the other hand, the non-financial subsidies could be in the form of reducing the cost of land for new development at sub-market (or even zero) prices as done in Vienna and Singapore or the provision of cheap or free land by private developers as a condition of planning rules that are set by governments (ibid). It can also include the provision of tax credits for developers to build affordable housing as done in the USA (Ortiz, 2020) or tax concession as done in France where developers are encouraged to invest in affordable housing in exchange of a reduced VAT rate of 10% and exemption to property taxes on developed land for a minimum of 20 years (Anne-Laure, 2019).

Housing subsidies are also offered as housing allowance paid directly to tenants or housing providers depending on the country. They are generally intended as an aid to subsidise the cost of housing especially in the rental market for the low income households. They are referred to as housing vouchers in the USA, housing benefit in the UK or personal subsidy (Wohngeld) in Germany. In the USA, housing vouchers are provided by the US Department of Housing and Urban Development (DHUD) to the Public Housing Agencies (PHAs) who then administer locally to families that meet the criteria for such assistance; the vouchers are directly paid to the landlord on behalf of the families and the families pay the difference (USDHUD, n.d). In the UK, the benefit is provided for both social rented and private rented housing, with the social rented tenants receiving up to 100% of their rent depending on their income and circumstance and those in the private rented sector a portion for which they pay the balance. On the other hand, the Wonhngeld in Germany reduces housing costs to 15-30% of household disposable income and although open to owner-occupier, tenants dominate the recipients (UN-Habitat, 2009a: 30).

As a revenue subsidy, housing allowance provides developers with a continuous revenue flow, which allows them to meet the ongoing cost of servicing loans as well as the cost of maintaining and managing the housing stock (ibid: 23 & 26). Since it constitutes significant form of financial flow to social housing funding; it can re-assure lenders, and thereby encourage favourable lending for the social housing sector (ibid: 26 & 30).

2.5.3 Enhancing Affordability through Targeted Allocation

One of the vital questions that precede any affordable housing scheme is to identify whom AH is for (M. E. Stone, 2006: 153; Vale et al., 2014:22), this is to enable the planning and organising of resources for implementation and for measuring performance. Hence, the more specific the definition of the characteristics of the target group, the easier it is to measure performance since such specificity can be used to determine eligibility (M. E. Stone, 2006: 153). With government funded housing, it is natural to expect an explicit procedure for allocation and most housing programmes are very detailed in their provisions in this respect. The same apply to other types of affordable housing built with some forms of government incentives or delivered through a planning system. The introduction of public resources in this fashion automatically demands that a fair system of distribution is adopted for accountability and measurement (Thakral et al., 2016: 2).

Generally, allocation is built on the principle of rationing where items on demand exceed supply (Arnosti & Shi, 2020: 2291), and the major concern is to ensure effective distribution of items of scarce supply to meet the most need. Therefore, certain eligibility criteria are specified for applicants, and the mechanism for verifying eligibility is installed to prevent misallocation. In the case of the UK, local authorities are required to ascertain the eligibility of applicants based on certain criteria before approving for allocation. Different allocation mechanisms exit to fulfil desired expectations and ensure fair and just distribution of houses. They are, therefore, designed to either target housing to applicants with the greatest need (priority) or match applicants to suitable apartments (Ibid). They will generally respond to fundamental questions about the applicability and manageability of the systems, for example, questions about limit on the number of applications an applicant can make

at any time (if lottery is used) or whether an applicant should keep or lose their spot in line if they reject an offer (in the case of waiting list) are some of the major considerations in the design of the allocation system (Arnosti and Shi, 2020: 2291).

 The wait list system is used to ensure that allocation is done on a first come first served basis, while the balloting and lottery systems allocate housing by providing equal opportunity for applicants regardless of their condition; however, it can be modified to accommodate special needs like in Singapore where extra ballot is given to first time home buyer to increase their chances of success (Legislative Council Secretariat LCS, 2021: 1). The third mechanism is based on a point-based system with due regard to certain need factors like duration of not owning a house, income, number of dependants, applicant's age (Ibid: 2-3). The point based system can be a modification or an amendment to the waiting list or a ballot system, in each case, it is used to ensure the allocation of houses based on need priority.

In Malaysia for instance, the allocation system, which is essentially based on a waiting list approach awards points on a set of standardised criteria with greater weight attached to monthly income, number of dependants and applicant's age. Also, in San Francisco a mixture of balloting and need based elements exists. In this case, a preference list is maintained for applicants meeting certain specific criteria like displacement and neighbourhood, thus an applicant will be assigned a balloting rank number on a preference list for which they qualify for balloting while other applicants without priority are included in the general list. Allocation then goes first to the preference list and lastly to the general list with application handled in order of balloting rank (LCS, 2021: 2).

On the other hand, in Pittsburgh, the two procedures specified for allocation by the US Department of Housing and Urban Development (HUD) apply. Essentially the procedures are based on a take-it-or-leave-it mechanism (Thakral et al., 2016: 19) where allocation targets the highest priority applicant who will be willing to accept the available unit rather than refuse it. In the first procedure, available units are allocated to applicants with highest priority and if they reject the allocation, they are removed or placed at the bottom of the list. In the second procedure, applicants who refuses a unit will receive another offer, up to a limit of two or three. In Nigeria, the process of

allocation is not clear; in fact, there is no deliberate attempt to match allocation of houses with need. This may partly be blamed on the fact that most housing developments tagged "low-income housing" receive little or no intervention that is sufficient to close the affordability gap, such that the desire to recover the cost of such developments overrides other social considerations.

The National Housing Programme (NHP) of the Federal Ministry of works and Housing (FMWH) was borne out of the government's desire to provide affordable housing for the citizens and has been implemented in 34 states of the country, however, the eligibility criteria for applying for those houses are rather based on proof of capability of buying the house than on fulfilling the need of the low-income. The eligibility criteria for applying for such houses question whether they are indeed meant for the low-income earners. The criteria include:

- A most recent copy of tax clearance;
- A digital copy of identification;
- A letter of first appointment and gazette of confirmation of appointment (for public servants);
- A letter of recommendation from any primary mortgage bank (for mortgage subscribers);
- Evidence of 10% initial deposit (for mortgage subscribers).

2.6 Affordability Challenges

In Nigeria, it is not uncommon for the government to announce plans to invest in affordable housing for the low-income households, yet when these plans are implemented, the target households cannot buy them due to income and affordability challenges (Anih et al., 2019: 1). Furthermore, when the eligibility criteria for accessing these houses don't deliberately promote access for the low-income end users (See section 2.5.3), the result is speculation where these houses are eventually taken up by rich people who would let them to low- income end users at exorbitant prices (Sgrenci, 2020). Therefore, many families are living under varying degrees of affordability stress as revealed in a survey by Adegoke and Agbola (2020: 188) where

74% of those who participated in the survey were spending between 50.1% and 100% of their income on housing related costs.

Furthermore, to demonstrate the affordability challenges due to low income, Table 2-7 shows the level of poverty and the severe burden that for example, the policy target groups (see footnote 13 on page 56) may face in meeting their housing need. It is obvious that 30% of their annual income will barely cater for their housing need as the cost of renting for example a two bedroom apartment ranges between ₦750,000 and ₦4.5 million per annum and the purchase price of a government national housing scheme between ₦9 million and ₦12 million (see Table 1-8).

If the information in Table 2-7 is compared with the house prices in Table 1-8, it will be observed, using the NHP of the FMWH as an example, that the programme, which includes various types of dwelling designed for the low-income are selling at prices (FMWH, 2020), which when compared to the income of the target group in Table 1-8 are simply not affordable.

Table 2-7: An overview of the take home of the no-income, low-income and medium low-income groups in Nigeria (Adapted from (Oni-Jimoh et al., 2018: 14)

Income category	Earning capacity based on policy categorisation	Annual income with respect to the NMW of ₦30,000 (₦)	30% of annual income for housing (₦)
No-income	25% of the NMW*	0 - 90,000	0 – approx. 27,000
Low-income	More than 25% of NMW but less than the NMW	91,000 - 360,000	27,300 – 108,000
Low-middle-income	More than the NMW but no more than four times the NMW	361,000 - 1,440,000	108,300 – 432,000
*NMW in Nigeria is 360,000			

If the price of these houses is compared with the income of households with the greatest need for affordable housing, a mismatch will be observed; this, in turn triggers questions about how the assessment and design of such programmes were carried out, which underscores the fundamental interrogations that must precede the design of affordable housing programmes (M. E. Stone, 2006b: 153; Vale et al., 2014: 22). These questions are necessary for providing appropriate designs that can meet households' basic needs (Mc Kinsey, 2014: 16). The following is an analysis of the cost of the houses provided by FMWH to ascertain whether workers can afford a house that is built under its NHP shown in Table 1-8. Since Abuja was principally built for civil servants, the salary of government workers should provide a good understanding of

income levels in Nigeria as a basis for determining housing affordability in Abuja today. In Table 1-8, the least house price under this programme is a one bedroom apartment in a condominium, which sells at ₦7.2 million. Also, the NHF affordability table in Table 2-9 will be used to calculate how much of the NHF mortgage an applicant in the low income category can afford to enable them to acquire such a house, taking into consideration the conditions[16] of accessing the NHF loan.

We also recall by the previous analysis in section 2.2.4, and in Table 2-2 that the low-income earners will generally fall within grade levels 1[15] and 10[15] (see their income capacity in Table 2-8) where 70 to 80% of civil servants mostly fall (Chime, 2016: 9). Based on the policy classification, these people are in the low-middle-low-income group. Hence, using the maximum mortgage repayment-to-income ratio of 30% in line with the International Labour Law (ILL) and a fixed interest rate of 6% over a period of 30 years, we deduce as shown in Table 2-10 and Table 2-11 that they cannot afford the NHP house. In Table 2-10, it is observed that those who qualify for ₦5 million loan from the NHF are outside the group classified in Table 2-7. This means that they have attained a higher grade level, which increases their earning. However, since higher grade level guarantees higher income and comes with longer engagement in service, it means that the individual might not pay off loan within the remaining period of service. Secondly, new entrants in the service have better chances of paying off their mortgage over a long period of time, but they may not qualify for a loan on account of their low income. Furthermore, this analysis is conservative because it says nothing about the circumstances of household, which might influence the kind of dwelling and other basic consumptions of the family, it also says nothing about their income since larger households might not necessarily have sufficient income to cater for their needs.

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[16] Access to the NHF mortgage is based on the mortgagor's affordability (how much he/she can afford). How much loan one can afford under the scheme is determined by their income, their age, and the number of years in service (from which the loan tenor is determined). Therefore, in order to pay 30% of income at a maximum period of 30 years, applicants must not have less than 21 years left in service (if employed) (Sgrenci, 2020).

Table 2-8: Consolidated Public Salary Structure (CONPSS) per annum effective from April 2019 (NSIWC, 2019)

Grade level	Steps														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
01	360000	364469	368938	373407	377876			391283	395752	400221	404690				422566
02	363328	369171	375014	380857	386700			404229	410072	415915	421758				445130
03	366170	373352	380534	387716	394898			416444	423626	430808	437990				466718
04	376194	384823	393452	402081	410710			436597	445226	453855	462484				497000
05	394498	404522	414546	424570	434594			464666	474690	484714	494738				534834
06	449429	461648	473867	486086	498305			534962	547181	559400	571619				620495
07	638133	661237	684340	707443	730546			799855	822959	846062	869165				961577
08	799421	826204	852988	879772	906556			986908	1013692	1040476	1067260				1174395
09	928981	960604	992228	1023851	1055475			1150346	1181969	1213593	1245216				1371711
10	1060833	1094732	1128631	1162530	1196428			1298125	1332024	1365922	1399821				1535417
12	1221722	1274303	1326884	1379465	1432046			1589789	1642370	1694951	1747532				
13	1362110	1417699	1473289	1528878	1584468			1751236	1806826	1862415	1918005				
14	1503149	1562994	1622839	1682684	1742530			1922065	1981910	2041755	2101600				
15	2027623	2110917	2194212	2277506	2360801			2610685	2693980						
16	2505352	2605457	2705563	2805669	2905774			3206091	3306197						
17	4769304	4950070	5130837	5311603	5492370			6034669	6215435						

Note: Figures in some columns have been omitted to accommodate the table on one page

Table 2-9: NHF affordability table (30 years mortgage plans for loan sums ranging from 1m to 15m at 6% per annum (Udoekanem, 2013: 66)

Loan amount in ₦ million	Tenor and monthly repayment					
	5yrs	10yrs	15yrs	20yrs	25yrs	30yrs
1.0	19,332.80	11,102.05	8,436.57	7,164.31	6,443.01	5,995.51
1.25	24,166.00	13,877.56	10,548.21	8,955.39	8,053.77	7,494.38
1.5	28,999.20	16,653.08	12,657.85	10,746.47	9,664.52	8,993.26
1.75	33,832.40	19,428.59	14,767.49	12,537.54	11,275.27	10,492.13
2.0	38,665.60	22,204.10	16,877.14	14,328.62	12,886.03	11,991.01
2.25	43,498.60	24,979.51	18,986.78	16,119.70	14,496.78	13,489.89
2.5	48,332.00	27,755.13	21,096.42	17,910.78	16,107.54	14,988.76
2.75	53,165.20	30,530.64	23,206.05	19,701.85	17,718.28	16,487.64
3.0	57,998.40	33,306.15	25,315.70	21,492.93	19,329.04	17,986.52
3.25	62,831.60	36,081.66	27,425.35	23,284.01	20,939.80	19,485.39
3.5	67,664.81	38,857.18	29,534.99	25,075.09	22,550.56	20,984.27
3.75	72,498.01	41,632.69	31,644.63	26,866.16	24,161.30	22,483.14
4.0	77,331.21	44,408.20	33,754.27	28,657.24	25,772.06	23,982.02
4.25	82,164.41	47,183.71	35,863.92	30,448.32	27,382.81	25,480.90
4.5	86,997.61	49,959.23	37,973.56	32,239.40	28,993.56	26,979.77
4.75	91,830.81	52,734.74	40,083.20	34,030.48	30,604.32	28,478.65
5.0	96,664.01	55,510.25	42,192.84	35,821.55	32,215.07	29,977.53

Table 2-10: Accessibility challenges to NHF due to income (Adapted from Chime, 2016: 8)

G/L	Monthly salary	30% of monthly salary	Loan repayment over 15 years			Remarks
			₦5m	₦8m	₦15m	
3/15	38,893	11, 668	42,192.84	67,508.55	126,578.52	Not qualified
6/15	51,708	15,512	Ditto	Ditto	Ditto	Not qualified
9/15	114,309.25	34,293	Ditto	Ditto	Ditto	Not qualified
12/15	145,628	43, 688	Ditto	Ditto	Ditto	Qualified for 5m
15/15	244,498	67,349	Ditto	Ditto	Ditto	Qualified for 5m

Table 2-11: Basic analysis of affordability in Nigeria using the NHP of the FMWH

Key considerations	Requirements/Cost and time implications	
Monthly income (minimum wage) for grade level 12[15]	₦145, 628	
Purchase cost of 1 bedroom flat in condominium (under the National housing programme of the FMWH)	₦7,222,404	
Initial house purchase	Down payment required (30%) of house price	₦2,166,721.2
	Years to save for down-payment assuming full salary is committed to saving	15 months
	Years to save for down-payment if 30% of salary is committed to saving (this will allow for meeting other basic needs)	50 months (4 years+)
Balance after down payment		₦5,055,682.8
	Steady source of bankable income	Required
Amount qualified for under the NHF loan		₦5,000,000
Finance repayment	Number of years to pay principal at 6% fixed interest taking account of 30% of salary to service the loan (loan repayment)	15 to 30 years depending on age and number of years in service (Table 2-9)
	Monthly repayment required for a 15 to 30-year mortgage	₦42, 192.84 or 29,977.53

2.7 Housing Typology and Regional Housing Preference

Nigeria is an ethnic diverse country with over 250 ethnic groups; these various groups are both culturally and religiously different as well as their geographical location, climate, and resources, which affect their architectural legacies and preferences (Ezennia, Onuorah, & Uwajeh, 2021: 139). The fact that these cultural diversities along with their trappings find expression in architecture shows that housing is likely to vary from one society to another (ibid: 140). Indeed, as a heterogeneous society, housing in each of the regions of Nigeria represents their culture and manifests in different housing patterns (Rikko & Gwatau, 2011: 273). Hence, the house is a space within which a generation of families identifies with its existence and preserves the history of their lineage; it is also a symbol of social identity and community recognition (Jiboye, 2014: 21). Over the years, there has been a significant change in the architecture of the different regions of Nigerian due to the influences of civilisation, cultural infiltration, and technological advancement (Rikko & Gwatau, 2011: 273), however, social and

cultural values of people still have a strong influence on their housing preference (ibid), which good housing effort should reflect (Maxwell, 2019; Rikko & Gwatau, 2011: 273).

2.7.1 Traditional Housing in Nigeria

The literatures on vernacular architecture in Nigeria show that housing is influenced by any one of or a combination of culture, religion, the geographical location and its associated climatic condition (Lodson, Ogbeba, & Elinwa, 2018: 86; Rikko & Gwatau, 2011: 275). The three major ethnic groups in Nigeria are Igbo, Hausa, and Yoruba; along with these groupings is the different religious affiliations, which are Christianity, Islamic, and traditional religions. Furthermore, the climate is basically divided into two- the northern part where the Hausas predominate is hot and dry with extremes of temperature between day and night. Rainfall is minimal with less than 500mm per year (Lodson et al., 2018: 85). On the other hand, the southern part of Nigeria where the Igbos are mostly found is hot and humid with high annual rainfall which is between 1,500 and 2,000 mm (Ibid).

Generally, a typical traditional house-type in Nigeria is the compound house, which varies in pattern and form for different ethnic groups, these variations are due to the socio-cultural peculiarities of different ethnic groups (Awotona et al., 1994 cited in Joboye, 2014: 21). For example, while all three groups seem to maintain a separate accommodation for the male head and separate sleeping huts for the wives and their children (Adedokun, 2014: 41; Arome & Çağnan, 2021: 25; Lodson et al., 2018: 90; Rikko & Gwatau, 2011: 277; Uduku, 1996: 192), the reason for such accommodation arrangement is different. Whereas the Hausas particularise this arrangement to the need for gender separation of the women in accordance with the Islamic religion, the Igbos do so specifically for the effective administration of the household (which is typically polygamous) since gender seclusion was not the reason (Lodson et al., 2018: 93). In addition to separate sleeping accommodation, the Hausas enhanced privacy by the introduction of an entrance foyer (Zaure) that sets limit beyond which male visitors cannot exceed (Figure 2-11) (Lodson et al., 2018: 93). After the Zaure, is the Kofar gida, which is an 'opening' or 'space' through which the interior of the compound can be accessed (Auwalu, 2019: 5). The Kofar gida is a semi-public space enclosed by buildings and parts of the compound wall, it defines the access limit adult male

visitors have to the compound except for close relatives and intimate friends of the household head (ibid).

Section for Family
Head and Male Visitors

Inner Compound for,
Wives and Young
Children
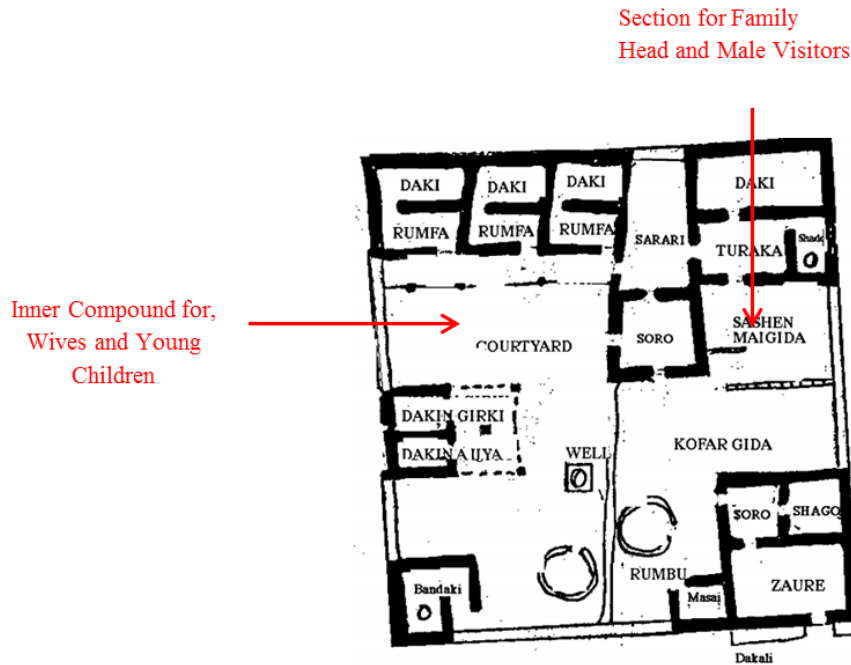
Figure 2-11: A typical Hausa traditional compound showing the Zaure and Kofar gida (Lodson et al., 2018: 87)

Also in the Igbo setting is a similar foyer concept called "Obi", which is positioned close to the male head of the family's quarters and used for his relaxation and the entertainment of guests (Uduku, 1996: 193). Again, all three groups maintained a courtyard in the middle with the buildings around it. Whereas the spatial arrangement of rooms in the Yoruba compound comprises individual rectangular or separate units that are arranged in linear patterns to surround the courtyard (Rikko & Gwatau, 2011:277), that of the Igbos could assume any shape provided an open courtyard in the centre is maintained (see Figure 2-12) (Arome & Çağnan, 2021: 25)

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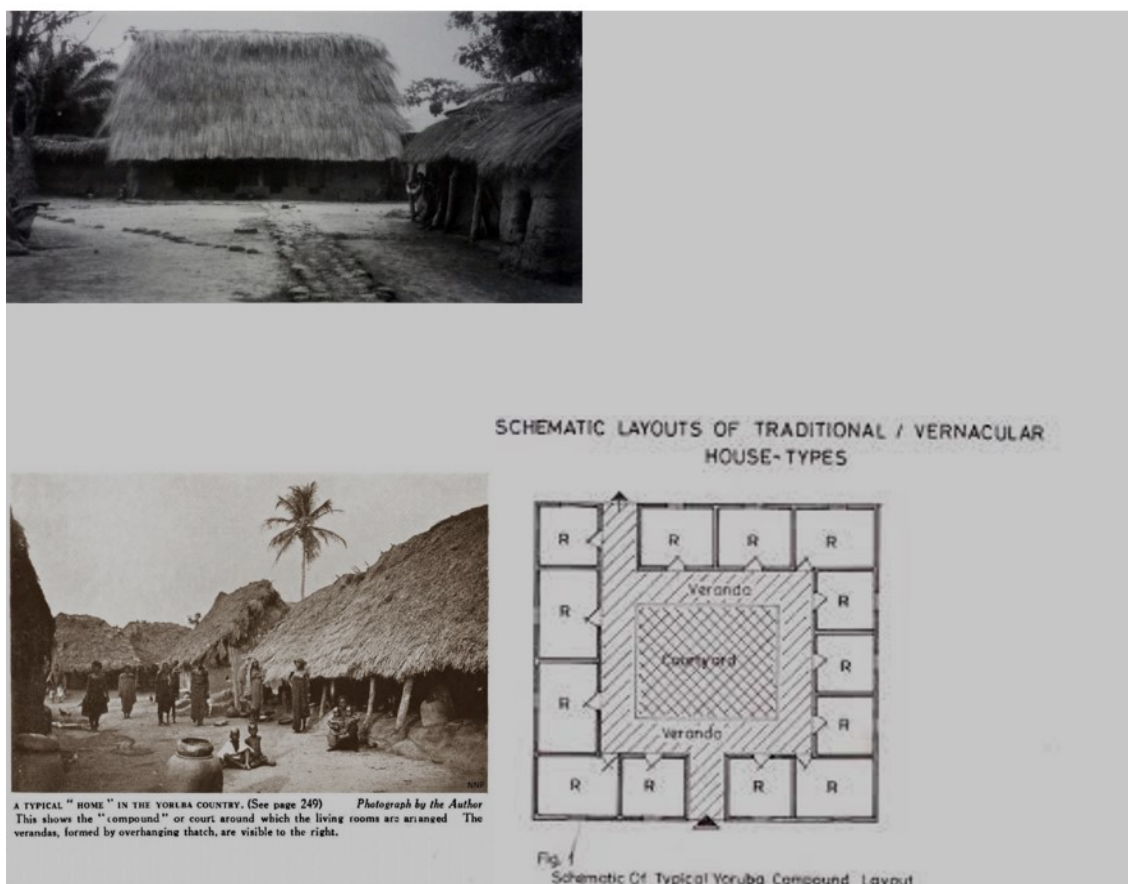
Figure 2-12: A typical traditional house featuring courtyard in the middle, Igbo compound (top) and Yoruba (bottom) (Osasona, 2007: 11)

Again all the three ethnic groups maintained smaller windows but with different reasons. Essentially, smaller windows helped maintain a good and thermal comfort within the interior space in response to the different climatic demands and other cultural considerations (Arome & Çağnan, 2021: 26). For the Hausa's, this is in keeping with the religious belief in women seclusion and privacy, and to keep out the dust (Lodson et al., 2018: 87). For the Yoruba the smaller windows enhances interpersonal contact, privacy and security (Owamoyo & Tabibi, 2023: 639; Vlach, 1976: 51). Finally, both the Yoruba and Hausa position the male head accommodation close to the entrance gate for surveillance and security (Adedokun, 2014: 41 & 42; Arome & Çağnan, 2021: 24).

2.7.2 Contemporary Housing in Nigeria

Over the years, architecture or building in Nigeria has undergone a massive change in terms of style and materials; cultural infiltration due to colonial experience, exposure to western education, and the influences of civilisation are thought to be the major factors to this change (Owamoyo & Tabibi, 2023: 642; Rikko & Gwatau, 2011: 277). In fact, the emergence of contemporary architecture dates back to the early 19th century with the coming of the colonialist and later, the Brazilian slaves (Rikko & Gwatau, 2011: 278). These two events produced a hybrid style that endured till the mid-20th century; but, in the 1950s the European style became the dominant architecture and was most visible in institutionalised and residential buildings (Figure 2-13).

Figure 2-13: Modern housing in Nigeria arrived as a result of colonial influences. Note the disappearance of courtyard feature which is indigenous to Nigeria (Rikko & Gwatau, 2011: 276)

Generally, the major features that characterise these changes are the replacement of the open space in the middle (courtyard) with open space around the building, small windows with larger window openings and thus, an improvement of health and safety, and lesser emphasis on traditional facade and the use of modern materials and construction methods leading to a more lasting housing solutions (Lodson et al., 2018: 88-93). Furthermore, buildings are more compact with rooms opening into one another with a common roof over them (ibid: 92). Also, the incorporation of pit toilets and later

modern toilets as part of the house were all the changes introduced by colonialism (Owamoyo & Tabibi, 2023: 641). Despite these transformations, some features are retained in the present day architecture and they make for the differences that influence the housing preference across Nigeria. For example, the Hausa tribe still holds on to their gender separation tradition, and they have incorporated this need in their contemporary buildings. Therefore, for buildings more than one floor, the upper floor is reserved strictly for family members while the ground floor is further separated into spaces for visitor and family space so that non family members have no contact with the family (see Figure 2-14). Furthermore, separate entrances are provided for the women so that they have access into and out of the house without being seen by male visitors.
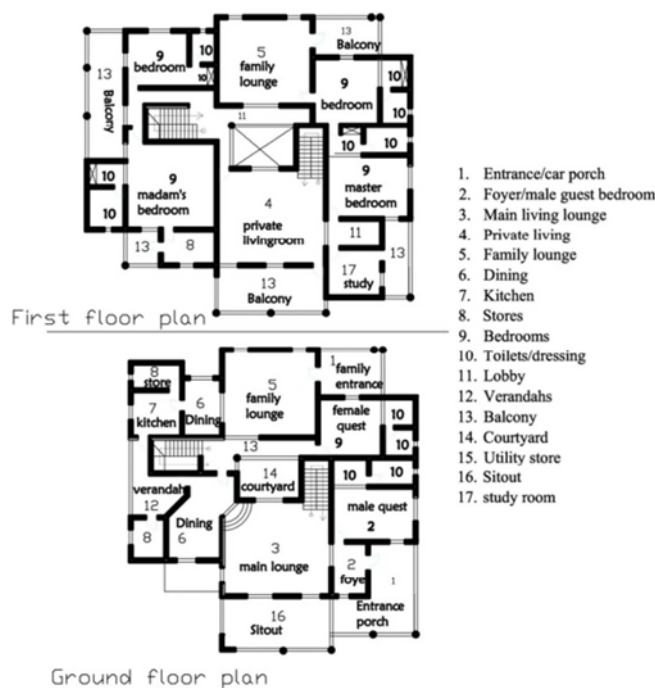
Figure 2-14: Post-modern residential plan showing zoning approach of Hausa culture with respect to gender (M. Aliyu, 2015: 35)

This cultural consideration and need still find expression in the housing preference and affect access to housing, which is in line with other studies captured in Onanuga and Oviasogie (2019: 340). The experiences of the Gwari people in Abuja and Kitale

tribe in Kenya are specific examples of such housing preferences influenced by socio-cultural and spatial relevance (Jiboye, 2014: 21). In Nigeria, the Gwari people who abandoned the resettlement housing scheme provided by the government for them in Apo (PD2[8]) is mostly cited as an example of how successful housing should reflect specific cultural and social needs. Although housing in Nigeria is mostly European heritage, there are signs that different regions still show strong preference for certain types of housing and housing provision may be problematic if such needs are not met (PU1[9]).

[8]. *Ok so there are these buildings that they did for the rural people when they were moving them out of a certain areas, so there's this one in Apo they call it Apo resettlement, so when they moved the indigenous people, they moved them to Apo resettlement. They built them two bedrooms, I think they are ok, but they were not what those people needed at the time, the houses do not conform to their lifestyle, so they ended up selling the houses and moving out to build what works for them, so I think if we can come up with a model that actually works for people say you take any community like Abuja, look at the people in those slums and say ok what works for this people? (PD2)*

[9]. *Again from our experience as a bank, we have housing construction in various states of the country, and we see that, depending on which region you are looking at, some region prefer certain kind of houses and so for instance in the north, because they have land, land is not so much of an issue in the north, if you take a block of flats model of a house and you go and build in the north, you will find it a bit difficult to dispose of those houses, but if you build bungalows, where whoever is prospecting to own the house has a backyard where his wife and children can wash plates and all that, they would rather prefer that kind of housing model to a block of flat (PU1)*

Apart from this fact is the nature of housing need, which tend to be concentrated in urban areas due to colonial influences. After the traditional informal trading practices became replaced with monetary economy (colonial heritage), most families saw the need to connect with the centre of economic activities, which are in the urban areas but still maintained connection with their traditional villages. Hence, a few males who were employed by the missionaries, trading companies or protectorate spent only weekly work periods in towns and returned to their villages in the weekends or holidays (Uduku, 1996: 193) giving rise to a dualistic existence, which has prevailed to date. The colonial rule thus created semi-segregated urban lifestyles in townships; the European residences, government quarters were planned separately from indigenous locations. Furthermore, the establishment of administrative headquarters, mining and commercial centres, together with infrastructural facilities, and modern houses for African staff (Bloch, Fox, Monroy, & Ojo, 2015: 11; Ezennia et al., 2021: 143; Uduku,

1996: 193) gave rise to urban areas, which are predominantly centre for economic activities, pulling people away from rural to urban areas in search of job and back to their villages occasionally.

Consequently, villages began to transform in line with this trend as affluent town dwellers return to construct their houses in the modern urban styles as an expression of social recognition (Rikko & Gwatau, 2011: 278). However, a dualistic housing existence has been maintained to date as people work in the towns or cities but returned only at Christmas or holidays to their homes in the villages (Uduku, 1996: 193). Since the cities through history have always been the centre of economic activities where the population usually gravitate to, this has continued to create additional pressure on housing in the urban areas giving rise to informal settlement on the periphery of cities (Bloch et al., 2015: 35). Hence, to address this shortage of housing, government in the policy committed to enabling the provision of affordable housing. However, these efforts and the associated strategies seem to have resulted in housing design and provision that are viewed as a product of compromise and limitations (material/budget). Consequently, housing is interpreted as a space disconnected from who and what occupies it (Jiboye, 2014: 21; Onanuga, Ayoola, & Oviasogie, 2017: 12550). The Gwari experience previously alluded to, confirms this assertion and shows that the design of residential space lacks identity but focuses more on technology, science, art, and production (Onanuga & Oviasogie, 2019: 340)

2.7.3 Types of housing

Generally, for every Nigerian, housing is a priority and people live and work their whole life to accomplish this goal. Again due to the nature of urbanisation, housing in Nigeria may be described in two different lights namely urban and village housing. The history of urbanisation, which is influenced by colonial administration leading to the development of area of commerce and offices different from traditional villages induced the need for people to migrate to urban areas in search of job as well as maintain connection with their home towns. Hence, urban housing is temporary in nature whereas, village housing is usually more permanent and gives stability or security to individual families (Uduku, 1996: 194). As people migrated to the cities for jobs, they returned with new experiences, which they applied in their villages, thus,

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over time, the villages transformed with buildings built according to urban style (ibid). Furthermore, certain villages with rich indigenes were able to build American style houses and it is common to see these houses often juxtaposed with traditional domestic architecture or modern but more humble dwelling (see Figure 2-12) (ibid). Having a building in the village even when one owns a building in the city is usually the norm for the wealthy; however, for the majority, building a house in the village is more important since it guarantees stability, security and connection with one's ancestral home. Since villages are not centres of economic activities like in the urban areas, housing is primarily built for individual families on their ancestral land or inheritance. Housing in the village takes the form of gated duplexes and bungalows for individual families.

Table 2-12: Duplex juxtaposed with more humble dwellings in Nkwelle village in Awka (top) and humble dwellings alongside block of flats (bottom)

On the contrary, urban housing comes as individually owned homes or rental houses of different types depending on the location. Individually owned homes in the cities range from standalone duplexes, mansions to pent house in a gated compound. They

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are scattered across Nigeria in the most affluent parts of the cities; the most impressive ones are found in Abuja, Kaduna, Lagos, and Port Harcourt. Other common housing types include terrace duplex, semi-detached duplex, fully detached duplex, apartment and condos, bungalow, terrace etc. The growing housing need in the urban areas coupled with the constraints of scarcity of urban land have given rise to condos and apartment buildings as dominant rental housing style for urban workers and developers are driven to maximise land to make returns (see PU3[10]). For example, the south-eastern part of Nigeria known for its population density go for taller buildings as a strategy to conserve scarce land, therefore, apartments, flats, and condos are the dominant building types in the urban areas. However, in other parts of Nigeria, condos and flats are common in the urban areas but whether these buildings satisfy both cultural and religious needs of the occupants is another issue. Generally the different types of housing in Nigeria are mansion, bungalows, apartment or flats, terraced house, pent house, semi-detached house, detached house etc. The features of some of these types of buildings are shown in Table 2-13.

Table 2-13: Features of different housing types in Nigeria from various sources (Emordi, 2023; Naijahouses, n.d)

Type of house	Feature	Locations in Nigeria
Bungalow	One-story home, which can either be detached or semi-detached. It is generally small in size but there are very large ones, which combine both technology and splendid architecture, to cater to the more urban lifestyles most live today. Given their relatively small size, bungalows are inexpensive to build and easy to maintain. Therefore, they provide an affordable home option for the working class across Nigeria (see Figure 2-16).	Common across all the states in Nigeria in both rural and urban areas
Mansions	They are luxury houses mostly found among the rich and wealthy, the size of the property and the number of rooms and bathrooms play a part in defining what a mansion is. They have further features like entertainment facilities, leisure space, and luxury finishing, grand staircase, pools, tennis courts, home automation etc (see Figure 2-17).	They are scattered across Nigeria with the most impressive ones located in Abuja, Lagos, Kaduna, and Port Harcourt.
Apartment or flats	Apartment or flat is very popular in Nigeria. It comprises a combination of many separate homes stacked on top and next to each other. Each apartment acts as its own dwelling or living space (see Figure 2-16). it offers less privacy than alternative housing types. Because of the space-saving advantages of building vertically, flats are much cheaper to buy than other home types.	Common across all the states in Nigeria
penthouse	Penthouse apartment is a luxury apartment unit on the topmost floor of a multi-storey apartment building or hotel. They are often the most expensive forms of housing, are the largest, the most exclusive, and offer the best views in a given apartment building (see Figure 2-16).	Some of them can be found in the Nigeria's biggest cities such as Lagos, Abuja, Enugu, and Port Harcourt
Terraced house	A townhouse, or row house is a single-family home that is usually set over two or three floors. A terrace house sits side-by-side with	Located mainly in Abuja and parts of Lagos.

	other terraces (joined together). Terraces usually have identical fronts and identical heights and are designed to accommodate as many people as possible in densely populated cities (see Figure 2-15). They are generally more affordable than detached and semi-detached	
Semi-detached house	It is a single-family home that shares a single wall with the next house (see Figure 2-15). They can be single-story semi-detached homes (bungalows) or spread over two floors. Building costs are typically lower than that of a fully detached house.	
Detached house	This is another popular type of house in Nigeria. They are associated with the rich and famous and feature some pretty impressive architecture. Although not as large as mansions, they are often just as luxurious, depending on taste and how they are finished/furnished. They have usually spread over two or more floors and feature their own private gates: leading onto a private compound (see Figure 2-15). Detached houses are great for people that like their privacy and for those with larger families	These can be found in the affluent parts of Lagos, Abuja, Kano, and other major cities in Nigeria

Figure 2-15: Semi-detached house (top left); terraced house (top right), and detached house (bottom)

Figure 2-16: Condo or apartment building (top left), bungalow (top right), detached duplex (bottom left, and penthouse (bottom right)

Figure 2-17: Mansion house

Without the limitation of finances, it is observed that people would love to build elaborately with gated fences, however, this desire has been restricted by availability of land and finance.

> 10. *If you go to the eastern part for instance where land is scarce, even though people would like to have space to themselves, the business person who would invest would be thinking how many houses will I build on this small piece of land to make my returns? So he is not thinking of giving you that kind of space you would love but to build as many houses as possible and would go for the high rise block of flats. So depending on which area you are looking at, the housing model you take there is very important. (PU3)*

2.8 Summary and Conclusion

Exploring the framework for housing is one of the objectives of the research to address any operational challenges to affordable housing. By reviewing and analysing the policy goals, strategies and the framework for housing in the light of the principles of affordable housing, this chapter not only designed the analytical framework for empirical data assessment and interpretation but also provided the basis for assessing government perception and understanding of housing. Therefore, the chapter concludes that:

1. The framework for housing lacks appropriate implementation and monitoring mechanisms, which have encouraged the diversion of benefits and led to subsequent end of some strategies;
2. The NHF mortgage structure is exclusive because it does not effectively enhance access to mortgage loans for the policy target group.

Based on the circumstances that drive the need for housing, the goal of the housing policy is to provide affordable housing for all citizens and more specifically, to provide social housing for the no-income, low-income and low-middle-income households through a private sector-driven approach. This policy direction means that the government appreciates its constraints and the overwhelming need for affordable housing. Hence, in light of them, some operational changes were made to facilitate the private sector towards realising this goal. In the analysis, it was deduced that the

present challenges to housing imply a mismatch or disagreement of the government housing objectives with the implementation strategies. This aberration either reflects the government intentions, or imply a lack of competence of the policymakers in understanding and evolving mechanisms for addressing the housing situation. However each implication is viewed, the situation implies urgent need for reappraisal of the circumstance and review of the policy and the implementation structure.

The enabling housing approach, while intended to roll back the frontiers for a more pronounced and active participation of the private sector in affordable housing, still expects the government to drive the housing efforts through deliberate and decisive actions that will motivate the private sector appropriately. These actions, which are usually targeted at the operational framework and investment environment should effectively support their investment and also enable them to fulfil their needs. The goal of the policy while clear on the targets of affordable housing and the delivery model (private-incented) has not been effectively driven by supportive strategies. Furthermore, while the strategies seem adequate when viewed out of context, they have failed to effectively capture the circumstance that they are meant to address. Although it is early at this stage to make strong assertions without clear evidence (experience of the stakeholders), the literature so far has established the focal points for empirical assessment.

Therefore, the sections after Chapter 3 will report on the effectiveness of the framework and the strategies designed to enable access to housing and private sector investment in affordable housing on one hand, and also identify effective solutions to the problems they present to affordable housing.

3 Research Methodology

The broad aim of this research is to explore the problems with the enabled private-sector driven affordable housing in Nigeria and to define appropriate solutions to them. Having practiced this approach for about three decades without visible success, it was necessary to understand the problems or factors militating against its effectiveness in order to define a more appropriate response. To achieve this aim, understanding the existing protocols and strategies for private-driven affordable housing and how they have impacted housing performance is fundamental for effective solutions. This means that the experience of those who directly interact with in the housing system and whose activities are thus affected (stakeholders) is necessary for defining solutions that address contextual realities.

This chapter details the research methods employed in achieving the study objectives, why they were chosen, and any limitations in their use. Accordingly, the chapter is structured in three parts: the first section reiterates the research questions and objectives; the second deliberates on the research design of the study and includes (i) the research philosophy on which the study is based, (ii) research strategy, (iii) research approach, (iv) research instruments and ethical considerations and (v) the analytical framework. The final section deals with the researcher's reflection on the methodological approach and is termed the limitation of the research.

3.1 Research Aim and Objectives

The aim of the study is guided by three research questions and their respective objectives (Figure 3-1). It is intended to gain a deeper understanding of the problems of private-driven affordable housing in the context of Nigeria in order to define more appropriate solutions for its effectiveness. Hence, the first and second research questions sought to explore the framework (both institutional and legal) for stimulating a private-driven affordable housing from the experience of the key stakeholders in the housing sector. The third question used the experience of stakeholders to identify and define the necessary changes and adaptations to the existing strategies (solutions) to engender private performance.

Research Questions	Research Objectives	Related Chapter(s) in Data Analysis
What is the effect of the framework on a private sector driven affordable housing?	To explore the framework for housing and the effect on private performance	Chapter 4
How has the framework affected the private sector driven affordable housing?	To identify the challenges affecting private investment in affordable housing	Chapter 4
What strategies will advance a private sector driven affordable housing?	To define solutions for engendering effective private participation in affordable housing	Chapters 5, 6, and 7

Figure 3-1: Research questions, objectives and related empirical chapters

3.2 Research Design

The research design is the arrangement of conditions or a plan for tackling established research question(s) in a manner that combines relevance of the research purpose with economy in procedure (Kothari, 2004: 31); this means the method adopted to fulfil the research goal must include what is possible within the given circumstance and the time available. Addressing the challenges of private sector participation in the context of affordable housing in Nigeria requires both time and the availability of relevant participants to achieve the research objectives. The relative youth of affordable housing efforts, and the small number of private participants in affordable housing in Nigeria, and the minimal efforts in that direction means that the research lacked appropriate resources, which were impediments that had to be navigated in the data collection process in order to achieve the desired goal.

Hence, the only way to frame the research, mindful of these constraints was to work with a challenging set of research methods in which data drew upon a special set of participants from both private and public sectors. Consequently, the volume of data

was limited to a few number of participants and a selected case study. The special feature and experience of this group match the requirement set for the research[17].

Although, there is sufficient amount of documentation of the generic problems of affordable housing and solutions (Mc-Kinsey, 2014: 5; Raschke, 2016: 4-5; URBED-Trust, 2018: ii), which can apply to Nigeria, the goal of the research was to understand the specific nature of the housing problem in Nigeria so that solutions can be more responsive. Therefore, this research was approached from a constructivist stance so that while objective ideologies remain valid, contextual views can be leveraged to understand particular realities and broaden the objective view (Teherani, Martimianakis, Stenfors-Hayes, Wadhwa, & Varpio, 2015: 669). Therefore, qualitative approach was used because it is suitable for studies where participants' experience and perspective are important for understanding a system (Hammarberg, Kirkman, & Lacey, 2016: 499). The research design as a road map or blueprint for answering the research questions is the logical sequence that connects the empirical data to a study's initial research questions, and ultimately, to its conclusions (Yin, 2009: 26). Based on the goal of this research, the framework decided upon for this study is shown Figure 3-2*.*

3.2.1 Research Philosophy

The belief in a single objective reality has been the dominant way of thinking in scientific research (Nicholls, 2009: 527) so that regardless of the contextual differences, these realities are meant to fit all circumstances. Therefore, a one-size-fits- all approach to scientific inquiry has been condemned because of its inability to capture the different individual circumstances and its failure to address societal problems in their context.

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[17] This requirement is that the participants are stakeholder in the housing sector and are directly involved in implementing the policy goal

Figure 3-2: Overview of research framework

Generic problems and solutions of affordable housing abound in many reports from reputable bodies and they are investigation carried out on some selected countries. Applying these results to the rest of world would be undermining the circumstances that shape the realities in different places. Hence, the need for a study of contextual realities to advance the knowledge of individual situations and provide specific response to them. The strategies currently used in Nigeria reflect the attributes of these generic solutions; however, housing problem persists prompting the need for a contextual assessment of the situation to define more practical solutions.

Considering the philosophical propositions of the research and the nature of data collection, this study positioned within pragmatism. Pragmatism utilises both positivist and interpretivism philosophy and views both of them as a continuum rather than contradictions (Saunders, Lewis, & Thornhill, 2009: 143). It carries with it the practicality of reality by paying attention to the particular context without the burden and constraints of established ideologies (Hammond, 2017). Thus the flexibility and open minded approach help for a better understanding and enhancement of knowledge (Kloppenberg, 1996: 119-121). Positivism deals with observable social realities without the influences and ambiguities of human interpretation and bias (Saunders et al., 2009: 135-136), while interpretivism describes reality as subjective, multiple and socially constructed (Al Hasni, Asante, Atkan, Sarikose, & Muslihi, n.d.). As pragmatic study focuses on actual real-world situation without undermining existing or generic problems and solutions, the process required

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identifying the problem within its broadest context, which means that the research inquiry must adopt multiple methods of inquiry (Creswell & Poth, 2018: 27).

Ontology refers to assumptions about the nature of reality, hence, it shapes the way in which the object of a study is seen and investigated (Saunders et al., 2009: 127), which may take the form of objectivism (that is, focus on realities as objective entities that are external to social actors) or constructionism (in which realities are viewed as social constructions). This study acknowledges the generic principles of affordable housing as documented in the several documents (Mc Kinsey Global Institute, 2014: 5: Raschke, 2016: 4-5; URBED-Trust, 2018: ii; UN Habitat, 2011a and b, 2012, 2013), but seeks to define what is particular to Nigeria.

3.2.2 Research Strategy (Generic Qualitative Inquiry)

Researches based on pragmatic philosophy are known to combine several methods for achieving the research goal because of its belief and reliance on different ways to interpret the world (Al Hasni, Asante et al. n.d.).   Hence, because pragmatic philosophy combines the attributes of positivism and interpretivism, it is not uncommon for researches based on this philosophy to combine both qualitative and quantitative methods. Despite this, pragmatic studies that deviate from this tradition are also valid provided the use of methods or a combination of them are done pragmatically in order to advance research in the best possible way (Al Hasni, Asante et al. n.d.); this imposes a high level of responsibility and requires the ability to adopt or combine methodologies that are best for the research goal (Creswell & Poth, 2018: 27).

Ibid identified three major methodologies based on pragmatic philosophy, which include mixed methodology, Q- methodology and Generic qualitative inquiry (GQI). Mixed method combines qualitative and quantitative approaches to deepen an understanding of quantitative findings and increase the generalisability of qualitative findings. On the other hand, T. E. Stone and Turale (2015) describe the Q-methodology as a hybrid of quantitative and qualitative approaches that is used to uncover different patterns of thoughts, perceptions, opinions, and attitudes through a systematic and rigorous quantitative procedure. Finally, the generic qualitative inquiry

adopts various qualitative approaches to create something new (Kahlke, 2014: 39; Percy, Kostere, & Kostere, 2015: 77-78).

The purpose of this research was to use stakeholders' experience of the housing system to define solution that will be more appropriate; this entailed understanding the housing process and strategies and how they affect the performance of the stakeholders. The first part of inquiry used the experience of stakeholders to understand the housing strategies and the framework, hence, a phenomenological method, which relies on the experience of different individuals of a particular phenomenon was used to characterise the problem (Baker, Wuest, & Stern, 1992: 1356; Creswell & Poth, 2018: 121-122). Furthermore, a case study of the Millard Fuller Foundation (MFF) was conducted, to provide data that can corroborate the submissions from the phenomenological approach and also provide a deeper knowledge of the manifestation of the problem of private-driven housing. The second part of the inquiry entailed designing the solutions to this problem through phenomenology. Figure 3-3 shows the qualitative mixing framework used for the research.

Contrary to philosophical underpinnings of different qualitative approaches, their mixture in GQI can give rise to method slurring (Kahlke, 2014: 44), which is explicitly used by Morse (1991: 2) to describe the risk arising from combining qualitative research approaches without adequately acknowledging the epistemological origins and assumptions that underpin them (Baker et al., 1992: 1355).
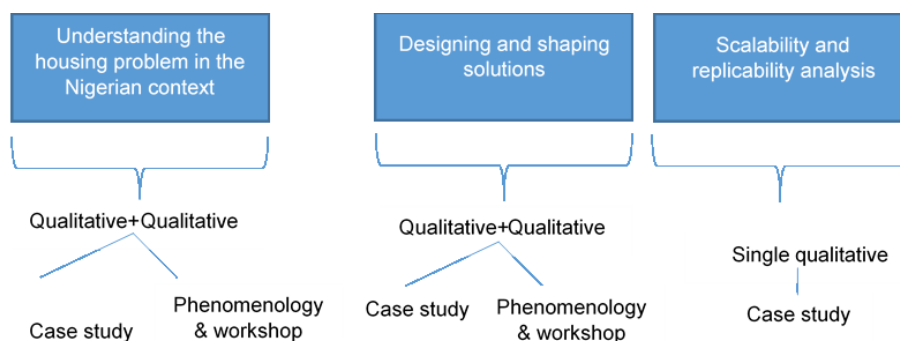
Figure 3-3: Qualitative mixing framework

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Therefore, the flexibility to deviate from the intent, rules, or guidelines of established methodologies in a way judged beneficial to the study is subjective and requires sufficient care to ensure congruence at all levels of the research framework (Kahlke, 2014: 39; Morse, 1991: 2). One of the ways to ensure congruence as implied by Kahlke (2014: 46) is to select approaches that will work together to answer the research questions, this means that the content of the information desired, or the kind of data to be obtained must fit those approaches. Therefore, while both phenomenological and case study have similar philosophical underpinning, the latter focuses on providing a typical illustration of a phenomenon within a bounded system (Creswell and Poth, 2018: 153).

Furthermore, the two approaches report data differently as identified in Table 3-1, with the case study focusing on case description and case based themes (Ibid). However, guided by the philosophy of the GQI, it is possible to adapt case base themes that reflect the general statements in a phenomenological approach to provide a uniform reporting approach for this research. Therefore, apart from publishing the case study as a separate report in the journal, some of its extracts were imported and coded into the appropriate themes in the phenomenological data analysis report.

Table 3-1: Foundational considerations of phenomenological and case study approaches (Creswell and Poth, 2018:104-106)

Foundational considerations	Phenomenology	Case study
Research focus of approach	Understanding the essence of the experience	Developing an in-depth description and analysis of a case or multiple cases
Unit of analysis	Studying several individuals who have shared the experience	Studying an event, a program, an activity or more than one individual
Type of research problem best suited for approach	Needing to describe the essence of lived phenomenon	Providing an in-depth understanding of a case or cases
Forms of data collection	Uses primarily interviews with individuals, although documents, observations and art may also be considered	Using multiple sources such interviews, observations, documents and artefacts
Strategies for data analysis	Analysing data for significant statements, meaning, units, textual and structural description of the essence	Analysing data through description of the case and themes of the case as well as cross-case themes

3.2.3 Research Sample

The phenomenological approach aimed to provide a contextual definition of the housing situation in Nigeria from the experience of relevant stakeholders. Hence, the

population of the study was situated within the housing environment, which include both public and the private sectors. The public sector included the government agencies responsible for housing policies and provision, while the private sector included the Real Estate Developers of Nigeria (REDAN), Primary Mortgage Institutions (PMIs), and a few households as represented in Figure 3-4. Again, Kahlke (2014: 40) offered that GQI methodology does not lend itself to any particular sampling method but that the method adopted is usually driven by what will offer broad insight into what is investigated. Therefore, the sampling process adopted for this research was purposive because the study required specific type of participants with experience in the housing system (Percy et al., 2015: 79). There were two sets of participants and both helped to provide a platform for confirming each other's reflections.
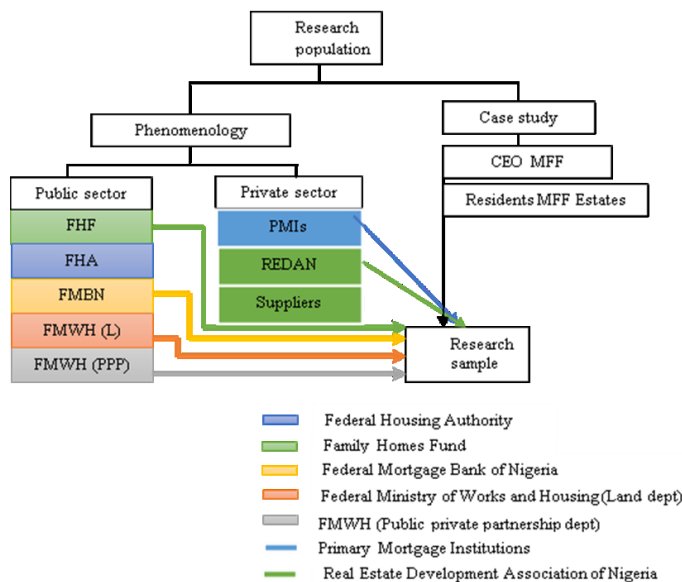
Figure 3-4: Research population and sample

The first set of participants from both public and private sectors were individually interviewed. The data generated from this group of participants was analysed and prepared for discussion with a different group whose composition is described in Section 3.2.5.5 and Figure 8-8: and Figure 8-9: in Appendix 12. Since the study was to inform strategies for an effective private sector participation in affordable housing provision, the selection process was deliberate to ensure that the required information for advancing the research objectives was obtained. Thus, government agencies provided an understanding of the strategies and the facilitative role of government in housing while the private developers and the Primary Mortgage Institutions (PMIs)

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provided the data for assessing the effectiveness of government policies and strategies on private performance. The actual number of participants engaged in this research is in Table 3-2.

Table 3-2: Actual number of participants

Office	Number of participants	Data collection method	ID
Federal government agencies	2	Interview	PUB_L, PUB_P
	2	Interview	PUB_{FM}
	1	Interview	PUB_{FH}
Primary mortgage institutions	3	Interview	PMB_A, PMB_I, PMB_F
Housing developers	5	Interview	PD_{HE}, PD_P, PD_{HA}, PD_{FR}, PD_M
Participants from diverse background in housing	18	Collaborative workshop	Collaborative workshop
Residents of the MFF estates	11	Interview	R_1, R_2, R_3, R_4, R_5, R_6, R_7, R_8, R_9, R_{10}, R_{11}
Total	42		

3.2.3.1 The Context of Case Study Selection

Case study was adopted in this research to illustrate the challenges of private investment in affordable housing and to support the phenomenological study. This is in line with Flyvbjerg (2006: 221-222) which supports the use of case study to provide a contextual based knowledge of a situation and for expanding knowledge to the level of expertise. As a detailed examination of a single example of a class of phenomena, Abercrombie, Hill, and Turner (2006: 45) advised that cases selected must mirror the features of a phenomenon under investigation. Therefore, the Millard Fuller Foundation (MFF) was selected because of their experience in affordable housing in Nigeria.

Although case study is criticised for its failure to generate generalisable findings because of limited representation, it is even worse for a single case (Mariotto, Zanni, & Moraes, 2014: 360). However, Siggelkow (2007: 20) dismissed this criticism by arguing that a single case can be a powerful example capable of provoking powerful insight. The unique feature of MFF, which is its success in delivering affordable housing in Nigeria for over a decade without government support is desirable for this research. The quest was to understand how the case project navigated the challenges

in the market to deliver affordable housing that is adjudged the cheapest in Africa for three consecutive times (CAHF, 2019: 5). Hence, it is possible to ascertain whether the challenges experienced and strategies adopted to achieve such success are consistent with the stakeholders' submissions in both the phenomenology and workshop. The study involved several visits to the projects in March 2020, where semi-structured interviews were separately administered to the CEO of the organisation and the residents of three of its seven estates (eleven households) that were accessible at the time. The selection of the households was based on convenience, willingness and availability to participate. The data from the case study has been published in the Journal of Risk and Financial Management (see Appendix 27 for the result and analysis). The full article can be found here: https://doi.org/10.3390/jrfm16090411

3.2.3.2 The History of MFF Projects

The Millard Fuller Foundation started as a non-profit house builder in 2006 to tackle the Nigerian housing deficit (Raschke, 2016: 11). In 2007, its first studio apartments were built with donor funds and sold at zero profit, zero interest rate (Table 3-3). Subsequently, the desire to scale up production led Fuller to shift its strategy; currently, it employs short-term project financing (12–24 months) to provide for-profit residential housing developments for the middle- to low-income groups (Raschke, 2016: 11). The housing projects built by the organisation are in Luvu-Madaki, Masaka, in Nasarawa State of Nigeria, which is only a few Kilometres away from the capital city (Abuja) of Nigeria and most workers who are unable to pay for the expensive accommodation in Abuja live and commute to work from there. The MFF housing projects mainly comprise studio apartments and one-bedroom apartments built as a semidetached bungalow (see Figure 3-5 and Figure 3-5); however, there are other configurations, as shown in Table 3-3. Some of these houses were delivered in an incremental building fashion similar in concept to the Chilean firm ELEMENTAL (Ferreira, n.d). Families or apartment owners can upgrade their studios to one-bedroom apartments and their one-bedroom apartments to two-bedroom homes (See Figure 3-6, which shows a plastered concrete oversite for future expansion). Buyers were assisted in owning a home through a convenient payment plan. As of 2020, when the data were collected,

the MFF had finished more than 600 affordable housing units and was scaling up its operation to deliver 600 units.

Table 3-3: Summary of MFF projects based on data collected from a visit to the project in March 2020

ID	Project	Number of units	Cost (₦)	Construction method	Funding	Design
1	Fuller estate	60	240,000	Concrete block and Nigerite produced drywall.	Fuller Centre for Housing USA	Studio apartment started in 2007 with the last set completed in 2013 and fully occupied
2	Camp Luvu I	13	5.9m	Concrete block construction	Self-funded	Three and four-bedroom apartments.
3	Aso Fuller estate	12	3m and 4m	Concrete block construction	MFF in partnership with Aso savings and loans ltd	One and two-bedroom semi-detached bungalow completed and fully occupied. Started in 2009 and completed in 2010
4	Selavip I & II	36	360,000 & 960,000	Concrete block and Nigerite produced drywall.	Selavip and Etex group	Studio apartments started in 2014 and were completed in 2015
5	Grand Luvu I	268	1.65m, 2.9m and 3.9m	Concrete block construction based on an incremental model[18]	MFF with funding from Reall, UK (loan at 5%) and bought over by FHF	Studio expandable to one bedroom and one bedroom expandable to two bedroom semi-detached bungalow started 2015 and completed in 2016
6	Camp Luvu II	32	3.6m and 5m	Concrete block construction based on an incremental model	MFF with funding from partner Reall	studio and two-bedroom started in 2020 and ongoing
7	Grand Luvu II	400	2.9m and 3.9m	Concrete block construction	An initiative of FHF completely funded and handed over to it	Studio and two-bedroom semi-detached bungalow, which took off in November 2017 and was completed in August 2018

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[18] Innovative incremental model is designed for families whose financial status is unable to afford them their desired house; they start with what they can afford and when their finances improve, they can expand the house to fit their need. Usually, a studio is designed to be expanded to one bedroom apartment and one bedroom apartment designed to be expanded to two bedroom apartment.

Figure 3-5: Semi-detached Studio and one bedroom flat configuration Grand Luvu 1 project (From site visit 2020)
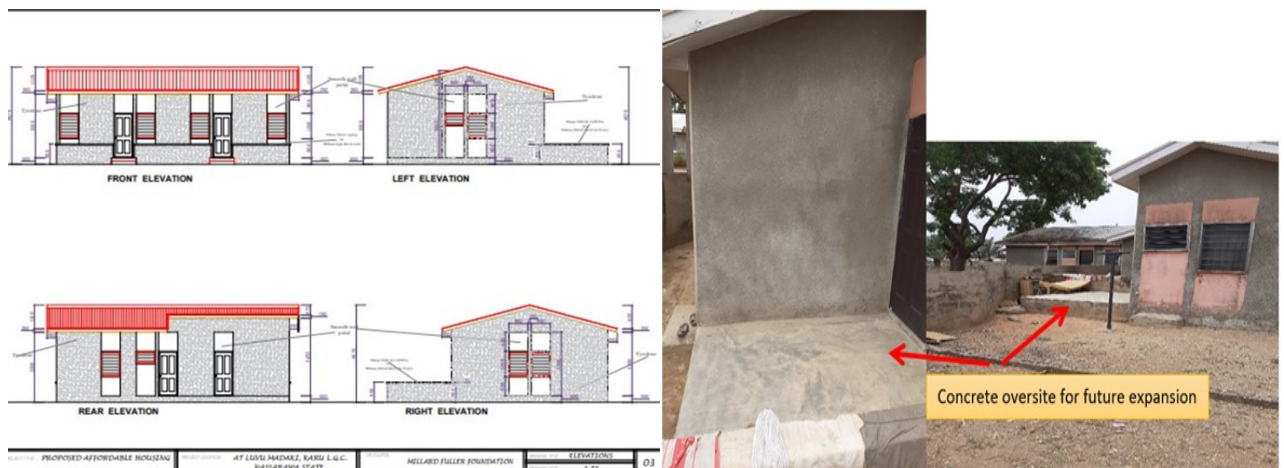
Figure 3-6: Semi-detached studio and one bedroom flat (elevation plans) (left) and MFF house showing concrete oversite for future expansion (right)

3.2.4 Research Area

The choice of Abuja as the study area was influenced mainly by the rapid rate of urbanisation triggered by its assumption of the status of Federal capital of Nigeria. It is also the source of all policy development and implementation affecting the nation. In addition to this, is its historical development as the capital of Nigeria, the twists and turns of events in its development, the influx of workers and citizens from different parts of the country (with the associated strain on housing) (Oni-Jimoh et al., 2018: 4), and the movement of a large number of both public and private institutions'

headquarters into it are all features that make its study very urgent. Furthermore, the construction works associated with its development and the movement of a large number of developers to Abuja, make it a worthy area for this research. The urbanisation of Abuja has been rapid and has put more pressure on the available housing, tasking both developers and government's efforts in addressing the housing shortage in line with the policy. Therefore, it will be used for assessing the strategies for affordable housing and in defining appropriate mechanism for responding to urban housing in Nigeria.

3.2.5 Data Sources and Research Instruments

GQI methodology focuses on the external and real world, hence, the use of people's reports and ideas about things happening around them to describe these realities (Percy et al., 2015: 79). Hence, GQI adopts semi or fully structured approaches for data collection (Ibid; Kahlke, 2014: 40). Accordingly, the method of data collection used for this research is semi structured interviews; on one hand, it included in-depth interviews with the stakeholders in both public and private sector, the MFF and the MFF residents. On the other hand, structured questions were administered for discussion to a group of professionals in a workshop setting (see Figure 3-7 for details).

Being a methodology that is subjective, GQI is criticised on what constitute rigour in qualitative research. Unlike many qualitative methodologies, the fact that the GQI does not subject itself to established methods can give rise to making decisions that are based on convenience. It is therefore, logical to demonstrate that such a subjective approach has applied rigour in every step of the decision making, which not only enhances the credibility of the process but also the trustworthiness of the data that is generated. The rigours of qualitative research are questioned on the account that their concept of validity and reliability cannot be addressed in the same way as quantitative researches (Shenton, 2004: 63). However, Guba's measures to deal with these issues have won considerable acceptance (ibid) and was used to ensure that both the instruments and the process of data collection used in this research are as credible and reliable as possible. In establishing the rigours of this research process, the Guba's criteria described in Thomas and Magilvy (2011: 152-154): credibility,

transferability, dependability and confirmability were used. Table 3-4 is a summary of how these variables of rigour were fulfilled.

Table 3-4: Strategies for establishing trustworthiness of the research; adopted from Thomas and Magilvy (2011: 152-154)

Criteria	Purpose	Original strategies	Strategies applied to achieve rigour
Credibility	To ensure that research findings can be clearly linked with reality.	Interviewing process and techniques	Two different approaches- phenomenology and case study were used to gain complete understanding of what is being studied. The use of interview and workshop as the data collection instruments helped to diversify sources of data. The nature and style of questions in each case helped for complementarity and confirmation
		Data analysis process	The description of interpretation process used verbatim quotation from data to illustrate and support their interpretation
Dependability	To ensure the findings of this qualitative inquiry are repeatable if the inquiry occurred within the same cohort of participants, coders and context.	Rich description of the study method	A detailed study plan was developed prior to the study
		Reflective appraisal	Daily appraisal of plans served for measuring plans and results, in cases of discrepancy, adaptations were made for improving them.
Confirmability	To extend the confidence that the results would be confirmed or corroborated by other researchers.	GQI	The use of two major data sources- phenomenology (including the use of workshop) and case study made for a diverse and rich information, which helped to confirm the similarity and consistency of information
Transferability	To extend the degree to which the results can be generalised or transferred to other contexts or settings.	Purposeful sampling	Purposive sampling method ensured that only participants who can supply valuable information on the knowledge being pursued were used
		Data saturation	Data collection exercise benefitted from snowballing to reach out to participants that were difficult to reach. The data collection exercise reached a point where no new information was coming despite the small sample involved
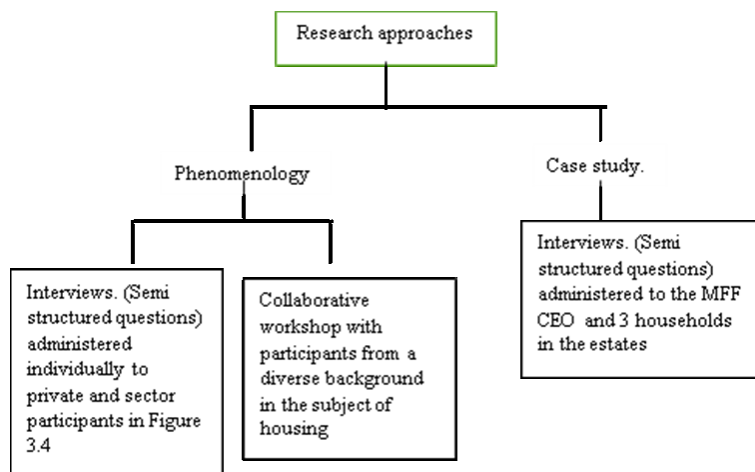
Figure 3-7: Data collection instrument for the research approaches

3.2.5.1 In-depth Interviews

In-depth interviews provide a more relaxed atmosphere for extracting a more detailed and contextual information on what is investigated (Boyce & Neale, 2006: 3). Based on the objective being pursued, interviews were a dominant tool for eliciting the needed information from participants. A semi-structured interview was used to ensure that important areas were covered in every interview. It helped in exploring the strategies for housing and their effect on private sector driven affordable housing with the participants. The interview process was made up of three stages, which took place at different periods (see Figure 3-8 for the periods the interviews were conducted). They were administered on the three respondent cohorts: (i) public and private sector stakeholders, (ii) the CEO MFF and (iii) the MFF residents. Although they were intended to explore the operational framework, the interviews were structured to capture the different stakeholders' experience (see Appendix 4) of the framework, which is necessary formulating the problem and its solution.

The first stage of the interviews took place between March 12, 2020 and April 23, 2020 within the pandemic period, hence, there were ten face to face interviews, with five delivered through a video call when complete lockdown was enforced in Nigeria. The face to face interviews usually took place in a conducive office of the participant in the morning hours, however the virtual ones took place at a time convenient for the

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participants. With the participants' consent, the interviews were audio recorded and later transcribed verbatim by the researcher.
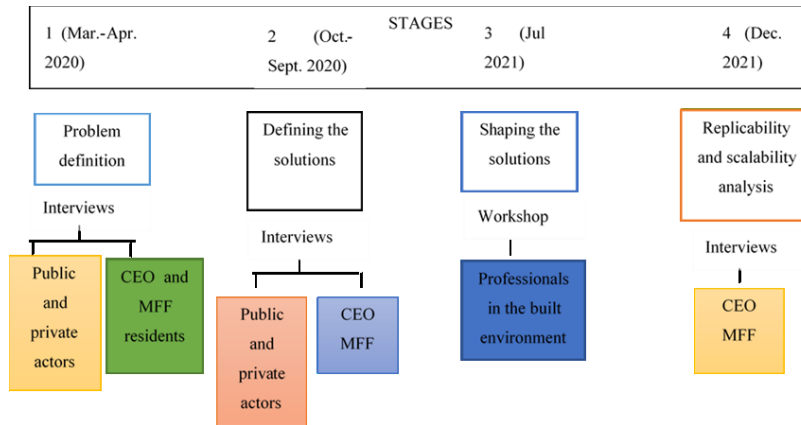
Figure 3-8: Stages in the data collection process

3.2.5.2 Interviews with Stakeholders (Public and Private Sectors)

The interview was administered in two stages on this cohort, the first stage was to define the problem of private driven affordable housing and second stage was aimed to define the solutions. The interviews were structured differently for each sector; in the first stage which dealt with the problem formulation, the set of questions delivered to public sector was intended to unveil the nature of government enabling actions and the effect or challenges to private investment. On the other hand the questions for the private sector were designed to understand how government enabling actions affected their activities around affordable housing, hence, each was administered questions related to their circumstance (See Appendix 4). The second stage of the study made use of the data generated from the first study to design questions in the form of fictional stories, which were administered to the stakeholders to excite imaginative thinking and honest response and to encourage them to switch to roles different from their circumstance[19]. Thus, the private sector got questions that reflect the problems or the experience of public sector and vice versa (See Appendix 6, Appendix 7, and

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[19] The intention of encouraging the switching of roles of the participants was that each might understand the constraints that affect the other's performance so that they can provide objective response that will address the performance limitations of each other.

Appendix 8). Such engagement with this exercise is also reflected in the use of first person pronoun by participants to express their opinions, (e.g., PM1[66]). The purpose of using vignette was to allow the participants to freely share their views while exciting reflective thinking and honest response (Rizvi, 2019).

3.2.5.3 Interview with the CEO (MFF)

The questions for the CEO of the MFF were designed to elicit practical information on the problems affecting private developers. The questions, which can be seen in Appendix 5 were aimed to describe the problems of private investment; they also helped to corroborate the responses provided by the stakeholders in the public and private sectors, which helped to strengthen the reliability of the instrument. The MFF was interviewed in three stages throughout the study; the purpose of the interview in the first stage was to formulate the problems of housing investment through his experience. In the second stage of data collection, he was merged with other stakeholders in section 3.2.5.2 to provide answers to the fictional stories. The third stage of interviewing was the testing of the solutions developed on the MFF (For replicability and scalability).

The analysis of replicability and scalability of the solution on the MFF was driven by its experience in affordable housing in Nigeria. Furthermore, analysis of this nature needs sufficient amount of time to run, time is needed to observe the effect of the solution on the project, which means that a project life cycle has to be completed before a valid analysis can be made. Moreover, the tools for running such analysis like the recommended institutional restructuring and enabling actions of the government have to be in place, which cannot be secured within the short period of this research. Therefore, considering that the MFF has had closer interaction with his projects, it is assumed that their experience will elicit accurate prediction when some changes are introduced. Hence, the solutions were conveyed in an interview to them and relied on their experience of past projects to procure approximate prediction (See Appendix 11).

3.2.5.4 Interviews with the Residents

Interviewing the residents was done at the first stage of the study (the problem formulation stage), the aim was to bring end users experience to bear in the

formulation of the problem and to extract certain information that will aid the design of a more effective solution. Eleven residents of the estates were interviewed and the questions (see Appendix 5) were aimed to assess their experience in terms of the challenges and the processes involved in owning a house at the MFF estates. The data generated from the interview have been published in the JRFM in Appendix 27 pages 10 and 11.

3.2.5.5 Collaborative Workshop

In order to gain further insights into the problems and solutions to private sector driven affordable housing in Nigeria, a collaborative workshop was adopted. Workshop as a data collection method is being explored and its potential for generating valid data for researches that seek to test or improve designs has been effectively discussed in Ørngreen and Levinsen (2017: 71), Ahmed and Asraf (2018), Thoring, Mueller, and Badke-Schaub (2020: 5037). Drawing from its traditional meaning as a place where things are made or repaired, workshop has metamorphosed into an arrangement whereby a group of people learn, acquire new knowledge and perform creative problem-solving (Ørngreen and Levinsen, 2017: 71). Hence, the concept is being exploited for developing designs and policies and for addressing societal challenges (ibid).

The use of workshop for generating data for the study was considered a valid option for reassessing the problems from a different group of people, developing, testing and remodelling solutions that will fulfil participants' expectations to achieve something that is related to their own interest. While this is the reason for using workshop as a data collection method, it also helped to strengthen the reliability of the data on the research objectives. One of the focus of the data collection was to determine the extent to which the solutions respond to stakeholders' needs, hence the participants for the workshop were stakeholders from diverse backgrounds in the housing sector (see Table 3-5). These were recruited through the purposive sampling method from across Nigeria.

This method offered the opportunity to reach out only to those participants[20] who are able to provide "information rich data" (Ahmed and Asraf, 2018: 1507).

Essentially, the aim of the workshop was to assess how effective the designed solutions are in addressing the affordable housing problems in Nigeria and to suggest further improvement; hence, the following objectives:

1. To reappraise the facts about affordable housing in Nigeria in light of the two major problems - low private investment in, and low access to affordable housing previously established in the phenomenology study;
2. To identify possible challenges to the designed solutions;
3. To extract stakeholders' feelings about how the solutions respond to their respective needs.

Table 3-5 participants and their roles in the study

Participants	Status	Role in the study	How many of them
Lecturers in the universities	PhD holders	End users/developers	5
Lecturers in the polytechnic	Building department (Msc. Holders)	End users/developers	4
Lecturer in the Polytechnic	Urban and Regional Planning department	End user	1
Ministry of LGA	Director in the ministry of local government	Doubled as government and end user	1
Housing development corporation	Director of planning and housing	Doubled as government and developer	1
Construction companies	Private developers	Developers and end users	2
Mortgage bank		End user	1
Nottingham City Homes	Policy and planning manager	Provided international example	1

Objective 1, looked at the factors resulting in the two major problems and linked them to the needs that the stakeholders are seeking to satisfy; this is in line with (Hudson, 2019) thinking that policy failure results from unclear and contradictory goals. Identifying the factors leading to the two major problems helped to reappraise the

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[20] Considering the difficulty in securing the acceptance of a diverse audience and those who are confident in interacting with the online environment, purposive sampling was useful in reaching out to those that are knowledgeable in the subject of affordable housing and are able to play multiple roles as far as the stakeholders in housing are concerned.

information already established from the phenomenological research approach. Secondly, linking these factors to the needs the stakeholders seek to satisfy established a basis for articulating the framework that will engendered the fulfilment of stakeholders' needs. Furthermore, to identify possible challenges to the solutions, the participants were asked to state what is good and bad about the solution and to suggest possible improvements where appropriate. The importance of the exercise is that the stakeholders' experience helped to shape the solutions to a form that is more acceptable to them.

The Covid restrictions, which were still in place at the time of the study meant that the workshop took place online, it was designed and organised to foster engagement, which is crucial for achieving the aim of the workshop. It featured collaborative discussion and constructive feedback between the participants and the facilitators, which helped to generate rich information data. Two collaborative software tools were used for the workshop: Microsoft teams was used for the meeting, which also offered a breakout function that helped facilitate discussions in smaller groups. Secondly, Miro, which is an infinite white board provided a platform for brainstorming and information sharing. The workshop featured four different sessions of the presentation of data from the phenomenological approach, group discussion, group reporting, and a round table discussion at the end of the workshop to help identify the key points and the conclusions. These features are indicative of an intense engagement, which is necessary for establishing the credibility of the results of a qualitative study (Pandey & Patnaik, 2014: 5474). In general, all discussions were audio recorded with the recording feature of Microsoft Teams, the whole exercise lasted for about 3 hours; a sample of the workshop programme is in Appendix 12.

The workshop was run in four stages; the first stage involved a presentation of the two key problems of private driven affordable housing from the previous study, namely low private investment and low access to affordable housing. In the second stage, the participants were divided into two groups, each group had the following tasks to perform:

- Analyse and identify the factors that led to the problem presented to them;

- Identify the stakeholders[21] in each case and the needs they are seeking to satisfy;
- Suggest solutions

The exercise acted as a credibility check and an augmentation to the earlier findings. The third stage of the workshop involved another presentation, in which the solutions (findings form the second stage of the study) were presented to participants; similarly, the participant from the Nottingham City Homes presented the UK strategies (see Table 3-5). The purpose was that the participants can make informed contribution to the discussion. The fourth stage involved the dispersion into groups where participants critically analysed each of the solutions in light of what is good (or the benefits, the possible challenges, and possible adaptations to make them better (see Appendix 17, Appendix 18 and appendix 21-24 for submissions)

3.2.5.6 Ethical, EDI, and RRI Considerations

The main goal of ethics in research is to preserve moral integrity in the overall research process; this means that the subjects of the research and its conduct are guided by a set of principles and good practice (Rana, Dilshad, & Ahsan, 2021: 1). Essentially, research is governed by five fundamental principles, which include, minimizing the risk of harm to the participants, securing informed consent from the identified research participants, protecting the anonymity and confidentiality of the participants, avoiding deceptive practices, and offering participants the right to withdraw from the research at will (Principles of research ethics; Rana, Dilshad et al. 2021: 2). This research made use of a special group of people who are in sensitive positions; this imposed a greater responsibility in preserving their privacy. Hence, the data collection kicked off upon securing the approval of the University of Nottingham Ethics Review Committee. Due to the lower risk nature of the study, no potential harm to the participants was anticipated, nevertheless, all safety measures with respect to interview locations were applied in accordance with the approved risk assessment and management plan (See Appendix 13). Participation in the research was voluntary and participants were sufficiently informed of the aims of the research and their responsibility in the

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[21] The participants had to identify the stakeholders involved in each problem that was presented to them; for example, under the problem of low investment in affordable housing, the associated stakeholders include the developer, government, the mortgage banks etc.

information sheet, which was sent to their emails. They were expected to express their interest by a return email indicating their preferred date for the interview. This formed the major sampling method for the study as all those who responded to the email composed the study participants. Furthermore, every interview was preceded by giving the participants the consent form to read and sign. Again, the anonymity of participants were preserved by giving them pseudo names and all data acquired from this study were strictly used only for this research's purpose and were stored as password protected documents.

The study aimed to address the problems of private sector-driven affordable housing in Nigeria with significant impact on the housing stakeholders. To ensure that the relevant stakeholders were captured, the sampling method recruited participants from among the stakeholders in the housing sector because their experience is important in defining solutions that will affect their performance. This is in line with the principles of Responsible Research and Innovation (RRI) and Equality, Diversity, and Inclusion (EDI) where research with significant ethical or moral components, or raises issues of trust or social acceptability should engage a wide range of stakeholders (H. Smith, Manzini, & Ives, 2022: 1).

3.2.6 Data Analysis

Qualitative data analysis aims to explain, interpret and summarise the mass of complex information in the light of the subject matter or research question (Lacey & Luff, 2009: 6; J. Smith & Noble, 2014: 2). There are different approaches to analysing the qualitative data depending on the goal of the exercise and the nature of research question (Check & Schutt, 2017: 17); for example, if the research question is intended to bring new understanding or light to what is already known or to understand the general idea within a context, then an inductive approach will offer a non-bias standpoint so that the researcher is open to new trends and ideas (Harding, 2013: 13). Accordingly, the GQI methodology which is classified as epistemologically social constructivist and theoretically interpretive (that is, focusing on how people construct or interpret reality), aims at a rich description of the subject under investigation, minimising as far as possible researcher's interpretation. Since the goal is to remain as close as possible to the data, descriptive qualitative approach using codes,

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categories and thematic analysis is the most used method of data analysis (Kahlke, 2014: 39 & 40).

According to Braun and Clark (2006: 26) thematic analysis involves the searching across a data set to find repeated patterns of meaning. While it does not represent a complete research design, it is flexible and compatible with many qualitative approaches (Percy et al., 2015: 80), as such, it sits well with generic studies, which claim no allegiance to a particular qualitative methodology. There are three types of thematic analysis based on ibid classification namely: inductive analysis, theoretical analysis and thematic analysis with constant comparison. Inductive analysis is derived specifically from the data without any attempt to fit data into any pre-existing categories, while theoretical analysis is adopted where data is built on existing understanding while remaining open to new themes emerging from the thematic analysis (Percy et al., 2015: 81).

Finally, thematic analysis with constant comparison is either inductive or theoretical analysis in which data are analysed as they are collected and at the same time comparison is constantly made between data (Ibid: 83). Thematic analysis was considered very suitable for this research since the intention was to construct reality based on people's view, knowledge, experience and values from a set of qualitative data (Caulfield, 2019), hence solutions extracted were categorised as themes. Generally, the data analysis for this research was a combination of both inductive and theoretical analysis where the data, on one hand determined the themes and on the other hand were grouped into pre-existing themes. The inductive analysis featured in the analysis of the data from the first two stages of the study (which dealt with the formulation of the problem and the definition of the solutions). It allowed for generating themes from the data as against identifying them through a set of preconceived themes thereby preserving the integrity of the whole process. Therefore, the researcher identified commonalities amongst the participants' views in order to derive some understanding about their experiences and opinions; it reinforced the idea that common opinion could confirm that an optimal solution is in sight. Since the analysis was data-driven, it focused on semantic themes, applying the language of the participants wherever possible to code data extracts. Consequently, the stages of

analysis described by Braun and Clark (2006: 86-92) and Percy et al. (2015: 80-81) were followed and is outlined in the following:

- Familiarisation with the data (transcribing, reading re-reading and taking notes);
- Generation of initial codes;
- Searching for themes;
- Reviewing themes;
- Defining and naming themes;
- Producing the report.

Hence, the interviews were conducted, recorded and transcribed by the researcher. Repeated reading of the transcripts allowed for familiarisation with the data and allowed the researcher to identify the initial codes. All data extracts demonstrating the same code were grouped together and checked in Nvivo (Figure 3-9). Repeating patterns of meaning formed themes; these were then reviewed and defined and the main themes developed. A framework for the inductive analysis is shown in Figure 3-10. The theoretical analysis was applied to the data generated from the fourth stage of the study, which dealt with replicability and scalability analysis of the solution. In this case, the inductive framework applied but with minor tweak to allow for categorising data into pre-existing themes. The theoretical analysis framework is shown in Figure 3-10.

Figure 3-9: Data analysis (Coding in Nvivo)
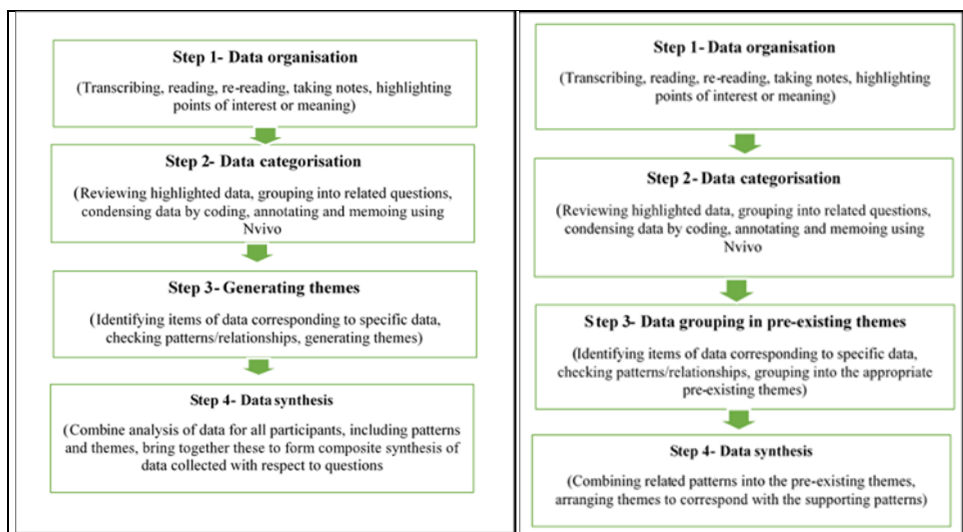
Figure 3-10: Inductive analysis framework (left) and theoretical analysis framework (right)

3.3 Summary

Understanding the problems militating against private-driven affordable housing and designing appropriate solutions for them is a contextual issue, which has to be approached from the point of view of the stakeholders that are involved. This was the key consideration for the choice of pragmatism research philosophy and the GQI as the research strategy. Both operate within the paradigm of positivism and interpretivism as a continuum, paying attention to a particular context, without the inhibitions of established ideologies; thus, allowing for flexibility and open-mindedness in solving social problems. Furthermore, the freedom to deviate from the rules and guidelines of established methodologies helped to steer the research process to a more optimal result.

4 Identifying the Challenges of Private-driven Affordable Housing

The discussions in this chapter draw mainly from the phenomenology study, although reference to the data from the case study (see Appendix 27) and collaborative workshop are made where appropriate in the discussion section. The phenomenology study explored the problems of the private-driven affordable housing in Nigeria and data where extracted from participants from both public and private sector in the housing system (see Table 4-1).There were seven interview questions administered to the participants; they were based on the first three research objectives of this research namely:

- To identify the problems of private sector-driven affordable housing
- Explore the framework and strategies for housing and the effect on private development
- Identify the barriers to private sector involvement in affordable housing

Furthermore, to strengthen the data from the phenomenology study, a different set of participants (see Table 8-6 and Table 8-7 in Appendix 12) gathered together in an online workshop to discuss two of the major findings made by the phenomenology study participants. Hence, the problems identified in the first study: low private investment in affordable housing and low access to it were presented to the workshop group in the following format:

- What are the factors affecting low access to and low investment in affordable housing?
- Identify the stakeholders involved in each factor.

The data from these two sources make up the discussions in this chapter, which are summarised under six major themes: poor operational framework, high development cost, poor access to housing, poor government policies, wrong conceptualisation of affordable houses, and stakeholders' needs and policy driver.

4.1 Results

The result of the demographic information of the participants is presented in Table 4-1 and Table 4-2. While Table 4-1 shows that out of the 12 participants interviewed in the phenomenology study, nine were males and 3 females, Table 4-2 shows that all the workshop participants were males. Also Table 4-1 shows that there were four public sector participants (in which there were two males and two females), all three from the mortgage sector were males, and five were private developer (with only one female among them). On the other hand, the workshop participants were 19 in number out of which nine are form the Eastern part of Nigeria. Furthermore, the result in each case shows that the participants had at least ten years of experience with the highest years of experience being 35 years.

Table 4-1: Demography of the phenomenology study participants

PARTICIPANT ID	GENDER	SECTOR	INDUSTRY	YEARS OF EXPERIENCE
PU1	Male	Public	Ministry	20
PU2	Female	Public	Ministry	35
PU3	Female	Public	Ministry	23
PU4	Male	Public	Ministry	30
PM1	Male	Private	Mortgage bank	20
PM2	Male	Private	Mortgage bank	25
PM3	Male	Private	Mortgage bank	15
PD1	Male	Private	Developer	18
PD2	Female	Private	Developer	15
PD3	Male	Private	Developer	30
PD4	Male	Private	Developer	35
PD5	Male	Private	Developer	33

Table 4-2: Demography of the workshop participants

Portfolio	Institution	Gender	Industry experience (years)	Location
Head of Strategy and Risk Management	Mortgage Bank	Male	20	Abuja
Senior Lecturer in Architecture	Federal University	Male	15	Eastern Nigeria
Technologist in the Building	Federal Polytechnic	Male	10	Western Nigeria

Senior lecturer in Building	Federal University	Male	12	Eastern Nigeria
Postdoctoral fellow in Construction Management	University	Male	17	South Africa
Director and Coordinating supervisor Local government affairs	Ministry of LGA	Male	30	Eastern Nigeria
Lecturer in Building	Federal University	Male	16	Eastern Nigeria
Lecturer in Building	State University	Male	20	Western Nigeria
Principal partner	Private developing firm	Male	11	South-eastern Nigeria
Director school of Environmental Studies	State Polytechnic	Male	33	Eastern Nigeria
Director Planning Division	State Housing Development Corporation	Male	35	Eastern Nigeria
Dept. of Building	State Housing Development Corporation	Male	10	Eastern Nigerian
Lecturer in Building	Federal University	Male	12	South-Eastern Nigeria
Graduate Assistant in Building	Federal University	Male	10	Eastern Nigeria
Lecturer in Urban and Regional Planning	State Polytechnic	Male	28	Eastern Nigeria
Principal Technical Instructor in Building	Federal Polytechnic	Male	34	Western Nigeria
Lecturer in Building	Federal University	Male	14	Western Nigeria
Lecturer in Building	Federal University	Male	19	Western Nigeria
Principal Partner	Private Building Development firm	Male	15	South-Eastern Nigeria

4.1.1 Code Generation

The result of the coding step is presented in Table 4-3 showing a total of 27 codes generated and the number of participants that contributed to each of them. The result shows that all the participants contributed to codes 9 and 12 while codes 16, 10, 17, and 18 had the next highest number of contributions. Codes 14 and 23 had the least number of contributions (two participants in each case). Also Figure 4-1, Figure 4-2, and Figure 4-3 are diagrammatic representation of the workshop participants' submission extracted from the Miro white board. This can be found in Figure 8-10 and Figure 8-12 in Appendix 18.

Table 4-3: Codes generated from interview transcripts

ID	Code generated	Number of contributing participants
1	No data or record	7
2	Housing not targeted to the market	8
3	Discontinuity of government housing problem with a change in government	6
4	No investors in affordable housing	9
5	unoccupied houses	7
6	Low purchasing power	9
7	Private investors interested in making profit	5
8	Population and urbanisation	3
9	Poor regulatory framework	12
10	No infrastructure, high land cost and stressful approval process	10
11	Poor or no monitoring of government land allocation	4
12	High interest and approval of mortgages	12
13	Unstable economy	5
14	Lack of continuity of projects by government	2
15	High cost of materials	4
16	Poor communication of plans and strategies	11
17	Speculation	10
18	Unaffordable and poor loan approval process	10
19	Land approval, LUA problem	5
20	Policy lacks local content	3
21	No national spread of housing programme	4
22	Poor funding of agencies	9
23	No clear plans, ad-hoc approach to funding	2
24	Low returns on affordable housing	7
25	Housing end up with people who don't need them	9
26	Lack of proper monitoring and allocation of housing	5
27	Low access to mortgage due to low income	6
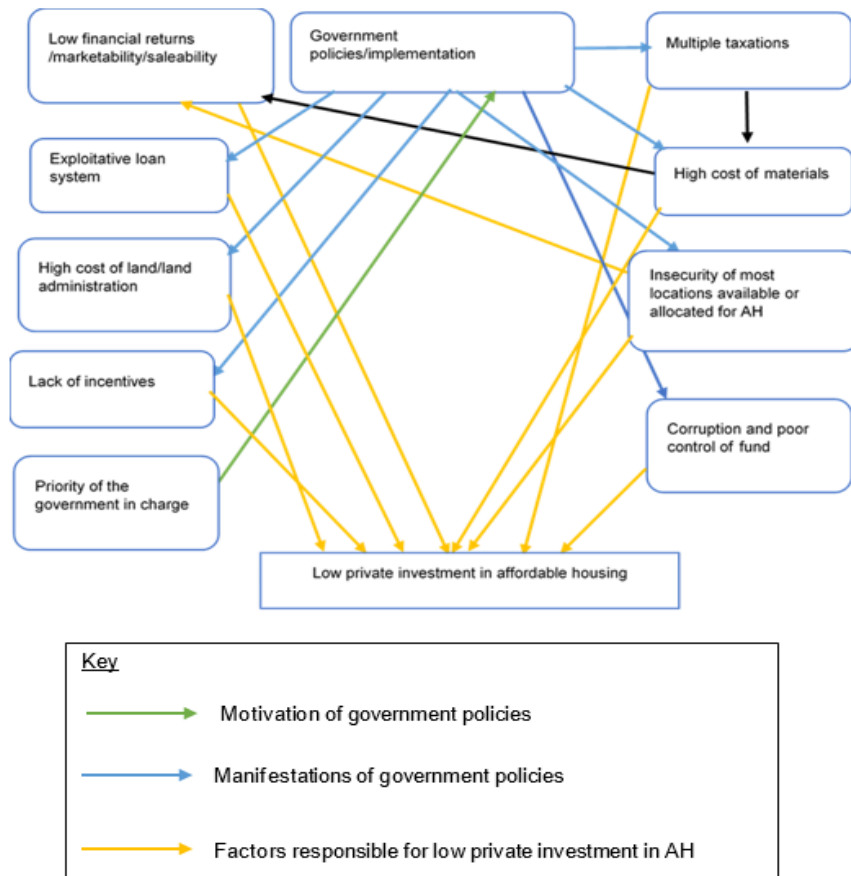
Figure 4-1: Factors affecting low investment in affordable housing based on workshop discussions
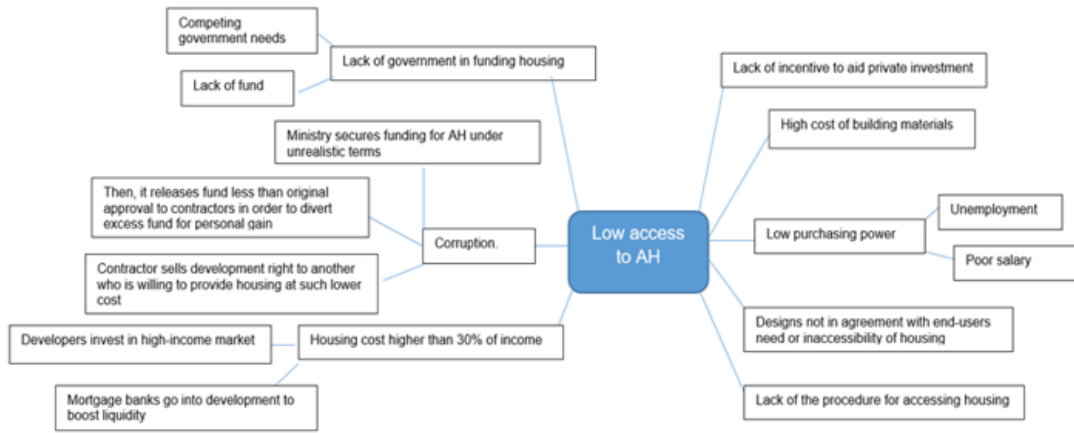
Figure 4-2: Causes of poor access to affordable housing based on workshop discussions
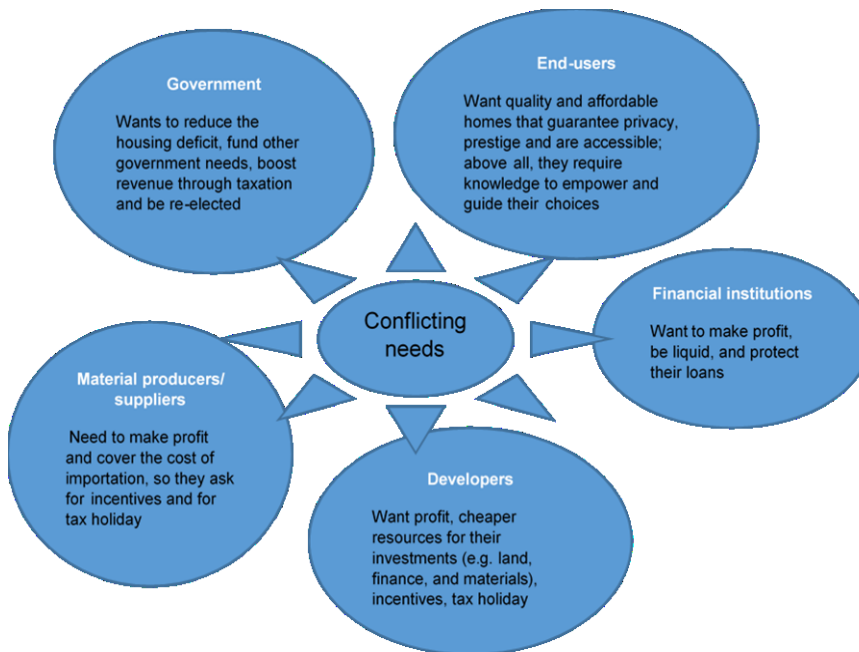
Figure 4-3: Conflicting stakeholders need based on workshop discussions

4.1.2 Theme Development

The developed themes from the phenomenology study are presented in Table 4-4. The result shows that three major themes and eight sub-themes were developed with the corresponding codes that make them up. The result also shows that sub-themes 3 and 7 had the least number of codes (two codes) while sub-themes 1 and 4 had the highest number of codes (five and six codes respectively). Furthermore the workshop submissions in Table 4-5 were categorised under the relevant phenomenology study themes in Table 4-6. Thus, theme 1 got the highest number of codes (10) from the workshop, followed by theme 2 with nine codes, and theme 3 with the least number of codes. There were some of the workshops codes that could not fit into the existing themes, they were grouped under three different themes giving a total number of six themes. Thus, theme 4 titled government policies and affordable housing had 13 codes, wrong conceptualisation of affordable housing, which is theme 5 had four codes, and theme 6 titled stakeholders' needs and policy drivers had five codes.

Table 4-4: Themes generated from interview transcripts

Theme	Sub themes	Codes
Theme 1: Poor operational framework	(1).Administrative bottlenecks	High land cost and stressful approval process, Regulatory framework, Unaffordable and poor loan approval process, Land approval, LUA problem
	(2).Lack of regulations and monitoring	Poor or no monitoring of government land allocation, Discontinuity of government housing problem with a change in government, Lack of continuity of projects by government, Speculation, poor communication of plans and strategies
	(3).Poor funding of agencies	No national spread of housing programmes Poor funding of agencies, no infrastructure
Theme 2: High development cost	(4),Availability of strategic land	No infrastructure, high land cost and stressful approval process, Poor or no monitoring of government land allocation, Speculation, Unaffordable and poor loan approval process, Land approval, LUA problem
	(5).Weak and shallow demand capacity	Low purchasing power, Private investors interested in making profit, Low returns on affordable housing

	(6).High cost of funding	No infrastructure, high land cost and stressful approval process, High interest and approval of mortgages, High cost of materials, Unaffordable and poor loan approval process
Theme 3: Poor access to housing (Demand constraints)	(7).Low income and access to mortgage	Low purchasing power, Low access to mortgages due to low income
	(8).Poor evaluation and allocation of housing	Housing end up with people who don't need them, Lack of proper monitoring and allocation of housing, Speculation

Table 4-5: Submissions from workshop participants on the factors affecting low investment in and low access to affordable housing

ID	Factors	Stakeholders involved	Conflicting needs
1	Non implementation of policies	Government	Re-election, reduce housing deficit in principle but not the driver, Increase of government funds or resources
2	Poor government policy and lack of incentives		
3	Inconsistency in government financial policy x 2		
4	Poor policy on local materials		
5	Loan system is killing		
6	Insecurity of investment		
7	Lack of support by government		
8	High cost of land in desirable location		
9	Multiple taxation		
10	Poor availability and high cost of land x 4		
11	Implementation problem		
12	No infrastructure		
13	Increase in fuel price, VAT, exchange rate x 2		
14	Non continuity of programmes due to corruption		
15	Interest of government in power		
16	Access to land problematic with state governors as custodians		
17	Corruption, government funding drying up		
18	High cost of building materials		
19	Provision of houses without consideration of the target x 3	Developers	Make profit, cheaper resources, high turnover, need incentives
20	Private focused on quick returns		
21	Houses forced on end users, no consideration for their needs- geographical and cultural		
22	Houses not affordable x 2		
23	Low disposable income	End users	Affordable and good quality homes Homes located at close proximity to services and towns Shelter, protection, privacy, prestige
24	End-users spend more than 30% of income on housing		

Table 4-6: categorisation of workshop discussion into the phenomenology study themes in Table 4-4

Factors	Themes they fall under
Non implementation of policies	Theme 1: Poor operation framework
Poor government policy and lack of incentives	
Inconsistency in government financial policy x 2	
Poor policy on local materials	
Loan system is killing	
Implementation problem	
Non continuity of programmes due to corruption	
Access to land problematic with state governors as custodians	
Corruption, government funding drying up	
Interest of government in power	
Multiple taxation	Theme 2: High development cost
Poor availability and high cost of land x 4	
No infrastructure	
Increase in fuel price, VAT, exchange rate x 2	
Insecurity of investment	
Houses not affordable x 2	
Lack of support by government	
High cost of land in desirable location	
High cost of building materials	
Provision of houses without consideration of the target x 3	Theme 3: Poor access to housing
Houses forced on end users, no consideration for their needs- geographical location and culture	
Low disposable income	
End-users spend more than 30% of income on housing	

Table 4-7: Themes generated from workshop discussions from Figure 4-1 and Figure 4-2

ID	Factors	Theme
1	Priority of government	Theme 4: Government policies and Affordable housing
2	Poor government policy	
3	Multiple taxations	
4	Poor policy on local materials	
5	Exploitative loan system	
6	High cost of materials	
7	Corruption and poor control of funds	
8	High cost of land and land administration	
9	Lack of incentives	
10	Insecurity of most locations available for affordable housing	
11	Increase in fuel price, VAT, exchange rate x 2	
12	Competing government needs	
13	Lack of government funding of housing	
14	Corruption	Theme 5: Wrong conceptualisation of affordable housing and access to housing
15	Designs not in agreement with end users' needs	
16	Developers invest in high income market	
17	Ministry sourcing fund for affordable housing under unrealistic terms	
18	Financial institutions' need to make profit	Theme 6: Stakeholders' needs and policy drivers
19	End-users' need for affordable, that guarantee security, privacy and adequate information	
20	Government's need to boost resources, fund other need, and be re-elected	

| 21 | Material producers and suppliers' need to make profit, cover the cost of importation, need for incentives and tax holidays | |
| 22 | Developers' need to make profit, access cheaper resources and incentives | |

4.2 Discussion

Based on the participants' submissions, six main themes represent the problems of the private-driven affordable housing in Nigeria. They are poor operational framework, high development cost, poor access affordable housing, government policies and affordable housing, wrong conceptualisation of affordable housing, and stakeholders' needs and policy drivers (see Table 4-4 and Table 4-7). Each of these problems are further broken down into sub-themes (see Figure 4-4 and Table 4-4). Hence, poor operational framework is broken down into administrative bottlenecks, lack of regulation and monitoring, and poor funding of agencies. Secondly, high cost of development is broken down into unavailability of strategic land, weak and shallow demand capacity, high cost of funding, and finally, low access to housing into low income and poor evaluation and allocation.

Theme 1: Poor operational framework	Theme 2: High cost of development	Theme 3: Poor access to housing	Theme 4: Government policies and affordable
Administrative bottlenecks	Unavailability of strategic land	Low income and access to mortgage	Theme 5: Wrong conceptualisation of affordable housing
Lack of regulation and monitoring	Weak and shallow demand capacity	Poor evaluation and allocation of housing	Theme 6: Stakeholders' need and policy driver
Poor funding of agencies	High cost of funding		

Figure 4-4: A framework of the problems of private-driven affordable housing in Nigeria

4.2.1 Poor Operational Framework for Housing

A full description of the operational framework for housing was previously given in section 2.3. However, this section discusses the practical expression of government facilitative role through its ministries as enshrined in the policy, including the operational gaps that hinder the realisation of affordable housing. Public sector submissions on the facilitative role of government align with the provisions of the National Housing Policy (NHP) but suggest poor performance due to the following:

- Poor funding of agencies;
- Administrative bottlenecks;
- Poor monitoring and enforcement.

4.2.1.1 Administrative Bottlenecks

This sub-theme features high land cost, stressful approval process, regulatory framework and poor loan approval process. Since land right is domiciled in the state governments, their approval seals the land transaction and registration process. The long period of time taken for this to happen is blamed on the fact that this function is performed by the governor (PU4[12]; PM2[13]). With other engagement they have to fulfil, land registration application usually takes time before approval is granted. This loophole creates opportunity for fraud because land already acquired from customary land owners and paid for does not guarantee security of the land unless the consent of the governor through the Certificate of Occupancy (CoO) is secured. When this takes time to secure, the security of land is no longer guaranteed as implied in PU4[12] because it gives room for multiple sale of land resulting in dispute and frustrating the affordable housing efforts. Furthermore, there are charges that are not effectively communicated prior to application, which increase the cost of land (PM2[13]). Finally, failure to secure approval of the governor also extends the time for approval of loan as this depends on a valid CoO as security for loan application (PM2[14]).

> [11] *Part of the reasons these houses are also expensive is the land factor, you understand. You find out that the process of getting a good title for your land, you know getting a CoO and all that if the land doesn't have a CoO; the amount you have to pay depending on the size of land is huge (PU3),*

12. *The second is as you know is the issue of titling of land, the LUA proposes that the certificate of occupancy, which does not grant ownership and that certificate is resident in very bureaucratic system, which is headed by one person, so it can be quite difficult to get access and to be assured that you are actually investing in land that you actually own, so that is one big challenge (PU4).*

13. *Now that's a very herculean task but if that can be done, because everything that has to do with the transfer of title, with the registration of title resides on the governor. A governor that has so much thing to do is even the one expected to sign the CoO or to sign the deeds or to sign to governor's consent. Already what he faced with is so much enormous...and one of the things that leads to the issue we have, the housing gap is because there's so much cost that are being charged on land registration(PM2).*

14. *and I always say or my opinion is that it is not finance that is the issue of affordable housing, it's about the legal framework. Our legal framework does not support investment, so if you get the legal framework right, every other thing will fall in place, because finance and money is looking for safety and stability and when it knows it doesn't know when the governor will sign the CoO, it doesn't know when the governor will sign the deeds or the consent and there's no foreclosure law where people default they cannot take the houses, so those are the things that legal [...] so most of the problem of Nigeria housing is within the legal framework and until we get that ready [....] yes a lot is being done using the legal framework but when we get the LUA right, then we can start to make significant improvement in housing development (PM2).*

4.2.1.2 Lack of Regulation and Monitoring

This sub-theme shows that the operational framework lacks effective monitoring and enforcement mechanism, which is expressed in participants' submissions such as poor communication of government benefits and strategies to the disadvantage of beneficiaries (see Appendix 14(5)) and the diversion of government benefits leading to misuse (PD1[15]) and suspension of government programmes (PU3[16]). The government, by the provisions of the NHP allocates public land for housing; it seems that the manner in which the allocation is done encourages speculation as captured in PU1[51]. Also, PD3[27] narration of their experience in relation to land allocation attests to this fact. Similarly, PD1 (19) expression indicates the absence of proper monitoring, which encourages the misuse of public resources or speculation (see PD1 (19) in Appendix 25). Again, it is likely that lack of proper monitoring may be linked to the commercialisation of land allocation by the ministry. Poor funding has forced the ministry to generate fund for itself (PU1[18]) and there is no moral justification for it to exact compliance through monitoring. Again, in the absence of monitoring, poor allocation and communication that should empower beneficiaries, benefits are often diverted and misused to the point where they are suspended. This is the reason why the Estate Development Loan (EDL) was suspended (see PU3[16])

4.2.1.3 Poor Funding

The ministries are generally funded through budget allocations and the facilitative performance of both the Federal Ministry of Works and Housing and the Federal Mortgage Bank of Nigeria is reportedly low due to poor funding and capitalisation respectively. The effect of insufficient funds is expressed in land allocation discrepancies as in the case of the Federal Ministry of Works and Housing (FMWH), and the low creation of mortgages by the Federal Mortgage Bank of Nigeria (FMBN). Under the Ministerial Pilot Housing Scheme (MPHS), the FMWH is responsible for the provision of land for affordable housing to housing providers, but this function is militated by poor funding which has led to misallocation of land and land speculation. The FMWH is a federal government ministry and requires adequate funding to acquire land from the states since federal government authority on land is limited to the federal capital territory. Therefore, the FMWH can only spread its housing programme beyond Abuja by relying on states to donate land or buying land from the states through a tortuous administration process. Depending on the political affiliation of the federal and state governments, such efforts is often problematic or frustrated as expressed by (PU1[17]). To demonstrate the scourge of LUA on federal government ability to spread affordable housing provision in other states, PU1[19] reported a case where federal government access to land was thwarted by the state governments who either refused or provided inaccessible land for affordable housing in their states. Moreover, when these lands are acquired, they will need to be provided with the necessary infrastructure before allocating them to developers for affordable housing; since most of the land acquired or donated by states are usually inaccessible, it becomes a problem for the ministry that is inadequately funded to provide infrastructure on the land. Most times, the land is allocated without the provision of infrastructure or commercialised to generate money for the agencies (PU1[18]). This, in turn, encourages land speculation (PD3[27]).

Similarly, the FMBN has failed to create sufficient amount of mortgages and reports administrative difficulties on account of its low capitalisation (PU3[20]). Hence, there is a link between poor funding and administrative difficulties for the FMBN, which is expressed in longer time in processing and approving of loans leading to uncertainty and poor performance as shown in the account of PD2 in Appendix 19. Furthermore, access to mortgages is fraught with operational difficulties caused by the legal framework (Land administration system) and the regulatory framework (arduous process required for foreclosure). These limit access to mortgages and also affect the affordability for mortgage as encapsulated in PU3[21,] and Appendix 14.

4.2.2 High Development Cost

The constraints to the supply of affordable housing are linked to the strategies, which affect the cost of development and the willingness of the private developers to invest in the affordable housing market. The discussions in this section reveal the effectiveness of government strategies that are meant to facilitate investment in housing. The scarce supply of houses that are affordable is evident as discussed in the introduction of this research (Moore, 2019: 216; Raschke, 2016: 3 & 9; Makinde, 2014: 62); based on participants' responses, the factors responsible for this, are summarised in Figure 4-5 and Table 4-4.

Low supply of housing

Due to

Poor allocation of public land and land speculation

High cost of funding

Low income of end users

Unavailability of affordable serviced land and poor land administration.
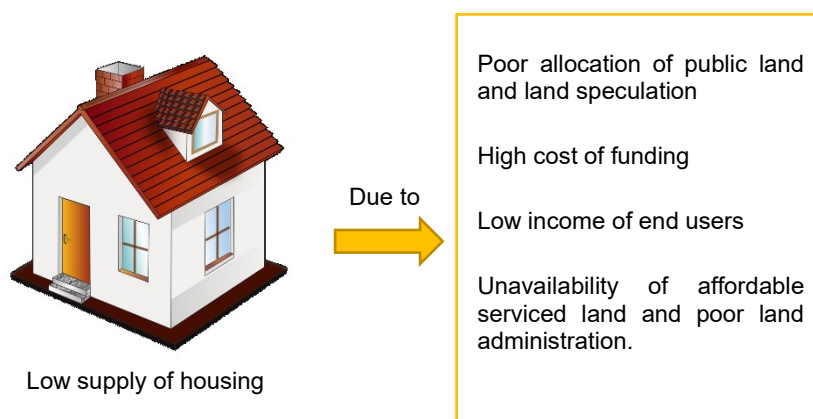
Figure 4-5: Factors responsible for low supply of affordable housing

4.2.2.1 *Unavailability of Serviced Land and Land Registration*

Topmost on the list of the factors that affect private investment in affordable housing is lack of access to affordable serviced land; this is made manifest in some precautionary measures like developing affordable housing in remote locations where land is cheaper (PD5[22]) and in addition to this is the land administration process.

> 22. *"Ok, so let me start off with the location, we are essentially located here because land is cheap, there is a historical factor as well; the HFH was working in this community so we already knew the people, it was easy to buy land from them and to do other projects but essentially, the bottom line is that land is cheap in this area…" [PD5]*

Firstly, the process of acquiring land from the customary landowners is costly and arduous, there is also an element of insecurity posed by the informal land guardians and kinsmen whose formidable opposition delays and has become part of the transaction process. Hence, it is part of the land procurement process to include the cost of appeasing them in the overall cost of land (PM3[23]). Secondly, the process of registering land is both costly and lengthy, the delay in land registration is blamed on the fact that the final consent rests on the governor or the Minister (if it is in Abuja) and these have other engagements that can affect the speedy approval of applications *(PU4)*[24].

> 23. *"…unfortunately, here in Nigeria, the issue of land is a very big issue, yes they say it's the government that owns land, take for example, from where I come-the south east of Nigeria, you cannot just say that all the lands there are from the government, by the time you go to a particular place, the families that are resident within that area will resist… So you have to pay compensation … and compensation of these indigenes doesn't come cheap; so indirectly, you see the private sector guys are all doing this for his business, they will see such compensation, any land associated expense that was made with regards to the project they are about to embark on as the land cost, be it compensation, any form of payment for regulatory bill and all that, all those will form the land cost…" (PM3)*

Consequently, the delay in approval encourages multiple sales of one land (PM3[29]), which aligns with Lawal and Adekunle, 2018: 5. Apart from this, is the fact that the land registry still relies on manual registration method, which makes obtaining relevant information that will guide transactions on land difficult (PU4[25]). Secondly, the delay in issuing the CoO affects access to mortgage and other construction resources that are susceptible to time variability (Adenikinju, 2019:26). On the other hand, land acquired through public allocation (see section 4.2.1) reduces cost for the investor and is

accompanied by a lease of agreement issued to the allottee to minimise land speculation (PU1)[26]

> 24. *"…The fact that this responsibility is vested on one person is contributing to the delays that attend the land registration process…" (PU4)*
>
> 25. *"…but the most significant issue that your friend has or the story alluded to, of multiple allocations of the same land in a city like Abuja, which actually has a fairly singular titled structure, is one of the digitisation of the land system. This is still missing currently, although it is a growing practice, the truth is that most of the land registries across the country are still very manual and have not onboarded fully a modern geographical information system that will make it easy to be able to know who is allocated what land, where, from behind the computer desk…" (PU4)*
>
> 26. *"…when we provide this land, what we give them is a development lease agreement, which will only enable you to develop the place within a period of, I think a maximum of five years then you sell off the field. We don't give title to the developer because that will make them not focus on the purpose for which the land was granted. You could encourage speculative acquisition of land, which is not going to help arraign the purpose of making land available for housing delivery (PU1)*

Despite this precaution, public land allocation is still tainted with corruption, lack of transparency, and inequitable distribution of land (PD3[27] and PD5[28]) which is encouraged by weak monitoring and allocation mechanisms. As a result, the real investors are discouraged from investing their limited resources in affordable housing. In addition to this, is that these public allocations are in remote locations and lack basic infrastructure, which has deterred private investment as well as fuelled speculation (see PD1 analysis in Appendix 25(20)).

> 27. *…"Consider land for example, when the government was allocating land in Abuja, people got land and hoarded it. We who are investing in affordable housing brought money and did everything, and we had nothing, so we had to go and buy land from the open market… On another occasion, we were lucky to get an allocation, before we got there, they've given it to another company, who was said to be developing affordable housing on it, however, the houses they built on the land were almost 50 million naira…I sincerely believe they used our name to get the land and sold it to another company" (PD3).*
>
> 28. *"I will just give you an example, we have one or two agencies in government today and they all claim to be building affordable housing. They know the people who can build affordable houses, but they will hardly ever go to them, they prefer to engage with the contractors or politicians' appointees and the big wigs who are bringing notes from the politicians knowing full well that these people don't have the experience or do not have the know-how to deliver; so, this is really our fundamental problem in Nigeria" (PD5)*

Land drives all efforts in housing delivery and the outcome of land registration which is the Certificate of occupancy CoO, is a valid security for a construction loan from the banks, hence, when it is absent or is delayed, it has serious consequences on other aspects of housing cost. Furthermore, the suitability of land as a valid security for loans may be affected by how and where land is sourced and the area where the registration occurred. Examples of such land include those on the outskirts of the city (which are under the area council powers) and public allocated land; generally, banks are unwilling to process loans with them due to security reasons (PM3[29]; PD2[30]).

> [29] *"...we have more comfort if it has a CoO as well. The major reason why we are not really comfortable with area council land is that the registry system is not well organised, you can find a whole lot of double allocation; if you go to Bwari area council for example... or to Amac munincipal area council to do search on a property, you just see them carrying files up and down and you end up seeing two persons allocated that property; but a title issued by the FCT government normally goes through Abuja Geographical Information System (AGIS), so, you can easily go for a search in AGIS and can ascertain whether the property is encumbered,... and that is why most people prefer to deal with FCT land....(PM3)*
>
> [30] *"...Secondly if we can allow the banks to say ok fine we need a titled land but we are not always looking for a CoO because that takes longer time to come out than the lease of agreement (LOA) given after public allocation, which is used to process the CoO; so, many developers have the LOA for their land but the banks won't accept it because they need land with a proper CoO..." (PD2)*

This means that strengthening both the land registration system and improving the approval process are central to facilitating other construction resources as well as making land more available for affordable housing.

4.2.2.2 Weak and Shallow Demand Capacity

Sections 1.3 and 1.5 dealt extensively on the market indicators that affect private investment in housing like profitability, potential market, and the rate of returns on the investment. Hence, private developers are naturally drawn to investments with high profitability profile, one where the end-users have the financial capability to obtain their preferred housing type (effective demand) and thus stimulate returns on investment for the developer. While the need and demand for affordable housing are obvious as described in section 1.3, evidence shows that they have not been translated to effective demand due to the pervading low income (PD5[31]; PU4[32]). As a result, it is normal for developers to dispose or sell their units to those who can and are willing to buy thereby encouraging speculation (see the experience of PD2 in Appendix 19 (10))

The National Housing Fund (NHF) is intended to provide affordable mortgage for the low or middle-income earners but the salaries of workers are low (PU4[32]) and cannot qualify for even the lowest mortgage amount (see the analysis of a public official in this regard in Appendix 15). The loanable amount under the NHF scheme is between ₦5 million and ₦15 million naira, however, the actual amount lent at any given situation is determined by how much one's salary can afford (PU3[33]). While affordability for mortgage may be enhanced by a combination of supplementary income sources as implied in the analysis of PU2 in Appendix 15, they are yet to be recognised in the loan origination procedures.

4.2.2.3 High Cost of Funding

Funding housing development in Nigeria is deemed very challenging for investors considering the high cost of construction inputs. In his reflections, the PU4[34] strongly attributes the bane of affordable housing in Nigeria to the high cost of building in the following:

The cost of building is directly related to the construction inputs, thus the cost of finance, land, materials, and the construction methodology is important when delivering affordable housing. Since housing is capital intensive, small to medium scale developers in particular, will find it difficult to support their investment with insufficient equity; hence, they will require financial support from banks and other sources to do so. However, lenders are generally exposed to a number of risks and are unwilling to provide the sums of money required to close the affordability gap to developers without the necessary risk capital, hence, the tight lending requirements that limit access to funding for many developers (PM1 [35]; PM2[36]); this is also similar to (El-hadj, Issa, & Zekebweliwai, 2018: 202) submission in that respect.

[35]   ..."I think they did it for a number of reasons, number one I think the greatest problem we have in Nigeria is our LUA, and our LUA is a bit of a problem, foreclosure laws as well. It doesn't make sense to me as an investor to invest in housing right? And when maybe people begin to default, for example I invest in a mortgage company that is supposed to provide financing for people to buy houses and when people begin to default, I'm unable to foreclose on the houses and sell to the next person..." (PM1)

[36]   "...the greatest challenge is getting proper titles, like I said ...the house is there but it's not titled, also litigation and recovery for loans. Some Nigerians refuse to pay back their loans because they know that it takes a long time for you to foreclose... so they exploit that legal loophole and default, so those are the challenges we are facing...so our major challenge has always been the issue of the cost of perfection, sometimes, we have had to add that cost of perfection to the cost of land and it's so huge, it increases the amount the customers have to pay and sometimes [...] there's one particular case- an abnormal one in which the cost of perfection of land was as high as 50% of the loan amount but generally, it's about 10 to 15 or 20% or thereabout... (PM2)

Access to finance for most developers is through deposit money banks and primary mortgage institutions; PD4[37] reported that these lend at the commercial rate of between 25% and 30% per annum, making it unaffordable for funding affordable housing. Generally, irrespective of which lending option is used, access to funding is subjected to stringent conditions. PM1[35], PM2[36], PD4[37] blame this on the LUA, which affects both the facilitation of loans from banks in terms of guaranteeing the security of loans and exacting compliance with loan obligations. PD4[37] also reported the failure to provide clear information for accessing bank loans resulting in hidden and extra charges, which discourage developers.

Therefore, as a precaution, PD4[38] reports to starting off new projects with their limited equity and then leveraging the off-takers' fund in a pre-sale arrangement. However, this arrangement is also risky as releasing the off takers' funds by the banks (PD1[39]) is usually uncertain. Therefore developers like PD2 in Appendix 19 has had to rescind selling their homes to mortgage subscribers in their phase 3 project

Another challenge to the supply of affordable housing is tied to the high cost of construction materials; the construction method still uses the traditional cement-based approach to housing; unfortunately, most of the materials associated with this method are imported. Hence, in light of the prevailing socio-economic environment, the PM2[40] and PU4[41] submissions pave way for critically questioning the efficiency of the construction system in Nigeria. As material costs account for a large proportion of the overall housing cost, it may be useful to evaluate the effectiveness of the construction method and materials used in construction.

4.2.3 Low Access to Housing

Section 1.3.2 established that effective demand is vital for facilitating returns on investment and is therefore, an important consideration for private developers. Hence, it is reasonable to say that developers will not supply housing if exit to their investment cannot be guaranteed. This concern has been captured in several submissions of the participants (see PD2 in Appendix 19). This section describes the constraints that are militating against effective demand in affordable housing and by extension low investment in it. It also presupposes that both supply and demand for housing are interrelated as shown in Figure 4-6. Therefore, unless effective demand for housing can be guaranteed, investors will not invest in affordable housing. Enhancing the supply of affordable housing will, therefore require dealing with the challenges summarised in Figure 4-7.

Figure 4-6: The interrelatedness of housing demand and supply
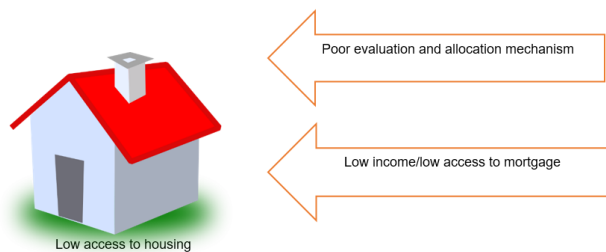
Figure 4-7: Constraints to low access to housing

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4.2.3.1 Low Disposal Income/Access to Mortgage

The observation made under this theme corresponds with the statement of Ajayi (2019: 233) in which the income distribution among the Nigeria's population is unequal, with a greater proportion of the population classified as low income earners (PD5[42]). Indeed, the financial situation of many families militates against access to housing, and given that housing makes the largest and least flexible claim on household income, the recourse to mortgage loan facility (which in this case is the NHF) comes handy to help them fulfil that need (Chime, 2016). The purpose of creating the NHF mortgage is already documented in section 1.3.1 as a means of providing affordable mortgage for the low-income families to enable access to housing. However, the conditions for accessing the mortgage present serious qualification challenges considering the pervading low income (PD5[42]). From the point of view of the FMBN and end users documented in Appendix 14 and Appendix 27 respectively, PU3 in Appendix 14 seemed to suggest that the operational difficulties such as the legal requirements that militate access to mortgage and lack of awareness of the mortgage approval operations are the challenges of access to housing. On the other hand, the end users highlight their low income, which disqualifies them for a mortgage, the delay in processing mortgage applications and communicating outcome to them as the challenges of accessing housing (see Appendix 27 section 5.5).

> [42] *"If you look at the social pyramid in Nigeria, 80% of the population earn less than 40,000 naira a month. So the bulk of the people are in what they call the lower-end segment of the market and these people can't afford (even at the upper end), they can't afford more than 10,000 a month in a mortgage. So when you look at the 10,000 a month over say 10 year period, it will give only 1.2 million so the kind of house that a person earning 40,000 naira a month can afford is only about 1.2 million naira, what sort of house will you find for 1.2 million naira in Nigeria today?" (PD5)*

4.2.3.2 Poor Evaluation and Allocation of Housing

As discussed in section 2.5.2, the distinct feature of every housing system is a strong evaluation and allocation system that ensures that the limited supply of particularly government funded affordable housing is put to the best possible use. The importance of data in facilitating the allocation of affordable housing in Nigeria is highlighted in the submission of PU4[43] and the narratives of PD3 in Appendix 16 (9). Although PU4[43]

expressed that these diversions of public resources may be unintentional, it connotes lack of effectiveness of the allocation mechanism. On the other hand, PD3 in Appendix 16 (9) and PD3[44] both reveal that the systemic flaw is due to corruption and lack of data, which have combined to encourage speculation and increase the affordability problems that low income families face.

43. *"… So for example, we are working with a group of civil servants who are within an income bracket which is declared as part of their application and access to financing to ensure that they get those houses, we are working with cooperatives groups…of course yes, perhaps people can mislead but generally speaking because of the target market that they are currently focusing on, they are people that is quite easy to check what level of income they are because typically they are civil and public servants and they are the ones that we make allocation to, but of course, we have to accept that it is a commercial world and we can allocate a house to a Nigerian who is level 8 may be earns about 200 dollars a month and he may decide that well he's moving back to the village and he wants to sell the house to somebody who is having a lot of money so the house ends up elsewhere…" (PU4)*

44. *The actual people that are in need will never benefit from the loan. It's a big problem, maybe you can look at the corruption area and see what can be done. It is still that corruption that made them mention that 17 million because they know if they bring money, they say they want to do this, they want to do that, they will share it. If you go to the bank, you say you want to collect some money, they won't give you, even if government say give money to this people, they won't give you, they will look for their colleagues, and their friends and then bring their children, the one that has not graduated, the one that is not working, they will put their name and they will collect the money, the purpose is defeated (PD3) .*

4.2.4 Government Policies and Affordable Housing

It is clear from participants' submissions that there is limited supply of affordable housing and low access to it as illustrated in Figure 4-1 and Figure 4-2, and both problems stem from a number of factors that are linked to government actions. In the first instance, the government has the primary responsibility to drive housing through its policies and decisions and when government policies hamper the progress of housing, it signifies an opportunity for reassessment. In Figure 4-1, private investment is hampered by strings of variables linked to government policies and implementation; this places government as the driver of housing programmes and also indicates that good policy drives the housing processes. There is also a link between the priority (Interest) of government and the policies they pursue; implying that a government with the right purpose is essential for making and driving good policies.

Despite the social and economic importance of housing, it has tended not to have the same political profile as health and education (Moore, 2019: 207), but the workshop

submission indicates that the interest of government is mirrored in the actions that they pursue (collaborative workshop, 2021)[45], this aligns with Moore (2019: 217) statement that government's decision is driven by their interest and sustained by political will. Thus, housing can become a powerful tool for electing a government that will deliver specific goals.

> 45. *"Can the state input into the process? – Yes – there is a state where the leader is a civil engineer and he has taken an interest in housing and is providing cheap and cheerful dwellings that work well. Ebonyi State is this example. There are other examples. It is not entirely down to leadership – it is what you are interested in… "(Collaborative workshop, 2021)*

Apart from the innate interest that must drive government decisions, the research recognises that the government has other responsibilities that are competing for scarce public funds. In the past, government has paid little or no attention to housing as discussed in section 1.2.1; in the present declining economic situation, the need to reduce public spending and boost revenue is made manifest in multiple taxations and in the unwillingness to provide the necessary incentives for driving private-driven affordable housing. Finally, at the extreme are other personal interests like re-election of the government, political affiliation, and political godfatherism[22], which may derail public resources and thus, affect the implementation of policies. These tend to be in conflict with other stakeholders' interests (Figure 4-3), which must be taken into consideration when designing framework and strategies.

4.2.5 Wrong Conceptualisation of Affordable Housing

As discussed in section 2.4, the concept of affordable housing is aimed at delivering houses that are cost-friendly to the end-users without jeopardising their comfort and dignity as human beings. However, the tendency to reduce the cost of production usually overshadows all considerations resulting most times in the design and construction of houses that are banal (Wright, 2014: 71). In the case study report in Appendix 27, one of the strategies that resulted to the cheaper cost of the MFF housing

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[22] Political godfatherism means sponsors of contestants in an election by a wealthy and influential individual or group who in return expects protection and other forms of rewards and privileges (Osadeke & Ijimakinwa, 2016: 3). This relationship has become the bane of democracy in Nigeria as in many cases, political candidates are more focused on satisfying their sponsors' interests at the expense of the governed (ibid: 7)

as encapsulated in PD5[46] is reducing design cost. However, there is evidence of dissatisfaction of the end users' (PD5[47] and in Appendix 27 Table 7), resulting in their making some changes to their homes. This simply implies that despite their low income, they still desire that their expectations for their homes are fulfilled.

[46] *"…our designs as I said are very basic…and we have typically designs for studio apartments, one-bedroom… it's just because of the cost, we want to stay below the 5 million naira mark. We have bathroom facilities, we keep it minimal, usually just one bathroom for the house…" (PD_M)*

[47] *"…Interestingly enough the market doesn't like it, they want aluminium windows, they want sliding windows, they want to be modern even though half of the opening is blocked, that's the irony. Sometimes, they take the windows out and put their windows, they are allowed that but for now, we are still sort of sticking to our louvre window…" (PD_M)*

While the case study reveals the tendency of developers to reduce cost through designs, the collaborative workshop provide a powerful insight and a broader dimension to what has given rise to such disposition. The possible cause of low access to housing emerged in the form of high cost of houses in the market and security and location of affordable housing (which arose from the strategies adopted by developers to contend with the challenges of investment). These clash with the end users' desire for quality affordable homes that guarantee privacy, prestige, accessibility to amenities and security. On the other hand, developers and government interests vary as well; in Figure 4-3, other stakeholders' interest seem to be focused on the desire for profit (for developers and financiers) and to spend less while boosting revenue (for the government). This desire seem to have manifested into an unhealthy concept of affordable housing, one in which the desire to minimise the cost of housing has undermined the needs of the end users (see Figure 8-9 and Figure 8-10).

Based on the evidences so far, affordable housing provision has been reduced to an act of benevolence in which the benefactor (government) imposes benefits without due consideration of the need of the beneficiaries (See Figure 8-9: in Appendix 17) and other qualities of housing like comfort and the preservation of human dignity (Which refers to the location of the housing units, the functionality of the allocated spaces, access to basic services, and the guarantee of security). These seem to have been neglected as a result of the wrong conceptualisation of affordable housing. The

wrong concept of affordable housing presupposes that it is meant for the vulnerable of the society who have no choice or power to decide otherwise.

Moreover, where the government is involved, affordable housing plans become avenues for diverting public funds. It manifests in corruption, which is expressed in various unhealthy practices such as overestimation of designs, adjustments of original designs to reduce the cost of construction and divert the balance for personal benefits, cutting corners by developers due to insufficient funding (see Figure 4-2). Similarly, to keep the cost of development low, developers site affordable housing in remote locations. The cumulative effects of these separate factors eventually result to either project abandonment, high cost of development for the developer, absence of basic amenities, all of which do not guarantee end user satisfaction and access to housing.

4.2.6 Stakeholders' Needs and policy Drivers

Many works of literature (Mc-Kinsey, 2014: 5; UN-Habitat, 2011: 34) and the discussions in Section 1.5 affirm that the construction variables or resources are the challenges of affordable housing signifying that they have a universal application. The re-echoing of these variables as the bane of affordable housing in Nigeria in this research consolidate this affirmation. However, the UN-Habitat (2012: 15) suggestion to design solutions that are consistent with realities indicates that although these variables may have universal application, their contextual implications and severity will always be the consequence of the framework or policies of the individual countries.

The housing framework provides the environment for driving and implementing housing policies and strategies; this assertion draws from the repeated allusions of the research participants that linked the housing problems to poor government policies and strategies. They also support Jambol et al. (2013: 287) analysis that linked the challenges of demand and supply of housing to the poor housing framework. In their analysis, the poor housing framework was directly linked to historical influences on its development (see section 1.2.2) where the central command type of economic planning, which required the government to arbitrarily plan and implement the National Development Programmes (NDP) affected the institutional arrangement for housing provision.

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The various conflicting stakeholders' expectations as captured in Figure 4-3 need to be harmonised, however, this is lacking in the current framework. The failure to understand or capture local needs in the design of strategies is therefore the bane of housing development in Nigeria. Therefore, in line with this thinking and the submissions in the collaborative workshop, it has become apparent that addressing the challenges of private sector-driven affordable housing can be more fruitful if the complex relationship that links stakeholders' needs to framework and strategies (Figure 4-1 and Figure 4-2) are understood and effectively captured in the design of strategies. This can be possible through stakeholders' interaction (Figure 8-10 in Appendix 17).

4.3 Summary and Conclusions

The introduction of private-sector driven affordable housing in Nigeria is intended to facilitate the closure of the housing gap, however, limited private investment in the affordable housing market, together with the low access to housing are persistently inhibiting the realisation of this goal. The poor performance of the private-driven affordable housing necessitated the need to evaluate the effectiveness of the enabling actions of the government. Adopting different qualitative approaches-phenomenology, case study, and collaborative workshop have allowed for the extraction of information from a wide range of sources and facilitated a comparative assessment, which provided an insight into the problems of affordable housing in Nigeria.

Generally, less investment in affordable housing is attributed to the perceived unprofitable nature and the elements of risks/ uncertainty associated with affordable housing provision, these highlight areas where enabling actions should be targeted. The uncertainty of affordable housing delivery stems from the end users' weak and shallow demand capacity due to low income, which also affects their affordability for mortgages and therefore, the rate of investment returns. This constitutes a serious setback for private developers who are generally driven by the desire for profit and investment returns. In addition to this, is that housing is cost-intensive and subject to the high cost of resources, which must be recovered. Recovering these costs- land, finance, materials, and construction methods in affordable housing investment is problematic because the cost of input is not in alignment with the output cost. Hence,

the adoption of various cost reduction strategies to reduce the cost of construction and narrow the gap between it and the disposition cost.

The strategies that are adopted by developers with respect to land aim to reduce the cost and include wrong siting of affordable housing in remote locations where services and security are lacking. They stem from a lack of affordable land in good locations, poor infrastructure and is further compounded by the cost and the process of registering land. The land registration process is bedevilled with uncertainties such as the long process of registration, varying security of titles depending on the area of land registration, and poor land records; these compromise both the security and the affordability of land, and increase the risk of investment to the developer. Furthermore, the policy strategy, which seeks to encourage private investment in housing through public land allocation is tainted with corruption, lack of transparency in the process of allocation, and inequitable distribution of land, which are blamed on the weak allocation and monitoring mechanisms. Therefore, the derailment of public resources that arises from this indicates a strong connection between the mechanism for allocating and monitoring and the effective use of public land resources, which is not healthy for affordable housing.

Developers are profit-oriented and are naturally drawn to investments that can guarantee quicker returns; the income capacity and the affordability for mortgages are essential for fulfilling this requirement, hence, an overwhelming investment in high–income housing. Low private investment in affordable housing arises from the low rate of returns, which stems from very weak and shallow demand capacity due to the poor income of end users. Despite the intention that it will provide affordable mortgages for low-income earners and improve their demand capacity, low-income still limits affordability for the NHF mortgages. Since the NHF mortgage conditions fail to capture the nature of income and structure of income progression of workers, only very few and mostly those outside the low-income range can afford the NHF mortgages. Therefore, when access to mortgages is thus restrained, housing will be unfairly distributed and will encourage speculation and continuous extrication of those in genuine need of housing.

Access to housing is militated by the limited supply of affordable housing. The limited supply of affordable housing is also influenced by the cost of development, which in turn is attributed to the cost of funds and construction materials. In terms of construction funding, the money deposit banks and mortgage banks have unfavourable terms and high-interest rates, which imply a poor investment environment and economic policies that will support investment. Moreover, access to development funding is linked to valid titles, which are compromised by the legal framework. The termination of the EDL (intended to provide affordable funds for developers) due to its misuse seriously hints at poor allocation and monitoring mechanisms. Furthermore, the CHDF is limited only to developers who are engaged by cooperative societies; other funding options like developer's equity and pre-sale mechanism are insufficient and limited in accomplishing affordable housing. These limiting factors point to the framework and policies that are supposed to facilitate a conducive business environment for all aspects of investment.

Against the backdrop of the construction technology (cement and steel based) and the challenges of importation associated with it, the use of research and local materials and technology are the policy goals and strategies for accomplishing affordable housing through reduced materials cost. The continued use of this method despite its implication on the cost of development Implies that research has not been effectively harnessed and appropriate support to trigger local material production is still lacking. Furthermore, it indicates that the right environment for investment is still lacking, which implies that either the government has not fulfilled its facilitative responsibility in that respect or that the structure designed to support this strategy is ineffective.

It is evident that the challenges of affordable housing already discussed have a strong connection with the housing framework (operating environment) and the strategies; it is also observed that some aspects of the operating environment oppose the effective implementation of the strategies. Now, both the strategies for affordable housing and the housing framework have social implications because of the human elements involved; they are structures provided for stakeholders to realise their needs and also fulfil the objective in mind. Therefore, how these strategies respond to stakeholders' concerns is as important as their willingness to apply and implement them. This gives

rise to an intricate and complex relationship, which must be carefully considered when designing strategies and frameworks. While the problem of housing in Nigeria, is linked to poor framework and strategies, it means that an extensive improvement of them is necessary. Therefore, to design conceptual solutions, understanding and capturing stakeholders' needs are important.

5 Enabling Private-driven Affordable Housing: Identifying Solutions

The chapter details the submissions of participants (from both public and private sectors) from the second stage of the phenomenological study and the relevant data from the collaborative workshop. As described in section 3.2.5.2, the data generated from the stage one of the study to identify the problem of affordable housing in Nigeria, were designed as stories and administered to the same group of participants in the second stage of the study (See Appendix 6, Appendix 7, and Appendix 8) to elicit the best way to tackle these problems identified. The interview questions designed as stories were meant to address the themes that were generated in chapter four through the following objectives:

- Identify ways of delivering affordable land at strategic locations for affordable housing;
- Discover other ways of reducing the cost of funding and boosting the supply of affordable housing;
- Devise solutions for boosting access of the low-income group to affordable housing

On the other hand, the workshop participants were required to identify the solutions as they discussed the problems in the first stage of their discussion (see Appendix 9). Thus, the discussions gave rise to possible solutions for addressing the challenges of supply of and access to affordable housing as well as practices that will aid policy design.

5.1 Results

The result of the demographic information of the participants is presented in Table 5-1. These were the same participants shown in Table 4-1 minus one private developers who chose to discontinue and an addition of a public sector participant bringing the total number of participants in this second stage of the study equal to 12. Table 5-1 shows that out of the 12 participants interviewed, ten were males and two were females. Also the table shows that there were five public sector participants (in which

four were males and one was a female); this change in gender composition was due to the availability of the head who originally delegated participation in the first study to their subordinate due to unavailability. All three from the mortgage sector were males, and four were private developers (with only one female among them). Furthermore, the result shows that the participants had at least ten years of experience with the highest years of experience being 35 years.

Table 5-1: Demography of the phenomenology study stage two participants

PARTICIPANT ID	GENDER	SECTOR	INDUSTRY	YEARS OF EXPERIENCE
PU1	Male	Public	Ministry	20
PU2	Female	Public	Ministry	35
PU3	Male	Public	Ministry	23
PU4	Male	Public	Ministry	30
PU5	Male	Public	Ministry	33
PM1	Male	Private	Mortgage bank	20
PM2	Male	Private	Mortgage bank	25
PM3	Male	Private	Mortgage bank	15
PD1	Male	Private	Developer	18
PD2	Female	Private	Developer	15
PD3	Male	Private	Developer	30
PD5	Male	Private	Developer	33

5.1.1 Code Generation

The result of the coding step is presented in Table 5-2 showing a total of 17 codes generated and the number of participants that contributed to each of them. The result shows that code 4 had the highest number of contributions while codes 16 and 1 had the least number of contributions – 1 and 2 contributions respectively. Also codes 10 to 13 and 17 had the same number of contributions – 3. Similarly, Table 5-4 contains the list of solution submitted by the workshop participants, which are 22 in number.

Table 5-2: Codes generated from interview transcripts

ID	Code generated	Number of contributing participants
1	Investment in research and innovative products	2
2	Mandating businesses to contribute to affordable housing	6
3	Cross subsidising and regulation of rents	4
4	Engaging unions and advocacy	8
5	Rental and transitional housing	5
6	Structuring housing to income band	5

7	Verifying eligibility/union formation	4
8	Addressing the low earnings	4
9	De-risking and subsidising developers' finance	5
10	Inclusionary housing	3
11	Joint venture between land owners and private developers	3
12	Robust land titling/land registration improvement	3
13	Retrofitting idle properties in the cities to affordable houses	3
14	Enforcement through imposition of contractual obligation	5
15	Institutions for assessment and regulation	5
16	Relating percentage contributing to NHF to income	1
17	Supplier's discount on materials	3
18	Site and services/incremental housing	2

5.1.2 Theme development

The developed themes are presented in Table 5-3 and Table 5-4 for the interviews and workshop respectively. The result shows four major themes and five sub-themes developed alongside their corresponding codes (see Table 5-3). It also shows that theme one has three subthemes and the highest number of codes (seven in number) and theme three has fives codes. Furthermore theme three and four have no sub-themes. On the other hand, Table 5-4 shows the workshop submissions sorted into the relevant themes generated in Table 5-3. It shows that majority of the codes fall under theme one and more specifically under sub-themes one and two. In general the codes fall under themes one, two, three, and four and extra five codes that don't fit into the themes.

Table 5-3: Themes generated from interview transcripts

ID	Codes	Themes	Sub-themes
1	Institutions for assessment and regulation	Theme 1: Unlocking land for affordable housing	1: Evaluation and regulation
2	Engaging unions and advocacy		
3	Enforcement through imposition of contractual obligation		
4	Robust land titling/land registration improvement		2:Digitalisation and decentralisation of land registration
5	Inclusionary housing/retrofitting		
6	Joint venture between land owners and private developers		3:Leveraging alternative forms of accessing land
7	Unlocking idle land and properties in the cities		
8	Mandating businesses to contribute to affordable housing	Theme 2: Cost reduction mechanisms	4:Supplementary funding 5:De-risking developer's fund
9	De-risking and subsidising developers' finance		
10	Investment in research and innovative products,		5:Research and CSR in material discount

11	Structuring housing to income band	Theme 3: Enhanced demand capacity for housing	6:Need-based housing provision
12	Rental and transitional housing		
13	Verifying eligibility		7: Verification and enforcement
14	Enforcement through imposition of contractual obligation		
15	Cross subsidising and regulation of rents		8: Incremental and self-help housing
16	Site and services scheme and incremental housing		
17	Addressing the low earnings	Theme 4: Income-based NHF contribution	
18	Relating percentage contribution to NHF to income		
19	Cross subsidising with high income contribution		

Table 5-4: Categorisation of workshop discussions into relevant themes shown in Table 5-3

Factors	Themes they fall under
Seek and develop partnership platform with local communities, with focus on affordable housing	Theme 1: Unlocking of land affordable housing Sub-theme 1 & 2: Evaluation and regulation & digitalisation and decentralisation of land registration
Creating opportunities for routine interaction of all stakeholders	
Closer cooperation between research in the housing industry and policy makers	
Central government policy to ensure housing is built and backed up by mortgage	
Devolving more powers to the state to encourage more responsible actions towards affordable housing	
Adequate national and state monitoring of implementation of housing policy	
Government to provide land at low or no cost	
Focus on the use of cooperatives to enhance access to land and mortgage	
Good road network especially in undeveloped areas where land is cheap	
Cheaper ways of constructing houses to allow more access	Theme 2: Cost reduction mechanism sub-theme 4:Research and CSR in material discount
Heavy industrialisation to enable local production of construction materials	
Massive skills acquisition centres to build more capacity in different building trades	
Government to subsidise building materials	
Employment to drive the ability to afford the houses	Theme 4: Income equivalent NHF contribution. Improving earning and access to mortgage
Reasonable minimum wage	
Prompt release of contributed NHF to enable private sector development	
Government to provide site and service scheme	Theme 3:Need-based housing and self-housing scheme
Encourage self-building and specify standards to be met and provide mortgages to make that happen	
Government to intervene in price regulation	Low-income targeted housing
Central government policy to ensure housing is built and backed up by mortgage	
Government to provide fund for housing development	
Government to engage independent consultants to the design and construction and to manage the property for a period of time	
Discouragement of sales and the maintenance of existing low-cost houses	

5.2 Discussion

Based on the participants' submissions, the solutions to affordable housing problems are represented in four main themes, representing the solutions to the problems that participants already identified and which are discussed chapter 4. Therefore, the solutions to private sector-driven affordable housing in Nigeria emerged in the themes shown in Figure 5-1; they are in line with the objectives listed in the introduction of this chapter. Theme 1 considers how to make affordable land more accessible for construction and other cost saving mechanisms for delivering affordable housing. Themes 3, 4, and other interventions consider how access to affordable housing may be enhanced for the low income earners.

Theme 1: Unlocking land in accessible locations	Theme 2: Reduction of construction cost	Theme 3: Enhanced demand capacity	Theme 4: Income equivalent NHF contribution
Evaluation and regulation	Supplementary funding	Need-based housing	
Digitalisation and decentralisation of land registration	Research and CSR in material discount	Verification and enforcement	
Alternative access to land		Incremental and self-building	

Figure 5-1: Summary of emerging themes and sub-themes

5.2.1 Unlocking Land in accessible Locations

One of the solutions highlighted repeatedly for addressing the private-driven affordable housing in Nigeria is making affordable land available in accessible locations. It is one of the themes with the highest number of codes (see Table 5-3 and Table 5-4); it addressed the problems of affordability (particularly in relation to the land registration system), accessibility of land (through other expedited measures), and finally speculation of public allocated land. Therefore, the measures suggested are expressed in the sub-themes such as evaluation and regulation, digitalisation and decentralisation of the land registration process, and expediting other alternative sources of affordable land. There are about 34 different codes that support this theme, implying that access to affordable strategically located land is an important solution to addressing the affordable housing problems in Nigeria. This is in agreement with (Mc-Kinsey, 2014: iii) report in which access to affordable land in strategic location was accorded the highest relative importance weighting of 23% among other variables. Participants agree that private developers are inclined to site affordable housing in remote locations where land is cheaper to reduce the cost of development. PD5[22] experience attests to this fact while also including that such choice comes at a cost to the provision of primary infrastructure on the land and finally to the end-users (see section 5.1 in Appendix 27). These assertions support both UN-Habitat (2011a: 38) and Mc-Kinsey (2014: 7) reports.

This research has shown that unlocking affordable land in good locations is imperative for getting the policy on affordable housing working effectively; it shows that both policy and institutional changes are needed to address the problems of land registration and the mechanism for allocating public land in the following sub-themes:

- Digitalisation and decentralisation of land registration process
- Evaluation and regulation
- Leveraging alternative sources of land.

5.2.1.1 Digitalisation and decentralisation of the Land Registration Process

An expedited land registration process can reduce the time to gain registration consent (CoO), enhance transparency in customary land transactions (by reducing the

incidents of multiple sales of land), and provide relevant information that will guide transactions on land. This seems to be the implication of some of the submissions made by the participants. Therefore, by devolving the responsibility of endorsing the CoO to senior officers as implied by PD2[48], and unbundling a digitalised land registration process (PU4[25]), land transaction and registration can be more predictable and authentic, supporting Ghebru and Okumo (2016: 21) report in this case.

> [48]   "…The fact that this responsibility is vested on one person is contributing to the delays that attend the land registration process hence, the job of registering land should be distributed since the minister is not always available. So, if they have different people within that organisation to process people's land registration, it will allow for a much faster process…" (PD2).

Participants strongly agree that the challenges of land registration process stem from the fact that granting the final consent for the CoO rests on the governor of each state (PU4[24]; PU1[17]); while this is true, they also believe that this impediment can be maximised in a decentralised housing system since changing the existing legal framework will require a constitutional review. Therefore, PM2[49] in their analysis details why leveraging both state governments, and local government councils powers on land is important in making land available for housing. Furthermore, in the state-led housing era (see section 1.2.1), housing programmes were mainly delivered and driven by the federal government (Moore, 2019: 213), which did not capture local needs, resulting in the failure of most of the housing programmes at that time (Jambol et al. 2013: 2). Both PU1[9] and PD2[8] evidence supports this assertion and shows that this practice have endured till date resulting in many problems that challenge housing provision among which is the exclusion of the local government in housing provision. The Collaborative workshop (2021[50]) clearly expressed this with strong support for the devolution of powers downwards, especially to the local government level.

> [49]   "…but the structure of Nigeria is that even if there is a national housing policy that is created by the federal government and endorsed by the state governments, the political structure gives the states as more vital stakeholders because the land resides in the states and there are 36 states that account for about 95 or 90% of the total landmass of Nigeria, so the federal government has authority at the FCT and we can look at the population of FCT, let's even say there are 10 million Nigerians living in the FCT and there's estimated 200 million people in Nigeria, so that is just about 5% of the total population where the federal government has jurisdiction in terms of land matters but other parts of the country are being managed by the states so there's no way a housing policy can work without these states having the political will and any state that wants to make it happen, it's very easy because ultimately, land use act has said that land belongs to the state government. …" (PMB$_I$)

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The exclusion of the local governments from housing provision can be corrected if the power of both the states and local governments on land is maximised in a decentralised approach to housing. With the structure and system of government in Nigeria in favour of a decentralised housing approach, and the multi-ethnic feature of the country manifesting in diverse housing needs, a centralised housing policy may be counterproductive as exemplified in the case of Apo settlement that failed (PD2[8]). In the UN-Habitat (2009b: 10) guidelines for promoting access to basic services through decentralisation, it proposed the exercise of public responsibilities through elected authorities that are closest to the people. In the Nigerian context, this means that the responsibility of the states and local governments in land administration can be harnessed in a decentralised housing approach to:

- Facilitate land for affordable housing in all the states,
- Engage local private developers (wider private participation),
- Create locally adequate policy response

The LUA has only been criticised for the constraints it imposes on affordable housing especially with regards to land registration and limiting the federal government's access or powers on land. However, its potential to increase land banks for states has yet to be considered. The submissions under this theme not only make a case for a decentralised housing approach to maximise the state's authority over land but also commits the states to maximise this power in building enough land bank for advancing private investment in affordable housing as seen in Singapore's and Vienna's experience.

5.2.1.2 Evaluation and Regulation

It was established in Section 4.2.2.3 that one of the strategies of government to enable private investment (i.e. the allocation of public land to private developers for affordable

housing) is tainted with corruption such that public land, had most often ended in the hands of speculators. Therefore, to advance private investment in affordable housing, participants agree that the allocation system should effectively engage the right people to ensure that resources are not wasted or diverted to the wrong channel. Apart from poor funding of the ministry, which affects the availability of land for public allocation, corruption and the absence of an effective allocation mechanism have fuelled speculative practices, with dire consequences for affordable housing. While proper funding is required to improve the performance of the ministry in this respect, and the review of the LUA are important, participants believe that the allocation mechanism for public land should entrench features that screen out speculators. Hence, the following features were suggested to characterise the allocation structure:

- For verifying the beneficiaries' eligibility to public land allocation,
- That specify conditions for participation,
- That provide the mechanism for exacting and monitoring compliance.

To verify eligibility for allocating public land to developers, participants seemed to suggest the creation of Affordable Housing Providers (AHPs) and the invitation of proposals only from members of that group (PU1[51] and PM1[52]). This seems reasonable since limiting the submission of proposal to the group members (who pursue the same goal and ideology) means that government benefits will be used for the intended purpose.

> [51] *"…Government should put its house in order and ensure that the person who gets land is the person who needs it, and just like I said in the case of having a Bureau that will now look at those who are genuine real estate developers. Ok., now we have REDAN, so knowing those who are genuine real estate developers should not be difficult…" (PU1)*
>
> [52] *"…If I were the government, I would work with the associations, like I said I will come up with a number of private sector participants that want to build affordable housing based on these things that I have said…" (PM1)*

While, this seems both reasonable and practicable in Nigeria, participants (see Appendix 22) reasoned that efforts should be strengthened to make such institutions foul proof and prevent speculation; hence creating contractual obligations and consequences for breaching the contract right at the onset of any affordable housing

programme will help to minimise speculative interference and also create accountability (see Figure 5-2). This can take the following forms:

- Imposing a timeline for development to take place (Figure 5-2[2 & 3]) to prevent re-sale of land,
- Granting building approval only if the designs meet the specific development requirements for such public land allocation (Figure 5-2[4]),
- Placing restriction on land transfer or re-sale(Figure 5-2[3]),
- Revoking land in the case of a breach (Figure 5-2[1]),
- Specifying the rent and prices of the developed units (Figure 5-2[5]),

Figure 5-2: Participants' responses that support the use of contractual relationship to enhance accountability of public land allocation

5.2.1.3 Leveraging Alternative Access to Development Land

Participants consider the availability of strategically located land central to addressing the affordable housing challenges in Nigeria and this can be seen from the number of codes that are linked to land alone (see Table 5-2 and Table 5-3). Also, submissions were diverse, incorporating both direct strategies for improving land availability and those aimed at leveraging and maximising the opportunities and benefits of existing cracks in the system. These are in the form of:

- Inclusionary housing,
- Joint venture between private land owners and developer,
- Retrofitting idle properties in the cities to affordable houses

Although inclusionary housing was specifically mentioned as one the strategies for providing social housing in the Nigerian housing policy (see section 2.2.4); its reiteration as a possible strategy for increasing the supply of affordable housing by the participants clearly indicates that it is yet to be implemented and, therefore, an

effective way of providing affordable housing in strategic locations. Land in strategic locations is key to any successful affordable housing programme because both residents and private developers' expectations are fulfilled (See case study report section 5.1 in Appendix 27). Since the main concern of the private developer is to reduce the cost of development in which the cost of land already accounts for a greater portion, inclusionary housing may be used to incentivise the cost of acquiring land for the provision of affordable units since they will be developed alongside market-rate developments. This has the potential of widening the number of private participation and leveraging the resources of bigger investors who are investing in high-income housing (PU4[53] and PU2[54]). Another suggestion of PU2[55] seem to suggest another form of inclusionary housing, which includes remodelling existing and unoccupied luxury houses in the cities to affordable units in place of new developments.

53. *"…government can use its planning powers to ensure that land in the centre of cities is set aside and dedicated for housing for people on low income… if government dictates planning, if the political will was there, government can make that a law, that any developer who is building at the centre of Abuja must present 20% of his units for low-income housing…" (PU4)*

54. *"…another method is if government gives the private sector a piece of land and decides to do what we call cross subsidy just like it is done in China where 1/3 of whatever you build goes to low income people so you are not bringing down the standards and yet these people will be part of that community because the idea is that at the end of the day, they can learn from each other… first, the issue of cross subsidy is very important,… 1/3 of that land should go towards affordable housing. you can build 60,000,000 naira house just like I said earlier on, and 1/3 of that environment should be left for affordable housing and that is the only way a private developer should be given a piece of land; that way, it's already written and everybody signs up to it but unfortunately that is not happening…" (PU2)*

55. *"… and I realise that in this country, we don't even have enough houses, the houses that people are talking about are so expensive that they can't get to the low income group…a group of boys found out that a lot of these houses, if remodelled can actually make these people that live in the outskirts in Nyanya to come and live there and then you are paying, maybe you are supposed to pay 1 million or 1.5 million and you are paying a hundred and something thousand every month or 60,000 every month…" (PU2)*

Furthermore, realising the unreliability of government's facilitative efforts in housing provision in Nigeria, suggestions deviated from focusing more on government taking the lead in housing to creating a self-sustainable method that involve more private initiatives. Therefore, PM3[56] suggested that private land owners can partner with desirous private developers to build houses on their land and in exchange of paying the cost of land would donate some of the houses built by them. While this may have

been used in for-profit developments, it can still be experimented on affordable housing developments with the installation of enabling infrastructure.

> 56. ... What is actually happening now in Abuja is more of joint venture partnership where a lot of land owners can go into partnership with investors or developers that are very liquid. OK fine come and take my land, you are not buying it, let's partner together. Build on this land, but you will give me some of the house that you have built as payment for it. So, you see a lot of joint ventures going on, and in that way, the people that have the money can come in and develop without paying for the land in cash. Instead of paying in cash, they use that money to develop and that is one angle of it (PM3).

5.2.2 Reduction of Construction Cost

PU4[34] attributed the cost of funding housing in Nigeria as three times higher than in India. Apart from the cost associated with land, participants identified other factors responsible for this to include high cost of construction materials, inflation, importation of materials, and poor loan approval process (see Table 4-3, Table 4-4, and Table 4-5). Consequently, the submissions by the participants to address these factors fall under two sub-themes namely supplementary funding and research and CSR in material discount.

5.2.2.1 Supplementary Fund for Developers

Section 1.5.2 established that mortgage operations in Nigeria are incapacitated by inadequate sources of long-term funds, which present accessibility and affordability challenges like short tenure of mortgage loans and high interest rates; these challenges were re-echoed in the submissions of participants in Section 4.2.2.3 as the bane of private development. While good macro-economic policies are required to address these challenges in the finance sector, they might take time to accomplish. Therefore, PM3[57] suggested an expedited solution in the form of leveraging supplementary funding to reduce the cost of fund for the developer.

> 57. "... it is not advisable for a developer to borrow more than 30% of what he needs to construct on-site, otherwise, he will end up eating into his cost. So, this means that as a developer, you also need to have some funds of yours, so the whole idea is if the bank funds 30% of the development cost, the developer has another 30% of that cost making it 60 and when you collect your equity from these customers, the equities could form the balance of it or say additional 20% so you have a vacuum of another 20%, so now this vacuum will now be closed as these customers are making the payment..." (PM3).

This analysis underscores the limitation of sole dependence on mortgage funding because it increases the cost of funding. Therefore, by implication, reducing the amount of loan reduces the cost of servicing the loan as well as the cost of investment. Since developers' equity is limited and government subsidies are no longer guaranteed (see Figure 8-9: in Appendix 17), PD5[58], PM3[59], PU2[60], and PU5[61] submissions seem to suggest that the encouragement of business to support affordable housing as their corporate social responsibility may provide the much needed public subsidy for enabling private development of affordable housing.

[58]   *"…number 3 is locally here, we may begin to encourage corporate sector to also contribute not to invest, It can become part of their corporate social responsibility to contribute maybe 1/4 of their resources towards affordable housing and for them to do that, in return, they get something from the government maybe they get more waivers on taxes which will act as incentives for them to contribute towards affordable housing…"(PD5)*

[59]   *"…The only way I am thinking that the private sector can come in all these is from the angle of fulfilling their corporate social responsibility in the sense that they give back to the community in the form of developing housing for the community but for the private firm to do that, it means that it is succeeding in its business, which still boils down to the government providing conducive business environment for the private sector to thrive…" (PM3)*

[60]   *"…Why can't we encourage organisations or private sector to use housing contribution as their corporate social responsibility and when I talk about corporate social responsibility, it's not really social? For instance, in Nigeria, although that one is not directly beneficial to the corporate organisation, is that some companies like Dangote are building or repairing roads for the government, and they are using it as tax credit. So, if the government can do something similar and say OK if you build a house or provide something towards, this amount that you have provided, you can use it as a social responsibility and you can also probably use it to get some tax relief, that will bring some encouragement to the private sector to penetrate the affordable housing market…"(PU2)*

[61]   *"… Big businesses can actually pay for this kind of scheme as part of their corporate social responsibility. If the government can make it specific and ask the big business or increase the tax for big businesses and specify that this margin of increase is specifically to bridge the housing gap in Nigeria…we have looked at ways that the government can access capital through taxation of the big businesses and even middle level businesses to fund these low-income houses, so that is that…" (PU5)*

5.2.2.2 *De-risking developer's Fund*

The discussion in section 1.3.2 shows that one of the risks and concerns of the developer is to make good returns on their investment. This was echoed by participants as a major consideration that affects their decision to invest (see the submissions of PD5[31] and PU4[32]).The analysis of PD2 in Appendix 19 and the submission of PD1[62] shows how developers concerns may be addressed. While PD1[62]

analysis shows that government can subsidise the funding of affordable housing for developers and facilitate mortgage approval to enable subscribers buy the housing units in a bulk purchase arrangement where sale price is pre-agreed.

> 62. *"...so if government comes in and says look, we will give you the fund, so, instead of you paying 20, you pay much less, how will this affect the final selling cost of your property? Or we want this your property to not exceed this amount and the PMI will provide you with offtakers; so, this is now where the government pinpoints the interested offtakers and assigns them to this particular property where they have arranged with the developer and provided some kind of incentive for the developer. So, in turn the government is kind of doing the marketing for them since there is a pool of people, so you don't need to start to follow one cooperative or another, so some level of marketing is done for the developer..."* (PD1)

However, where subscribers' mortgage application is unsuccessful (as is mostly the case – see section 5.5 in Appendix 27) and worsened by the uncertainty in processing mortgage applications, selling off houses in this fashion has become less reliable and attractive (see Appendix 19). Hence, with improved mortgage conditions, more successful application outcomes can be predicted, and the bulk money for exiting the investment can become available. However, since improving mortgage conditions might take a longer time, PM1[63] suggested that de-risking the investment for developers would imply the government to bulk purchase affordable houses and dispose them accordingly. The experience of the MFF (see section 5.4 in Appendix 27) where the Family Homes Fund bulk purchased their units is a testament of how bulk purchase of houses by the government can de-risk developer's fund in serving the affordable housing market.

> 63. *"...so, if the private developer for one reason or the other is struggling to sell, rather than selling it to the open market and it goes to the speculators (which is what I am trying to avoid), I will put clauses and sign that I can buy these things back from them and find ways of distributing to another set of low income class..."* (PM1)

By implication, PD1[62] and PM1[63] suggestions align with Mc-Kinsey (2014: 16) and commit the government to buy finished units from developers or find renters for them. In this case, government acts as a "buyer" to acquire the houses through bulk purchase, and as a landlord to manage the disposition of the houses according to need. Since the government does not rely on profit nor utilise profit margin as a criteria for success (Witwer, 2007: 11), it is in a better position to dispose the houses under flexible terms to the low income earners. Again, both PD1[62] and PM1 [63] seem to imply

that government is actively involved in the provision of houses starting from the onset when the provision of incentives (allocation of public land) for houses seals the deal to determine the price and how the houses are disposed when the developer eventually completes the development. Hence, negotiating and including plans for the disposition of affordable units in the contract (see Section 5.2.1.2) will boost the confidence of the developer to buy into the affordable housing programme and help the government to secure strict compliance with the requirements for the programme

5.2.2.3 Research and CSR in Material Discount

The high cost of materials is blamed on the use of conventional construction technology, which encourages importation, with the corollary of high cost of construction (see PM2[40] and PU4[41]). This implies that significant reduction in the cost of housing development can be achieved by reducing the cost of materials. While there is a strong support for research and exploring the use of local materials and innovative technologies for building construction as expressed by PM1[64] and PD5[65], and the workshop submissions in Table 5-4, the implementation may take time to accomplish.

> [64]   *"…OK I don't think the government has done a lot of research on housing products, It is high time for us to look at other alternative housing products, you know, this brick and mortar housing products is not cost efficient…" (PM1)*
>
> [65]   *"…we need to begin looking at more innovative solutions to housing designs and production. Ways of lowering down the cost of housing drastically. In most western countries, housing construction is industrialised, and they have found ways of trimming up the parts inside site that are simply assembled on the site, so we need to look at such innovations… (PD5)*

Therefore, while the workshop submission encourages the subsidisation of building materials by the government (see Table 5-4), the phenomenology study participants recognise that government subsidy might be difficult to extract given the present economic situation. Hence, leveraging the discount offered by producers and suppliers of construction materials was considered more suitable for all. According to PM1[66] and PU4 [67] submissions, this can be achieved through the negotiation of deals with producers and suppliers in exchange of an incentive from the government. This submission is similar in principle to the buying consortia arrangement of the UK procurement efficiency initiative where owners of social housing procure jointly to

maximise their bargaining power and elicit discounts on construction materials from suppliers and producers. MC-Kinsey (2014: 11) shows that such arrangement has the potential to lower construction cost by up to 30% since it helped save up to 15% to 30% on certain materials.

> 66. *"…I will deploy more resources by providing infrastructure and engaging other suppliers that I can get materials from at a subsidized rate, I can go to Dangote for example, and strike a deal with him for cement, supply XYZ cement for affordable housing at this cost, I will probably give you more tax incentives, so I can do those things with other suppliers, the same goes for blocks and other construction materials and I will give them tax incentives or other waivers…" (PM1)*

> 67. *"…I manage a social housing programme which is innovating around subsidy and primarily at capital subsidy level, so we are saying for example, in our social housing programme where we are building houses as low as 2,000,000 naira since the state governments are providing land for free into the project, we are negotiating with primary producers and suppliers of building inputs like cement to give us cement at a discounts price…we are negotiating with state governments to give us a waiver on planning fees and all of that. That is a capital subsidy and I can say an informal capital subsidy because it is coming from various sources…" (PU4)*

5.2.3 Enhanced Capacity for Demand

As described in section 5.2.2.2, de-risking developer's fund can be expressed in bulk buying by the government or enhancing the mortgage approval mechanism to facilitate the capacity for demand. It is intended to eliminate the risk of investing in affordable housing and promote developers' confidence in supplying affordable housing. While enhancing the capacity for demand is imperative for closing the housing gap, the analysis of PD3 in Appendix 16 (9) and PD3[44] show that corruption and speculative demand affect the closure of the housing gap because it deprives access to housing for those in most need of it. Therefore, it underscored the need for an effective allocation mechanism, to guarantee access to housing for the low income families and ensure that the intended beneficiaries are not excluded from the benefit meant for them. This theme comprises three sub-headings in which the codes and the corresponding number of contributing participants are in Table 5-2 and Table 5-3. The sub-heading under this theme include:

- Verification and enforcement;
- Income-based housing
- Incremental housing and enabling self-help housing

5.2.3.1 Verifying Eligibility and enforcement

This sub-theme arose from participants' desire to address the speculative tendency that deprive the low-income families of affordable housing. Lack of data was repeatedly mentioned as the cause of speculation and poor allocation of housing and seven participants contributed to this code (see Table 4-3). Participants agree that maintaining correct data record will pave way for just allocation of housing based on need, and the analysis of PD3 in Appendix 20 captured this in detail. Some suggested harnessing the ongoing effort of the government at data consolidation through the National Identity Number (NIN) or the Biometric Verification Number (BVN) to create a data base necessary for running a waiting list system (see PU4[68] and PD1[69]).

> [68] *"…Yes our national identity system is being strengthened and probably we may have to put that into place to ensure that anybody who has a house or benefits from the government programme has a national identity that may be used to confirm you are only buying once, you are only entitled to one unit and that you're not a beneficiary of any other government housing programme so that may be a way of going forward …"(PU4)*
>
> [69] *"The introduction of BVN and national ID is quite remarkable because they can use it to stop these bulk purchases by individuals… Basically, I said that we have some government initiatives that if introduced in giving out this subsidised property will help; such as the NIN and the BVN. So, if properties are associated with some of these things, I think it can help to minimise this abuse of subsidised government properties for personal gain. No, it is when you apply for these subsidised houses, so you provide your NIN and then there should be a kind of data bank where any subsidised government initiative regarding housing will have that data bank. All information will be sent there, so that once there is double entry, it will pop up showing that this person has already been offered a property…" (PD1)*

However, there were concerns that given the poor culture of maintaining data record, a waiting list system may not be possible. As an immediate remedy to poor record and allocation, participants suggested leveraging the power of union or cooperative societies to eliminate the possibility of speculative interference (PM2[70]); this means that such unions or cooperative societies should drive the development of housing for its members as is currently being done under the CHDL (see Section 1.5.2). The fact that this approach was reiterated by participants (see Appendix 21), even when it is currently being used as a developer funding mechanism under the CHDL suggests that it is yielding positive outcome and that this additional benefit could be harnessed by encouraging end users to organise themselves into co-operative societies to enhance access to housing. Furthermore, the analysis of PU4 (14) in Appendix 21

suggests that it is the most suitable mechanism that can enhance access to housing since data collection for operating a waiting list system of allocation is absent in Nigeria. Finally, in addition to discouraging speculation as the narrative of PM2 (2) in Appendix 21 already suggests, co-operative societies can enhance access to funding for the developer (Collaborative workshop, 2021[71]).

> 70. *"…if people on low income are organised into what we call demand groups, so this could be housing societies, housing cooperatives, and where it's like membership club, so, people who are grouped together, it's much more difficult to take advantage of people on low income working together as a group than it is to take advantage of them when they are acting as individuals… what we have chosen to do is basically to ask people who may be interested to organise themselves into housing cooperatives. So that within those housing cooperatives, we then engage with the housing cooperatives assuming they have 50 members, we say these are 50 houses for your cooperatives and because all of the members are working together, they know each other, they have their constitution, and they are able to distribute the houses among themselves…" (PM2)*
>
> 71. *"There are many agricultural cooperatives but fewer housing cooperatives, if the reverse was the case, it will improve access to funds for housebuilding" (Collaborative workshop, 2021)*

Another suggestion that may strengthen the allocation of housing was made by PD3[72], they suggested additional security measure against speculative housing in the form of imposition of a period of occupation in the houses allocated to beneficiaries to ensure occupants of those houses are the primary allottees. In addition, they suggested that specifying consequences for a default in the agreement will deter speculators who have no intention to live in the home.

> 72. *"…So once you have those buildings you make sure that the people coming to it are genuine people, one how do you know? They must not leave the place for the next 10 years unless their work transfers them elsewhere… Yes they have to fill it in the form that they will live in the house for the next seven years unless they are transferred; you can't change it, you can't rent it to anybody, otherwise we take it from you and give to somebody else who needs it…" (PD3)*

5.2.3.2 *Income-based Housing*

This theme addresses the root cause of vacant properties that litter most cities in Nigeria, which stems from approaching housing from an investment perspective instead of addressing the need in the market. This is succinctly captured in PU3[73] and

underscores the importance of approaching housing from the point of view of addressing the observed market need. Taking into consideration the demographics and observed market needs, this suggestion indicates that such approach to housing

> 73. *"Then secondly, probably, the investors don't take time to do proper research before they invest because if you know that majority of Nigerian workers fall within the low and medium income earnings, why would you build houses that are beyond their affordability... So business research or feasibility studies as I would say on the part of the investors could also be the reason they build houses and there are no people to off take the houses because of affordability issues..." (PU3)*

will allow for a correct assessment and deployment of resources required to meet the market need. Furthermore, since housing is designed to suit market need (which includes consideration of the income capacity of the market), such assessment can predict accurate estimate of any assistance or intervention required to realise the housing development (PM1[15] and PU1[16] in Appendix 24).

Income-based housing was also expressed in transitional and rental housing. Participants affirm that the income of most Nigerian workers is low and cannot guarantee homeownership no matter how heavily subsidised houses may be (see PU1[74] and PU2[75]). Therefore, they advocated for housing that will allow for flexible ownership in line with the low and irregular income of the low-income family. This is in line with Bibby (2015) and Mc-Kinsey (2014: 13) and was exemplified in the MFF housing where the residents acclaimed flexible housing ownership as the motivation for applying for the MFF housing (see section 5.5 in Appendix 27).

> 74. *"...but whichever way it goes, it will still boil down to government subsidising what they're going to pay because that income is not a living wage, not to talk of even paying for accommodation..." (PU1).*
>
> 75. *"...you forgot to mention one, that is, the low-income people not having enough money...their salary cannot...no matter how much you pay them, based on what their take home salary is, it will be very hard for them to be able to pick up houses because of the price and so on. I don't know where you will fit that in but, it is so important that even if the opportunity is given to them, it might be impossible for them to get it. There is a particular stratum of the civil service that will never be able to get those houses, like level 1 to 7..." (PU2)*

The level of house ownership in Nigeria is low, about 25% compared to Indonesia (84%), Kenya (73%), and South Africa (56%) (CAHF, 2016b); this means that the majority are already renting. However, the rental arrangement requires tenants to pay up to two to three years' rental in advance (Dabara, Ojo, & Augustina, 2012: 61), which is unfavourable to the financial circumstance of most households. Therefore, in line

with the suggestions of PD5[76], PU4[77], and PD3[78] rental housing option, where rents are paid on a monthly basis or the transitional housing, which allows a convenient way for homeownership will enable access to housing for the low income. Mc-Kinsey (2014: 13) affirms that the rental housing is suitable for its flexibility; flexibility in paying rent and freedom to move to attractive units upon the improvement of one's income or when job location changes. This aligns with PD3[78]'s submission, which is peculiar and different from other views. Their opinion, which indicates that the Nigeria's housing deficit is induced by urbanisation suggests that workers already have houses in the villages but need a temporary place to live in for work. If this assumption is true, then rental housing will fulfil their temporary need for housing in the city and offer them that flexibility to move away when their work require them to move to a different location or back to their homes upon retirement.

76. *"…So, I just think we need to look at the way that we structure our financing for housing, I mean one of the things that seems to be gaining round is the rent to own sort of arrangement where people will simply move into the house and just pay rent for a few years and as soon as their income improves, they will now be able to key in and get a proper mortgage…" (PD5)*

77. *"…the financial solution for him really in terms of his low income and limited number of service is to explore the possibility of a state funded rental housing option for him with the possibility of an option to buy if at any point his income improves and is stable to exercise an option to buy the property, so, my solution will be that, on the part of the government commitment to ensure that its people has a place to live, the financial solution will be for a rental housing opportunity where the rent is not more than a third of his income but includes an opportunity for him to acquire the property if he so wishes or is able to, at any time during his tenancy under terms that can be mutually agreed…" (PU4)*

78. *"…So if it is about how critical the issue of housing deficit is, then it is not very critical. The only issue is that we now come to the issue of rental, that's okay if they can build affordable rental homes so that when I finish my work and I want to go back to the village to settle down, then I can go back there and they can be renting. But some People will build in the city and remain there they may have three or four buildings there and they don't still go there…" (PD3)*

Also linked to this theme is cross subsidisation. Participants believe that subsidies are sacrosanct to meeting the housing need of the low-income as far as supply for housing is concerned, since it supplies the funds required to close the affordability gap and act as a strong incentive for private developers (PD2[79] and PU1[80]). In recent years, the economic crunch has led government to cut back on spending. While the actions of government in the past did not prioritise housing (See Sections 1.1 and 1.2.1), and its policy strategy for enabling access to housing through the NHF mortgage show how

far it is willing to go, participants agree that subsidies is not an attractive option (See PD2[79]). Therefore, PU1[81] suggest a subsidy programme that is privately funded through cross-subsidisation. By pooling private resources through a mandatory payment of tax on high income properties, rental subsidies can become available for the low income households on a pre-defined qualification or verification process to ensure the right people benefit from the subsidy.

[79] *"If government can subsidise, that would be brilliant; but government doesn't want to subsidise housing that is just the truth" (PD2)*

[80] *"…So for that to really work, government will need to subsidise and for government to subsidise, it must put down some strict conditions just like I said for people to go to government housing Bureau to fill their data such as income, the kind of accommodation needed the location and all that and then government can use that to design the houses around their income level so that the kind of subsidy that government is going to get from the high income people can be spread in a manner that it will get to the very poor ones and maybe to others whose situation is not as precarious as those poor people…" (PU1)*

[81] *"So, something special has to come in, the rule is that for such people government will find a way of supporting them and one of the ways I am thinking that government could do that is to say in Maitama, in Ikoyi, in banana island where land value is so high, the houses too is very high. If the cost of houses there is 500,000 naira, ask them to pay 2,000,000 naira and we now do cross subsidy, we now use it to subsidise the driver…but a more reliable approach will be for government to put in place a land charge on land occupied by the bourgeoisie and use it to subsidise the poor. That will be a more sustainable approach so that at the end of the day the house will not be as high as 3,000,000 naira, maybe it could have been as low as to about 1,000,000 naira and then you can also give this kind of people some special kind of concession that will enable such people to work around their income level" (PU1)*

5.2.3.3 Incremental Housing and Self-help Housing

The case study project MFF used the incremental housing approach to advance access to affordable housing for its residents. The term incremental as used in the project was to enable family access their housing type without the inhibition of poor income. This means that poor households who need three bedroom flat can acquire already finished two bedroom and they can develop the remaining incomplete portion to attain their original goal in a convenient way. Contrary to the dissatisfaction expressed by the residents with their housing, which reflected in their making some changes to their homes, the incremental housing approach adopted by MFF in some of the projects enabled residents to be part of the development of their house and make decisions on them according to their taste and income. Therefore, where

housing need varies across ethnic lines and location, incremental or self-building can be used to achieve harmony between households' housing needs and resources. Ideally, this can be achieved through sites and service schemes (PU1[82])

> [82]   *In addition, government serviced land can be given to individuals like me and you and any other person who could get the land and develop at his own pace.*

5.2.4 Income-based NHF Contribution

This theme addresses the main problem to accessing housing, which is the extremely poor income (see Appendix 15 and PU2[75]). Two different codes – low purchasing power and low access to mortgage due to low income with nine and six contributions respectively allude to poor income of workers as a major constraint to accessing housing (see Table 4-3), also the analysis in Appendix 15 is well detailed on this. Consequently, addressing the poor salary of workers was repeatedly suggested by participants in both the phenomenology study and workshop (see Table 5-2 and Table 5-4). It echoed in the following codes:

- Addressing the low earnings
- Reasonable minimum wage
- Employment to drive the ability to afford housing

 Furthermore, the result of the case study revealed the same concern on poor income of workers and suggested an upward review of workers' salary to correspond with the present circumstance or a reclassification of the income capacity in the policy to provide better guidance on implementation (see section 5 in Appendix 27). Mindful of this income challenge, participants consider it fair to equate contribution to the NHF to one's earning power. This means that the higher the income, the higher the percentage contribution. And not only will this strategy strengthen the financial base of the Fund, but it will enhance the accessibility and affordability of NHF mortgage for the low-income and also ensure that the income after contribution can cater for their housing and other needs.

5.2.5 Highlights from the Collaborative Workshop

It was previously established in Section 4.2.1 that the challenges of private-driven affordable housing are linked to the housing framework, which means that some features of the framework oppose the effective implementation of the strategies for housing. The strategies and the housing framework have social implications since they are means for enabling other actors to fulfil their own potentials and optimize their own contributions to the housing development (UN-Habitat, 2012: 3). Therefore, the effectiveness of the operational framework is judged by how much it responds to stakeholders' concerns, which are also important for engendering the willingness to apply and implement the strategies (OECD, 2015: 19). It is based on this understanding that the workshop participants expressed that interaction and collaboration are the ways to create a more appropriate operational framework. This was highlighted in the following statements:

- There is need for closer cooperation between research in the housing industry and policy makers
- Creating opportunities for routine interaction of all stakeholder
- Seek and develop partnership platforms with local communities with focus on affordable housing

Furthermore, since the strategies affect the stakeholders differently, a holistic approach should include understanding the different needs and what works for all through community engagement (OECD, 2015: 19; PD2[83]).

> 83. *"you know, so I think there's need to be like a dialogue between the government and the sector to find a balance of how the private sector will be able to participate and provide these houses because they are really needed" (PD2).*

Community engagement provides the platform for empowering the stakeholders to participate in making `the decisions that affect them, which is useful for acceptance (Purdam & Crisp, 2009: 171); the resultant interaction arising therefrom enhances the understanding of the differing needs of the stakeholders, which encourages them to earnestly seek areas of possible trade-offs. Furthermore, such interaction also allows for immediate simulation of the possible response to the decision, and the assessment of their impact so that further improvement can be made for a better response (Ibid).

Despite the unimpressive outcomes of the centralised housing approach in Nigeria in the past (Section 1.2.1), the present housing system still shows that the government at the grassroots are not properly engaged despite the benefits of doing so (Section 5.2.1.1). Since this will frustrate the efforts of addressing the policy framework through community engagement as advocated, the decentralisation of the housing policy is essential for grassroots participation and implementation as implied in the collaborative workshop (2021[50]).

5.3 Summary and Conclusions

In the previous chapter, discussions upheld that the challenges of affordable housing is poor operational framework, which opposes both stakeholders' fulfilment of their potentials and optimisation of their own contributions to affordable housing development. By using vignette to create the problem narrative, participants were able to appreciate and interrogate with the problem in their context; thereby helping them to provide a more targeted response. Therefore, leveraging the experience of stakeholders to define possible solutions constitutes an effort toward designing contextual solutions to the housing problem in Nigeria. This chapter discussed some possible repairs and amendments to the already existing operational framework for the optimisation of stakeholders' performance in housing.

Reducing the cost of affordable housing development entails minimising or eliminating the constraints to accessing construction inputs, which means that access to affordable land, finance, and materials is key to enabling private investment in affordable housing. However, access to land is impinged by the LUA, which affects the speed of land registration and security of land, resulting to uncertainty and risk that could cost time and money for the developer. Speeding up the registration process could be enhanced through delegating the endorsement of approval to other senior officers in the land ministry, furthermore, digitalising the land records will enhance the security and reduce risk for developers in terms of access to finance. While the cost of land is influenced by the availability of basic services, infrastructure and amenities around them, it implies commitment for the government to embark on widespread infrastructural development to improve the affordability and availability of land in good location.

Furthermore, while the government encourages private investment in affordable housing through public land allocation, it is essential for such process to ensure that genuine investors are appropriately targeted and enabled. Therefore, setting up a mechanism for identifying genuine investors and eliminating speculative interference should accompany compliance with appropriate use of public resources. These two actions can be achieved by limiting proposals to an association of affordable housing providers and sealing such allocation with a contract. While the association serves as a shortlisting technique to exclude potential speculators, the contract between the government and the potential investor eliminates further doubts about whether government resources will be used as intended. On the other hand, while public land allocation and strengthening the registration process will improve the affordability and security of land, some long- and short-term measures that will unlock land in good location may be exploited. Hence, through inclusionary housing, private free land can be made available for affordable housing and converting luxury houses in the cities to affordable ones can guarantee that affordable housing is sited in good locations.

Reducing the cost of development of affordable housing includes access to cheaper funding and materials. While consolidating the mortgage system will enhance the provision of long-term and affordable development funding, good macro-economic policies will boost investors' confidence to lend under friendly terms. However, sole dependence on mortgage funding is unaffordable at the moment; therefore, leveraging supplementary funding option such as Affordable Housing Development Fund (AHDF), which is funded by businesses will reduce the cost of funds for the developer. Assured market for the developer can guarantee faster return of investment and enable them to fulfil their loan obligation, therefore, bulk purchase of developers' units will provide the bulk funds that will discharge them of their loan obligation, promote allocation of houses to the appropriate end users as well as eliminate the possibility of speculation. Similarly, further reduction of the cost of development can be guaranteed within the operational framework through discount on materials from materials suppliers and producers.

Enhanced access to housing supports private investment and is also enhanced by the supply of housing that meets the need and income of the end users. Therefore, the

supply of affordable housing should be designed to enable access through designs that are targeted to income and different tenure mixes that encourage flexible payment like renting and transitional housing options. On the other hand, a reliable system of allocating affordable houses should be installed by maximising the benefits of the ongoing data capture system and through the use of cooperative societies. Furthermore, measures such sites and services to encourage self-help housing, and incremental housing can provide flexible access and ownership of the housing process; this is important for capturing local needs and for meeting end-users' expectations for their housing Finally, since the housing problem is linked to the operational framework, and therefore has a social dimension, leveraging stakeholders' participation in a decentralised housing system will help in the development of an appropriate framework that will engender effective participation of stakeholders and ensure the spread of housing provision across the country.

6 Modelling the Solutions into Contextual Narrative

The overall aim of this research is to identify appropriate strategies for facilitating private housing development. Based on the principles of an enabling shelter approach, appropriate strategies enable stakeholders to realise their potential so that their contributions to housing may be optimised (see Section 2.1); again, understanding the stakeholders' needs involves engaging them in the decision making process. Hence, presenting the solutions described in Chapter 5 to a different group for discussion offered the opportunity for stakeholders' interrogation with the solutions and aided the identification of considerations for shaping the solution for optimality. Thus, these considerations are discussed as the pros and cons of these solutions (see Table 6-1 and discussed in Sections 6.2 to 6.3). Furthermore, relevant data from the phenomenological approach are used to support ideas that were conveyed in the collaborative workshop where applicable.

Since this chapter draws its data primarily from a collaborative discussion among the stakeholders, the interactive discussions is akin to an inclusive approach to policy development which Cappuccio, Cunico, and Zimmermann (2017: 1) described as engaging different stakeholders in a process of co-creation and shared learning. They expressed that policy development, which accounts for the diversity of human needs and goals, and the diversity of goals existing across different government departments is important for understanding mechanism of policy, testing outcomes and shaping thinking around the policy to link different individuals and organisations interacting with it (ibid: 2). Therefore, the collaborative exercise provided an understanding of how the solutions would affect the stakeholders, as well as helped to identify possible challenges and benefits that are expected from adopting them. This is necessary for shaping the solutions into the best possible forms for improving the system and engendering acceptance of them (OECD, 2000: 18).

It has already been established that the bane of private-driven affordable housing is the poor relationship between the framework and the stakeholders' needs, implying that the effectiveness of the strategies is based on how they fulfil the expectations or the needs of the stakeholders (OECD, 2000: 19). Hence the objective of this chapter

is to provide the considerations for shaping the solutions for an effective private response to affordable housing through the following objectives:

- To identify how each solution addresses the need of the stakeholders;
- To identify possible drawbacks of the solutions;
- To describe mechanisms for improving the solutions.

The nature of data collection and the outcome of the discussions highlight the importance of local engagement in drafting effective solutions. A summary of the stakeholders' analysis of the strength and weaknesses of some of the propositions provides at a glance the attributes of the solutions, improvements and considerations required for them to work. A deductive and inductive analysis around the recurring themes provides a detailed discussion of the required considerations for the adoption of the solutions.

6.1 Strengths, Weaknesses, and Improvements of the Proposed Solutions

The summary of the strengths and weaknesses of the proposed solutions are presented in Table 6-1. The data outline participants' analysis of the factors or attributes for the implementation of the proposed solutions in the Nigerian context and in light of their expectations or needs. This means that these insights shared by the participants are the trade-off between their expectations and what is possible within the Nigerian context, which is necessary for defining solutions that are both optimal and acceptable. Participants' contributions to the refinement of the possible solutions were done in light of the objectives listed in the introduction of this section. The solutions analysed are those already discussed in chapter five and are summarised below:

Supply Initiatives includes improving access to affordable land in good locations through the following actions:

- Creating an association of Affordable Housing Providers (AHPs) to target public land allocation to them and an enforceable contract between the government and the private developer;

- Using inclusionary housing to mandate developers to contribute a percentage of their development to affordable housing;

- Converting idle properties in the cities to affordable housing.

And reducing the cost of construction inputs through:

- Businesses to contribute to an affordable housing development fund, which will provide supplementary source of fund for affordable housing developers;

- Providing discount on materials for affordable housing development.

Again, the demand initiatives includes actions that aim to improve access to housing for the low income group through:

- Income-based housing;

- Leveraging the ongoing efforts of government on data capturing to improve access to housing;

- Encouraging the formation of diverse low income cooperative societies to enhance access to housing;

- Encouraging different mix of tenures like renting and transitional housing options.

A summary of the participants' response to the listed solutions are summarised in Table 6-1, while participants' actual responses can be found in Appendix 22 and Appendix 23.

Table 6-1: Summary of the strengths and weaknesses of the solutions based on the workshop group discussions

Solution	Strength	Challenges	Suggested modification
To create an association of AHPs for effective use and allocation of public land for affordable housing and linking allocation to conditions and consequences	Benefits from mass power, promotes accountability, provides a platform for direct interaction between the government and AHPs, a formal route for accessing cheaper land, reduced speculative influence, and a confidence-boosting structure for the two parties involved	The association may be enmeshed in partisan politics, can be manipulated by those in power, officials of the association can use the platform for personal gains, and the association may become warlords to exploit seekers	Should focus on linking the association directly to low-income earners. Rules and regulations of the association should specify non-partisanship, the election of officials should be insulated from external influence e.g. government, could be an arm of the existing REDAN
To use inclusionary housing, as a way of making strategic land available for affordable housing and for engendering wider private participation to facilitate affordable housing delivery	It will increase the availability of Affordable Housing (AH), offer a solution to the siting of AH in poor locations, will widen the range of private participation in AH, which will increase supply, mixed development will enhance inclusivity that comes with mixed communities, help to distribute financial burden, developers can still make financial returns unlike in the traditional provision of affordable housing.	Suitable motivation for the private developers for making such sacrifice, resistance among the upper class to the inclusive arrangement, reduced financial returns for developers, supply of substandard products by the developers to make up for the low returns and profit, government willingness to drive such programme with enabling actions like giving incentives.	To be made as a condition for registering land or for getting development approval for the private developers, incentives to encourage such contribution, suitable legislative framework, motivation and enforcement.

Converting vacant properties in the cities into affordable housing as an immediate solution	It will revitalise the cities, is cheaper when compared to the cost of new builds, lower carbon emission, beneficiaries will have access to other infrastructure	Owners of properties may be unwilling to convert their idle properties for AH purposes, derailment by litigation, available infrastructure may be strained, it may lead to congestion.	Provide legal backing for such action; it may require town planners to review and update the town plans to accommodate change of use of the properties.
Mandatory contribution of businesses towards affordable housing fund, which will be accessed on subsidised terms by the AHPs and on commercial terms by other developers	It will create a dedicated pool of funds for AH development, a good form of corporate social responsibility for businesses; will enable developers to build AH.	Public management of funds will be exposed to corruption, resistance from the businesses who may see it as another form of taxation, economic conditions are cruel to businesses and to add another to it is unfair, poor management of the fund	Provide incentives for businesses that will key in, proper management of fund
Provide discounts on building materials for AHPs using discount notice or voucher	It is a good incentive for AHPs to reduce the cost of building	quality of materials may be compromised, interference by middlemen	If it is through tax reduction, it can work, involve communities in the production of local materials, develop entrepreneurs with focus on AH materials production
Diversifying the sources of AH development like encouraging businesses to invest in it as part of their social responsibility	Requires no policy or regulation, so it's easy to put in place; most organisations do this without any feedback so we may redirect them to areas of need-AH, it will increase AH supply	Is there a culture of this? Do businesses have a social conscience? Consider the poor investment environment e.g. poor infrastructure and services, most businesses spend a lot trying to create a conducive environment for their business, they need to make profit and may not be drawn to such project, they may use	Install mechanism for businesses to publicise their good works in society?- this can boost their interest, we can make a policy to ensure businesses channel the CSR to AH.

		substandard materials to boost their profit, failure of government to fulfil its part of the bargain	
Tailor design solutions to the needs of the targeted income band will help to understand what their income can support and what extra support is needed to fulfil their housing need.	Providing dwellings that match affordability offers choice, gives an idea of what type of material or construction method is needed to ensure housing is within their affordability	Are there moral issues around offering different quality of housing based on the ability to pay? - should everyone be entitled to basic level of provision? Is this basic level affordable?	Design solutions should allow housing to transform over time –i.e. if you enter at the lowest level of provision, you can adapt to make it more desirable? (Incremental).
Introduce a qualification procedure that links every details of a person, including his housing status to National Identity Number (NIN) or Biometric Verification Number (BVN) to ensure that the beneficiary is a first-time owner	Good for the state to know who is receiving AH (a mechanism for measuring AH programmes), a fair process that matches allocation with need and helps to eliminate speculative interference	Who could make these checks, could speculators circumvent the system and gain access to more than one dwelling by using a proxy identity eg. Relative? The system should include features for capturing and updating individual details and status, including their housing status	
Using cooperative groups of both formal and informal sector to improve access to housing	Gives a sense of community that gives strength to any development that comes to the group, mass power prevents the diversion of group assets, promotes equal access to housing, and establishing the group does not require any	It is important to have a link to the income of the group members, which may be difficult in an informal sector where income may not be bankable and is unpredictable.	A link to the income of the group is necessary but with informal groups, collateral may be required to establish the desired bond and commitment of individuals to the group.

	spending commitment on the part of the government.		
Impose a minimum period of stay in a house on the tenants or beneficiaries to ensure that houses are allocated according to need. Also, the allocation agreement should include revocation of the allocation in the event of a breach.	Ensuring housing goes to those for whom it was intended seems like a good idea	What would happen if people, for reasons that are outside of their control, need to move out - say to take up a good job in a different city? It will require an integrated system to capture or reflect the circumstance in the NIN or BVN to guide future allocation	
Adopt different housing options e.g. renting or rent to own options. These provide the flexibility that allows the low income group pay for their housing bills without much stress. Again, the rents should be paid monthly and not yearly	A diverse market should mean that in principle there is a diverse range of options that meet a spectrum of needs, offers flexibility in terms of paying rent or changing jobs and location.	Exiting his investment with a monthly payment of rent isn't attractive and investors also need the bulk money to release them from their mortgage obligations.	

6.2 Analysis of the Group's Discussions on the Solutions to Low Supply of Affordable Housing

This section contains the analysis of the discussions of participants' interrogation with the solutions to improve private investment in housing. Each solution is analysed as shown in the following sections.

6.2.1 Effective Allocation of Public Land through AHPs

Nigeria already has an existing culture of association of people who share a common interest, hence, the stakeholders agree that forming such an association is possible and will be beneficial in helping to identify the real participants and in creating the opportunity for direct interaction and engagement with them. This is against the backdrop of the poor engagement of the right candidates for housing programmes as described previously in PD5[28]. Apart from being the channel of interaction between the government and genuine housing providers, the association can become an instrument for challenging the government's wrong actions and for compelling them to act accordingly. As a result, public resources can be safeguarded and effectively used; furthermore, the group can take advantage of mass power to influence public policy in their favour and to advocate for improvement or changes in the affordable housing process based on their experience. Such association could also double as an NGO for facilitating or championing changes that will enhance affordable housing causes and for compelling the government to fulfil its obligations with respect to the housing policy (PM2[84], Grant (2001: 338).

> [84]. *"Until we get those kinds of advocacy from non-governmental actors, like in the issues of housing…, we have NGOs on corruption, good governance, I think we should start having NGOs on housing policy to be able to advocate and enlighten the masses to hold their state governors responsible for not making them have homes…"(PM2)*

Being a member of an association comes with both financial and time commitment, and other benefits like networking, building relationships with like-minded peers and the opportunities of their services being engaged. This means that the members are more likely to attract opportunities and benefits more readily from the government, which is important for minimising speculation. Again, when public resources are effectively channelled in this way, accountability is promoted and both parties are confident that the resultant relationship will lead to the fulfilment of their objectives. Much as the benefits of this option are immense, steps should be taken to ensure that

the association is not enmeshed in partisan politics, or manipulated by those in power; this can lead to a compromise of the association's objectives (See Figure 8-13 in Appendix 22). Furthermore, the association may become warlords to exploit seekers, this means that supportive strategies should aim to eliminate partisanship and the tendency to exercise a monopoly of the market, which can affect house prices (See Figure 8-14 in Appendix 22).

6.2.2 Delivering Land in Strategic Locations through Inclusionary Housing

Since resources are limited, private-driven affordable housing should leverage different options for the delivery of housing. Enabling private developers through public allocation of land limits the supply of affordable housing to few developers and will not result in the closure of the housing gap. However, expanding housing delivery to other private developers will help affordable housing to benefit from mass efforts and to capture the resources created through the marketplace. Furthermore, through mixed housing, the developer can make returns and profit unlike when investment is limited to affordable housing only, since mixed development will help to distribute financial burden (Figure 8-15 in Appendix 22).

The siting of AH in remote locations has negative consequences on both the developer and end-users; the developer is burdened with the cost of providing infrastructure, which increases the housing cost, while the end-users have to deal with the commuting costs and time, plus the exclusion from services and infrastructure (see Section 1.5.1). Therefore when housing is approached in this manner, it creates racial and economic segregation at the neighbourhood level (Kelly, 2010: 26; Reyes & Wang, 2021), which promotes social vices. Hence, inclusionary housing can be used to make strategic land available for affordable housing and for engendering wider private participation to facilitate affordable housing delivery.

The provision of land alone is not sufficient for reducing the cost of housing, other strategies should also be leveraged in order to achieve maximum benefit. Based on the limited resources available to the government, it will be difficult to attract more enablement that will improve the housing cost. However, inclusionary housing will provide the twin benefits of land and funding (Morrison & Burgess, 2013: 424) because the gains of land value recapture or the profits from market-rate housing can be

directed towards financing affordable housing, thereby providing an alternative to the use of traditional subsidies for achieving the same purpose. This is likely to be a more preferred enablement option that will suit the less supporting attitude of the government on housing (Section 1.2.1).

Although this may be more attractive, on account of the lesser funding obligation, government still has the obligation to drive and sustain such private effort, hence it should consider the nature and type of motivation based on the following considerations:

- What constitutes sufficient reward for the sacrifice (Since their financial returns will be reduced with the introduction of AH element in the development)?
- What if developers decide to contribute substandard products in order to capture the profit that developing affordable housing will deny them?
- Should we allow developers the freedom to choose to participate or not? (This depends on the goal being pursued) or do we make it compulsory?
- Will the existing framework support the inclusionary housing policy?
- How do we manage resistance to the policy among the elites or upper class?

After carefully considering these factors, the government should weigh several options including whether participation in the inclusionary housing programme should be mandatory by making it a condition for registering land or for getting development approval for the private developers or voluntary; the nature of incentives required to encourage such contribution, and the type of amendment to the legislative framework needed for unbundling the inclusionary housing approach should also be considered (See Figure 8-15 in Appendix 22). Furthermore, there will be the need to enforce design and construction standards to prevent the contribution of substandard homes. Compare this with the practice in Singapore where the framework emphasises on standardisation and efficiencies in construction management (Fischer, 2021). The same practice applies to Vienna where developers access affordable land and funding from the government in exchange of meeting the four project criteria: architectural quality, environmental performance, social sustainability, and economic parameters (Peteritas, 2013).

6.2.3 Converting Vacant Properties in the Cities to Affordable Housing

It is ironic to have a significant number of vacant properties in most of the cities in Nigeria amidst the increasing housing deficit; the reason is not farfetched because, as indicated in Section 1.3.1, the housing gap is concentrated on families living on a low income, and the prices of the houses are above what they can afford. While these houses deteriorate with age without yielding benefits for their owners, it may become expedient to retrofit them to affordable housing as an immediate solution to the housing problem (PU2[55]). Therefore, remodelling existing houses to affordable housing will lead to quicker supply, reduce the resources required for new builds and the associated environmental impact of construction. Furthermore, it is a useful way to provide affordable housing in good locations, and can provide the low-income earners with access to their workplaces and to other services necessary for a productive living (See Figure 8-15 in Appendix 22). However, consideration should be given to these areas of concern so that measures for their mitigation may be planned:

- What if the owners of such properties resist changing the use of their building, how do we enforce compliance?
- What if the process is derailed by litigation?
- Will the available infrastructure sustain such conversion?
- The plan of the cities has to be modified to reflect such changes

It is evident from the participants' submission that there may be resistance to the change of use of these properties from the owners, as such enforcement may be required for such programme to run. Furthermore, such change to the use of the buildings should be captured in the city plans.

6.2.4 Mandatory Contribution to an Affordable Housing Fund

Corporate businesses can demonstrate their social responsibility towards a cause if they are guided, hence the government as the driver of housing should identify areas of need and direct the resources of businesses towards them (PU5[85]). An affordable housing fund will specifically provide a dedicated pool of funds for affordable housing development, and directing the resources of businesses in that fashion will be a good form of corporate social responsibility.

Although, Corporate Social Responsibility (CSR) is generally assumed as a voluntary initiative rather than a legal mandate, there has been a rise in explicit CSR legislation where companies are required to commit a certain percentage of their profits to designated CSR programmes (Li-Wen, 2020; Sirgapoor, 2020). Mauritius, India and Nepal are examples of such countries; thus legal CSR could also be used by the government to direct or extract substantial amount of private resources for affordable housing development on a sustainable basis.

Most corporate entities in Nigeria spend a lot trying to create a conducive environment for their business, they also need to make profits and may shy away from such initiatives (See Figure 8-17 in Appendix 22 and Figure 8-19 in Appendix 23). However, legal instruments as per the examples of India, Mauritius and Nepal may be used to exact compliance with such initiative. On the other hand, a demonstration of responsibility and accountability on government's part towards private resources will inspire and sustain the interest of businesses. Above all, providing the basic conducive environment necessary for the survival of businesses is the key to engendering their support and participation. While incentives may be a powerful inducement, they can also come in non-financial forms with little or no burden on the government as expressed in the Collaborative workshop (2021[86]) and in Figure 8-19 in Appendix 23 .

6.2.5 Reducing the cost of Building Materials for Affordable housing through Discount Vouchers

While research into and the production of local materials are strategies that are yet to be fully unbundled through government support, under the present circumstance, it is expected to be a long-term accomplishment. Hence in the absence of affordable

materials of good standard and quality, offering discounts on materials for the development of affordable housing is a great way to reduce the development cost and attract private investment in affordable housing and can be a good form of CSR for producers of building materials and components. In designing this strategy, some considerations that are likely to affect its success include:

- The possibility of interference by middlemen; for example, hoarders, who may obtain the discount voucher from the government through foul means (See Figure 8-14 in Appendix 22);
- The likelihood of producers to compromise the material quality in order to maximise profit.

Therefore, in light of these challenges, government will demonstrate political discipline to manage the fund and also consider:

- The type of incentives that will garner producers and suppliers' willingness to sign up to such deal with the government;
- How the local communities may be involved and empowered in local materials production (Figure 8-18 in Appendix 22);
- Develop entrepreneurship with a focus on affordable material production (See also Figure 8-18 in Appendix 22).

There have been several government initiatives and schemes, which are aimed at empowering and encouraging entrepreneurship and boosting local ideas, the same effort can be extended to encourage the production of local materials by the locals or young people with business ideas. Therefore, the government can leverage the NSHP scheme (See Section 2.3.3) to encourage young entrepreneurs that are empowered by the scheme to provide affordable building materials for housing.

6.3 Analysis of Group Discussions on the Solutions to low Access to Affordable Housing

This section contains the analysis of the discussions of participants' interrogation with the solutions to improve access to affordable housing. Each solution is analysed in the following sections.

6.3.1 Income-based Housing Solution

Tailoring design solutions to housing needs is an important element that is currently missing in the Nigeria's housing efforts since the evidence of housing delivery without a thorough research and assessment of the market need is revealed in the reflections of PD5[87] and PU3[88] as the scourge of access to affordable housing. These thoughts are similar to Vale et al. (2014: 22) and Stone (2006: 153) description of some fundamental questions that should precede the planning and implementation of affordable housing as discussed in Section 2.5 where the definition of the market profile is essential for planning the resources for implementation. In light of the private-driven housing where government resources are constrained, and the need for effective use of them, housing development approached in this manner will guarantee lesser waste of government resources.

> [87] *"…I think first of all the bulk of the houses that are provided are not provided with the market in view, so people are building and selling instead of selling and then building. What I mean by that is that they need to know the earning capacity of the market, which market are you targeting?" (PD5)*
>
> [88] *"…Then secondly, probably, the investors don't take time to do proper research before they invest because if you know that majority of Nigerian workers fall within the low and medium-income earnings, why would you build houses that are beyond their affordability…" (PU3)*

The importance of market research in order to produce a proposal that matches the market profile is that it gives an idea of what is affordable based on the income of the target group so that an estimate of the resources needed and the strategies for accomplishing the housing project including whatever extra support or intervention that may be needed to fulfil the delivery of houses that are of acceptable standard and affordable to the target end-users may be determined. However, there is a tendency that since income is very low in Nigeria, the effort to achieve affordability may lead to banal and oppressive designs or very exclusive construction that can undermine the need that the end- users wish to derive from living in a home; therefore, the strategy should incorporate features that will commit developers to develop standard and quality homes, allowing also for the opportunity for people to also transform their housing over time according to their finances (Figure 8-20 in Appendix 23).

6.3.2 Data Capturing Systems

Consolidating the data capturing system in Nigeria is expected to be a long-term solution for improving access to housing through a process that matches the allocation of houses with a genuine need for it (Section 5.2.3.1). In order to run this type of process or improve the existing allocation mechanism (See Section 2.5.3), a good data capturing system will lay the foundation for unbundling the waiting list system, which is popular with most countries. Based on the Nigerian context, the data capturing system will need to provide a comprehensive data about the individual beneficiary, including their housing information or status. The system should also be capable of being updated to reflect the individual's circumstance; this will help to forestall the possibility of double allocation and preserve the integrity of the process as implied in PD1[68] submission and in Figure 8-20 in Appendix 23. Furthermore, if the government can successfully strengthen its ongoing effort at consolidating the NIN and the BVN system, it will enable them to measure its housing efforts and any additional efforts needed to close the housing gap (PD3[89]).

> [89] *"…So we need data to capture all these people, their biometrics…So data is very important, it will capture everybody, capture those who have had homes before, capture those who doesn't have and so on and so forth. Then when they come for another application, you already have all the data captured and so you know you can be guided in making the right decision. It will also help to eliminate multiple allocations and people who are inclined to use that opportunity for speculation and then, you will be able to address the new cases…" (PD3).*

As much as the participants recognise the benefits of this system, they are however, doubtful that it will work in Nigeria given the absence of appropriate technological infrastructure. Besides, they believe that such ambitious design might provide avenue for the government to divert public funds whilst still not accomplishing the plan (see in Figure 8-19 in Appendix 23). This aligns with the PU4[14] doubt of using a waiting list system in Nigeria, leaving only the option of cooperative societies for encouraging access to housing. However, this option may be explored in the future once a working affordable housing system is initiated and probably found working. Ideally, government should probably harness the ongoing effort of consolidating the Biometric Verification Number (BVN) and National Identity Number (NIN) in readiness for when a waiting list system will happen in the future.

6.3.3 Cooperative Groups

Using the co-operative groups to improve access to housing has no implication for spending for the government since the supporting structure already exists in Nigeria (Collaborative workshop, 2021); it can also provide both long- and short–term solutions to access to housing as the PU4 (See Appendix 26b) analysis already indicate its suitability for improving access to housing over the use of a waiting list system. Moreover, it has the added benefit to improve access to funds for housing provision (Collaborative Workshop, 2021) (see the highlighted part of Figure 6-1).
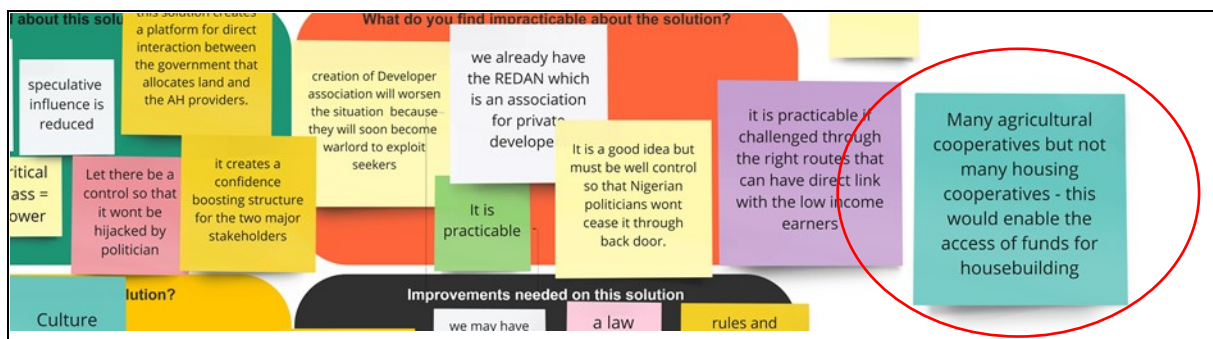
Figure 6-1: The twin benefit of cooperative society (extracted from Figure 8-14: in Appendix 22)

One of the factors affecting the access to and the affordability of housing is the activities of speculators (See Section 4.2.3.2) or what PU4 described as systemic failure in the housing market (See analysis in Appendix 26a). However, pressure groups are capable of influencing policies in favour of their members (Balyer & Tabancalı, 2019: 2), hence, it is more difficult to divert the group assets to other channels (See Figure 8-22 in Appendix 23). Therefore, the power of unions to protect the interests of their members can be leveraged to prevent the diversion of group assets and the exploitation of the weak as expressed in PM2[90]. However, to properly harness the collective power, attention should be paid to the tendency of group officials to exploit the group interests and objectives in their favour (PM2[91])

[90] *"…. So, as an individual there could be less you can do, but when you put yourself together as a union or a pressure group your voices will be heard since the interests of this particular people are mutually represented by the union. So, that's one of the ways to go about it, because even when we are saying, give priority to first-time homeowners, it will really be effective when they have come collectively to be able to drive and ensure that whatever government is saying is implemented…" (PM2)*

[91] *"…Yes, the issue of Nigeria factor coming in is there because you see that some of these people will go there not as their leaders but for their interest. But, it is better to go as an*

6.3.4 Fixed-term Tenancies

In order to ensure that houses are allocated according to need, a less formal approach which can be implemented within the immediate term is to ensure that housing is allocated to first-time owners and not to speculators by imposing a minimum period of stay in the allocated dwelling. Imposing a specific period of time on the tenants will help to confirm that they are the actual beneficiaries and thus are the primary allottees of the allocated dwelling; this will help to eliminate the incidents of transfer of houses to secondary allottees, thereby preserving the affordability of housing. Furthermore, in order to promote compliance with such obligation, the allocation agreement should also state the consequence of a breach to include the revocation of the allocation (PD3[72]). In addition, this strategy should be flexible enough to accommodate the changing circumstances of the beneficiaries, which can affect their compliance with the minimum period of stay due to transfer to another location by their job; this means that a strong mechanism for verifying changing circumstances that will affect access to housing should be part of the overall verification process.

6.3.5 Flexible Housing Tenures

A diverse market is necessary for enhancing access to housing and means that there is a diverse range of options that can meet a spectrum of needs. This assertion is inferred from PU4 in Appendix 26a and establishes a relationship between access to housing and a supply system that is diversified. Therefore when the housing market is diversified, it is possible to measure the impact of the housing efforts towards fulfilling the needs of the low-income. Furthermore, when the housing system recognises the peculiarities of the sub-markets, it can respond more effectively to them. Hence, considering the fact that the ruination of access to housing is low-income and that the vast majority of the Nigerian workers are in that category, a more effective housing solution will allow greater flexibility for them to pay their rents in bits against outright purchase. Moreover, as they keep changing jobs and location, the rental option will allow greater freedom to move on without the burden of disposing their accommodation.

Finally, while the rental option may favour the low-income households, it is important to also consider its possible effect on the developers who are eager to exit and make returns on their investment. The mechanism for running a private rental housing programme should, therefore, incorporate strategies for an early exit from their investment for the private developer. This is reflected in PM1[63] and in the collaborative workshop, which expressed possible government intervention in the form of bulk buying (See Section 5.2.2.2).

6.4 Framework for Enabling Private-driven Affordable Housing in Nigeria

Although this research focused on evolving strategies for enabling private-driven affordable housing in Nigeria, the main thrust was to define how to effectively boost the participation of private developers in affordable housing development. This research highlights strings of solutions to address specific problems of affordable housing in Nigeria, which were generated from the phenomenology study. Also, in the collaborative workshop, participants interrogated these solutions and provided certain considerations for their improvement. The data generated from these sources were analysed in light of the existing framework for affordable housing in Nigeria. Section 2.3 dealt extensively with the existing framework, which is described as a tripartite arrangement, involving the Federal Ministry of Works and Housing (FMWH) to provide land and the Federal Mortgage Bank of Nigeria (FMBN) to provide subsidised fund for developers to provide housing.

This research has shown that land is the crux of the problem of affordable housing investment in Nigeria. Land transaction cost and registration cost combine to increase the cost of land for any investor, which is not beneficial for affordable housing investment. To address this problem, government indicated its commitment to make use of its powers to acquire and allocate public land for affordable housing to reduce the cost of investment and attract private investment in affordable housing. Government has expressed this responsibility through the Ministerial Pilot Housing Schemes (MPHS) where it provides both land and funding through its agencies like FMWH and FMBN respectively (see section 2.3.2). Therefore, the MPHS is a good framework that demonstrates the facilitative function of the government and should be sustained but with some improvements on its implementation as shown in Figure 6-2.
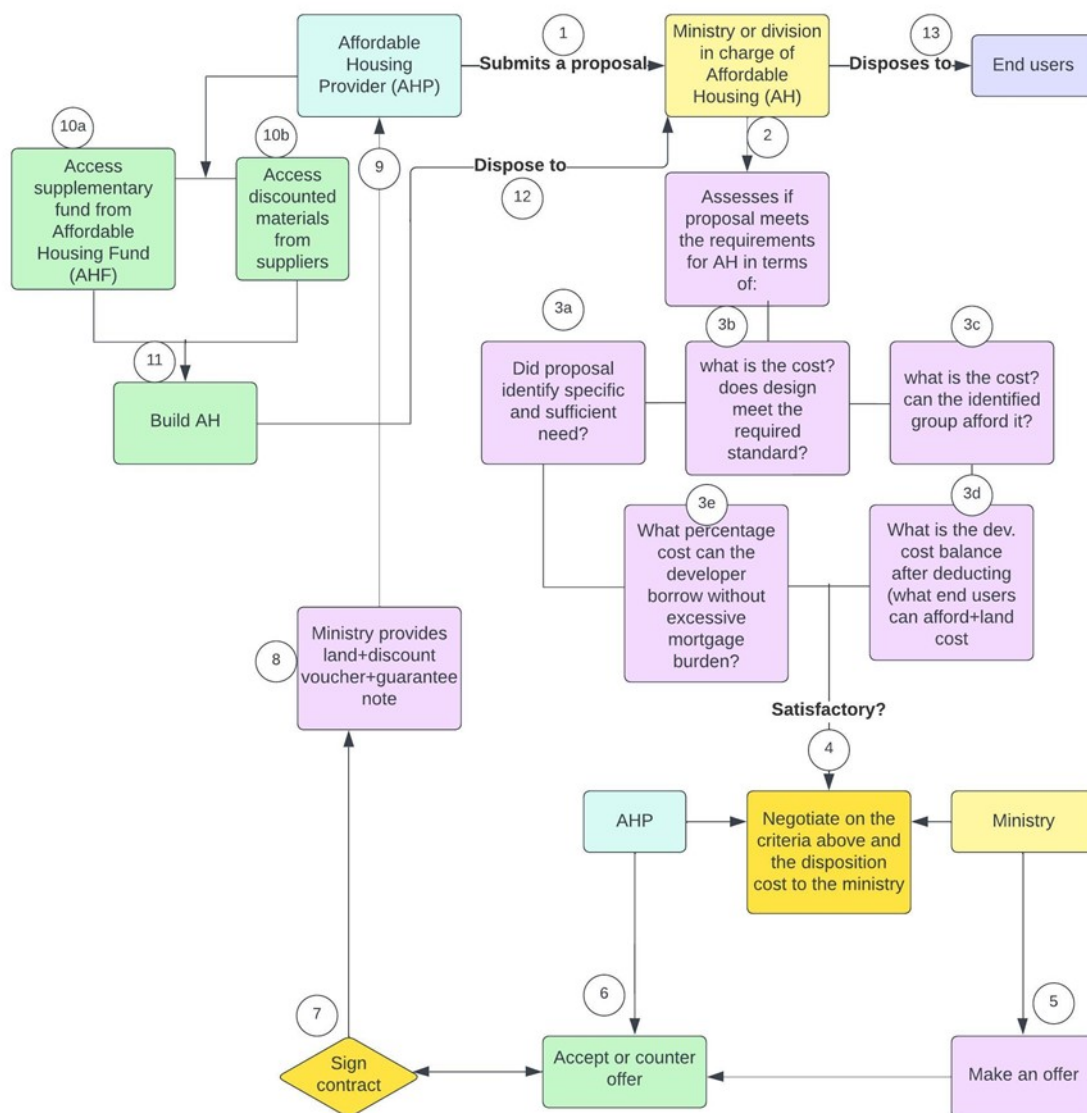
Figure 6-2: Framework for enabling private investment in affordable housing

Figure 6-2 shows that the creation of affordable housing providers is sacrosanct for attracting proposals from serious developers; this is absent in the original framework and has led to land speculation. The proposal should include the target market (which should be the low-income earners), the cost of the development, and the funding required. Upon submission of the proposal, the division of the ministry that is in charge of affordable housing will assess it to ascertain that the proposal meets the requirements (see Figure 6-2, 3a to 3e). If this is satisfactory, the ministry will go into further negotiation with the potential developer to determine the final cost of disposing the units to them upon completion. The ministry will make an offer, stating the

conditions of the contract. If this is accepted by the developer, a contract will be signed and the ministry will allocate land, issue a material discount voucher, and guarantee note to the developer. The latter will then access supplementary fund from the Affordable Housing Fund (AHF) with the guarantee note, and discount on materials with the discount voucher from participating materials producers and suppliers. The units having been completed, will be bought over by the ministry and disposed to the end users under flexible terms.

6.5 Summary and Conclusions

The need to design solutions that address the housing problem in Nigeria in its context is supported by already established link between policies and human needs; therefore the collaborative workshop provided a setting for stakeholders to engage in a deep analysis of these solutions in the light of their needs, experience and the prevailing circumstance in Nigeria. Hence, this in-depth interaction provided the considerations for shaping the solutions for optimality. In the collaborative workshop, three major considerations for implementing the solution were highlighted and include the structure for implementation, method of implementation for optimality (whether solutions are better implemented independently or interdependently), and the ease of implementation in terms of time and cost.

In terms of the structure for implementation, some of the solutions can be built on the existing framework and some will require some improvements in the structure to implement them; hence, with an existing culture and structure that support the creation of associations, such solutions as using Affordable Housing Providers (AHPs) and co-operative societies to enhance access to affordable land and to housing respectively can be easily implemented if the operational mechanism is adapted to specifically target the affordable housing objectives. With high speculative interferences, corruption, and poor data records being the ruin of affordable housing in Nigeria, it is expected that the use of associations in this fashion will lead to the effective use of public resources and will promote accountability.

Some solutions for improving the supply of affordable housing can be implemented as stand-alone measures while some will need to be complemented by other solutions to quicken the achievement of affordable housing objectives. Therefore, while the use

AHPs will ensure the effective use of public land for affordable housing, inclusionary housing can be leveraged to widen private participation and extract more private resources towards affordable housing provision; this is especially important for accelerating the supply of affordable housing in strategic locations. Furthermore, while the use of cooperative societies can enhance access to housing and minimise speculative interference, in a system of waiting list, additional strategy like the imposition of minimum duration of stay in the allocated dwelling can serve as further security against possible speculation.

The housing situation is dire and urgent actions are required, some solutions can take time to implement because of the structural requirements for their implementation, others may be immediate or implemented within the short-term. Furthermore, certain solutions, although short-term, may translate to long-term strategies to deliver results that can run on a sustainable basis. The resource requirements are important considerations for implementing solutions; again most long-term solutions require more resources than their short-term counterparts so that while the resources for accomplishing long-term plans are being planned for, short-term solutions requiring lesser resource requirements can be leveraged to provide immediate relief to the problems of housing. Hence, solutions like the conversion of idle properties in the cities to affordable housing can be implemented within the short-term plan because of the less resource implication.

Furthermore, using discount vouchers for accessing discounts on materials for the construction of affordable housing will provide immediate relief to investors as the government plans for encouraging local research and production are being designed; it can also translate to a long-term strategy in conjunction with the implementation of research and local production. Similarly, restructuring the mortgage system will take longer time and resources to accomplish, but extracting resources from businesses to create an additional pool of funds can provide immediate relief to the problems associated with mortgage financing for developers. The strategies for enabling private-driven affordable housing should be holistic, not only should they minimise the cost of investment for the developer but they should also provide an exit strategy for making returns on their investment. This means that the solutions should incorporate strategies for enabling access to housing.

All forms of end-user financing and assistance are important for the success of AH efforts and for providing the necessary exit to the investment, but ensuring that housing gets to the intended beneficiaries is also important for measuring the housing effort and for ascertaining how much effort is needed to close the housing gap. The evidence that private housing efforts have been reduced to investment rather than serving the social objective is visible in both the public and private sectors since very little planning is put to understanding and addressing the real need. Poor investment decisions can, therefore, be remedied through housing solutions borne out of market research; doing so is useful for planning of resources and implementation.

Because the housing market is yet to promote a balanced supply of housing for the different income segments, access to housing is militated by speculation. Therefore, it is important that while the supply of housing addresses the needs of all in line with the policy goal, housing allocation should be equitable. Since a waiting list system cannot survive in a system that lacks a robust data record, the use of cooperative societies should be encouraged to enhance access to housing. However, if a waiting list system should be explored in the future, then efforts at consolidating the NIN and BVN should be holistic, entrenching features that are capable of identifying individual circumstance and their status with respect to housing.

7 Implementation, Scalability, and Replicability Analysis through Case Study

The previous chapter provided specific considerations that policymakers require to make the solutions that are suggested in this research implementable and acceptable. This chapter focuses on the factors necessary for scaling up and replicating the solutions. The account in this section is the outcome of the analytical discussions to determine the factors necessary for scaling up or replicating the solutions. This analysis was carried out on the case study- Millard Fuller Foundation (MFF) projects to ascertain the expected impact of the solution on their project and the requirements for scaling up and replicating it in other parts of Nigeria and beyond. The significance of this analysis is based on the:

- Evasive attitude of the government on housing provision (See the analysis in Appendix 2) and the already constrained resources, which limits its commitment to housing provision;
- Fact that funders are interested in solutions that are sustainable, scalable, and/or replicable (O'Riley, 2012); therefore, government as a facilitator of housing provision, will be drawn to implement solutions that are less resource intensive, provide maximum benefits, and give value to the public resources that are committed.

Furthermore, the world is becoming increasingly globalised and with ideas speedily exchanged or transferred, it is becoming interconnected as well; consequently, development is happening almost at equal speed in different parts of the world. Scientific research is an instrument of globalisation because it has evolved from being an independent undertaking, limited in time, space, and applicability, to one involving a community of people exchanging ideas and knowledge without the inhibition of location and time (Casado, Flecha, Mara, & Girbes-Peco, 2021: 1). Scalability and replicability analysis has, therefore, become an important tool in research and design for making impact in the society through meaningful stakeholder involvement aimed to stimulate the co-creation of knowledge for possible transfer from place to place (Ibid: 2).

Although the proposed solution is based on contextual realities in Nigeria, its adoption might be explored by others with similar challenges as Nigeria or they may trigger insights for improving solutions. Therefore, the scalability and replicability analysis was intended to fulfil the following objectives:

- To ascertain the benefits of the solution and their potential for implementation;
- To identify the conditions necessary for scaling up and replicating the solutions;
- To define requirements for their application in Nigeria and beyond.

The originally discrete solutions, which evolved into a single framework for enabling private sector investment in AH (see Figure 6-2) was presented to the MFF for discussion; this allowed them to focus on the features that are most important for implementation, scaling up, and replication. The discussion, therefore, captures the expected benefits of the solution on the case project, the scalability, and replicability criteria based on established factors illustrated in Figure 7-1
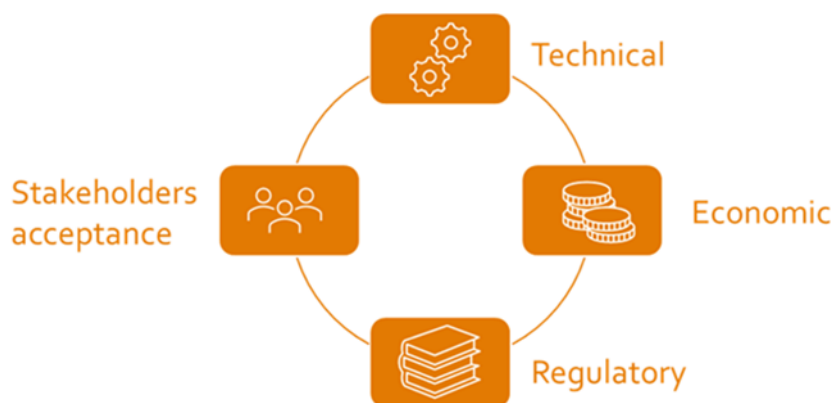
Figure 7-1: Scalability and replicability focus areas (Farcross, 2020)

7.1 Implications of Scalability and Replicability Analysis

Scalability and replicability analysis require implementing an intervention on a small number of settings in order to evaluate and implement them later more widely (Casada et al., 2021: 2). This means that to run the analysis, a sufficient period of time is required for applying the solution and for observing its effects so that reliable data for implementing it on a full scale may be extracted. Furthermore, scalability and replicability analysis require the involvement and cooperation of stakeholders to allow the use of their time and resources for co-creating knowledge. On the basis of time,

resources, and availability, this analysis could not proceed as objectively as possible because:

- The limited time for the study did not allow for such elaborate testing.
- The stakeholders need to key into the process; for example, the co-operation of the government is needed to provide a conducive environment (that is the proposed enablers- the legal and institutional adjustments to the housing system) to run the test and such could not be achieved within the shortest possible time.

Hence, this being the case, a simulated approach in which the proposed solution was administered as imagery via interview to the case project was adopted.

In order to generate more reliable data for this analysis, implementing the solutions on several settings would have been ideal and beneficial, however, getting the stakeholders to sign up to it was a major constraint. Given the special feature of the case project[23], the testing relied on the judgment and experience of the MFF to supply the relevant information for the analysis. Since the data was derived from the review of the case study, it will expectedly lack the quality of true representation of the reality that actual trials give. Therefore, it was necessary to minimise this difference by sending the interview questions and research information (Appendix 11) ahead of the interview to allow sufficient time for in-depth reflection and assessment, which is expected to provide data that will represent the reality as much as possible.

Analysis of the data was based on thematic analysis approach with minor adaptation to allow for categorising the grounded data into the appropriate pre-existing themes. Although a grounded approach means that all areas may not have been covered during the interview, nevertheless, it highlighted those areas that are likely more important to a private developer.

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[23] MFF is the only private affordable housing provider to deliver housing that is adjudged the cheapest in Africa for three consecutive years. MFF has done so without any support from the government and in an environment that is unfriendly to investors.

7.2 Scalability and Replicability

Due to limited resources of government and the effect on affordable housing, it is important that solutions should respond to contextual realities. The key consideration is, that the strategies proposed for improving affordable housing in Nigeria should be economical in terms of their ability to attract government interest based on the cost of implementation. Defining solutions should be complemented by a new set of practices and environment, new regulations, and more intangible elements like stakeholders' behavioural changes and social acceptance (Sigrist et al., 2016: 1). This is against the backdrop of unsuccessful housing policies of the past (Ezeanah, 2021: 4), and the poor performance of the current 2012 National Housing Policy (NHP), which is blamed on the limitations of the operational framework (Ezeanah, 2021: 4 & 8; Ibimilua & Ibitoye, 2015: 53; Moore, 2019: 214). Therefore, a new set of strategies or an improvement of the existing ones should be accompanied by some operational changes that will support implementation or the transfer of these solutions within and outside Nigeria. The analysis of scalability and replicability of the solution provides the conditions that must be met and an estimate of the resource requirement for a full-scale implementation, which will, in turn enable government to also ascertain the capacity of Nigeria to implement the solution (Sigrist, 2016: 2).

In the context of this research, scalability refers to the possibility of a large-scale implementation of the solution within the constraint of the finance, technical and manpower resources that are available. Therefore, scalability analysis addresses issues such as the resources that would be committed to implementing on a full scale, and the changes required in the existing system to support such action. The latter addresses issues such as whether the solution can work within the existing system or whether minor adjustments are required. This will help in predicting the economic implication of the solution and the willingness of the government to implement it. On the other hand, replicability refers to the scenario where the solution is exported to a different country, in order words, whether it can be duplicated elsewhere and if so, the requirements for replication. Thus replicability as the hallmark of research, helps in the transfer of local knowledge elsewhere.

While there are generic factors around which scalability and replicability analysis focus as illustrated in Figure 7-1, the research allowed the data to determine the conditions

that are most necessary for scaling and replicating the solution, and then grouped them into the appropriate generic factors. Considering the limitation of time and the use of a grounded approach for the analysis, it is expected that not all the generic factors were captured.

7.2.1 Scalability and Replicability Factors

Although there are generic factors, the analysis of scalability and replicability factors discussed here were derived strictly from the data, which means that the survey did not direct discussion to these specific factors but allowed greater freedom for the participant to determine them based on their judgment. Therefore, the factors described here were extracted directly from the data and coded under the corresponding generic factors. The scalability and replicability of the solution depend on specific factors, however, the analysis focused on some common and sufficiently generic factors like technical, economic, regulatory, and acceptance-related factors (Sigrist et al., 2016: 3; TRA, 2019: 7). In general terms, it can be said that:

- Technical factor defines the functionality of the solution in terms of the expected benefits, which impact the potential to scale up or replicate (Menci et al., 2021: 5). These benefits invariably highlight the technical requirements for their realisation.

- Economic factor considers the cost-benefit of the solution, which helps to evaluate whether the values or benefits derived from the solution compare favourably with the resources invested in them (TRA, 2019: 7), this is especially important for the government as a facilitator and funder. This means that the lower the cost and the more the value derived, the more the possibility for implementation.

- Regulatory factor reflects the extent to which the current regulatory environment will support the implementation or scaling up of the solution (Ibid) or the regulatory drivers and barriers that may impact replicability in other places (Menci et al., 2021: 5).

- Stakeholders' acceptance determines the extent that the stakeholders are willing to accept and implement (TRA, 2019:7), this is particularly important for the solutions to work.

Although certain factors like economic, regulatory, and stakeholders' acceptance might have been merged in the discussion of this analysis, a distinction has been made to show how they affect scalability and replicability. Table 7-1 summarises the analysis of scalability and replicability factors of the proposed solution.

Table 7-1: Summary of the factors for scaling up and replicating the solution

Area	Scalability	Replicability
Technical	• Publicly dedicated pool of land • Adequately trained personnel	Institution for acquiring, managing, and allocating land appropriately
Economical	• Strong mortgage and financial system with the ability to cater for both informal and unsteady income • Adjusting REDAN to accommodate AHPs	• Strong mortgage and financial system • A system of verifying eligibility and the intentions of developers
Regulatory	• Eligibility assessment of AHPs' membership • Land administration system where the government owns the land	Land administration system where the government owns the land
Stakeholder acceptance	• Political will • Adequate inducement to businesses and materials suppliers and producers	Adequate inducement

7.3 Factors for Implementing, Scaling-up, and Replicating the Solution

Chapter five details the solutions to private-driven affordable housing in Nigeria as discreet solutions; they are provided to address the specific problems of affordable housing, which can guide policy changes. These discreet solutions have been used to improve an existing framework- the Ministerial Pilot Housing Scheme which was administered to the MFF to determine how it will impact their activities and whether scaling-up and replicating the solution will be possible and necessary. The primary objective of the solution is to facilitate private sector investment in affordable housing by facilitating access to affordable land, funding and materials, hence the framework as shown in Figure 6-2

The scourge of affordable housing is the land administration system in Nigeria and while the problem of land administration is being addressed as a long-term plan, the improved Ministerial Housing Pilot Scheme (MHPS) shown in Figure 6-2 can be used to extract land for affordable housing. This framework has four distinct features that formed the focal points of the discussion and subsequent analysis, they are:

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- Only allocating land only to members of the association of AHPs;

- Setting up an enforceable contract between the government agency and the developer;

- Issuing grant note to access a percentage of the funding from the AHF, which is funded by businesses and accessible on commercial terms to other private developers;

- Issuing discount voucher to AHP for procuring good quality materials from participating materials suppliers and producers.

A summary of the results of the analysis is presented in Table 7-1; it is extracted from the participant's judgment of the areas that are important in scaling up and replicating the solution.

7.3.1 Technical Requirements

The expected benefits of implementing the solution are termed the technical requirements because they invariably highlight features that are necessary for realising them; these features enhance the feasibility of implementing, scaling up, and replicating the solution and have the potential to attract the investment of public resources for its implementation. The benefits expressed in this case align with previously established benefits expressed by the other stakeholders, which are documented in Chapter 6 (See PD5[28]). The benefits, which the MFF anticipates of this solution to their project lie in the fact that it will increase the chances of getting public land allocation since limiting allocation to a specific group reduces possible speculation [92] and exclusion of genuine affordable housing providers. Therefore, MFF expressed confidence that this solution will help them to access land for their development.

> [92]. *"… We keep saying that there are no houses in Nigeria, and yet they're not coming to those who they know can deliver the goods to them. I mean, here you have a beautiful setup framework for engaging affordable housing providers".*

Moreover, when private developers benefit from affordable land in this way, large-scale production is possible since the land will be allocated based on the proposal that is submitted, and the cost of land would no longer inhibit the size and the location of affordable housing development[93].

Furthermore, housing development is delayed by administrative bottlenecks associated with acquiring approval for land that is privately procured, and such delay usually comes with costly consequences. However, when government allocates public land in this fashion, the need for registration and its associated challenges are minimised, resulting in both timely and increased production[94].

Establishing a contract between the government and private developer engenders confidence and accountability; since both parties are focused on fulfilling the development objectives, accountability in the use of public resources is therefore promoted:

Furthermore, extending access to the Affordable Housing Fund (AHF) to other private developers is a good way of ensuring a sustainable supply of funds as encapsulated in the following[96]:

With these benefits thus highlighted, the technical requirements for scaling up the implementation of the solution would be an existing practice where public land resources are pooled strictly for affordable housing in the states, furthermore, the ministry in charge should be structured and run by competent personnel to acquire, manage, and allocate land in as fair manner and as speedily as possible. Additionally, an expedited land registration system is required to provide valid titles on land and eliminate the bottlenecks associated with doing so for the developer. In order to replicate this solution, a land management system where the government owns the land and has the powers to acquire land for public use is required.

7.3.2 Economic Requirements

The economics of implementing the solution is the core of this chapter and encompasses all considerations that will affect government's decision to or not to implement the solution. For the government who is the facilitator of housing, solutions that are economical in terms of what is realistically achievable, taking into account the constraints are important. This means that the cost of implementation is as important as the value to be derived (Sigrist et al., 2016: 6), requiring a balance between cost and value as a prerequisite for the implementation and scaling up. In this analysis, the economic considerations are not only limited to the actual cost of implementation (that is, the resource requirements) and the corresponding benefits, but they also extend to the regulatory framework, which needs to be installed before implementation. The important criteria for investors and implementers are whether a project is cost-effective and whether the cost of implementation can be offset by the benefits in the long-term (O'Riley, 2012). Hence two economic requirements for scaling-up and replicating this solution are establishing an effective demand capacity for housing and identifying genuine affordable housing developers. Therefore, when these considerations are fulfilled, they will reduce the waste of resources as well as inspire the willingness and confidence to supply housing in the developers.

The MFF identified that the solution will increase the production of affordable housing; therefore to keep pace with the large-scale production that this solution will engender, the capacity for effective demand of the off-takers should have been established. This is because while the solution is leading to an increased supply of housing, there is a corresponding availability of off-takers with the capacity to take up these houses and ensure good turnover for the investor who is producing[97]. Therefore, a strong and robust mortgage system is a prerequisite for implementing this solution because housing production needs financing from the banks, and the availability of funds from these sources depends on their willingness to invest their resources in affordable housing. Such willingness is strengthened by their confidence in the route through which their money comes back to them; based on this analogy, a robust mortgage system should be characterised by its ability to respond to the peculiarities of the low-income end-users by easing the terms of accessing funds without jeopardising its sustainability[98] (UN-Habitat, 2012: 26). In order to preserve its sustainability, such a

system will tap from private resources and diverse sources of funds to provide broad and non-discriminatory access to affordable housing finance[99] (UN-Habitat, 2012: 25).

> 97. *"So, I think it is that system, perhaps more than anything else that you would tend to be a problem. In the supply of housing, are we able to have a system, where houses before houses are finished, the financing for the off-takers is available so that money can be recycled back to the developer?"*
>
> 98. *"...Yeah, they need to have a deep well of access to funding, you know, they need to have preferably a secondary market. You know a good mortgage market developed, in other words, there's financing at a certain level, but not just that, but there's really financing also at the next level, which is to say that somehow the housing delivery funding mechanism is tied to the capital market so that funding can come from beyond just government coffers or even private sector to involve long term investors who are willing to just put money aside for the purposes of housing."*
>
> 99. *"...the money is in the capital market, in people's individual pockets, so, we need to find a way of pulling out money from investors in the open market and that happens through the capital market so, that's the sort of system that needs to be triggered off"*

Another important consideration for improving the economics of implementing this solution is to compare the cost and the simplicity of the process of creating a new association of AHPs and accommodating them under the umbrella of the existing REDAN for fulfilling the same purpose. This assessment should be done in light of the peculiarities of Nigeria as inferred from the tone of the following expression[100]:

> 100. *"They are supposed to be engaging developers like this whether or not they belong to an association is another matter. I mean, we have REDAN, we call it the Real Estate Development Association of Nigeria, which is a body of builders, mainly house builders..."*

Besides, it is more important to ensure that the process is engaging genuine developers who are keen to develop affordable housing than having the whole effort compromised. This is inferred from the statement[101] and upholds a robust eligibility and verification mechanism over other considerations. In light of these considerations, scaling up and replicating the solution require a sustainable mortgage system that provides for a broad and non-discriminatory access to mortgages for the low-income household (one, which responds to the income structure and progression). Secondly, an appropriate structure for verifying the intentions of members of the AHPs would be more important than creating an entirely different association from the existing REDAN. This may require the consideration of some options like having a part of REDAN devoted entirely to affordable housing provision or using REDAN as it is but with specific instruction to submit proposal for affordable housing when the need arises. Either way, the need for a strong verification mechanism is essential for implementing this solution.

7.3.3 Regulatory Requirements

Essential to implementing the solution to allocation of public land to investors should be an existence of a land administration system, which empowers the government to acquire land for public use. Nigeria already has this system running although it is yet to be effectively utilised by the government. Therefore, implementing this solution will require the government to harness and use their powers effectively to maintain a sufficient land bank for public use. Two major regulatory conditions were discovered as important for implementing this solution, one has both replicability and scalability significance and the other has scalability importance. An important requirement for scaling up this solution across the federation is to deal with the innate tendency of individuals to circumvent the system to their advantage, while there is support for the creation of an association of the AHPs, such system must, above all else entrench additional assessment mechanism for eligibility and for verifying the intention to invest in AH. This will require setting up a framework and the manpower to do so. The overall framework for this assessment must be simple, clear, and devoid of manipulation, this is often the key to successful housing as is evident in the case of Singapore and Hong Kong (RICS, 2019: 15). Therefore the interest of the stakeholders can be awakened and sustained when the system engenders such confidence[102]:

102. *"…However, a different management came in and put up a framework, something like what you are proposing, but we observed that they're not really engaging with the developers as they say they ought to be. People are writing proposals all the time, and I know they're probably approving them, but it seems almost as if the bulk of the work that is being done, is through the state governments who are selecting their own contractors, so there's a lot of fuzziness or vagueness in the system, one isn't quite sure of what really is going on."*

The land administration system in Nigeria, which reserves the ownership of land to the state, is the bane of affordable housing delivery. In order to boost private supply of affordable housing by reducing land costs and maximising significant savings for the developer, availing land for housing through public allocation is one of the ways to enable investors overcome the basic documentation process that facilitates any housing project, and the costs associated with it. Hence, to reap the benefits of this solution elsewhere, there should exist a land regulatory framework[103] that poses the

same challenges to housing as experienced in Nigeria. Ideally, it is unreasonable to implement this solution if this type of land registration framework does not exist since the aim of the solution is to minimise the overall housing cost for the developer. Therefore, the regulatory framework should incorporate an expedited registration system that can engender the confidence of investors.

> [103.] *"Yeah, well, obviously I am not fully aware of the operational framework or the laws in Ghana, particularly laws relating to the administration of land. For instance, you know, the system might be a bit different there, I'm not sure they have a land-use decree. I don't think the government owns all their land, so, I think it's a bit different"*

7.3.4 Stakeholders' Acceptance

The discussions in Chapter five established a relationship between stakeholders' interest and successful implementation of policies, which strongly align with the expression[104]; therefore, identifying certain stakeholders' acceptance-related factors is important for driving the implementation of the solution for its successful impact. Firstly, the government as the facilitator of housing must drive the housing policy and the strategies meant to aid their implementation, this commands a strong sense of responsibility on its part to make the necessary provisions required to elicit both acceptance and cooperation of other stakeholders.

> [104.] *"So, it's essentially the sincerity to implement the framework as it ought to be. Self-interest, very often also gets in the way you know, because you are looking for how you will benefit directly. It affects your decision-making, you're not able to make good and proper decisions based on the facts on the ground, rather, you know we are inclined to go one way or the other which is not in the best interest of the project because of ulterior motives, so this is the big problem"*

There are three areas of this solution where stakeholders' input is vital for implementing the solution successfully; such areas as identified in the following should be the focus for engendering the stakeholders' acceptance:

- The process involved in writing the proposal for the allocation of land;
- Contribution of businesses to an AHDF as corporate social responsibility;
- Offering discounts by producers and suppliers of building materials.

Several studies have established that the ruin of successful policy implementation in Nigeria is the failure of the government to demonstrate the discipline to fulfil its responsibility, which should engender the acceptance and cooperation of the public to

implement public policies (Ijewereme, 2015: 3; Nnajiofor, Ifeakor, & Mgbemena, 2013: 230-231); as a result of the ensuing apathy, frustration, lack of confidence and interest, policy implementation has been negatively affected. In order for the policy to work, government must demonstrate the capacity to drive policy implementation through political will and good example (Nnajiofor, et al., 2013: 237). This will not only build confidence and trust but will engender acceptance and compliance with stated goals.

Therefore, three actions of the government are essential for engendering stakeholders' acceptance of the solution namely: good example, accountability, and discipline. Firstly, the public land allocation process should be straightforward, simple, and clear, without the taint of possible corruption or malpractices[102], hence, deploying adequate resources (both technical and manpower) will help to develop a system that is fair and reliable. Secondly, to elicit the contribution of businesses to the AHDF, the government should lead by example, incentivise their sacrifice, and demonstrate accountability and responsibility in the management and use of the fund[105].

> [105]. *"… having this fund funded by the business's monthly contributions as corporate social responsibility is good, but people are already doing a lot of corporate social responsibility, and they won't want to do more unless they can see the benefits to themselves…again, such a fund will need to be funded more by the government initially than anybody else, private sector will then invest if they see that it's being properly run and that there's no opaqueness in the way that they do their business…"*

Finally, material producers and suppliers should be incentivised for the cost of discount on their materials, this means that the value of incentives should be negotiated and adequate for the amount of sacrifice anticipated[106]

> [106]. *"…so, I think if the government comes here and says, look how much business are you doing every year? 5 billion but look we're going to give you an additional 10 billion. Multiply your usual turnover times 3 just from this contract that we want to sign with you over maybe a year or 2 years, I mean that should be enough for you to give a stupendous discount, and you know, like I said, it's been done*

7.3.5 Summary and Conclusions

The ability to scale up or replicate a solution lies in whether the solution is realistic in terms of the resources required for doing so; this is a desirable attribute that funders are seeking when choosing whether or not to implement, scale up or replicate it. As the government resources are constrained, solutions that are affordable to implement as well as guarantee maximum benefits would usually be attractive. Furthermore, as

manuals are required for operating a product, it is important to specify the conditions for implementing the solutions to affordable housing. Mindful also that the failure of past housing policies is blamed on a poor operational framework (Ajayi, 2019: 231; Jambol, Molwus and Daniel, 2013: 287), it is reasonable to identify the conditions necessary for implementing, scaling-up and replicating the solution. Therefore, using the MFF as a case study for testing this solution, their past and current experiences of delivering affordable housing helped to inform the benefits of implementing the solution on their projects as well as the conditions necessary for scaling up and replicating this solution.

As primary requirements for implementing this solution, three major benefits were identified namely- effective use of public resources, accountability in the use of public resources, and expediting the process and the scale of housing delivery. Furthermore, to realise these benefits, four major consideration are required namely- technical, economical, regulatory and stakeholders' acceptance. There is strong evidence that supports that private investment in affordable housing is seriously impinged by poor enabling strategies and framework, leading to speculation that has contributed to the waste of public resources. Conserving public resources and accounting for them imply enabling the right people and ensuring compliance with the use of public resources. This has both technical, and regulatory undertones and requires institutional restructuring with the appropriate personnel and machineries to aid the acquisition, management, allocation, and control in the use of public resources.

In countries with successful housing provision, the government takes further steps beyond the provision of land to provide loans on favourable terms (Section1.1). While creating a strong and stable mortgage system will improve the capacity to facilitate demand that matches the increased supply of housing induced by this solution, an AHF will provide additional source of funding advanced on more favourable terms to aid affordable housing investment. In addition, to ensure a steady supply of affordable funds, the funds should be sustained by advancing loan from it to other private investors on commercial terms. Furthermore, advancing materials discounts from suppliers and producers to aid the developer will combine with other strategies to encourage private investment. Since, this solution also taps from private resources,

accountability in their use is necessary to encourage and sustain stakeholders' acceptance and compliance.

Finally, from all accounts, the success of this solution rests on a well-structured institution, driven by competent personnel and appropriate machinery to provide services that are clear, easy to navigate, fair, reliable and accords rewards where necessary for the use of private resource to advance social services. Hence, the government responsibility in this regard is enormous and will require the political will to erect a structure that is equipped with the technical, economic, regulatory conditions for engendering acceptance and compliance with the goals of affordable housing. Indeed, the intention of the government should be to demonstrate responsibility and accountability for both public and private resources, which will help to restore confidence in the system and excite stakeholders' acceptance and implementation.

8 Conclusions and Further Work

This chapter will conclude the research by summarising the key research findings in relation to the research aims and objectives, as well as the value and contribution of the research. It will also review the limitations of the research and make suggestions for future research. The adoption of enabled private approach to affordable housing since the 1991 housing policy was spurred by the failure of government-led efforts and the dwindling resources that affect its commitment to housing. The introduction of the global shelter strategy in 2000 and the adoption of the 2012 national housing policy in Nigeria sealed the fate of the enabled private-driven approach to housing. This was followed by institutional and regulatory changes to pave way for the implementation of this new approach to housing; however, despite these changes, the housing deficit has continuously increased to the disadvantage of the low-income earners. Meanwhile there is significant number of vacant houses in the cities even when people are living in slums and unhealthy conditions signifying that these houses are unaffordable to the majority and indicating an investment-led approach to housing. Why are private developers averse to affordable housing investment and how can this trend be reversed? This research aimed to explore effective strategies for boosting the effectiveness of private-driven affordable urban housing in Abuja Nigeria. The research aim was supported by these objectives:

1. To explore the problems of private sector-driven affordable housing in Nigeria?
2. To analyse the effects of the housing framework on the private-driven affordable housing?
3. To identify the barriers to private investment in affordable housing? and
4. To define strategies for boosting private-driven affordable housing in Nigeria?

The findings show that the underperformance of the private-driven affordable housing is expressed in low private investment in affordable housing and poor access to housing, which together affect the closure of the housing deficit. Both problems stem from the operational framework designed to address the developers' concerns and the end users' needs. Poor operational framework manifests in poor funding of government agencies charged with facilitating and enabling the performance of private-driven affordable housing. Consequently, this has given rise to multiple problems that affect private investment and access to housing. Therefore, low

investment in affordable housing arose from failure to facilitate serviced land by the ministry for genuine developers resulting in speculation that is further aggravated by poor monitoring and regulation in the use of government limited resources. Furthermore, besides the private developers being deprived of public land allocation that could reduce the cost of investment for them, affordable land is still militated by the absence of infrastructure, resulting in poor location of affordable housing to the detriment of end users' needs. Again, the uncertainty of the land registration system, has led to security problems, increased cost of land and limited access to construction loans. Apart from lack of enablement, serving the low income market is fraught with risks; risk involved in disposing the units and that associated with making returns on investment. These are due to weak capacity for demand. Therefore, to increase private investment in affordable housing, maximising the impediments of the regulatory framework (LUA) in a decentralised policy, will harness local participation, address local housing needs and ensure wider spread of housing efforts. Furthermore, delegating approval powers to other officials will lead to quicker land registration and a reduction of the risk involved in land transaction. Finally, proper funding of the agencies like the FMWH can improve their facilitative role in facilitating land for housing and de-risking developers' investment through bulk buying of units and disposing them flexibly according to need.

On the other hand, further findings show that low income capacity affects access to mortgage and to housing. Consequently, it has helped to derail investment and allocation of housing and encouraged speculation, which is further made worse by poor allocation mechanism. Making matters worse is that the problems highlighted above have helped to further an investment-led approach to housing, which fails to capture the market need. Consequently, wrong conception of affordable housing is expressed in designs and construction that are cost convenient for the investor and divorced from meeting the end users' needs. Mindful of the conflict between the desire to reduce design cost and meeting end users' needs and income, incremental housing and site and services schemes can be used to enhance flexible access to housing as well as maximise end user decision and limited resources in achieving their housing need. Furthermore, to enhance access to NHF mortgages and improve access to housing, percentage of income contribution to NHF should be related to income capacity. Therefore cross subsidising such contribution will increase the NHF pool of

fund and improve access to mortgage. On the other hand, to address speculative allocation, access can be enhanced through end users cooperative societies to guarantee funding and access to housing for those who need them.

This research has shown also that the impediments of the LUA that has been overly criticised as the bane of affordable housing in Nigeria has not been critically assessed to maximise its other hidden potentials for affordable housing especially at the local level. It appears that such criticism persist because of a strange need to sustain a centralised housing policy or an inexplicable abhorrence for a change. It is true that the LUA limits access, acquisition, and building of land bank for the federal government to advance to developers for affordable housing but such criticism has failed to realise that LUA can be maximised in a decentralised housing policy to facilitate and spread housing efforts at the states and local government levels. The federal government is limited by resources, which can be conserved for other functions when states and local government powers on land are harnessed. The powers of state on land at this level can guarantee sufficient pool of land banks that can be used for realising affordable housing at the local level. Decentralisation as captured in different expressions like developing partnership platform with local communities, creating opportunities for routine interaction with stakeholders and closer cooperation between research and policymakers denote efforts to capture and respond to local needs. As highlighted in this research, both varying end user needs and federal government limited powers on land are opportunities for a decentralised housing policy. Therefore, decentralisation as implied in this research means rolling back the frontiers of the federal government for more active participation of state and local governments in affordable housing. Furthermore, as housing needs vary across culture and ethnic lines, decentralisation can help to address more effectively local needs with designs that are more appropriate than a centralised housing effort. These local solutions, which are derived from engagement with the local users can ensure better local response; because it is easier to interact at a closer level with stakeholders, a better local framework can be designed for managing their expectations.

This research confirmed existing knowledge in every aspects of affordable housing; for example successful housing effort is built on effective framework and strategies, and existing knowledge has affirmed that the bane of affordable housing in Nigeria is

the regulatory framework, which is also confirmed in this research. Existing knowledge also shows that the reliance on imported construction materials and the method of construction in Nigeria are still impeding the advancement of affordable housing, these too were highlighted in this research. However, the novelty that this research has brought is the research approach, which engaged stakeholders in a workshop to define the problems and solutions to affordable housing; this lays the foundation of good practice that should guide future policy designs under the enabling shelter approach. Furthermore, it spurs future research on other aspects of this topic to leverage collaborative workshop to generate rich data. It is true that this research affirmed calls for a decentralised housing policy but it has further highlighted factors that make it suitable for Nigeria; therefore arguments presented in this research in favour of a decentralised housing policy like maximising state power on land to deliver housing at the state level and leveraging such closer interaction at the grassroots level to deliver end user needs will compel government to finally experiment the decentralised housing approach. Also, this research provides a preliminary assessment of the problem of housing, which government can leverage to address the housing problems in their context. This research studied the MFF projects, which are adjudged the cheapest in Africa and have published a report illustrating a classical example of the challenges of private developers and end users, it has also highlighted important factors to consider by the government when reviewing the housing policy. Furthermore, this research has laid a foundation for further research in analysing in greater detail the scalability and replicability of the solutions proposed in this research.

Every research has its limitations and this research was no exception. The aim of this research was to gain sufficient and an in-depth understanding of the problems of private-driven affordable housing necessary for defining more appropriate solutions to the housing problems in Nigeria. Although the study conducted a thorough survey, limitations peculiar to Nigeria were encountered and it is worthwhile sharing these for the benefit of anyone undertaking research in the same region. The initial research design sought to include a high proportion of public agencies related to the housing sector considering that they are few in number. This study failed in that respect because communication with them to secure initial consent to participate in the study yielded minimal success due to the challenges of communicating from afar through online protocols. Generally, Nigerians are not partial to online correspondence, which

made the recruitment process a Herculean task, most of the recruitment process was finalised physically when the researcher returned home for the study and this affected the number of participants.

In order to establish the initial communication for recruiting the participants, the contacts of some of the agencies were extracted from their websites; unfortunately, some of these contacts were either outdated or used for another purpose and would have posed a risk for the research had care not been taken. In addition, there is a pervasive aversion to be interviewed among Nigerians because it is generally viewed as intrusion into their time and privacy; hence, the number of participants especially the residents of the case estates that were interviewed was very few.

A study of this kind would have benefitted from more than one case study because it would have provided more diverse information that will enhance the quality of data as well the generalisability of data. However, the choice of one case study was driven by its special feature and limited by the time available for the study. The effect of a single case study was more visible in the scalability and replicability analysis since the use of more than one case would have been more suitable for such assessment. Therefore, future studies will benefit from the use of more than one case to provide diverse information; also, enough time should be allowed for this type of exercise, ideally, replicability and scalability analysis should happen as a standalone project. Furthermore, analysing the scalability and replicability of a solution on more than one case will provide more reliable information for evaluation and wider implementation, which has not b guaranteed by this research.

In analysing the data, thematic analysis was used across all data collection approaches since such methodological tweaks are acceptable in a Generic Qualitative Inquiry (GQI). However, there is no gainsaying the fact that analysing the case study data in the prescribed manner would have allowed for easy comparison between the case study data and the data generated from other approaches. Contrary to the Equality, Diversity, and Inclusion (EDI) principles, the composition of the participants in the collaborative workshop was not representative of the actors in the housing sector. The end-users were unfortunately not captured in the discussions, which is an impediment. Hence, the data generated by multiple switching of roles of the participants may not represent actual reality since the dominant role of a participant

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will always overshadow the secondary one. Furthermore, while this research imbibed the RRI practice by engaging relevant stakeholders and using online whiteboards, the profile of the workshop participants was gender biased; the participants were only males, which opposes the Equality, Diversity, and Inclusion (EDI), principle. Hence, the benefit from a gender balanced participation is lacking. It is also evident from the findings that this research would have yielded rich data if discussions had been made to run over two meetings; this was impossible because of the limited time available for the workshop and the difficulty of getting participants to engage in a second meeting. In the future, research as this should leverage running two sessions of the workshop within a space of one month.

This research highlights the strategies for enabling the supply and demand for affordable housing, with emphasis on maximising the availability of resources for private developers. The key areas of the research indicate an expedited land registration process such as delegating the responsibility of final approval of land registration to other officials and the optimisation of the framework in a decentralised housing policy as mechanisms for improving access to land for private development. In addition to this is the development of verification and monitoring mechanisms to prevent speculation of public land. Furthermore, a short-term strategy to address the high cost of materials is the encouragement and enabling of material suppliers and producers to offer discount on materials for affordable housing development. This should provide an immediate relief while government deepens its effort in enabling research and development efforts in local materials and technologies.

Both literature review and the research findings show that despite being one of the policy objectives, material research and local development have not garnered sufficient support of the government, which hampers the progress of the Nigerian Building and Road Research Institute (NIBRRI) in evolving appropriate materials and technologies on large scale for affordable housing development. Therefore, in light of government's persistent unsupportive stance on housing, future research should, in line with the enabling thinking identify enabling framework and strategies for scaling up NIBRRI's inventions through the engagement of the private sector. Furthermore, such research should, above all, focus on developing a self-sustainable framework for translating NBBRI's inventions into implementing affordable housing in Nigeria.

This research also evidenced that housing development funding and end-user financing are necessary for advancing the private-driven approach to housing. Both financial framework and macroeconomic policies are defined as the bane of affordable housing. Therefore, future research should study the current financial system vis-à-vis the macroeconomic policies to suggest more practical initiatives for facilitating the funding of affordable housing and end-user financing that are responsive to private development concerns and captures the low-income circumstance. Similarly, further research is needed to suggest the macroeconomic policies that will support both local production of construction materials and importation of building materials as short and long-term strategies for optimising affordable materials for housing. Furthermore, this research has established the foundation for future research to test the proposed solutions on projects and analyse the scalability and replicability in greater detail. Since this analysis could not happen within the limited time of this research and at a scale that will generate sufficient data, future research should devote to doing this analysis on different projects to compare data across different cases and generate more realistic result for implementation.

Finally, supposing that the government can focus first on optimising land availability through the recommendations of this research and, more particularly on maximising the benefits of the LUA through a decentralised approach to provide public land for affordable housing at the local level, it is expected to trigger fierce competition among private developers to invest in affordable housing as evidenced in Singapore and Vienna.

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Appendix 1: Profile of Abuja and its squatters

This section illustrates the profile of Abuja and its development, including the squatters that developed over time.
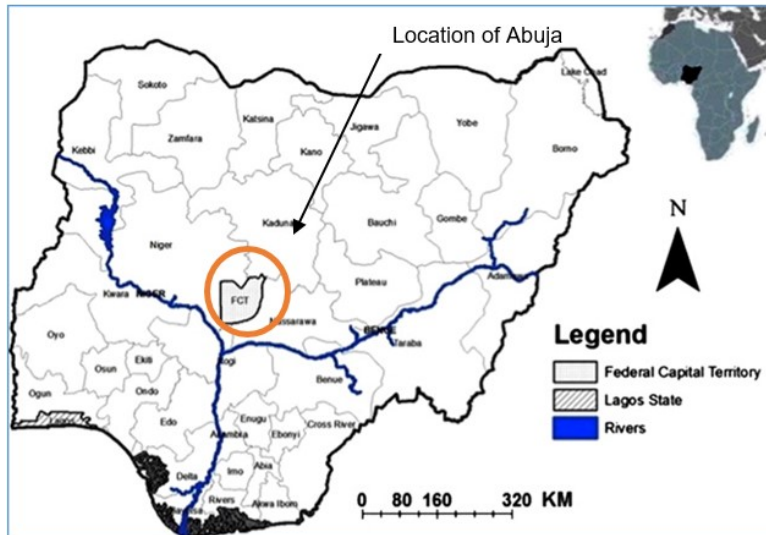
Figure 8-1: The central location of Abuja (Abubarkar, 2014: 82)

Figure 8-2: A cross-section of Mabushi slum (left) (Ewongo, 2019) and Koroduma slum near Asokoro (right)

(Ukaegbu, 2017)

Figure 8-3: Mpape community in Abuje (https://intervention.ng/17924/mpape-an-abuja-slum)

Table 8-1: List of squatter settlements within the FCT (Adeponle, 2013: 146; Jibril, 2006: 5)

ID	Name	Type	Area (ha)	District
1	Bakasi market	Market	20.7	Central Area
2	Zone 3	Mechanics	5.9	Wuse 1
3	Garki	Village/market	19.0	Garki II
4	Guzape	Village	225.8	Guzape
5	Garki village	Market	14.7	Gudu
6	Apo	Village/market	46.8	Durumi, Gudu
7	Mabushi	Squatter/market	15.5	Mabushi
8	Durumi	Squatter	32.3	Durumi
9	Katampe	Village	13.9	Katampe
10	Gaduwa	Village	9.4	Gaduwa
11	Dutse	Squatter	189.0	Dutse
12	Dutse	Village	21.1	Dutse
13	Wumba	Village	5.3	Wumba
14	Mada	Squatter	165.4	Outside FCC
15	Kurbo	Squatter/market	54.5	Outside FCC
16	Kuchigoro	Old village	3.7	Kukwaba
17	Kuchigoro ext.	Squatter	59.9	Kukwaba
18	Karmajiji	Squatter	37.9	Kukwaba
19	Wuye	Squatter	2.4	Wuye
20	Jabi	Squatter	14.0	Jabi
21	Jabi	Squatter	4.3	Jabi
22	Jabi/Dakibiyu	Squatter	51.6	Jabi, Dakibiyu
23	Utako	Squatter	11.9	Utako
24	Karmo	Squatter	524.0	Karmo
25	Gwarinpa	Squatter	408.0	Gwarinpa I
26	Dape	Squatter	455.0	Dape
		Total	2412	
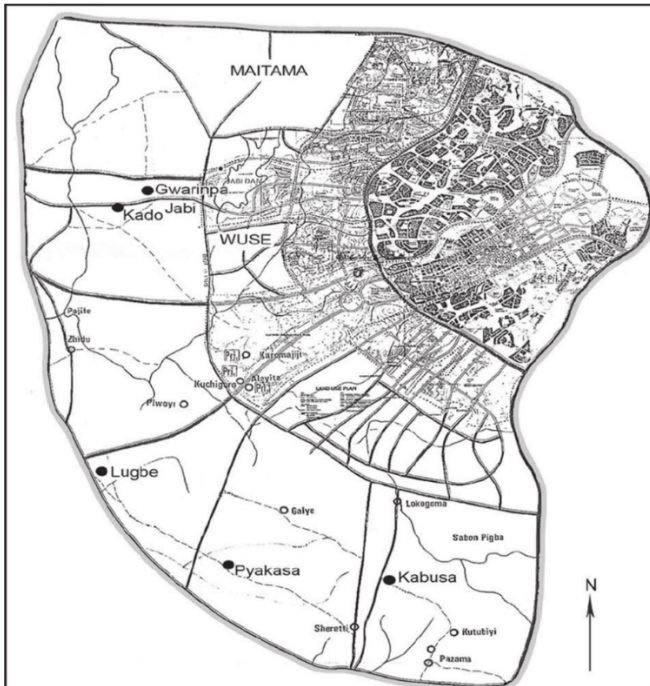
Figure 8-4: Map of Abuja showing the location of Maitama, Wuse and Gwarinpa (Adama, 2012: 993)
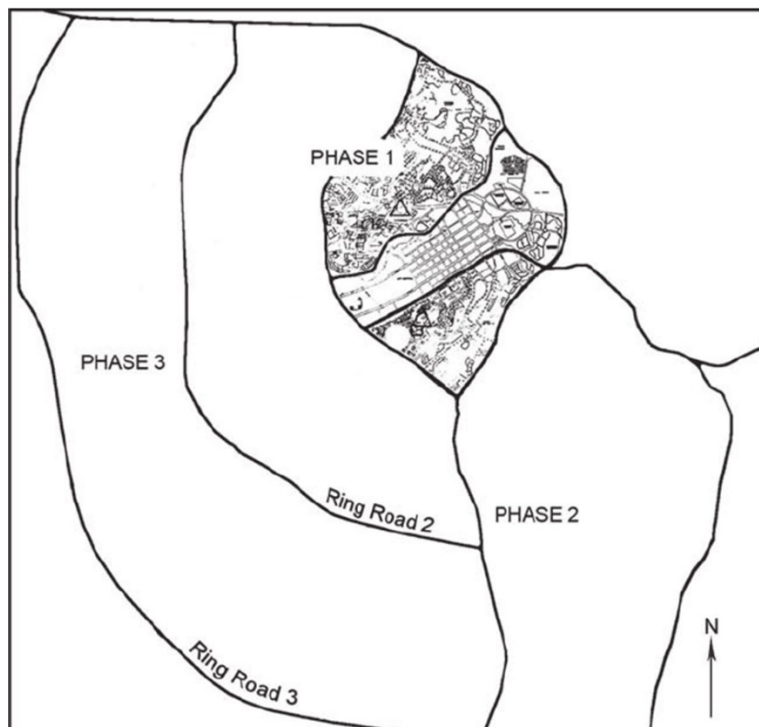
Figure 8-5: Urban design plan of Abuja showing phase 1 to 3 (ibid: 994)
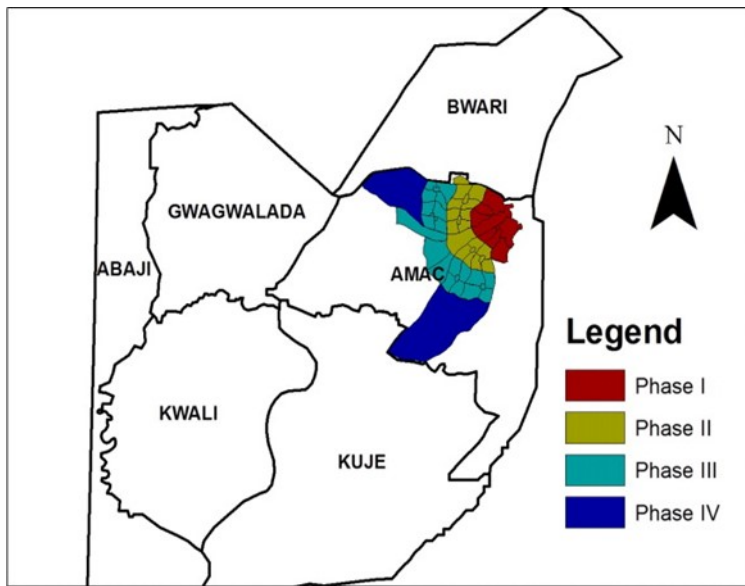
Figure 8-6: The area councils within Abuja, and the four phases of Abuja development (Abubarkar, 2014: 83)

Appendix 2: Analysis of homes sacrificed for fuel subsidy

This is an extract from the Punch newspaper of the analysis of Anudu on homes sacrificed for fuel subsidy:

The N4tn earmarked by the Federal Government for petrol subsidy in 2022 can provide one-bedroom apartments for 431,557 Nigerian families, according to calculations by *Financial PUNCH*. Under the National Housing Programme launched by the Federal Government and supervised by the Ministry of Works and Housing, a one-bedroom apartment costs a maximum of N9.269m and a minimum of N7.222m. With N4tn budgeted for fuel subsidy, the Federal Government can secure 431,557 one-bedroom bungalows for homeless families at the cost of N9.269m. On the other hand, with N7.222m for a one-room apartment in some states in Nigeria based on NHP rates, the Federal Government can extend the number to 553,832 one-bedroom bungalows for homeless families.

The NHP was established to provide adequate and affordable housing for the citizens. The first phase of the programme began in 2016 in 34 states of the Federation and the Federal Capital Territory, with an initial focus on state capitals.There are mixed feelings regarding the success of the programme as many Nigerians who claim to have applied for the scheme say they cannot have access to the affordable housing programme.

A wasteful petrol subsidy

Based on data obtained from the Nigerian National Petroleum Corporation, the Ministry of Finance and other sources, Nigeria spent N10.529tn on petrol subsidies between 2012 and 2021. The subsidy, also tagged 'under-recovery' by the NNPC, is set to receive N4tn in 2022, which is about 23.35 per cent of Nigeria's 2022 budget and 2-3 per cent of nation's Gross Domestic Product. While the government prepares to spend N4tn on petrol subsidy which favours mostly the rich, other critical economic issues are abandoned by the Federal Government. The Academic Staff Union of Universities is demanding N200bn to revamp the education system in Nigeria, which is just five per cent of what the government of the President, Major General Muhammadu Buhari (retd.), is planning to spend this year on petrol subsidy. If the government deregulates the petroleum industry and puts the N4tn into the health

sector, per capita health budget for the year would rise from the current N4,100 to N24,000.

…The President of the Manufacturers Association of Nigeria, Mansur Ahmed, told *The PUNCH* that the petrol subsidy was a yoke on the Nigerian economy, arguing that placing much importance on petrol over issues of health and infrastructure was misdirected. *"We believe that subsidy is a yoke on our economy. First of all, the social sector is critical. Maybe people feel that fuel is so important, but if you compare it with health, education and security, you will notice it is nowhere near them."*

Professor of Energy Economics at Nnamdi Azikiwe University, Uche Nwogwugwu, condemned the N4tn petrol subsidy, saying that it was a tax on consumption. According to him, the amount was enough to subsidise the cost of local refining, noting that channelling Nigeria's scarce resources to subsidy when issues of funding education, infrastructure and security were on the front burner was a waste of money. *"Nobody knows the basis of the N4trn subsidy. We in energy economics say that any subsidy on petroleum is corruption. A lot of development can be done with N4trn and we can develop alternative energy sources of energy and renewable energy with that amount, to rely less on fossil fuel."* Nwogwugwu stressed the need to invest in capital projects rather than on consumption in order to take many Nigerians off the poverty class…

Appendix 3: Status and location of past FHA housing projects

The following tables show the location and status of past housing projects of the Federal Housing Authority (FHA) from 1970 till date.

Table 8-2: Location and status of past FHA projects from 1970 till date (FHA, n.d)

Location	Number of units	Remarks
Lagos, Festac town	11, 438	Completed and sold with about 45% currently under mortgage repayment arrangement, 1977
Lagos, Ipaya Estate	3, 044	Completed, allocated on cash and carry basis, 1989
Lagos, Abesan II	62	Completed, most houses allocated to federal government staff house loan board 1997
Kano, Sharada	178	Completed and commissioned October 1998. House allocated under mortgage arrangement.
Imo, Aladinma, Egbeada Estate, Owerri	186	Completed and commissioned October 1998. House allocated under mortgage arrangement
Sokoto, Runjin Sambo	175	Completed and commissioned June 1989. House allocated under mortgage arrangement
Kaduna	176	Houses completed and sold on cash and carry basis 1989
Benue, North Bank Estate, Markurdi	218	Completed and commissioned August 1989, houses allocated under mortgage arrangement
Niger, Bosso Estate, Minna	260	Completed and transferred to federal government in 1990
Niger, Bosso, Estate, Minna	20	Proto-type units of cement stabilised earth construction. Abandoned
Rivers old Trans-Amadi/Rumueme Estate, port Harcourt	207	Estate completed with infrastructure, houses allocated on mortgage terms 1987 1nd 1990 respectively
Abuja, old Karu Estate	251	Estate completed and sold to FCDA in 1990
Gwarinpa II Abuja	3, 377	Completed, sales on-going
Abuja, Kubwa Estate (Phase I, II, III & IV)	2, 138	Estate completed, the low cost houses allocated on mortgage terms/outright cash payment: 1988, 1991, 1993, and 1999 respectively
Gabi dam Buachi	235	FHA sold to Bauchi state government
Edo, Iguosa Estate Benin	162	Houses at 70% completion sold to Edo state government
Abuja, Maitama Estate	427	2, 3, and 4 bedroom block of flats completed and sold on cash and carry basis, 1992
Abuja, Asokoro Estate	162	2, 3, and 4 bedroom block of flats completed and sold on cash and carry basis, 1992
Obada-Oko	322	Completed, sales on-going
Gombe		2 bedroom semi-detached bungalow, 3 bedroom detached bungalow completed and sold
Gonin Gora, Kaduna state		3 bedroom detached bungalow completed and sold
Oshogbo Osun state	337	2 bedroom semi-detached bungalow, 3 bedroom detached bungalow. Completed and sold
Total	23, 038	

Table 8-3: National Housing Programme (NHP) completed and sold estates

Lugbe	3, 734	NHP, completed and sold units
Kado Abuja	1, 004	NHP, completed and sold units
Abesan I, Lagos	179	NHP, completed and sold units
Abesan IV, Lagos	56	NHP, completed and sold units
Satellite II, Lagos	36	NHP, completed and sold units
New Karu II, Abuja	204	NHP, completed and sold units
Total	5, 213	

Table 8-4: NHP completed and sold estates

Off David Mark road, Minna	416	NHP uncompleted, sold to Niger State government
Tambari, Jos Road, Bauchi	493	NHP, uncompleted, sold to Bauchi State government
Aka Itiam, Uyo	114	NHP, uncompleted and sold to Akwa Savings and Mutual Alliance
Kofare, Yola, Adamawa	359	NHP, uncompleted, sold to Adamawa State government.
Gwadangwaji, Kebbi	881	NHP, uncompleted, sold to Kebbi State government.
Dutse, Jigawa	979	NHP, uncompleted, sold to Jigawa State government
Kano, Mariri	970	Sold to Kano State government; 1993
OLD Airport Road, Sokoto	559	Uncompleted, sold to Sokoto State government.
Baga Road, Borno	91	Uncompleted, transferred to Borno State government.
Bajabure, Yola, Adama	200	Uncompleted, sold to Adamawa state government.
Akure, Ondo	133	Uncompleted, sold to Ondo State government
Owo, Oyo	50	Uncompleted, sold to Oyo State government
Ado- Ekiti	102	Uncompleted, sold to Ekiti State government
Oshogbo, Osun	255	Transferred to Osun State government.
Ikot, Ekpo, Cross River	147	Sold to Cross River State government
Damboa Road, Maiduguri	431	Uncompleted, but sold
Katsina	374	Uncompleted, but sold to Katsina State government
Lokoja	464	Uncompleted, taken over by the Millitary

Table 8-5: Uncompleted and unsold direct scheme estate

Pompamari, Maiduguri	181	Uncompleted, unsold

Appendix 4: Interview questions to public agencies and PMIs

These are the interview questions administered to public agencies and Primary Mortgage Institutions (PMIs).

Questions for public sector agencies

- What do you think about the 17 million housing deficit, does it correctly capture the housing situation in Nigeria? Why and how did we get there?
- What do you think is (are) the factors that led to affordable housing problem?
- What is (are) your responsibility(ies) in fulfilling affordable housing for all and how are you implementing them
- How has your responsibility impacted on the private-driven affordable housing?
- What are the challenges militating against your facilitative performance?
- The NHP expressed government commitment to act as a facilitator to encourage private investment in affordable housing. Do you think that a private sector driven affordable housing agenda is possible? (why and what do you think if put in place from your own perspective will make the agenda successful)?
- Are there any current or future plans to enhance access to affordable housing?

Questions for the PMIs.

- What do you think about the 17 million housing deficit? Does it capture correctly the housing situation in Nigeria? Why?
- What are the reasons for the current situation (if deficit)?
- Under the National Housing Policy, government as the facilitator and the enabler will boost private sector performance participation in affordable housing, do you consider this approach viable to close the affordable housing gap? Why and how?
- What do you think about the strategies linked to private sector driven affordable housing with respect to your responsibility? Is it ok. (Why and how)?
- What is the role of the bank with respect to affordable housing?
- Are these roles being fulfilled? Are there any challenges? What do you think enable your banks to facilitate affordable housing delivery more effectively?

Appendix 5: Interview questions to private developers, MFF, and residents

The following questions were administered to a private developer, the Millard Fuller Foundation (MFF) whose project was used as a case study for this and some of the residents of MFF.

Private developers

- Do you agree that we have affordable housing deficit in Nigeria, why and how did it come about?

- You are aware of the policy statement to facilitate the participation of the private sector in affordable housing provision, do you consider it a viable solution to the housing problem? Why and in what way?

- What are the government strategies for enabling your investment in affordable housing?

- Has the company invested in affordable housing? Why?

- What are your challenges in providing affordable housing?

- What facilitative role of government can improve private investment in affordable housing?

MFF

- Which policies did your projects respond to?

- How was it designed, what determined the design (why bungalow and one and two bedroom arrangement) and the location of the project?

- How were land, finance, infrastructure and services provided?

- What was the target (number and type of houses to be built, time frame) and how were they decided?

- What was the cost of the project and how much did they sell at (If sold)?

- How many units are occupied and who are the occupiers (Were they the original buyers)?

- What challenges affected the project objectives?

- Despite the challenges you mentioned, how were you able to achieve this feat (building the cheapest house in Africa? Any compromises?

- What currently is not done well in the housing system and what improvement can be made to guarantee success for future projects?

Residents

- Please tell me your experience and your journey to owning or occupying this house (How did you acquire it?)
- Is it affordable? Are you comfortable with what you are spending on it?
- Why did you decide to acquire this house?
- Are you satisfied with your present status?
- Do you like everything about your present home or is there anything you would wish to change? Any challenges (in terms of location to amenities and shops, communal area)?
- From your previous housing experience and now, are there any relationships or is now better? (in terms of cost, services provided, access to amenities and comfort)
- Is there anything you wish to be improved for you or others who seek housing?

Appendix 6: Second stage interview questions to public sector agencies

The questions below were designed as scenarios and posed with follow up questions to the public sector agencies in the second stage of the study. They were designed to elicit solutions to private sector driven affordable housing.

- Mr Abasi is a driver for a ministry in Abuja where he earns N30, 000 monthly. He lives in a village in Lugbe with his wife and 3 months old daughter. He rented one bedroom apartment (with shared kitchen and toilet) in that location because it was cheaper and his rent is N15, 000 monthly. However, Abasi is not satisfied with his living condition (being located in a congested, filthy environment, with no access road and far from amenities) and is seriously looking for a better place. Recently, he learnt that one bedroom apartment (comprising a room, parlour, toilet and kitchen) is being sold by a private developer at 2.9 million naira in Mararaba (the outskirts of Abuja); he is thrilled at the prospect of owning a house even though the location is far from the city. Abasi is only required to make a down payment of 10% (N290, 000) and move in while paying the balance monthly for 3 years (This means that he will be paying N72,000 monthly in order to complete payment in 3 years). Unfortunately for Abasi, his low income and years in service couldn't fetch him a loan from the NHF and he isn't happy with losing this opportunity. Most Nigerians find themselves in Abasi's shoes, what is the best way to help Abasi? How can access to loan for housing be improved for people like Abasi or what financial arrangement will suit his condition and enable him access the house?

- A similar situation is that of Amaka who works in a private water proof bag making company as a cleaner. Her monthly salary is N15, 000 monthly. Amaka is currently squatting with a friend while looking for one bedroom self-contained apartment to rent. She was recently directed to a newly built affordable housing estate (a government programme for the low income). A bedroom self-contained apartment rents at N10, 000 per month, and Amaka quickly went to see if she could rent a place there. However, she found that the monthly rent was now N20, 000 and on enquiry observed that those who rented directly from the developer were paying N10, 000 as rent whereas a greater majority paying N20, 000 rented from a secondary source (speculators who bought the houses

from the government or developer). She was devastated because her salary was below that amount and she could not borrow because she was already in debt. The issues to deal with here is one, the speculators who deprived Amaka of the opportunity of renting an apartment there and two is the reason that encouraged the speculation in the first place (Income capacity of the intended tenants and poor allocation mechanism). What do you suggest to prevent speculators from buying up houses meant for the low income group? What strategies will help ensure that only people in genuine need of houses have access to them

- Ofon was employed as a Keke driver in Enugu state and he is expected to make returns of N15, 000 weekly to the employer and retain whatever balance he has. On the average he makes N3, 500 daily. This means that he makes about N9, 500 weekly after the expected N15, 000 weekly submission to the employer, hence, his monthly income is N38, 000. Ofon is a husband with three children who are in school. He needs at least 2 bedroom apartment for the family but the least rent can only be found for 2 bedroom apartment with shared facilities at N18, 000 monthly in a not very decent environment. Ofon has taken the house but is constantly having issues with paying his rents and taking care of his family. According to the NHP, people within the low income group like Ofon needs social intervention to pay their rents and live a decent life. How can he be supported to pay his rent?

- Mat affordable housing developer is genuinely investing in affordable housing but he is making very little progress in it? He acquired land from the natives at the outskirts of Abuja because it was cheap. He managed to bring electricity and water (through boreholes) to the estate but the road to the estate is very bad, although his houses are cheap. For 4 years the houses were fallow but afterwards people who were displaced from the city found their way to his door and that was how his investment for 4 years eventually began to sell. This is a major disincentive for investors in affordable housing; they are not sure whether their products will sell because of its location and the low income capacity of the intended buyers. In the first place, the choice of location was because land is cheaper but the disincentive is that there is no infrastructure and services to attract potential customers. How do you think Mat can overcome these two

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risks- accessing land in the right location and the exit to his investment (income capacity of the intended customers)?

- ZET estates complained how the whole government allocation of land for private affordable housing investment is a scam as he has never been lucky to get one and has long given up on trying. He, therefore, acquires land for his investments from secondary sources, which impacts on the project cost. He observed that most government allocation go to people who have no desire to invest in affordable housing (People who are only interested in land speculation); this means that genuine investors hardly get allocation while speculators get, and there is no way this will help to advance affordable housing. ZET is daunted by this challenge and has modified his initial investment intention to serving high to middle income earners. What strategy do you suggest to make land available to genuine investors and stop land speculation so that ZET can be motivated?

- AYZ estate Development Company has been investing in affordable housing with difficulty. One day, he got the information that the government is allocating land for affordable housing and he jumped at the prospect. He submitted the necessary papers, paid the money required and was given an allocation (200 plots). But before he could take possession of the land, it had already been sold to a Lebanese company to build houses that will cost 50 million naira each. He was surprised to observe that after 5 years of supposed allocation, government came for an oversight function on the land. This was very amusing to him because he was convinced that one of the officials must have diverted the land and sold to the Lebanese company. He eventually wrote and complained about the situation and the response he got confirmed his suspicion. He didn't want to institute legal process on the land because he was convinced of what the outcome would be. In a situation like this, and knowing the huge impact government allocated land will have on private affordable housing, what, in your opinion is the best strategy for making land available to private investors?

- Normally, the National Housing Fund (NHF) mortgages are accessed through the Primary Mortgage Intitutions (PMIs); but I am surprised that subscribers cannot access the NHF through Obinwanne mortgage bank. I had interest in affordable housing solution and naturally I became curious to know why such a

leading mortgage bank is not participating in the NHF scheme. I interviewed Obinwanne mortgage bank with the intention of publishing my findings to aid policy in the direction of affordable housing. Obinwanne said this: "the whole NHF Mortgage arrangement does not make any economic sense to us, we take mortgage loans from FMBN for the NHF subscribers at 4% and lend it out to subscribers at 6%. So if you look at it from the business standpoint, we make only 2% profit. That's not all, maybe three years down the line, customers start defaulting and based on what we call prudential guidelines, we are supposed to make provision for that default, so you make provision depending on the level of default maybe from 10% to 100% and mind you our profit on that loan is just 2% but we are required to make provision for any default, hence we take the credit risk as a mortgage institution. Where is the incentive to us"? We know that the NHF can only be accessed through PMIs, so the business has to be attractive to them. How can we make this a little bit attractive for the PMIs?

Appendix 7: Second stage interview questions to PMIs

These questions were administered to the PMIs**.**

- You are the government of the day and in line with the NHP, has given the agency (FMWH) the responsibility of allocating land to private developers for affordable housing development. Now, AYZ estate developer who invests in affordable housing got this information and decided to apply for an allocation; he fulfilled the necessary conditions and allocation (200 plots) was made to him. When he went to take over the land, he found to his chagrin that it had already been occupied by a Lebanese company who were to build houses that will cost 50 million (this is not affordable and is against the policy to make allocation for such housing). The annoying part of it is that after 5 years, the ministry came to him for oversight function on the land; he was convinced that one of the officials must have diverted the land and sold to the Lebanese company. He wrote and complained about the situation to the ministry and the response he got confirmed his suspicion. As government, committed to fulfilling the affordable housing mission through the private sector, you got to know about this and are not happy with the development, what strategy would you adopt in the future to prevent this, and also ensure that private investors are properly enabled?

- As the government, you got to know that private investors are not properly enabled. A case about Zet private developer was brought to your notice; this developer has lost faith in government allocation of land because he has never been lucky to get one. You understood that he ends up acquiring from secondary sources (and investigation confirmed that majority of the allocation go to speculators). ZET was invited to your office and you further observed that ZET's investment can never serve the intended group as a result of this. ZET and the likes of him need enablement that will help bring down cost and make the investment in affordable housing attractive to them. You are now faced with a huge problem, which is very delicate (considering the cream of people who are involved in the speculation) and you wish to stop speculation and ensure private developers are properly enabled. How do you propose to end speculation and empower private investors?

- You are in your office one day when a haggard looking young woman came in; she came with a story that will leave you burdened with finding a solution to it. Amaka works in a private plastic bag-making company as a cleaner and her monthly salary is N15, 000. She is currently squatting with a friend while hunting for one bedroom self-contained apartment to rent. Her colleague in the workplace had directed her attention to a newly built affordable housing estate (a government programme for the low income) in which a bedroom self-contained apartment rents at N10, 000 per month. Amaka went to rent a place there but found that the monthly rent was now N20, 000. She observed that those who rented directly from the developer were paying N10, 000 whereas a greater majority paying N20, 000 rented from a secondary source (speculators who bought the houses from the government or developer). She was devastated because her salary was below that amount, so she came to your office for help. As the governor, you can, out of generosity decide to support Amaka but that doesn't solve the problem because there are so many facing the same situation as Amaka. How do you stop speculators from buying up houses meant for the low income group? How do you ensure that the houses are accessible only to the low income earners?

- You are the Akwa Ibom state governor and your cousin who is a keke driver, visited your office to ask for money. Ofon is employed as a Keke driver and his employer expects him to make returns of N15, 000 weekly while retaining whatever balance he has. On the average he makes N3, 500 daily. This means that he makes about N9, 500 weekly after paying the expected weekly N15, 000 to his employer; his monthly income is, therefore, N38, 000. Ofon is a husband with three children who are in school. He needs at least 2 bedroom apartment for the family but the least rent can only be found for 2 bedroom apartment with shared facilities at N18, 000 monthly in a not very decent environment. Ofon has taken the house but is constantly having issues with paying his rents and taking care of his family. He has come to seek your support. You promised to be supporting Ofon with N10, 000 for his rent. But later in the day, you were thinking about the situation, you thought about what most people in Ofon's situation are undergoing and you began wondering what you should do in order to improve their access to housing. According to the

NHP, people within the low income group like Ofon needs social intervention to pay their rents and live a decent life. What can you do as a government to enhance their access to housing?

- Your wife is committed to the cause of empowering the indigent in your state and she came home with this experience, which she narrated to you and requesting your intervention as the president of Nigeria. Mr Abasi is a driver with the Federal Ministry of Health and earns N35, 000 monthly. He has been coming to work from a village in Lugbe where his rent for one bedroom apartment (with shared kitchen and toilet) is at N10, 000 monthly. Naturally, he is not satisfied with his living condition there (being congested, in a filthy environment, with no road and far from amenities) and he wishes to relocate to a better place. Recently, he learnt from a friend that one bedroom apartment (comprising a room, parlour, toilet and kitchen) is being sold by a private developer at 2.9 million naira in Mararaba (the outskirts of Abuja); he is thrilled at the prospect of owning a house and settling with his wife and 3 months old daughter. Abasi is only required to make a down payment of 10% (N290, 000) for the house, collect the key and pack in while paying the balance monthly for 3 years (This means that he will be paying N72,000 monthly in order to complete payment in 3 years). Abasi is consumed with the desire to own a house and considers the offer at Mararaba a good one. He does not have N290, 000 to make a down payment, meanwhile, his income and years in service cannot afford him a mortgage from the NHF. Most Nigerians find themselves in Abasi's shoes. How can your government help the likes of Abasi to access loan they desire for housing?

Appendix 8: Second stage interview questions to private developers

These questions were administered to private developers in line with the objective in Appendix 6.

- Normally, the NHF mortgages are accessed through the PMIs; but I am surprised that subscribers cannot access the NHF through Obinwanne which is a leading mortgage bank in Nigeria. Being interested in affordable housing solutions, I was curious and wanted to know why. I decided to interview Obinwanne mortgage bank and publish whatever findings I made in the papers. Here are the excerpts: *"the whole NHF Mortgage arrangement does not make any economic sense to us, for example, out of the 6% that is charged to the customers, 2% comes to us and 4% goes to the FMBN and where it becomes very dicey for mortgage banks is that if we process NHF loan for say 10 people (because application is normally done in batches) and the total mortgage for the 10 people irrespective of monthly repayment is 100 million; as long as we have signed with the FMBN with respect to this 10 people, we are bound to make monthly payment to FMBN whether or not any of them defaults in payment. If two or three people out of the 10 defaults in payment, we will still pay 100 million, you can see that we are now taking out cash from our pool to pay to FMBN and now start going for recovery. So you see all these going back and forth, processing just for 2%, on a very good day, we wouldn't want to bother ourselves with that but because we need them, the people need them, we all want the housing deficit to be reduced, so if we shy away from it and the individuals can't go directly to FMBN to access this, that will be a mockery of the policy"* As the government, how do you tackle this and make it attractive for the PMIs?

- Someone I know applied for the NHF loan and up to five years they didn't get anything, for those who were successful, it took a long time for them to access the NHF loans. The FMBN has this to say: *"we have serious problem with funding, our major source of fund right now is the 2.5% workers' salary, which of course, not all the states are contributing to it. Mind you, this is supposed to be long term funding and workers salary isn't just enough; apart from this, a workers is eligible to borrow once he has contributed for up to 6 months. What kind of arrangement is that? What impact will 2.5% of salary for 6 months have*

on a long term loan? Furthermore, we have waived off equity contribution for people borrowing up to 5 million naira, where do we get the funding to support this provident action?" This is the problem. If you were the government of the day, what would you do to increase the funding sources for the FMBN?

- This is an account of Premium mortgage bank: "most people, particularly, the very poor ones cannot afford to access mortgage because they won't meet with the conditions the banks have placed. You know mortgage banking is a risky business and banks need to protect themselves from risks. The security we require to give loans to people is the land (which must be titled), so that if there is default on repayment, we can foreclose on the property and recover our money but foreclosure is another difficult process in Nigeria. We think customers are exploiting the weak system to hang foreclosure procedures in the court for as long as they want because the court has more inclination to them. So, we are wary and the wariness is affecting so many things". Two things are more distinct here- land as security for mortgages and foreclosure. How can you as the government of the day ensure these risks are smoothened out for the mortgage banks?

- I know of a developer who said he could never use loan from banks for construction because the interest rates are high. As I was discussing this with a friend that works with the Primose Mortgage bank, he provided some clarifications, which I would like to share with you. He agreed that funds don't come cheap- *"yes we do give out construction finance as a bank, but the interest rate is quite huge, it hovers between 20% and 25%, it scares away developers and the repayment period is typically within 3 to 4 years because we believe that if the construction period is 12 months and you start selling from the day you start construction, it should take you nothing less than 18 months to sell out and you walk away (But you know this is not possible for affordable housing where the customers lack the capacity to buy up the houses within 2 years). But in this case, because of the way this funding is coming, it is not advisable for a developer to borrow more than 30% of what he needs to construct on site, you end up eating into your cost by doing that. I think developers are becoming averse to mortgage loans, what most of them do is that they build but they don't create mortgages with us, they have payment*

plans 12 months, 24 months payment plan but there will always be a down payment for their product, for example you are expected to make 30% down payment and the next payment will come 6 months where you make another 10 or 20% and probably in 12 months where you make another percentage. So initially, they start off with their fund, say they have 50% and as they are getting these monies, they use it to complete but this arrangement is definitely not affordable for the low income group". There are two things we need to tackle in this scenario my friend painted, if affordable housing can be possible- cheaper fund for developers and a flexible payment pattern that allows for the nature and income capacity of customers being considered. What do you suggest in this case?

Appendix 9: First stage questions to workshop participants

Chapter four of this thesis summarised the problems of private-driven affordable housing in Nigeria under low access to housing and low private investment in affordable housing. In light of these two major problems, participants were grouped into two and each group was asked to analyse the problem under the following:

- What factors lead to low access to affordable housing?
- Identify the stakeholders involved in each factor or problem
- From the stakeholder's point of view, what need are they seeking to satisfy?
- What measures would help mend things

Similarly, group two discussed on the problem of low private investment through the following questions:

- What factors lead to low access to affordable housing?
- Identify the stakeholders involved in each factor or problem
- From the stakeholder's point of view, what need are they seeking to satisfy?
- What measures would help mend things?

Appendix 10: Second stage questions to workshop participants

The solutions illustrated in Figure 8-7 below were derived from the phenomenology study and have been discussed in chapter five. They were presented to a different set of participants in a collaborative workshop for critical analysis. They were asked to analyse the following solutions to low access to housing based on the questions shown below.

Problems	Possible solutions
Demand higher than supply	• Diversify other sources of investing in AH by encouraging businesses to invest in AH as part of their corporate social responsibility • Tailor housing solutions to specific income band, every housing programme should identify a specific need and tailor solutions to respond to it; • Use inclusionary planning to mandate private developers to dedicate a percentage of their housing development to AH
Low income /low affordability for mortgage	• Adopt different housing options e.g. renting or rent to own options. These provide the flexibility that allows the low income group pay for their housing without much stress. • Use cross subsidisation to subsidise housing for the low income (can we have a self-generating subsidy system?)
Poor evaluation and allocation mechanism	• Improve fair allocation by introducing a qualification procedure that links every details of a person, including his housing status to the NIN or BVN • Low income earners both formal and informal to organise themselves as cooperative groups in order to access housing • Impose minimum period of stay in a house without which access will be impossible and allocation revoked

Figure 8-7: Activity for group 1 (low access to housing)

Group 1 questions for analysing low access to housing

- What is good about the solution?
- What aspects of the solution do you find impracticable?
- Any challenges to implementing it?
- Suggest improvements

Similarly, group 2 was presented with the solutions to low private investment in affordable housing and asked to analyse them based on the questions below.

Problems	Possible solutions
Poor land allocation/ speculation	• Creating an association of AH providers and using that medium to allocate land for AH to AH providers • When government allocates land for AH, it should impose contractual obligation to include timeline for delivery and rent or disposable price cap
Unavailability of affordable land in the right location	• Converting idle properties in the cities to affordable housing • Using inclusionary planning to mandate private developers to dedicate certain percentage of their development to AH
High cost of funding AH	• Allow in the contract between government and AH providers for government to buy up units and distribute to low income if this becomes difficult for the AHP • Mandatory contribution of businesses towards an affordable housing fund (AHF), which shall be accessed only by AHPs • Create a system of discounting building materials for AHPs. A voucher presented to the materials producers or suppliers will offer a percentage discount on materials to them.

Figure 8-8: Activities for group 2 (solutions to low private investment in AH)

Group 2 questions for analysing low private investment in affordable housing

- What is good about the solution?
- What aspects of the solution do you find impracticable?
- Any challenges to implementing it?
- Suggest improvements

Appendix 11: Second stage interview questions to MFF

This appendix details the interview with the MFF to analyse the impact of the developed solutions on their project. They were intended to determine the conditions necessary for optimising the benefits of the solution and for scaling up and replicating it. Hence the objectives following are both the information and question sent to the MFF ahead of the interview.

The purpose of this data collection is to test the impact of the developed solution to affordable housing on your project so as to determine the conditions necessary for implementation both within and outside Nigeria. The objectives are to:

- Ascertain whether the solution is beneficial and worth adopting (by understanding the possible effect on your investment)

- Determine whether it can be scaled up to other regions in Nigeria and the conditions that are required for that to happen

- Ascertain whether it can be transferred beyond Nigeria and the conditions required to achieve the same effect as in Nigeria

- Provide a proof that the solutions will provide value for resources invested for their implementation (This is important for the government to key in)

The questions to be answered are:

- What impact would the solutions have on your project had they been present?

- What resources will be required for them to work and will the benefits justify the resources required to run them? (Value to be derived)

- Will they work if applied to other states? What adaptations in terms of financial, cultural, institutional, legal are required?

- Will they work if applied beyond Nigeria? What adaptations in terms of financial, cultural, institutional, legal?

Instructions:

Please reflect on the following solutions in the light of the above objectives or questions and articulate your answers for our discussion.

Proposed solutions.

- Imagine a situation where the government requires you as a provider of housing for the low-income earners to belong to an association called Affordable Housing Providers (AHPs) association. By belonging to this association, you are eligible for being allocated an already titled land from the government at little or no cost for your affordable housing development (This is government style of enabling AHPs to supply affordable housing). However, to be allocated land for such development, you need to submit a proposal according to the specification required by the government (comprising the design, the target group, cost of the project, sources of finance and the disposal price and disposal arrangement etc.), the proposal will be assessed and can lead to an approval, or further negotiations and adaptations to meet the desired criteria before it is signed as a contract between you and the government.

- Now by signing the contract and acquiring a land for your development in this fashion, you become bound to execute the project accordingly. Also you will entitled to borrow fund from an Affordable Housing Trust Fund (AHTF) at a subsidised rate and under friendly terms (In this case government will act as the guarantor to that loan). This fund is funded by businesses' monthly or annual contribution as part of their corporate social responsibility; at the same time, the fund could be accessed by other housing developers on commercial terms (this is to maintain the liquidity of the fund).

- Also, because research into local material and local production have not scaled up to the point where it will benefit affordable housing Provision, you will be offered a discount voucher by the government to procure materials from the dealers (who have already keyed into the agenda in exchange of some inducements by the government) at a discounted price

- Finally, as part of the proposal package, you will show how you intend disposing the units, which could be the different housing tenures you will offer and the payment plans to assist the end users, assuming alongside providing a rental option to allow for more flexible payment, you allowed to directly deduct a monthly payment toward their housing from the salary source of a cooperative group you already identified and negotiated with, how do you think this will affect access and disposition of your units?

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- If other housing developers were expected as part of their Corporate Social Responsibility to designate a percentage of their housing investment for the low income housing in exchange of free planning approval or registration of their land or to guarantee them a reduction of their income tax, what impact do you predict for such action?

Appendix 12: Workshop programme and list of participants

This appendix details the workshop programme and the participants grouping and profile.

Date: 15th July, 2021

Time: 2pm-5.00pm

Venue: online

Workshop convenor: Lilian Nwachukwu (Researcher)

Guest presenter: Dan Lucas (Policy and Planning Manager, Nottingham City Homes)

Supervisors: Prof. Lucelia Rodrigues, Dr Lorna Kiamba and Dr Robin Wilson

Part 1 (30 mins.)

Introductions, settling down and workshop aim	2.00-2.20pm
A brief overview of the study and the problem	2.20- 2.30pm

Part 2: Framing the Problem (50 mins.)

Framing the problem/solution (participants' view)	2.30-3.00pm
Group reporting	3.00-3.15pm
Break/rest	3.15-3.20pm

Part 3: Exploring Solutions (70mins)

Presentation of possible solutions (from survey findings)	3.20-3.30pm
Presentation of the UK strategies by Dan Lucas	3.30-3.45pm
Group discussions (evaluating solutions)	3.45-4.15pm
Group reporting	4.15-4.30pm
Break/rest	4.40-4.45pm

Part 4: Discussion (15 mins)

Round table discussion on findings   4.45-5.00pm

Close   5.00pm

Table 8-6: Group 1 participants

Portfolio	Institution	Role	Gender	Industry experience (years)	Location
Supervisor	University of Nottingham	Group facilitator	Female		UK
Head of Strategy and Risk Management	Mortgage Bank	Participant	Male		Abuja
Senior Lecturer in Architecture	Federal University	Participant	Male		Eastern Nigeria
Technologist in the Building	Federal Polytechnic	Participant	Male		Western Nigeria
Senior lecturer in Building	Federal University	Participant	Male		Eastern Nigeria
Postdoctoral fellow in Construction Management	University	Participant	Male		South Africa
Director and Coordinating supervisor Local government affairs	Ministry of LGA	Participant	Male		Eastern Nigeria
Lecturer in Building	Federal University	Participant	Male		Eastern Nigeria
Lecturer in Building	State University	Participant	Male		Western Nigeria
Principal partner	Private developing firm	Participant	Male		South-eastern Nigeria
Researcher	University of Nottingham	Observer	Female		UK

Table 8-7: Group 2 participants

Portfolio	Institution	Role	Gender	Location
Supervisor	University of Nottingham	facilitator	Female	UK
Supervisor	University of Nottingham	facilitator	Male	UK
Director School of Environmental Studies	State Polytechnic	participant	Male	Eastern Nigeria
Director Planning division	State Housing Development Corporation	Participant	Male	Eastern Nigeria
Dept. of Building	State Housing Development Corporation	Participant	Male	Eastern Nigeria
Lecturer in Building	Federal University	Participant	Male	South-Eastern Nigeria
Graduate Assistant in Building	federal University	Participant	Male	Eastern Nigeria
Lecturer in Urban and Regional Planning	State Polytechnic	Participant	Male	Eastern Nigeria
Principal Technical Instructor in Building	Federal Polytechnic	Participant	Male	Western Nigeria
Lecturer in Building	Federal University	Participant	Male	Western Nigeria
Lecturer in Building	Federal University	Participant	Male	Western Nigeria
Principal Partner	Private developing firm	Participant	Male	South-Eastern Nigeria
Researcher	University of Nottingham	Observer		UK

Appendix 13: Research risk assessment plan

Risk assessment plan

Visits supervisor (Hazard & Risk Assessor)	Location of Visits:
Name: Dr Lucelia Rodrigues Signature: Area Safety Officer: Dr Aled Jones Signature:	Metro Frank Group, plot 547, Mike Okiro Close, Wuye district Hexalix Properties, 22 Koforidua street, AMAC, Abuja Bauhaus Intl Ltd, Dantata Town Developers and First Generation Mortgage bank are in Wuse II, Abuja Federal Mortgage bank, Family Homes Fund and Aso savings are in Central business District, Abuja Infinity Trust Mortgage, No 11 Kaura Namoda street, Area 3 Garki, Abuja Platinum Mortgage bank, 61 Yakubu Gowon Crescent, Asokoro, Abuja Pirotti Projects Ltd, 5 Asa Street, Maitama Abuja Millard Fuller Foundation and the Luvu estates are at No 1 Camp Luvu, Luvu Madaki, Masaka, Nasarawa Federal Ministry of Power Works and Housing Headquarters Mabushi, Abuja Access Bank PLC, plot 1195, Aminu Kano Cres, Wuse 2 901002, Abuja, Nigeria

	Union Bank, Area 3, Garki, Abuja, FCT, Nigeria First Bank of Nigeria, Coomasie House, Plot No, 777 Mohammadu Buhari Way, Abuja, Nigeria
Visits Leader: Lilian Nwachukwu **Visits Deputy Leader:**	**Contact address & emergency telephone number:** Emergency contact numbers: Rev. Sister Ogonna Obi Daughters of Divine Love Regional House, Lugbe, Abuja. +234 7036041499

Number of students: Only myself	Staff/student ratio: N/A	Inclusive dates of visits: The overall study period is from 12th March to 18th April, 2020 within which the period for residential study is between 24th and 26th of March.
List of participants: N/A		Transport arrangements to & from the visits: I will be travelling with the train to the Heathrow airport and with BA flight to Nigeria. I will be picked up at the Abuja airport by my sisters to the convent where I will be staying throughout the study period
Are the potential medical constraints of the individual participants known? No		Transport arrangement during the visits: The convent already has a car that will be conveying me to and from the sites to be visited.

Appendix 14: Analysis of the difficulties of accessing mortgages

This is an extract from the analysis of PU3 on the operational difficulties of access to mortgages.

1. …You know that there is the legal mortgage and there is equitable mortgage. Legal mortgage is when you have complied with all the provisions of the law for transfer of title under mortgage, as a mortgagor, before I take a mortgage, I surrender my property as security for the loan, I go into a mortgage agreement with my lender. Once the mortgage agreement document is signed, and the title document to the property you are using as security is surrendered, the next thing the bank should do is to perfect it.

2. And the process of perfection entails obtaining governor's consent to the transaction, paying perfection fee as well as stamp duties. For our transactions, I told you that if you are obtaining a mortgage loan from FMBN, you have to go through a PMB, that's the provision of the law, you can't come directly to the bank to obtain the loan. So what that mean is that you have seen a house that you want to buy, that house is owned by someone else, if am able to complete the transaction, the person will transfer his title to me and I will transfer my title to the PMB before the PMB will transfer the title to FMBN.

3. The transfer from the original owner of the property to the NHF applicant is one level of perfection. That owner will transfer his title to the NHF applicant, sign a deed of assignment, that deed of assignment would obtain governor's consent, perfection fee will be paid, stamp duties and registration and all that, all fees would be paid, that's one leg between the individual and the vendor. Now between the individual and the PMB, because the loan, he's going to get it from the PMB, the PMB and the individual NHF applicant will still enter into another mortgage agreement, the applicant transferring his title to the PMB, it will go through another perfection process, obtaining governor's consent for that transaction and paying stamp duties and perfection fees.

4. Now between the PMB because ultimately that security should be domiciled with the FMBN because the loan was obtained from FMBN first to the PMB and then the PMB to the individual to enable the individual pay for this property, so it's a tripartite kind of arrangement between the NHF, the vendor of the property, in fact it's not even tripartite because there are four parties to this transaction. From the owner of the property, the NHF contributor who wants to buy the property, the PMB and FMBN but it goes through three levels of perfection and at each level, you pay and you pay depending on the value of the property, which is always stated in the agreement.

5. So some people don't know this, when they start and it gets to the point of disbursement, they would have obtained approval from FMBN. Now it is time for you to make upfront payment of perfection fee before we disburse and then it becomes a problem. so what the FMBN did at least to douse this tension of contributors not being able to access the funds (because they don't have the money to pay for perfection) is, we created what we call the internal record office (IRO) so that with your title document surrendered to the PMB and if the PMB surrenders that title document also to FMBN, our possession of your title is an equitable mortgage of that property, because why would you give your landed property title to a bank if it is not that you obtained a loan from the bank and you intended that that property should be security for the loan?

6. Because the import of perfection is to ensure that your title passes to your creditor so that in the event of default, they can sell your property and recover their exposure but in the case of an equitable mortgage, because the title has not passed from the individual to the creditor, the creditor cannot sell the property because he has no title to pass to whoever will be buying from him, so he would necessarily have to go to court to obtain court order to be able to sell the property and for us, it's a big risk we take just to let this programme work for the ordinary Nigerian. If we want to insist that we have perfected legal mortgages, I bet you, we are even saying that we have very few people benefiting

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from the fund, we would have even fewer people benefiting from the fund because the payment for perfection would already be a deterrent for so many people. We need the system to work to protect the FMBN and this pool of funds that we are giving to Nigerians to be able to own their own homes; therefore, we are always talking about foreclosure, the experience creditors have generally now, PMBs would tell you that more because they interface with them directly, the person who is owing you, will be the first to go to court because of our legal system and go and hang the case there for as long as possible and this discourages investors.

Appendix 15: Analysis of affordability of NHF

The following is an excerpt from a public sector participant (PU2) on affordability challenges of the National Housing Fund (NHF).

7. A lot of people who are working must have a source of income that is regular to be able to access the mortgage… I did an analysis one time on what the FMBN gives Nigerians for mortgage, which is from 5 million to 15 million depending on your salary. We have levels in the civil service; for instance, from level 3 to 7 and you need 1/3 of their salary to service the mortgage…when I checked the data and salary, you will find out that there is no way somebody in level 3 to 7 can afford to buy a house…when I did the calculation, taking into account that it takes 3 years to move from one level to another, I found that in 12 years, the 1/3 income is 987,000 naira and what kind of house can they buy with that? It's not possible…The only person that gets a very good salary is the permanent secretary, he will be able to own a house of 9 million, he can't even own a house of 15 million that mortgage bank is talking about. So when you look at that analysis, that's a big problem... You can now see that the affordability thing we are talking about has its base on the person's salary, they are also looking at combined income where the man and the woman work and they bring in their 1/3 of money combined together to be able to own their home through mortgage, both of them pay towards owning the house, that's another possibility, you know somebody's level may be higher than the other and so it's very complicated.

Appendix 16: Analysis of housing allocation challenges

This is an analysis of housing allocation situation in Nigeria by a private developer PD3.

8. …You saw the housing of Odia there, they built it but for almost four years, nobody was able to buy it, even though the price he gave it to them was affordable, they couldn't get people to come. Most of the people they are giving the buildings from different ministries are people that already own houses here. So what they do is that as speculators, they just come, take it and rent it to people. That still brings us back to data, and so when the data are not there, these houses are given to people who are not concerned with the welfare of the estate, they are only interested in renting it out and making your money, so everything is data. If we don't have data, we won't know what we are doing. We need to sit down and organize the whole system, that when you have a house, I have a house, you don't need to go and look for another one […] … if you say you have a house today, 700,000 naira per unit, I'm 'telling you, they will not allow those people that are in need to come near it, it is all those people that either have houses in the cities that are still coming there again to buy off the houses.

9. The lady that built Navy estate here, Rear admr. T, she said that as she was building and selling to people at low prices of 4 million naira at that time, people are selling it at 10 million naira behind her back. So you see, as you are building, they are just collecting and even making more profit than you. You see the data is very important. Where there is proper housing programme, there is proper data from the date of birth, everybody has data and they follow it. When they service you, you have been served and they know you have a house…There must be a proper analysis so that people working in this ministry, after their transfer where do they go? Do we need to build houses for them or we build 10 houses maybe one room or so?

Appendix 17: Discussion on factors affecting low investment in housing

This appendix contains a list of factors that contribute to the low private investment in affordable housing based on the group 1 submissions in Miro. The discussions followed the pathway shown in Appendix 9, identifying the: (1). Factors responsible for low private investment in affordable housing; (2). The stakeholders involved in each of the factors identified; (3). The need the stakeholders are seeking to satisfy; (4). The mechanism for resolving them. The images are exports from the Miro board and contain some of participants' opinions written down on sticky notes.
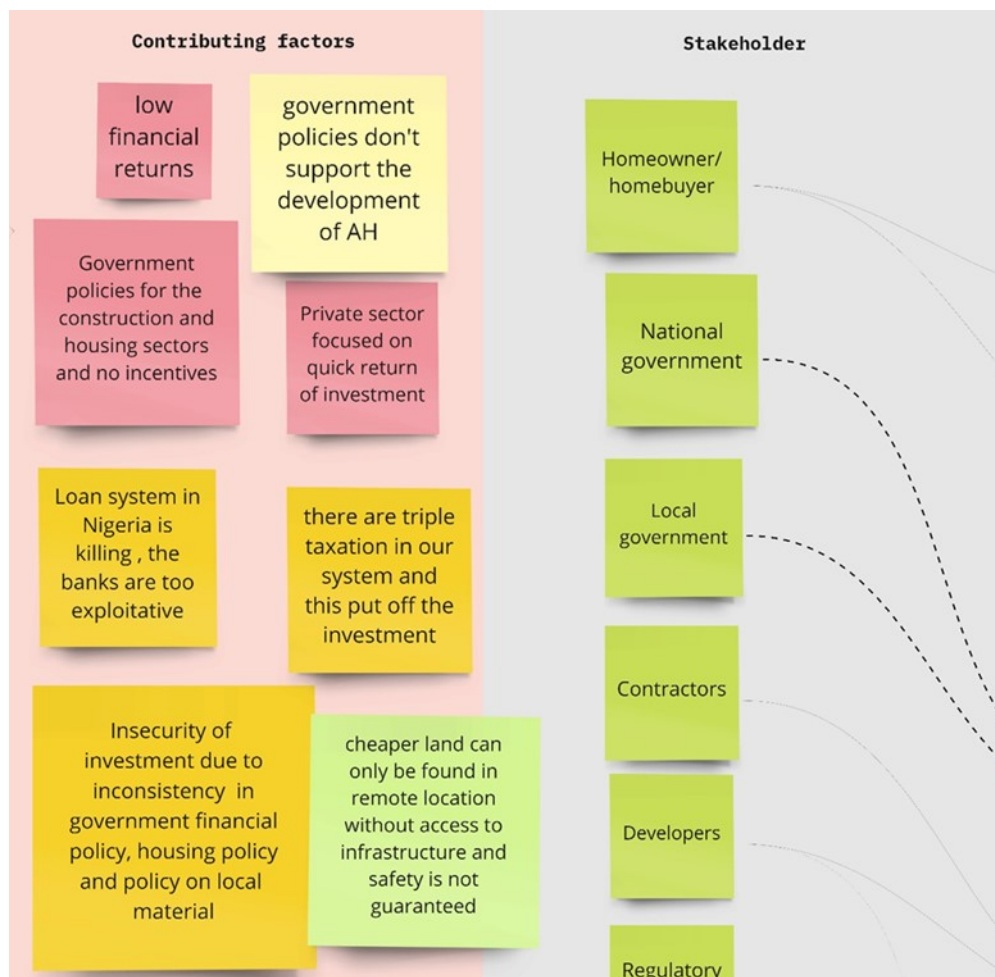
Figure 8-9: Group 1framing of the problem of low investment in AH
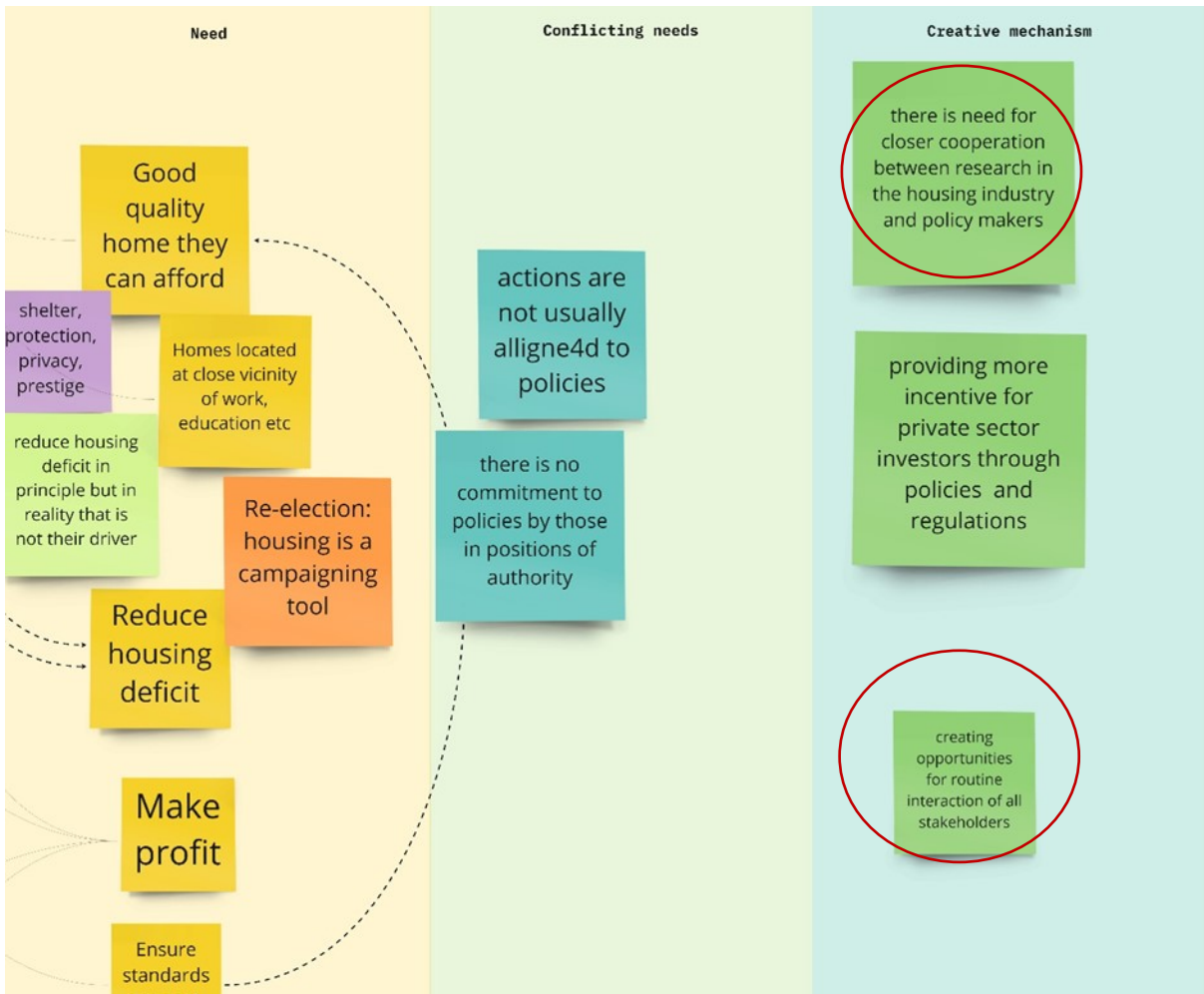
Figure 8-10: Group 1 framing of factors to low investment in AH (see link below)

https://miro.com/app/board/o9J_l7Ri6tM=/?share_link_id=688707411908

Appendix 18: Discussions on factors affecting low access to housing

Similar to Appendix 17, this section shows participants' analysis of the factors contributing to low access to affordable housing; see (https://miro.com/app/board/o9J_l65Ik3Y=/?share_link_id=93754126141) for more details.
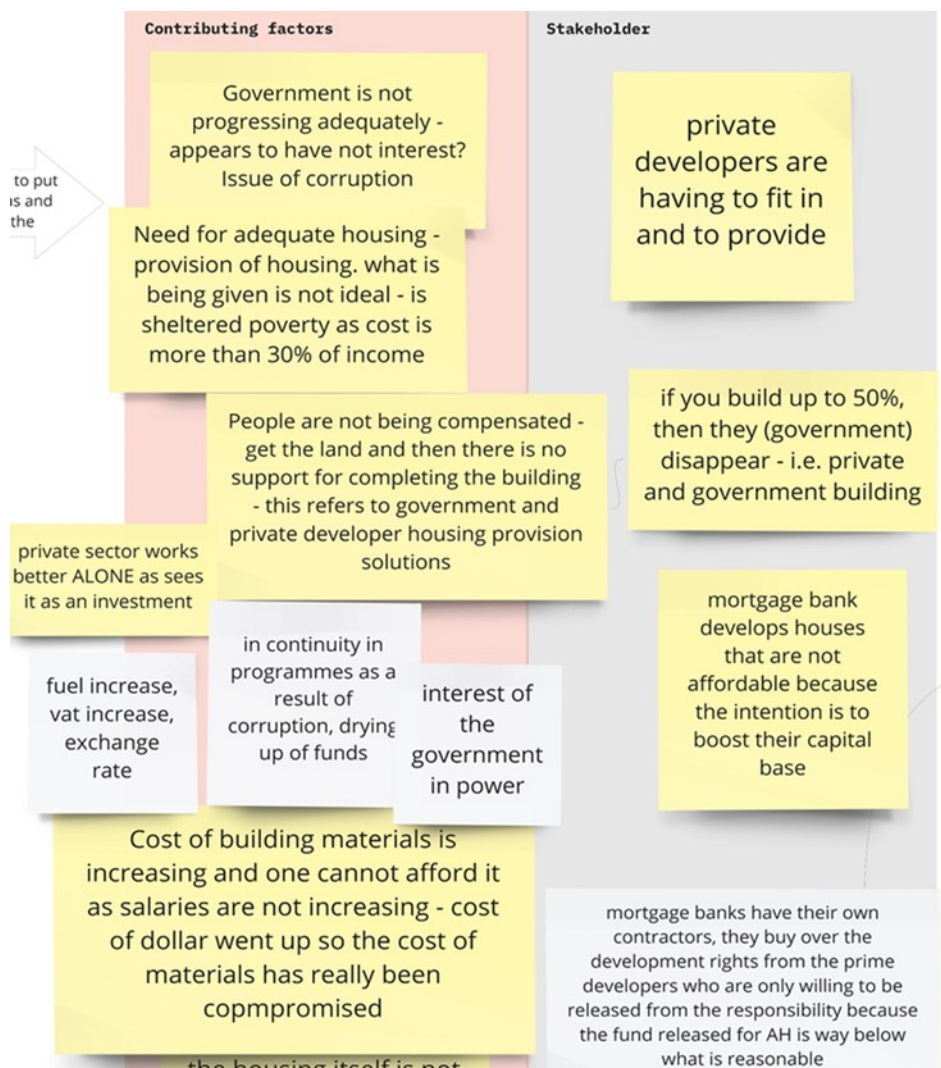
Figure 8-11: Group 2 framing of the factors responsible for low access to affordable housing

Need

Conflicting needs

Creative mechanism

self upkeep - cannot afford to invest (even at small builder scale)

They need to understand the process and right they have toward housing_empowerment

to identify t

Ebonyi state - are really pushing housing - strongly affects housing

Have central government policy - which means that a certain policy to ensure housing is built and to back it up with adequate budget

Government to subsidize building materials - e.g. cost of steel

too much wastage - housing being left incomplete leads to a waste of resources

Figure 8-12: Framing of the factors responsible for low access to housing continued

Appendix 19: Uncertainty of supplying the low-income market

This is the experience of a private developer (PD2) with regards to the uncertainty of supplying the low-income market.

10. you know government can actually sit with the private sector and put these things in place and then the private sector instead of saying ok I know if I start building or investing my money on housing, and then the mortgage doesn't come out, till may be say 18 months or 20 months, I have lost money so let me hike the price of the house so that I will be able to cover. It will be easier to say ok I know that the price of this house is this, and my profit margin is 10% because I know I am getting my money at this time and I will be able to deliver, I think that will work better because you don't expect the private sector to be providing these homes and closing up their businesses, may be by the time you do one project, you close up your business because you've lost so much money. So, I think if there is a dialogue between the government and the sector, it can work out how much the end users will pay; it can say ok you don't overcharge theses houses…because this price is ok… I am talking from personal experience, what happened with us is by the time the subscribers came, the Federal Mortgage Bank now came and said ok, the subscribers will cannot afford your houses at 25m, how much can you reduce and they are coming in bulk. Now, if money is coming in bulk for a developer, it solves a lot of your problems because you will be able to do more at a shorter time. So, looking at the situation, we decided we could knock off one or two million from the set price but this money needs to come on time so we will be able to deliver these houses. Now, if money takes 18 months to come out, it means we have lost. So we actually lost on our profit because our decision was based on trying to help people and we also thought we were getting 30 subscribers from the government, which is good for us. However, we ended up reducing our profit on account of this assurance but, we ended up losing as well. We have lost on our phase 1 because of mortgage problems because we have allocated houses that we cannot sell and money is tied down and we are still paying overheads, we are still paying for the land, we are

still paying… everything else is going, but money is not coming in, which is a huge problem for us. Therefore, for our phase 3 project, we are saying no mortgage, so it's a problem for private sector, it's not like we are solely driven by profit but we have to survive as well. So the government is not looking at this area of concern, may be they are thinking we build the houses for 5m and then we sell them for 20m, it's not always the case, it's not even the case, it's not possible, so the profit margin is not that high but what we like about the mortgage is they come in bulk so if you are building 60 houses, and the government is coming to take 30, you've already sold half of your estate; so we like those kind of transactions but then they take time, you know you… time is wasted, your file will be on one desk for two months, you have kickbacks. So I think there's need for a dialogue between the government and the private sector to find a balance of how the private sector will be able to participate and provide these houses because they are really needed

Appendix 20: The effect of lack of data on affordable housing

This is an analysis of a private developer (PD3) on lack of data and the effect on affordable housing in Nigeria.

11. ….You see one of the things government should do, when they talk of creating the enabling environment, first they should look at the data, create a data department and get proper data on what is going on because without proper data, we can't do anything, even our economy is also up and down because there is no data. You don't know how many people were born in a year, how many people died, you don't have all those information and you don't know how many people are the age of this, you don't know how many are graduating, you don't have the information. If you ask how many people graduated from the university, I'm telling you, you can't get accurate information, so this is the problem, so we need to create a proper data. And then, from the data you will be able to know how many people are in need of housing. I'm telling you all those buildings that we are building now, the people that are occupying them are people who already own two or three buildings in Abuja. They are the ones coming again, once it is very cheap, they will come and buy, can you imagine? So if we have data that ok from this ministry, this brother has no house, he has not been given land, he has not been given anything, he's entitled because he's there, his wife is in the ministry and also in her ministry, she's not having something, you look at all those things together now and you can now say ok, this brother is entitled, you now get his name, give to the administration, administration says ok, we are building 500 units here, these are the names of the people that will occupy the place and then check the names whether the people own houses or not or they have property. We need to do it properly, we are not doing it well…You see the data is very important. You see where they are dealing with proper housing programme, there is proper data from the date of birth, everybody has data and they follow it. When they service you, you have been served and they know you have a house. Somebody must carry out a research on this director, where is he staying? Is it his own house or is he renting? Does he need a house?

There must be a proper analysis so that people working in this ministry, after their transfer where do they go? Do we need to build houses for them or we build 10 houses maybe one room or so?

Appendix 21: Submissions on the use of cooperative societies

This section contains the submissions of various participants on the use of cooperative societies to improve access to housing.

12. **PM2 : …**the scenario you painted is likely to happen especially in an undeveloped market like ours but even the most sophisticated markets, where there is rules and regulations, it might still happen, and I just want to give an example with the football tickets. A football ticket is allocated but at the end of the day you still find out that it gets to the black markets. Unfortunately, we are not talking about football here, we are talking about something that is a necessity and is meant for people at the lower rung of the economic ladder. So, like I mentioned in a previous discussion, one of the things that can happen is to have a group where by these offtakers must form themselves as a group and it is as a group that they will be able to tackle some of these problems, maybe as an association or an adhoc group. Generally, and I want to use as an example, typical in Nigeria, you see people in the motorcycle business, this might not be a direct comparison but there is something I want to bring out with this case. If you hit one of them, whether he is right or wrong, you see all the okada riders will gather against you. Of course, it is something that I want to study but the rule of thumb tells me that as an individual a car rider or a car owner is socially and economically higher than them in the society, so they see that the only way they can stand against him is to use the esprit de corps to defend their own, that is what happens generally. If one of them hits you and you stop on the road and argue with him, you see all of them rally around their fellow against you. So, what I'm trying to say is that if people that are involved can come together as one, even though they are not civilised, but the substance of what they are doing is that coming together as one to tackle a problem is a critical thing that can be done. And again, the government that is developing this thing must also encourage this group or communal efforts because even if they cannot organise it or don't look in that way, but they could make a policy that every time they want to do this kind of thing, people must form a group and that pressure group will help in

terms of regulation and I give an example with the one we dealt with in my office and I was involved from the beginning to the end. Houses were sold to civil servants in that state, government sold houses to civil servants at affordable prices, and some houses were sold as low as 2,000,000, three million naira. Now they were given a timeline, there was a committee, and what government did was that in that committee, they put a consultant, one of the big four accounting firms to do the job. So, they allocated houses to these civil servants and even as low as 2,000,000 and they are supposed to pay 10%, some of them were still finding it difficult to buy those houses. Now, the government started shifting the deadline, either you pay, or you revoke. Meanwhile, there were many rent seekers that were saying that the value of this property that they were selling, in the open market is two, three or four times the amount that was offered. Now what saved most of them having a home is because they came under a union and the union told the government to stop, that they cannot stop that process, because what happened is that the big men were already lurking around waiting for government to revoke the allocation that they have given to those people so they can buy it up. So, what they did was that they went as far as getting a court injunction to stop government from doing that. So, this is an example of how those people at the lower end can come in as a group. Secondly, the people that are doing the policy, that is the government should encourage it because they might not know, but we can point out to them and say look, this low-cost housing that you are doing, its either you come in as a trade group… typically people will not want to have problem, so by the time those people have aggregated themselves into some kind of pressure group, then we can reduce like I always say, we can only reduce, we cannot eliminate and there will be some kind of checks and balances. So, this is not something that an individual can achieve, and I don't know whether I also said that in such instances other stakeholders must be there. I think I also mentioned that the civil society should be in this process of allocation so that there will be some kind of labour transparency and I remember in Abuja in 2003 after day the all African games when the games village was auctioned, it was not using

the same scenario you painted but it was on national…one of my colleagues won, although he couldn't buy it, he just hold it for… so, if these things are done transparently, civil societies are engaged, other stakeholders are engaged and most importantly if these people that are at the lower end can form themselves into a group, I think that will reduce this kind of incident that you painted from happening.

13. **PM1**: For those of them in the formal sector I'm going to work with their trade unions, with cooperatives and associations to make sure that any product that I'm delivering to the society in partnership with the private sector gets directly into the hands of such Labour unions. Then for the informal sector I'm also going to encourage an all party registration. For example I know that we have associations like artisans Association of Nigeria, so I am going to encourage all those in the informal sector to make sure that their members are registered or belong to one corporative or another, so you have to belong to a group because it is difficult for me as a governor to get to all of them if they are scattered all over the country, It will be easier for me if I'm working directly with all them as a group or Association.

14. **PU4** And the thing that I use for it, is to ensure that you… demand, that means that if people on low income are organised into what we call demand groups, so this could be housing societies, housing cooperatives, and where it's like membership club, so, people who are grouped together, its much more difficult to take advantage of people on low income working together as a group than it is to take advantage of them when they are acting as individuals. So, I use an example because we currently running a federal housing programme we have in Nigeria and what we have decided to do is, rather than advertising in newspapers and dailies, if you are low-income person come and buy up the houses, what we have chosen to do is basically to ask people who may be interested to organise themselves into housing cooperatives. so that within those housing cooperatives, we then engage with the housing cooperatives assuming they have 50 members, we say these are 50

houses for your cooperatives and because all of the members are working together, they know each other, they have their constitution, and they are able to distribute the houses among themselves. it's much more difficult for an outsider, no matter how wealthy he is to take advantage of the entire cooperatives of maybe 500 members. So that is the, if I can call it the curative approach that we have elected to use. Of course, in a number of other countries, particularly in the UK, their approach since 1940 has been to settle the housing waiting list whereby there is a whole list of qualifications that are required to get unto the waiting list and then, houses are only allocated or sold to people who are on that list. And we know that the social housing sector in England has a fair amount of subletting happening even within because even when the house has been let to people on low income, sometimes, they are quite happy either to use somebody to get allocation or when they are allocated, they find it more economical to give the house to somebody else and go find somewhere to live. Those are all market failures, so, where there is a lot of data or data collection is robust, you can explore the use of waiting list and ensure that only those people who are entitled beneficiaries make it unto the waiting list and then houses are allocated to them. I think that will not be the approach that may work in sub Saharan Africa, which is why we have adopted the approach we call housing societies, but basically, at the…

Appendix 22: Discussions on solutions to low investment in housing

Appendix 10 contains the activities that each group should perform on each of the solutions to affordable housing. Below are some of the submissions of participants on some of these solutions. Details of the analysis can be accessed through the link:

https://miro.com/app/board/o9J_I7oZwjs=/?share_link_id=628156825723

Solution 1: To create an association of Affordable Housing Providers (AHPs) to direct public land to its members for affordable housing. To also secure such relationship with a contract.

Figure 8-13: Participants' analysis of using AHP to advance affordable housing

What do you find impracticable about the solution?

creation of Developer association will worsen the situation because they will soon become warlord to exploit seekers

we already have the REDAN which is an association for private developer

It is practicable

It is a good idea but must be well control so that Nigerian politicians wont cease it through back door.

it is practicable if challenged through the right routes that can have direct link with the low income earners

Many agricultural cooperatives but not many housing cooperatives - this would enable the access of funds for housebuilding

Improvements needed on this solution

election of officials to be insulated from interference by external bodies such as govt etc

we may have an arm of AHPs within the existing REDAN

a law should back it up

rules and regulations of the association to specify non partisanship

measures to ensure that the association is manned by people of integrity to be put in place

measures to reach other to the low income earners directly should be deiced

modus operandi should be given to the association to regulate them

Figure 8-14: Participants' analysis of using AHP to advance affordable housing Contd.

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Solution 2: Using inclusionary housing to increase private investment in AH
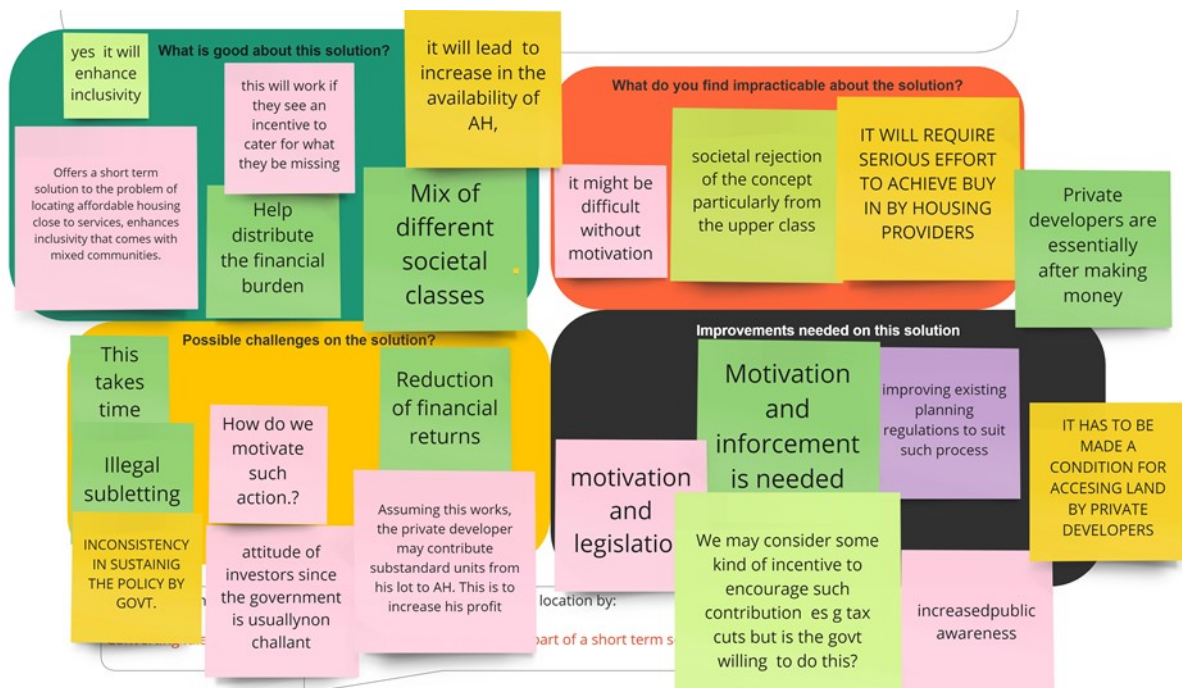
Figure 8-15: Participants' analysis on the use of inclusionary housing

Solution 3: Conversion of idle properties in the cities to affordable housing

What is good about this solution?

s will provide a
ort solution as
ill take longer
iod to address
the housing
shortage

it will be fantastic

Resolves 2 problems at once

BENEFICIARIES OF AFFORDABLE HOUSING SCHEMES WILL HAVE ACCESS TO OTHER INFRASTRUCTURE

Revitalise the cities

Good transport links and infrastructure

lower carbon emissions

cheaper in terms of resource required for new builds

What do you find impracticable about the solution?

it might need to battle against legal challenges

Ownership of properties and willingness

Possible challenges on the solution?

IT MAY STRAIN AVAILABLE INFRASTRUCTURE

Cost

IT MAY BE DERAILED BY LITIGATIONS

IT MAY LEAD TO CONGESTIONS

ownership

Improvements needed on this solution

creation of legal backing for it

town planning authorities to include it originally in their plans

housing stems from poor mortgage facilities, high interest rates and the stringent conditions attached to mortgage

Figure 8-16:: Participants' analysis of converting idle properties in the cities to AH

Solution 4: Contribution to affordable housing fund

Figure 8-17: Participants' analysis of contributing to affordable housing fund

Solution 5: providing discount voucher for accessing materials at affordable price

Figure 8-18: Participants' analysis of the use of discount vouchers

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Appendix 23: Discussions on solutions to low access to housing

Similar to Appendix 22, this section is a summary of the group analysis of the solutions to low access to housing. Participants' analysis of can be accessed through the link: https://miro.com/app/board/o9J_l7vIkbI=/?share_link_id=849346047461

Solution 1: Using CSR to make available more affordable housing
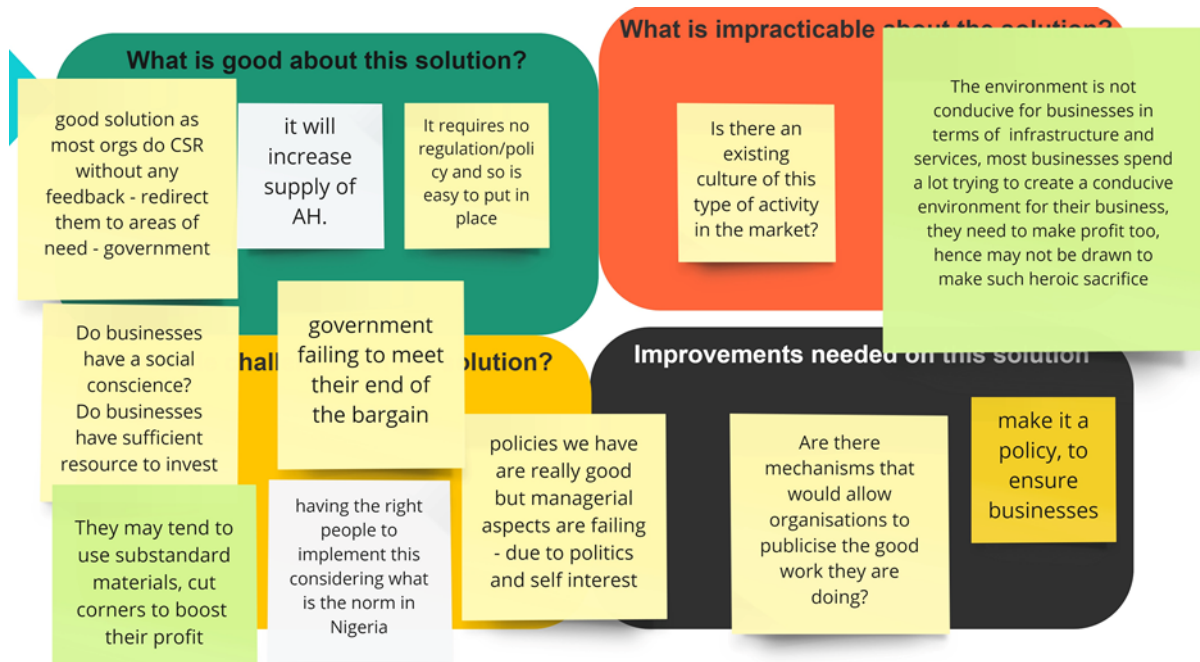
Figure 8-19: Participants' analysis of CSR to increase affordable housing

Solution 2: Tailor housing solution to income

What is good about this solution?

The idea of providing dwelings that meet that matches afordability offers choice

yes, it gives an idea of materials to be used for the construction of the houses

it will aid planning and accountability

What is impracticable about the solution?

There is a danger that the provision of different types/qualities of housing may not match the demand, especially if the demand changes over time - is there a danger you get stuck with lots of dwellings nobody wants or can't afford

government should pay attention to allocation as these houses eventually end up in the wrong hands

Possible challenges on the solution?

Are there moral issues around offering different quality of housing based on ability to pay - should everyone be entitled to a basic level of provision? Is this basic level afordable?

Improvements needed on this solution

Is there a design solution that allows housing to transform over time - ie if you enter at the lowest level of provision, can it be adapted to make it more desirable. Is there a link between where housing is and its desirability?

Figure 8-20: Participants' analysis of tailoring housing solutions to income

Solution 3: Using NIN and BVN to promote allocation of housing according to need.

Figure 8-21: Participants' analysis of the use of BVN and NIN to enhance allocation of housing

Solution 4: Use cooperative societies to help promote fair allocation of housing.

What is good about this solution?

The idea of people coming together to help each other helps to establish the seeds of a community that may give strength to any developments that come out the other end

there is no spending for establishing the group by the government

Would this help to reduce costs of construction if say, people offer their time and expertise to projects?

Mass power will help to ensure that members of the group are not marginalised

icable about the solu

association should be linked to low income earners - need to have a source to the income payment - e.g. ASU association, have knowledge of peoples income and expenditure

for those in the informal sector? try and find the collateral

there is top level engagement - in terms of writing policy however this does not filter down to local governments - need to devolve power downwards

Make c
cheape
relyir
contrac
maki
unaf

Possible challenges on the solution?

How do you get people to come together around this idea - how do you initiate it? Is this a strategy that will only work for those who are highly educated?

Improve

Are there examples of this working that could be used to offer a model for people to emulate

Does it require input from the government will governmet offcials trust groups?

Introduction of housing associations/cooperativ es to enable all to have access - e.g. peasant farmer, no internet, no way to apply, etc.

is community building the way? create basic standard and have people contribute by building each others houses

Figure 8-22: Participants' analysis of the use of cooperative societies to promote access to housing

Appendix 24: Submissions on income-based housing

This section details the submissions of participants on designing housing solutions to reflect the attributes of end users.

15. **PM1**: "… most of the houses that are being conceived as affordable houses cannot be afforded by the low income and I give example, so we need to understand what the origin of the problem is, then we can proffer a solution. A civil servant that earns maybe 100,000 naira in Niger state is allowed to dedicate 30,000 naira towards servicing a mortgage loan, while a balance of 70,000 naira is allowed for him to run his household. Now, imagine that 30,000 naira that he has, multiplied by 12 months, that's 360,000 naira. So how many houses can you afford such that you are paying 360,000 naira per annum? So, I am going to go back to how my projects are conceived, this means that I will deploy more resources, apart from land, …so I will make sure that apart from land that I have allocated, I will deploy more resources to ensure that housing is made more affordable for the citizenry, especially the low-income earners…"

16. **PU1**: "…There is no specialised mechanism that is needed, whatever government is going to put down just like we have discussed earlier in reference to the man who was getting 30,000 naira and paid 15,000 naira, what I will propose is for everybody who is in in that category to register with a housing Bureau where you come and register and you state the kind of accommodation, your income level and all that and government will now use that to structure the kind of accommodation to provide for them but whichever way it goes, it will still boils down to government subsidising what they're going to pay because that income is not a living wage, not to talk of even paying for accommodation…at least you now have idea of the people who you are dealing with because they've told you this is theirs because they filled forms, you have everything about them and you can now design the houses around their income level so that the kind of subsidy that government is going to get from the high income people can be spread in a manner that it will get to

the very poor ones and maybe to others whose situation is not as precarious as those poor people…"

Appendix 25: Analysis on the challenges of public land allocation

This is the analysis of a private developer (PD1) on the challenges of public land allocation.

17. …. I will say I don't think it is fully implemented to the letter because of some difficulties developers encounter is securing a land for which they will undertake this development.

18. So if it takes you forever to be able to secure a land or you end up procuring this land from someone else, once you procure from someone else, these prices begin to rise. Cost of construction many a times is the same except if the location changes drastically but if you are building a typical two bedroom bungalow, it's going to be the same thing if you take it to Asokoro or to Kubwa but sometimes you find that the cost of this land at Asokoro and Kubwa is different. So the cost of the land tends to influence the selling prices of these houses and in turn would affect its affordability.

19. So going back to the policy like you stated earlier, if these lands can be easily bridged to developers and a kind of check mechanism because the thing is it's a two way street, the government has to play its part and the developer has to do his but then there has to this check mechanism that ensures that the government plays its role and the people also play theirs because it's not enough to just give developers, some of the issues I've noticed, sometimes you give developers these lands and government is expecting that these lands would be developed into houses and sometimes they just cash out by just selling them into plots and move on because selling them into plots, they will find buyers much easier and they got these lands from government at affordable prices so that this thing can continue to go affordably to the end. so there's really supposed to be this check mechanism that is balanced and ensures the government implements its policies when they are stated, they are not just stated on the TV, they are actually translated to the ground so that the common man can see it. While at the same time, there's supposed

to be someone who also checks these developers that have been granted these lands in order for government to achieve its aim and actually do what they are meant to do as well.

20. ….because maybe you see just like I mentioned earlier regarding people should ensure that a check mechanism to make sure that these people actually develop because sometimes you find people who actually get the hectares, the size of land enough to do mass housing for people but they might not really be interested in doing it because they don't have the passion for it or like I said, they just want to cash out so you can find someone who is actually willing to undertake the development come in, procure this land, which this other person has got from the government and then the person goes ahead to develop…government will normally tell you they don't sell land, they only kind of collect grants in return because there is this monthly charges you pay for the land so government doesn't sell land per say; they allocate a land and then you pay a premium for it, for the processing of your papers and there is this land title, ground rents you pay. So government kind of rents you the land per say, not sell the land because they give you a 100 years lease or something like that. So if government doesn't sell per say.

21. But then he also mentioned that some of the reasons why they can't enforce these things to the letter is because government on her part has also not provided infrastructure in certain areas where they allocated land. If it's not motorable, these developers or land owners cannot access the place let alone develop the area. Like you see in Abuja now, you find several times developers come together and provide some kind of access road to the property that they are developing all in the spirit to help market this property, but then these things you know will also have effect on the cost.

Appendix 26: Analysis of the systemic failure of the housing market

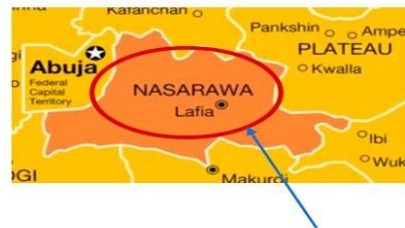This section details the analysis of PU4 on the systemic failure of the housing market.

(a).   "The first one is that whatever action that you choose to take would only be introspective and reactive because the circumstances that you have just described is a systemic failure in the housing market and it means that the housing market which is comprised of the various segments- the upper segment, the middle income the lower income are each of them underserved. So, if you have a high income that are underserved, i.e., demand-exit supply, those who are unable to satisfy their demand in the high income because there's not enough houses will move to the next layer and push the ones in that layer to the next layer down. So, that is basically one of the symptoms of a defective housing market, and the only thing that can cure that, is that housing policy is not as indeed most housing policies are. Housing policies are holistic, i.e., they understand that you don't solve your housing market problem by just providing for people on low income, you need to have a housing strategy that recognises that the housing market comprises sub markets and that housing must respond to market dynamics in terms of demand and supply across each of the segments, otherwise what you have is just what you have described where those who are displaced from the middle income market, reach down to the next layer and because they have superior economic power, they will snatch it from the next layer down; so, that is the problem and if we really want to solve it through and through, that is the solution that tends to have a holistic approach that understands the demand and supply and the dynamics in each of the sub markets and attempts to address them. Now, that is good but it's often very difficult for governments and politicians because they want the quicker way, so, they typically would go to where the big… let's provide housing for the low income because they have larger numbers and that is where their votes come from.

(b).   "….Of course, in a number of other countries, particularly in the UK, their approach since 1940 has been to settle the housing waiting list whereby there is a whole list of qualifications that are required to get unto the waiting list and then, houses are only allocated or sold to people who are on that list. And we know that the social housing sector in England has a fair amount of subletting happening even within because even when the house has been let to people on low income, sometimes, they

are quite happy either to use somebody to get allocation or when they are allocated, they find it more economical to give the house to somebody else and go find somewhere to live. Those are all market failures, so, where there is a lot of data or data collection is robust, you can explore the use of waiting list and ensure that only those people who are entitled beneficiaries make it unto the waiting list and then houses are allocated to them. I think that will not be the approach that may work in sub Saharan Africa, which is why we have adopted the approach we call housing societies…"

Appendix 27: Case study report

apartments and their one-bedroom apartments to two-bedroom homes. Buyers were assisted in owning a home through a convenient payment plan. As of 2020, when the data were collected, the MFF had finished more than 600 affordable housing units (Table 5) and is scaling up its operation to deliver 600 units.

Figure 1. The proximity of the location of the case projects to Abuja.

4. Results

This section presents the results according to the stated objectives. Hence, each theme explored the target end-users, the impact of the housing on the end-users' needs, and the strategies adopted by the MFF to realise the projects. Table 6 shows the profile of the end users who were interviewed and thus provides a description of those targeted by the MFF projects. Apart from the fact that the table provides a clear picture of the housing stress of the residents of the estates (in terms of their income monthly expenditure on housing), five major themes describe how the residents feel that the MFF housing has responded to their housing needs (see Table 7). Finally, six themes describe the strategies adopted to achieve affordable housing. These themes are grouped under predevelopment and development, and the postdevelopment phases as shown in Table 8.

Table 6. The profile of interviewed residents.

Resident	Employment	Monthly Income (NGN)	Type of Accommodation	Number of Persons in the Household	Payment Cost and Plan	Residual Income for Other Household Expenses (NGN)	Cost of House (NGN)
1	Retired driver of a federal ministry	Not disclosed	Two-bedroom	2	Paid in full with proceeds from the sale of land inheritance	Not applicable	3 m
2	Federal ministry employee	Not disclosed	Expandable studio and one-bedroom	5	Paid 10% of the price and pays NGN 50,000 monthly for 7 years	Not disclosed	4.55 m
3	A laid-off staff of a private bank and currently has no job due to age	Not disposed	Two-bedroom	2	Borrowed from a friend to pay the initial 10% deposit and makes monthly payments to complete within 5 years	Not disclosed	3 m
4	Federal civil servant	136,000	Two-bedroom	3	Originally ten years but shortened to five years and pays NGN 60,000/month	76,000	3.5 m
5	Federal civil servant	125,000	Two-bedroom	3	50,000/month for 5 years	75,000	3.5 m
6	Federal civil servant	40,000	One-bedroom	1	19,500/month for 15 years	20,500	2.9 m
7	Federal civil servant	135,000	Two-bedroom	4	46,000/month for five years	89,000	4 m
8	Federal civil servant	110,000	Two-bedroom	4	64,000/month for five years	46,000	3.9 m

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Table 6. *Cont.*

Resident	Employment	Monthly Income (NGN)	Type of Accommodation	Number of Persons in the Household	Payment Cost and Plan	Residual Income for Other Household Expenses (NGN)	Cost of House (NGN)
9	Federal civil servant	116,000	Two-bedroom	5	Received as a gift	Not applicable	Not applicable
10	Federal civil servant	110,000	Two + one-bedroom	6	90,000/month for five years	20,000, supplemented by wife (average of 10,000/month)	6.8 m
11	Federal civil servant	100,000	Two-bedroom	6	50,000/month for five years	50,000	4.2 m
12	Federal civil servant	180,000	3	5	80,000/month for five years	100,000	7 m

Table 7. Impact of MFF projects on residents.

Resident	Acquired from	Ease of Acquisition	Satisfaction Derived	Discomforts or Dislikes
1	MFF		Sense of ownership, security (have something to fall back on after retirement), comfort and freedom form harassment of the landlord, safe environment	Poor salary, limited access to mortgage
2	MFF		Sense of ownership, no harassment, no paying of rent, sense of relief and comfort	Unfinished building, bad road
3	MFF		Ability to own a house with small funds, friendly mode of payment, space around the house for garden, communal outdoor space for recreation	Unfinished building, bad road, short payment period
4	FHF through workplace cooperative	Bureaucratic processes and the payments involved	No longer having to pay rent in lump sum, sense of ownership, no harassment, sense of pride, ease of payment	Poor quality, not up to standard, small room spaces, low height, unable to fix ceiling fan with such height, wall absorbs water and destroys the painting, a lot of spending on transportation, low wage, more amenities at the city, failure to secure a mortgage, higher monthly payment due to short repayment period, inaccessible road, inadequate water supply
5	FHF through workplace cooperative	Scheme plan poorly communicated by the government, uncertainty about their ownership status, difficult processing	Better to pay flexible to own than rent, ease of ownership	Rooms are small, will like to make some changes with the open space, spends more time commuting to work, afraid to lose job as a result, problem of water and electricity, bad road
6	FHF through workplace cooperative	Federal government acquired at cheaper price from the developer and are selling at high prices	Sense of comfort despite the inconvenience of lack of amenities, ease of ownership, security	The spaces are small, spend more on transportation, inadequate water, and no electricity, but that is a national problem
7	FHF through workplace cooperative		Ease of ownership and affordability of ownership	Room spaces are small, delineation of spaces is not functional, location of the estate is far, traffic is usually heavy and ends up late at work, short amortisation period and poor communication resulted to higher monthly payment, no water, which adds to the cost of running the house
8	FHF through workplace cooperative	The payment plan and status poorly communicated; the house was formerly cheap until the federal government bought them	Sense of ownership and the flexible way to own a house, the cost of building from the scratch is high and cannot be achieved with low income, communal space for sports, security of the source of accommodation	Thinks that low-income housing means not adequate provision, location is inaccessible, no adequate water, no electricity

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Table 7. *Cont.*

Resident	Acquired from	Ease of Acquisition	Satisfaction Derived	Discomforts or Dislikes
9	FHF through workplace cooperative			Stress of transportation because of heavy traffic, spends a lot on transportation, lesser productivity, no electricity, stressful and costly to get to place of work
10	FHF through workplace cooperative		Better to have mine than pay rent	Longer time on the traffic to get to town
11	FHF through workplace cooperative	Acquiring through government required lots of documentation and payments	Flexibility to own a house, sense of ownership, cheaper to own than build from the scratch, safe environment	Cheap material for construction, feels unsafe when it rains due to rain penetration, spends time commuting to work, no water, bad road, stress travelling on the road to work due to heavy traffic. Inadequate provision of water, power supply in Nigeria is problematic
12	FHF through workplace cooperative		Security, ownership, no longer paying rent, safe environment	Inconveniencing to shorten the payment period because it increases monthly payment and salaries are poor. No amenities like water, it is inadequate for the number of residents

Table 8. Strategies adopted by MFF.

Construction cost Reduction Strategies			
Targets	**Method**	**Reason**	**Consequences**
Land cost	Sited project on the outskirts of Abuja	(i) Land is cheaper in Luvu, (ii) There is already an existing relationship with the community, which made the land transaction easier, (iii) Nasarawa state has a good land registration system	Location lacked services and infrastructure, so they were provided by the organisation and the cost was factored into the cost of development. The end-users complained that there is no access road to the project location being far from local transportation and towns.
Design cost	The design was limited to bungalows and comprised mainly studios and one- to two-bedroom apartments, the room spaces are compact.	To keep the cost of construction and the materials required for construction as low as possible.	The cost of units was much lower, but the end-users were dissatisfied with the outcome, so some of them had to make some changes to suit their design taste
Material cost	Adopted the conventional construction materials in Nigeria, e.g., concrete block, concrete, cement, etc.	To keep the interactive cost of material, construction technology and labour low	Because labour was available for this type of construction, the project resulted in the engagement of the local community, hence employment doubled.
Funding cost	Obtained funding from Fuller Centre for Housing, USA,	To reduce cost	It resulted in fewer and slower production, but cheaper apartments sold at no profit and interest (Table 5)
	Used soft loan from Reall UK at a 5% interest rate.	To facilitate production at a reduced cost	Increased production but at an interest rate of 5% to cost of construction; the obligation to the loan was eventually paid for with a bulk purchase of the homes by the Family Homes Fund
Disposition strategies			
Selling cost	Set up a flexible payment plan	To assist end-user to pay gradually	Enabled end-users to pay gradually, which suited their variable income and encouraged payment with multiple sources of income
	Completed a portion of the house and built the rest up to the concrete oversite	To reduce the cost of construction as well as the selling cost. To enable the end-users to make decisions for their home according to their need and resources.	Encouraged end-users to acquire their dream home in a less stressful manner.

4.1. The Targets of MFF Projects

This section addresses the first objective, which is to identify the targets of the MFF housing project and to ascertain whether MFF is addressing the housing need of the policy target groups (see Table 2). This will help to ascertain whether the policy goal to address the affordable housing crisis through the private sector is possible in Nigeria. Tables 6 and 7 provide information on the profile of the MFF residents. They show that based on the policy definition of the target group (see Table 2), the residents interviewed are within

the low–middle-income range with only four of them beyond this range. Although this number is not representative of the residents of the estates, we can safely assume that judging from the cost of these houses, only those within low–middle-income or above are catered for in this estate. Secondly, it shows that majority of the participants acquired from the government, which came with its challenges (see Table 7).

4.2. To Determine If the Project Meets the Need of the Low-Income Population

This objective attempts to determine whether MFF affordable housing meets the need of the low-income population or the residents of the estates. Hence, the interview questions elicited the following information: ease of acquisition, the satisfaction derived, and the turn-offs of living in the estate. The themes emerging from participants' narrative highlight important considerations when designing strategies for enhancing access to housing for the low income.

The information in Table 7 shows that majority of the participants are happy to own a home because of the security it guarantees and the freedom from the harassment that comes with renting, they value the ease of and the flexibility of owning a home that MFF has offered against doing so from the scratch due to low income. However, the high monthly payment towards their housing cost and short repayment period, poor design, including poor communication of ownership plan, location of the estate, inadequate amenities, and bureaucratic process of acquiring a home are some of the challenges of their journey towards owning a home in the MFF.

4.3. The Strategies Adopted by MFF

This section describes the strategies adopted by MFF to deliver the affordable homes in Luvu, where they also highlight the challenges to investment for which investors will need intervention to surmount delivering affordable housing. MFF described some of the strategies they adopted to realise affordable housing in Luvu, and their narratives are coded under the relevant interview questions. The interview questions sought to understand actions carried out before and during construction to realise cheaper houses, and those adopted to enable residents to access them. Hence, Table 8 describes the strategies adopted by MFF in two categories—construction cost reduction strategies and disposition strategies.

5. Discussion

This study investigated the MFF affordable housing estate at Luvu to draw lessons that may be useful in designing the enabling strategies for private sector-driven affordable housing in Nigeria. To achieve this, three objectives were pursued, namely, to identify the class of people targeted by the project, determine the impact of the project on the residents' housing needs, and identify the strategies adopted by the MFF in delivering the houses. The first objective, which aimed to identify the class of people targeted by the project, served to establish the basis for ascertaining that the measures adopted by the MFF to achieve these houses can be used in designing enabling strategies for private-driven affordable housing in Nigeria. The finding showed that the majority that was interviewed are within the low–middle-income and middle-income group, which means that the strategies adopted in this case may not guarantee affordable housing for the other groups (no income and low-income) mentioned in the policy. Furthermore, the difficulties experienced by this group in terms of residual income after housing cost payment (see Table 6) raise questions about the adequacy of the income classification of the target groups in the present Nigeria circumstances (low minimum wage versus the ever-increasing price of fuel and products in the market, and the exchange rate). It implies that either the minimum wage is increased, or the income capacity ranges of these groups are reclassified to reflect these circumstances. The second objective was intended to ascertain whether the housing needs of the residents were met by the MFF project, using the attributes of housing described in UN-Habitat (2011, p. 10) as a benchmark. Hence, based on the criteria of design, location, basic provisions, and monthly housing payment, the MFF projects have not performed well. With respect to

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the strategies employed by the MFF in the development of the houses, these are described in the following themes, reflecting areas during and after construction where developers may require intervention to deliver affordable housing (see Table 8).

5.1. Land Cost

Land is crucial for delivering housing (Lawal and Adekunle 2018, p. 3), and its cost and location determine the cost of housing (UN-Habitat 2011, p. 34). Since the land cost can account for a sizeable share of the housing cost, (Woetzel et al. 2014, p. 7; Bah et al. 2018, p. 162), it means that a reduction in the cost of housing can be achieved through the management of the cost components of land. Two essential features of land—affordability and availability—are important for affordable housing and are also interrelated. The availability of land in a good location can affect its affordability and when land is affordable, it is unlikely to become readily available in accessible locations (Bah et al. 2018, p. 109); thus, the cost of providing the infrastructure and services required to enhance accessibility to land are important considerations when siting affordable housing.

The cost of land consists of the cost of acquisition, the cost required to secure land tenure, including the simplicity of the processes and the procedures that are involved (Lawal and Adekunle 2018, p. 3); these considerations naturally move private developers[2] to site housing developments on low-priced land on the urban periphery as a cost-saving strategy for their housing development (UN-Habitat 2011, p. 38).

Therefore, the choice of Luvu as a location for the projects came at a cost for both the MFF and the residents: the MFF bore the cost of providing basic infrastructure and services, which eventually increased the cost of construction that was transferred to the end-users[3] (Bah et al. 2018, p. 109; Makinde 2014, p. 60). Expectedly, this action did not guarantee a pleasant experience for the end-users, who are not only cost burdened but must deal with the inconveniences associated with living far from the towns and commuting to them[4].

Three lessons can be drawn from this theme: First, the lack of affordable land in accessible locations can drive investors to make unhealthy choices for their investments; this highlights the importance of affordable land and the need to improve land value through sites and services programmes (Bah et al. 2018, p. 147). Secondly, despite trading good location for affordability, accessibility has a significant effect on the end-users; this assertion aligns with the analysis of Woetzel et al. (2014, p. 7), which implies that pursuing a reduction in land cost at the expense of good location is detrimental to affordable housing efforts and negatively impacts the end-user's residual income. Finally, the cost of providing services on land has a significant effect on the overall housing cost and the developer will normally transfer the cost to the end-users. Hence, to enable private investment in affordable housing, the provision of infrastructure and services must be pursued by the government.

5.2. Cost of Design

Developers who build affordable housing face a lot of hurdles like expensive labour and materials, onerous regulations, and approval, which, together with tight budget constraints, make affordable housing development daunting. The cultural belief that the benefits of good designs should be reserved for those who can afford them is popular, hence it is not uncommon to associate low-income housing with banal and depressing designs (Wright 2014, p. 71). This is demonstrated in the case project where the desire to achieve affordable construction was accomplished through designs that are basic and minimalistic[5].

As much as the MFF achieved a reduction in the cost of construction through minimalistic designs, they may have compromised on quality and comfort in the process as five of the interviewed residents expressed dissatisfaction with the design outcome (see Table 7). Their willingness to make certain changes to their homes[6] suggests that housing is not only about the provision of the basic structure or shell but also about providing the satisfaction

and comfort that the end-users desire for their homes (UN-Habitat 2014, p. 3; Wright 2014, p. 70; Garton et al. 2017, p. 2):

Finally, the actions of the MFF strengthen the already established belief that design variables affect the cost of construction (Seeley 1996, p. 31); so, while efforts may target reducing cost for the developer, they should seek to satisfy the needs of the end-users as well. Achieving harmony between these two interests will lead to a successful affordable housing programme; on the other hand, end-users' tastes vary considerably, so affordable housing strategies may have to lean towards enabling end-user-driven housing initiatives.

5.3. Using Conventional Materials vs. Local Counterparts

In Nigeria, up to 55% of the materials cost of construction is due to importation (CAHF 2021, p. 195), and the popular opinion about affordable housing will generally apply. This opinion advocates for the use of local materials and local production to boost large-scale affordable housing development (Acheampong et al. 2014, p. 2; Iwuagwu Ben and Iwuagwu Ben 2015, p. 47) and improve the sustainability of the housing development process (Bah et al. 2018, p. 170). Despite this popular view, the MFF achieved affordability through the use of the conventional materials (cement-based) because they are readily available and accessible in Nigeria (Olajide Olorunnisola 2019, p. 57). In their previous experience[7], they were able to identify important considerations for adopting local-based technologies and materials and they applied the lessons on the Luvu projects.

Therefore, while adopting local or innovative materials and technologies remains a valid approach to affordable housing, and while its full potential is yet to be realised in Nigeria, affordable housing strategies should embody the principles that preserve the attributes of housing development, namely: engaging available labour, boosting employment and local economic prosperity (UN-Habitat 2014, p. 20). Hence, the consideration for adopting local materials in housing should be holistic; research should address the issues of availability of raw materials; the feasibility and viability assessments, which must precede local and large-scale production; and be complemented by corresponding manpower training.

5.4. Cost of Funding

Funding is important in housing development because it affects the overall housing cost (Bah et al. 2018, p. 201). The more affordable the funding arrangement, the greater the benefit on affordable housing. This assertion is supported by the MFF experience, which provides valuable lessons on the effect of different funding arrangement on their projects and therefore highlights certain considerations for designing appropriate funding mechanism for affordable housing. There are two major funding arrangements adopted by the MFF. First, free funds or subsidies expressed as donor funding from the Fuller Centre for Housing in the USA helped to realise 60 studio apartments that were sold at no profit or interest[8]; the cost of the studios was, therefore, affordable such that they were quickly sold out and the organisation saw the need to scale-up through a different funding source[9]. On the other hand, the Reall UK loan scaled up the production of housing, but it came with an additional burden of repayment.

Accounting for any economic changes that would have taken place between the period of the development of the first and second studio apartments, the impact of the loan on the selling cost of the houses is visible: at NGN 4.55 m (Table 5), and with the residents not qualified for a mortgage[10], they must find it considerably difficult to make monthly payments and cater for other basic needs (see Table 6).

Two distinct features are important in designing funding arrangements for affordable housing: Firstly, it is indisputable that using free funds led to the delivery of houses that were much more affordable; however, the rate of development (Table 5) compared to when the Reall UK loan was used is low. This means that using free funds or subsidies alone is not a realistic and sustainable funding option because besides funds being limited, the process of awarding them is competitive and they may take time to release in the amounts

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that will guarantee speedy delivery of the project (Blumenthal et al. 2016). Table 5 clearly shows that the time taken to deliver 60 studio apartments is much longer than the one-year period required to deliver about 268 units (comprising studio apartments and other types of dwellings) with a loan.

Secondly, although faster production is guaranteed with a loan funding arrangement, the cost of that option is an important consideration when choosing to use it. The interest rate, amortisation period, and the terms for accessing the loan can affect the development cost and subsequently the disposition. Again, the investors are very particular about making quicker returns since it helps discharge them of their loan obligations more quickly. Although this was mitigated by the bulk purchase of its homes by the Family Homes Fund (FHF) (see note 9), which enabled them to pay off the Reall UK loan, planning for affordable housing should be deliberate; this means that improving the end-users' income capacity through appropriate funding mechanism should be considered when planning affordable housing programmes (Blumenthal et al. 2016). Alternatively, bulk buying of houses by the government can help facilitate quicker returns for investors and allow for a flexible disposition of the houses to end-users.

5.5. Flexible Payment Plan

It is illogical to invest in affordable housing if the disposition cannot be guaranteed. Investors can only stay in business if they can make returns on their investment, and this can be achieved if end-users have the financial capacity to affect the demand for housing. The low income capacity of the target end-users limits access to housing, which is detrimental to investment. To facilitate access that will guarantee quicker returns for the MMF, a flexible payment plan and an incremental construction approach for the projects were adopted. The original design of a flexible payment plan required the buyers to pay an initial 10% deposit and complete the rest through monthly contribution over a period. Flexible payment pattern was the major attraction for the residents and the fact that they were contributing gradually towards owning a home was enough motivation for them to make such committment[11] (see Table 7). This method of paying for housing aligns with the UN-Habitat (2012, p. 27) strategy for enabling low-income end-users towards homeownership in line with their variable income.

Despite the flexible payment plan, the residents particularly found making the initial deposit difficult due to low income and no savings[12], which clearly denotes low minimum wage; in addition to that, many did not qualify for a mortgage loan[13] and even after five years, most of them had not received a decision on their mortgage application, resulting in further negotiation with the FHF to draw an alternative payment plan. Therefore, most of the participants now pay monthly from their salary over five years despite the inconvenience that it causes them[14]. It is evident in Table 6 that almost all the participants are shelter burdened, paying more than 30% of their salary to housing. Despite this, most of the participants expressed a strong desire to maximise the lifetime opportunity offered by the MFF housing to become a house owner; hence, many are sacrificing other needs for housing, while others are exploring different means like borrowing, using gift donations and supplementary informal incomes to fulfil this obligation.

Three lessons can be drawn from this theme. First, the need to own a house overrides every consideration, as Udechukwu (2008, p. 182) rightly asserted; therefore, despite the inconvenience, participants are willing to make sacrifices to realise this ambition. This means that housing efforts that tilt toward homeownership may be more acceptable than its rental counterpart. Secondly, as much as flexible ownership is a more convenient way of paying for housing for the low-income population, monthly payment plans should be designed affordably in line with their income to ensure that payment to housing cost will not impact negatively on the residual income. Therefore, a longer repayment period may be required to reduce the monthly contribution and thus the cost burden, as resident 7's analogy suggests[15].

Thirdly, from the responses, participants did not qualify for the NHF mortgage loan due to their low income; again, those of them who did not receive any decision to their loan application, given their monthly salary (Table 6), would still not have qualified for a loan (see information in Table 3). In this case, two considerations may apply. First, if the NHF mortgage system is to be considered an enabling mortgage option for the low-income earners, it will need to recognise other supplementary income sources in the loan origination procedures as a strategy for enhancing access to it (Makinde 2014, p. 54). Secondly, the case study proved that flexible payment to housing is possible with direct deduction of payment from the source if appropriately designed and managed to prevent defaulting in payment. Above all, flexible payment plans, whether through mortgage or direct deduction from salary source, should be affordable, which can be achieved by extending payment period to reduce monthly contribution.

5.6. Incremental Housing Pattern

The underlying reasons for the adoption of an incremental development approach were to reduce the cost of development for the MFF and the initial cost of acquiring a suitable home for the end-users[16]. The idea is to encourage access for families to their dream homes without the inhibitions of their income since they can gradually build or expand their homes based on their resources and need. In consideration of certain changes made by the residents to their homes (see note 7), incremental housing implemented by the MFF will foreground the needs of the inhabitants rather than the developer since families can take responsibility and care of aspects of housing, which they are in the best position to take in line with the principles of incremental housing (Hasgül 2016, p. 20). In places where this approach was successfully implemented, for example, in Chile, basic, core structures were built, and the individuals built up the space according to their pace and resources (Ferreira n.d.). In the MFF case, this was achieved by building up the core of the house and leaving another portion at the concrete oversite level to allow for expansion as end-users deem fit and at their convenience.

6. Conclusions

As the housing deficit continues to increase despite adopting a private sector-driven housing approach, the need for improving the existing strategies for effective private performance becomes imperative. By studying the MFF projects, on account of the desirable attributes, this study drew from the lessons to highlight possible considerations for advancing private sector-driven affordable housing in Nigeria. Hence, it establishes the following:

- That the MFF projects at Luvu catered specifically for low–middle-income and middle-income earners and that unless the National Minimum Wage is improved, strategies adopted in this case may not satisfactorily advance the delivery of affordable housing for this income groups, much less cater for the no income and low-income groups.
- Developers may likely adopt practices that reduce the cost of investment, and these practices generally target the construction cost components like land, materials, and design.
- The decisions made by developers with respect to land and the design of the building may adversely affect end-users' satisfaction; however, an incremental building approach may help to preserve both the developers and the end users' interests in terms of a reduction in the cost of investment and the freedom to make choices for their homes based on their taste and resources, respectively.
- Embarking on a widespread infrastructural development will make development land available in all locations so that affordable housing development can no longer be confined to locations where services are lacking.
- Bulk purchase of housing units can help private developers make quicker returns on their investment and release them from any loan obligation as well as facilitate the disposition of houses on flexible terms to the end users.

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- Access to an NHF mortgage can be improved for low-income earners by recognising other supplementary incomes in loan origination procedures.
- Flexible repayment plans should incorporate longer period of payment to reduce monthly payment for housing and increase residual income for end-users.

Future Research

Articulating enabling strategies for housing will be beneficial to both the government and private investors. Government resources are constrained; therefore, direct intervention might be impossible; the insights generated in this paper are both revelatory and instructive. Policymakers can assess the existing strategies considering them and can be guided to design specific interventions based on the concerns identified in this paper. This paper also recognises that effective enabling strategies should incorporate efforts for harmonising the needs of private developers and end users; hence, future research should lean towards exploring other harmonising features that will encourage more robust enabling strategies for private-driven affordable housing.

Data Availability Statement: The data presented in this study are available on request from the corresponding author. The data are not publicly available due to commitment to preserve the confidentiality of participants used for the study.

Conflicts of Interest: The authors declare no conflict of interest.

Notes

[1] Fifty percent of the population will account for the no income group who already constitute 40.1% living below the poverty line of NGN 137,430/annum (USD 334) (as per the NBS estimate) and the rest shown in Table 2.

[2] "Ok, so let me start with the location, we are essentially located here because land is cheap, there is a historical factor as well; the HFH was working in this community, so we already knew the people, and it was easy to buy land from them and to do other projects but essentially, the bottom line is that land is cheap in this area…". (MFF)

[3] "Ok. Because we are working here far away from town, really infrastructure doesn't exist, we have had to provide all the needed infrastructure…. so essentially, we must do everything, and we cost it, and the people at the end of the day, pay for it…, so that cost includes all the infrastructure, land, construction, and a small profit element…". (MFF)

[4] "Another challenge is the distance from my workplace. The location of the estate is far, most of the people living in this estate work in Abuja,…so we have to travel a bit and be held in the traffic before we get to the office…" (Resident 7); "However, it is far from the city centre and where I work, and I spend NGN 2600 daily commuting to work every day…". (Resident 4)

[5] "…our designs as I said are very basic, eventually, we are working around a single-room model. …and we have typical designs for studio apartments, one-bedroom apartments, we have designs for two-bedroom apartments, we hardly do three-bedroom, it's just because of the cost, we want to stay below the 5-million-naira mark. We have bathroom facilities, we keep it minimal, usually just one bathroom for the house…". (MFF)

[6] "The room is not big, it's quite small when you compare what we have here to others particularly in some estates, if I have the opportunity, I will make some changes" (Resident 5); "…the estate developers also take advantage of the fact that their activities are not being supervised to use substandard materials to construct the house. For example, once it rains, my house absorbs water and despite painting the inner walls, the paint peels off. So, we now use wall tiles to the height of the room to make sure that the water doesn't penetrate and affect the furniture in the room…". (Resident 4)

[7] "We have in the past used the compressed hard block technology in my last organisation HFH, we did a lot of houses with compressed hard blocks, and we discovered that yes it was cheaper than concrete blocks, but we were paying more for labour. …so at the end of the day, the cost kind of balanced out and we saw that there wasn't that more of an advantage in using compressed hard blocks or stabilised blocks than in using concrete blocks…but essentially we are working with the normal concrete blocks technology that everybody works with, it's known, it's available and also it engages a lot of local labour because we see our work not just as construction but also empowering the community so the more people that can be empowered in the process of the housing delivery, the better for the project…". (MFF)

8   "So, as I mentioned, the first project we did is zero profit, zero interest project with the FCH in the US, which was our first project that was financed entirely by donor funds; then we now got a loan from REALL UK to begin the Grand Luvu project it was a soft loan at 5% interest rate. Grand Luvu II on the other hand, was financed partly with equity, and then we were being paid by FHF in instalments. That's how we were able to finish Grand Luvu II . . . So, they sort of took it over, they paid us and just took it. Then the Grand Luvu I which was financed by REALL, they bought it when it was completed". (MFF)

9   ". . . it's an apartment that cost about 360,000 naira and people wondered: can this be real in Abuja? And they asked: is that the cost of the rent or the cost of the house?. . . the challenge we had when people came to our doorstep and found it to be so cheap is that the whole of Abuja now ended up on our doorstep and with just donor funding coming in, we could not build more than what we had on hand so most of the people had to be turned back. . .". (MFF)

10   "ok, initially, we were told that we should pay 10% of the money, after the 10% of the money, they can give you the key to the house and you start paying may be through a mortgage, but for my case, I didn't go through mortgage because, by that time, the mortgage did not accept the percentage I applied for. . .". (Resident 2)

11   ". . . but MFF will only ask you for a percentage, when you pay that percentage, you will be given the key to your house without completing your payment and then, they spread out the balance over a period of time and that for me is the greatest help they can give to the less privileged" (Resident 2); "Some work and some don't, so it's not easy for somebody to count 2 million, 3 million easily like that to pay, instead of that, they will have discouragement" (Resident 3); "the salary paid to workers is nothing to write home about but if you are removing every month you may not feel it". (Resident 1)

12   ". . . Getting the initial payment was the greatest problem because I did not have money saved anywhere. . . so I cried to a sister and . . . she asked me to send my account number, I was like, is this true? . . . The initial payment is most people's problem but compared to where you will buy a piece of land and build and enter, it's still better. . .". (Resident 3)

13   ". . . I didn't go through the mortgage because they did not accept the percentage I applied for. . . . in my own case, we own the whole building. . . so, we are paying NGN 50,000 in a month because the building was given to us at NGN 4. something million [So you and your husband are contributing to pay?] yes [that means you are also a government worker] my husband is a government worker, but I do business". (Resident 2)

14   "At a point because I took it in 2018 but they're still on the process of the mortgage, so when I now decided to opt out from the beginning of this year and I said OK, thank God, I know I can, at least afford it from my salary and I decided to pay the money for five years and get over it even though it is not going to be easy, but then I said that instead of waiting for mortgage endlessly and afterall, it's a business and they are not giving you free. Though it might be painful, but I just decided to endure it and make the payment within five years. So that is the plan". (Resident 11)

15   "At first, it was going for like 10 years. To make it like easier for us so that the amount they will be deducting from our salary will not be too cumbersome. But in the long run, an issue arose that made them reduce the number of years we're going to pay it for. So, they reduced it to five years. . . Before, when it was for the period of 10 years, we were paying like NGN 27,000 naira, but now that it has reduced to five years, we are paying like NGN 46,000, something". (Resident 7)

16   ". . . so essentially, we are in incremental housing, so the idea is that you may not have all the money to do your two-bedroom unit, but you can start off with what you have, start off with the studio apartment, with time, put another room more, with time put another room more . . . Actually, one of the designs you might see is the studio apartment and the foundation made already for the additional room, then you also have the one-bedroom unit that's expandable to two-bedroom unit, so essentially that's what we are doing". (MFF)

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