DEVELOPERS' LAND ACQUISITION AND HOUSING DEVELOPMENT CONSTRAINTS IN LAGOS FRINGE AREAS

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ABSTRACT

The acquisition of parcels of land without commensurate development is often evident in and around urban settlements. Meanwhile, the need for immediate physical housing construction is critical because housing deficit is persistent. This study investigates organised real estate developers' land acquisition activities and housing development constraints in Lagos fringe areas. Purposive sampling technique was adopted for the study. From the population of 251 REDAN members in the southwest zone of Nigeria, only 141 members (56%) on the list were found to be practising with their offices within the study areas. 31 land bureau officers were also surveyed.

The study employed mean item score (MIS), standard deviation, frequency and principal component factor analysis (PCFA) to identify the most critical factors considered as constraints to new housing development. Finding shows that the major activities carried out on land are farming, land banking and safeguarding land from encroachers and land thieves. It was also evident that only about one-third of the land acquired was used for physical housing construction. The study discovered evidence of rigorous title processing and planning approval; very slow title documentation and re-acquisition of land with Certificate of Occupancy (C of O) by the government through the application of Land Use Act mechanism. Further findings revealed two major themed-principal components that revolve around institutional factors and inconsistency in government policy and regulations. The study recommends that the government should remove policies and regulations which serve as impediments to timely land documentation especially in instances of re-acquisition of land already bought by developers for the overriding public interest. This is very daunting for private developers and investments. Hence, the need for innovative land institutions to enhance the sustainable framework for land reform dynamics. This is inevitable in a growing African megacity.

Keywords: Developer, Fringe areas, Housing, Land acquisition, Land policy, Nigeria

1.0 Introduction

It hardly needs stating that Nigeria is one of the most important and complex countries in a complex region. Its population is close to 200 million and about double that of the next largest sub-Saharan African country (World Bank, 2015). The country is now about half urbanized, and its urban population growth at over 4%, is one of the highest of any of the world's large countries (Alufohai, 2013), as such in dire need of more adequate housing developments for her citizens. The period between the year 2002 and 2004 witnessed the housing policy that positioned the private sector on the driving seat of housing delivery in Nigeria. The key features of this policy include the placement of the private sector in a pivotal position, for the delivery of affordable houses, on a sustainable basis; while government was assigned with the responsibility of primary infrastructure for new estate development; review and amendment of the Land Use Act to ensure better access to land and speedier registration and assignment of title to developers. Others are the development of a secondary mortgage market, involving the

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Federal Mortgage Bank of Nigeria (FMBN) and the establishment of a new mortgage regime under the National Housing Fund (NHF) to facilitate more favourable mortgage terms; and a five-year tax holiday for developers (Onibokun, 1990; Mabogunje, 1993; Agbola, 1993; IMF, 2015; Usoro, 2015; Olofa, and Nwosu, 2015; Nwoko, 2016). These periods encouraged land acquisitions by developers most especially in the Lagos fringe areas in anticipation of the development of housing units to bridge the gap between housing need and supply.

In private housing development, as is expected; developers are the key decision-makers (Wen, Chu, Zhang, and Xiao, 2018; Ayonga, 2015; Altuzarra and Esteban, 2011; Dowall, 1989) and in many emerging countries, the private sector plays an important role in housing development. However, it has been reported that the changes in policies introduced to date have posed a challenge of time, cost and risk involved in undertaking new residential developments, as well as constraints impeding the supply process. Given the difficulties confronting stakeholders involved in the housing supply process, it is likely that this issue will remain topical (Omirin, 2003; Wang and Hua 2013; Colwell, 2002; Lai and Wang, 1999; Cozmei, Oforei, andSerban, 2014; Nolte, 2014; Deininger and Xia, 2018).

Acquisitions of parcels of land without commensurate development are often evident in and around urban settlements. Sometimes, large expanses of land are left unused for several years in Lagos fringe areas. Meanwhile, the acquisition of land for immediate housing development is critical where the housing deficit is endemic. Lagos has a population density of about 20,000 persons/sq.km compared with some other areas with 441 people/sq.km. It has the highest estimated population of 22.5million representing about 14% of the national estimate of 170million (UN DESA, 2018). The annual growth rate of Lagos is between 6-8% compared to the 4-5% country growth rate and the global rate of 2%. Currently, the geographical area of Lagos has expanded to about 356,861 hectares of which about 21% (75,755 hectares) are wetland, yet it has the highest estimated population (Oshodi, 2010; Lagos State Government, 2013). As a result of limited land supply by nature, some of the workforce moved to live in the fringe areas and commute to work in the city centre. Thereby increasing land market activities in the Lagos fringe areas.

Existing literature has comprehensively studied the relationship between the quantum of land acquired and housing supply. However, most of these studies were based on the background of some western developed countries, and similar studies are relatively limited in developing countries such as Nigeria. The present-day urban fringe expansion and intense competition for the land around cities especially along major transportation routes call for urgent attention, particularly in rapidly growing Lagos urban fringe areas where there are high rates of land use shifts, and increase in land acquisition with few housing supplies. Again, the issue of land acquisition in connection with the quantum of housing units supplied by developers has so far attracted enormous debates, without reaching a consensus. On one side, despite the debate, policies addressing post land acquisition issues toward housing supply are weak and on the other side, the fact that this issue remains unresolved creates a gap in knowledge for which solution is being sought. The problem this study responds to is that of developers' motivation for extensive land acquisition without significant physical housing construction in Lagos fringes. This remains a question worthy of an in-depth investigation being an area with an everincreasing need for the alleviation of housing deficits. In analysing developers land acquisition and housing development constraints in the fringe areas of Lagos, the following objectives have been assessed as a means of contributing to knowledge. These include investigating developers'

scope of activities after land acquisitions, assessing the challenges of housing development in Lagos urban fringe and identifying policy strategies that are in place to foster housing development.

This study views a housing developer as one who transforms the housing production inputs, notably: labour, capital, materials, and land into housing units which are supplied to the market. This function can be undertaken by private individuals, multi-national construction companies, local builders and contractors, cooperatives or local housing associations and Real Estate Developers Association of Nigeria (REDAN), amongst others. In practise, this encompasses a variety of roles that include being the initiator of development, coordinator of factors of production, builder, and salesperson. The context of urban fringe in the study area is defined as a dynamic environment on the outskirt of a city which often shares the same territory of more than one administrative unit with weak links and limited municipal powers in sectors such as transportation and land use planning, where the low and middle-income workforce live and commute to work in the city centre.

2.0 Literature Review

A rapidly increasing population has increased the gap between housing needs and supply, resulting in a housing deficit in Nigeria being a developing country. Moreover, extant literature (Olofa and Nwosu, 2015; Iyanda, 2015; Adedire, Oduwaye and Tony, 2016; Hsieh and Moretti, 2017) have also proved that the acquisition and development of land to mitigate the ever-increasing housing deficit in Nigeria as a result of the geometric growth in population is critical and inevitable to reduce the current housing deficit. Omirin (2007) affirms 90% of houses in Nigeria are built by private individuals. Their style of development is usually incremental or progressive. This process takes about 25 years with land acquisition being the first step. However, the activities of these individuals sometimes bring about sprawl and haphazard development. Moreover, since housing has been termed to be beyond shelter, there is a need for large scale standard construction to reduce the housing deficits, which is the primary focus of the organised private developers.

Organised private developers' contribution to the housing stock is seen in the areas of site and services, land assemblage and primary infrastructure provision to aid housing development. However, knowing the quantum of developers' actual contribution to the housing stock in the study area is difficult in the absence of consistent and reliable data. Identifying the quantity of housing stock (formal and informal) is extremely difficult and requires careful conceptual clarity about the quantum of land acquisition and units of housing development supplied. This work relies on empirical accounts of research work done by others and presentations of professionals in the built industry as well as the information collected from REDAN members to estimate developers' actual contribution to the housing stock in Lagos and Ogun fringe areas.

Several supply-side factors and impediments have been cited in recent official reports and by industry participants as being responsible for delaying the availability of new housing developments and raising the cost of their provision (Nubi, 2010a, Omirin, 2003; Oyalowo, 2018). The factors identified can be broadly classified into six inter-related groups (Yates, 2011; Omirin, 2007; Nubi, 2010b; Iyanda, 2015; La Cava, 2016; Wubneh, 2018). Land accessibility constraint; the complexity of the planning process- the complex planning issues and delays that occur at each stage in the process are commonly characterised as 'bureaucratic in nature' when it comes to understanding why the housing supply has not been more

responsive to changing population and demand factors. Lack of long-term financing; a lack of coordination between the various agencies involved, including local councils, utility and other infrastructure providers, as well as state planning and environmental departments; uncertainty about planning standards, development assessment policies; state and federal environmental laws, all of which can change during the development process. This includes negotiation of infrastructure requirements and delays in governments or utility providers installing infrastructure, insufficient resources at various government agencies to assess zoning and development applications quickly, limited scope for automatic approval of complying building applications, local opposition to urban expansion and high-density developments. Topel and Rosen, 1988; Mayer and Somerville, 2000; Bramley, 2003; Quigley and Raphael, 2005 further affirmed that housing development constraints centres around the relationship between the timing of new construction, regulatory frameworks, and signals from the product market. Industry participants argue that these factors lengthen the time it takes to negotiate development approvals and create uncertainty about the likelihood of its eventual success;

In the study of housing investment in the United States, Topel and Rosen (1988) conclude that real interest rates and expected inflation have a significant impact on housing starts. In the Australian housing market, the National Housing Supply Council in 2009 affirmed several factors that could combine to constrain the rate of development of new housing in Australia. This includes the imposition of higher pre-sale requirements for new multi-unit residential developments, industry capacity and changing demand. Development of land in the fringe areas is being impacted by planning, zoning, subdivision, and development approval processes which are often very lengthy and were identified by stakeholders as a major continuing constraint on supply. Related to planning and development approval processes are concerns about high and compounding taxes and charges, including developer contributions for hard and soft infrastructure, that increase the price of housing and may delay or preclude development. Murphy (2017), Babade (2007), Golland (1996), John (2017) affirmed further that infrastructure provision, land topography, future profits, optimal timing and size of construction also delay housing supply. Hedberg and Krainer (2012); Gallent and Tewdwr-Jones (2018) also affirmed the role of bank loans and foreclosure variables in a model of housing supply as necessary to account for the steep and sustained reduction in new construction activity. Another constraint to the conversion of vacant land to market-ready lots can be the size and capacity of the firm to undertake capital intensive projects.

Theoretical Framework and Conceptual Clarifications

The theory of housing supply refers to the units included in the stock fulfilling the conditions to be demanded in the market. The theory distinguishes between stock, which is the total of units existing in the market, and supply flow, which is the total of units available on the market capable to satisfy the demand. This distinction is relevant, as it suggests two different analytic frameworks. The first one is referring to the analysis of the volume of housing services, while the second discriminates between the market of new and existing dwellings, being the latest the common focus used to analyse supply and its impact on prices. The total supply is generally considered to be a stable proportion of the total stock. The existing units represent a part of the supply not well known to keep a balance with the total stock and the vacancy level (Taltavull, 2014; Gyourko, and Raven, 2015), because of their relevance and greater volatility, new units are most often analysed as the main supply component. It is believed that the total supply essentially depends on the evolution of new house building as well as on the residential

investment rate. Both groups are considered to be a constant proportion of the yearly total. The fluctuations of these supposed-to-be normal levels of both components trigger and the endogenous housing market adjust mechanism, through which the excess of existing supply reduces the construction rate and stabilizes prices, while supply restrictions push them up again. The distinction between the two effects becomes relevant because the price reached by existing units in the market will initially respond to the current supply-and-demand forces, even if the structures were built in the past at past's costs. Instead, in the new housing market, dwellings reflect land costs and more recent factors, so that the newer the dwelling, the higher the costs. In the absence of demand pressure, a market in which the supply is mainly integrated by new units (or rehabilitated/ renovated ones) will present higher price levels than in the opposite case. Besides, Hsieh and Moretti (2017) affirmed that the lack of information and financial requirement features make the market uncertain, and supply is expected to respond slowly to market signals. This means that the supply reacts just partially when changes in the demand occur, generating an asymmetric response. This a positive shock on any demand component which causes an upward reaction of prices in the short run, meanwhile the house building cannot increase suddenly. The supply increases systematically as the starts are completed. If during this period the demand decreases, the supply cannot perform a downward fit, since dwellings cannot be 'destroyed' or 'removed' from the market, thus generating the existence of a vacancy. During a contraction period, prices do not drop while the total of vacant units increases, since the costs incurred and the chances of a future increase in housing prices persuade owners to maintain the units and not sell under-priced. This is why the response of new housing supply is elastic in the first case, but inelastic in the second one (Glaeser, Gyourko, Morales, and Nathanson, 2013). The interaction of demand and supply, as well as their sensitivity, is, therefore, a key aspect to understanding a developer's behaviour per time (Meen, 2002). This reaction with time perspective implies that the supply curve may have a degree of elasticity that adjusts the market and guides price evolution. Since they depend on both the inputs and the dimension of the construction sector, supply curves with different elasticity levels may exist in the short run from the spatial perspective.

The lack of continuous housing supply has led to rising house prices and rents and growing homelessness. The lack of adequate financing has further driven the steady reduction of housing supply (Nubi, 2015). As a result, not only vulnerable groups but also increasingly middle classes have faced a sharp decline in their living standards and are experiencing housing exclusion (Czischke, 2014). This brings about the need to assess relationships between various established housing providers and government as a buffer for housing production. However, there are some reports by developers of actual and latent tensions, for example, non-adherence to signed agreements as well as untapped potential in these relationships. This study, therefore, assessed the model of land acquisition and housing supply system as a fulcrum for this study as seen in figure 1.

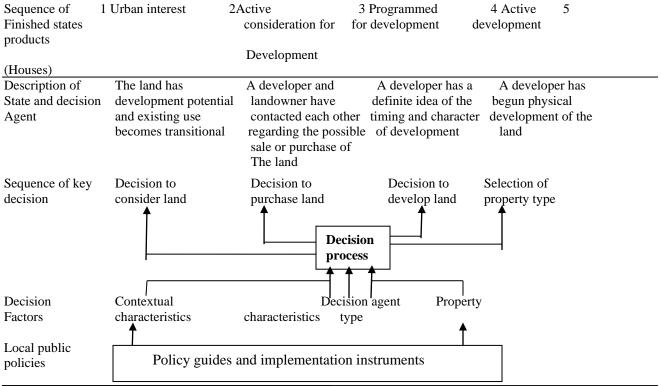


Figure 1: Model of the Residential Land Conversion Process

Adapted from Czischke (2017); Healey (1991); Bryant, Russworm, and McLellan (1982); Kaiser and Weiss's (1970)

The policy aspects investigated relate to housing production, land, and planning. The aspects of the process investigated are sub-divided between, stages and actors, or agencies. The aspect of supply system is the actual housing production output. In this respect, it is important to emphasize that when looking at the process of housing supply, there is a possibility to consider more than one process, where there is more than one housing supplier. The second issue relates to actors within the process. The actors, or agencies, are categorised under two headings: government and housing suppliers. These are incorporated within the discussion of housing supply through 'policy-making' and 'process'. In understanding housing production outcomes, some aspects are deemed necessary for consideration: housing production policy, land policy, planning policy, land acquisition, infrastructure provision and the collaborative building process (Zoomers, Noorloos, Otsuki, Steel, and Westen, 2017; Golland, 1996). These facets include several policy mechanisms, which when combined with the supply process, form a system of supply. This system is based upon the identification of facets of housing supply which are seen to be significant in the context of associated research.

3.0 Method

Lagos State remains the industrial and commercial nerve centre of the country with a rising population. The implication of these increasing population pressure arising partly from continuous migration not only increases the demand for land derivatives but also indirectly increases the need for an effective regulatory framework to avoid squatter settlement, haphazard development and enforcement of sustainable fringe area development. The case

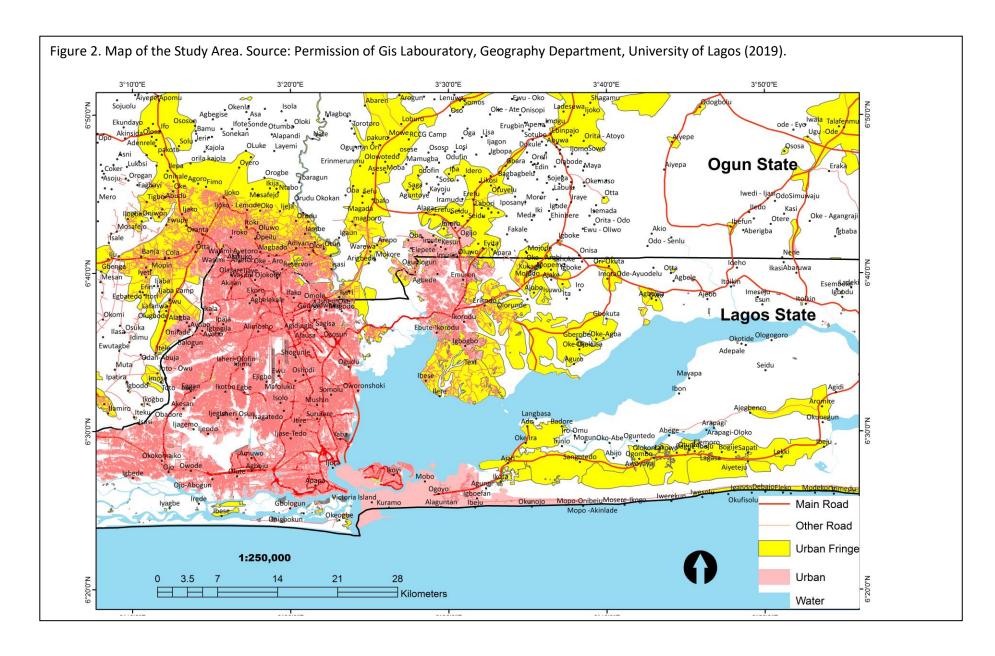
study areas include Lekki – Epe axis, Ikorodu and Lagos Ibadan Expressway comprising of Ajah, Addo, Oke-Ira, Majek, Ibeju-Lekki, Abijo, Badore, Lekki Peninsula, Alpha Beach, Eleko, Lakowe, Otunla, Elemoro, Agungi, Abijo, Ikate, Ogombo, Olokonla, Ikota, Awoyaya, Lagasa, Sapati, Bogije,Oribanwo, Bankole,Folorunsho, Kaiyetoro, and sangotedo and Isheri, Warewa, Arepo, Magboro, Ibafo and Asese, Olowotedo, Orimerunmu town, Mowe, and Shagamu interchange area. Settlements examined in Ikorodu, which is located along the Lagos lagoon and shares boundary with Ogun State, include: Ibeshe, Ofin, Agbede, Baiyeku, Ijede, Gberigbe, Agura, Isiu, Igbokuta, and Igbalu. The study areas were selected because of their rapid growth with diverse acquisition forms that are being noticed.

The methodology is based on an empirical investigation of developers' land acquisition and housing development. This section expatiates on the research techniques and instruments adopted. The methodology is structured according to a series of questions that serve to demonstrate the various activities developers engaged in, after land acquisitions, challenges encountered and implication for housing deficit alleviation. Purposive sampling technique was used. Here, experts in a particular field believed to be the best sample for the study in question were selected. Purposive sampling calls for special efforts to locate and gain access to the individuals or groups who have the required information.

The population for this study includes REDAN members and the land and housing development professionals from public authorities. From the population of 251, only 141 members (56%) on the list were found to be practising with their offices within the study areas. Out of the 141 EDAN members, questionnaires were administered to, only 123 were retrieved. While sorting out the questionnaire, it was discovered that 14 of the firms did not have land developments and acquisitions within the study area. Hence, there were removed from the study population. The remaining 109 questionnaires were coded and used for the analysis. The population for the Land Bureau officers comprised of the heads of the units at the various departments relevant to the study. Where the head of the unit was not available, the deputy heads were given the questionnaire to fill and where they also not reachable, the next in the hierarchy were interviewed using a structured interview format. A total of 31 Land Bureau officers were interviewed.

Questionnaires were also administered to the members of the organised developers' association (REDAN) to elicit information on the various factors affecting land acquisition transition to housing production. A five-point itemizing rating scale was adopted for the measurement of the degree of seriousness of constraint variables. This questionnaire was used to elicit information from developers in order to assess the various production or co-production strategies adopted towards boosting housing supply in the study area.

The structured questionnaire was designed to seek the engagement of developers on land acquisition activities on a 1–5 Likert scale (using 5 for very often, 4 often, 3- sometimes, 2 rarely,1-Never). This was used for determining the average ratings/means of estate developers and Land Bureau officials as regards the challenges and strategies of housing development. To ensure the reliability of each item included in the questionnaire, Cronbach's Alpha was used to test the internal consistency (0.897). Finally, principal components analysis (PCA) was used to isolate the critical factors germane to land acquisitions and housing development in the study area.



4.0 Data Presentation and Analysis

This section presents the response of developers on issues that are centred on large land acquisition, challenges and the increasing concern for housing development in Lagos fringe areas. In this section, an attempt was made to answer the three research questions posited in section one of the paper. The objectives are as follows:

(i) Investigating developers' scope of activities after land acquisitions

To examine the scope of developers' activities after land acquisition, developers' year of firm establishment was first assessed to know the years of experience garnered in the study area. Over 50% of the developers surveyed affirmed their firms had existence for more than ten years while 46% of the firms affirmed, they had been in existence for a minimum of six years. This is considered reasonable enough to establish that they had the requisite experience to give reliable insight on the subject matter.

Table 1: Scope of Activities after Land Acquisition

Activities	Mean	Rank	
Activities	Miean	Kank	
Used for artisan workshop	1.92	1 st	
Farming on land	1.84	$2^{\rm nd}$	
Land Banking	1.82	$3^{\rm rd}$	
Safeguarding the land from			
encroachers and land thieves	1.7	4^{th}	
Preparing site layout	1.72	$5^{\rm th}$	
Long lease	1.70	6^{th}	
Holding vacant land	1.66	7^{th}	
Land subdivision	1.66	8^{th}	
Planning approval preparation	1.56	$9^{ ext{th}}$	
Land clearing/Assembly	1.54	10^{th}	
Land survey/demarcation			
of Boundaries	1.52	11^{th}	
Development of primary			
infrastructure	1.48	12^{th}	
Plot/Housing unit development	1.38	13^{th}	
Land sale and installment payment	1.28	14^{th}	

Developers were asked to rate activities carried out on land after purchase. The result showed that usage as an artisan workshop, as a strategy to keep the land until when it was required, was ranked first, followed by farming and land banking ranked in the second and third positions respectively. Next to this, was safeguarding the land from encroachers and land thieves in the fourth place, preparation of site layouts in fifth, long lease in sixth and the holding of vacant land in seventh position. Other activities carried out after land acquisition are land subdivision, planning approval preparation and land clearance/assembly in the eighth, ninth and tenth position respectively. Occupying the eleventh position were developers who used acquired land for land survey/demarcation of boundaries, followed those who used it for the development of primary infrastructure. Finally, in the thirteenth and fourteenth positions were developers who used acquired land for plot/housing unit developments and land sales on installment payment basis, respectively.

Developers were further asked about the detailed utilisation of land after acquisition. In other words, to what use was the land put after purchase. Some affirmed it was used for plot division, site and service scheme, housing development while others affirmed a portion of the acquired land was left vacant as shown in table 2.On average, only about one-third of the land acquired was used for housing development. This revealed the disparity between the quantum of land acquired by developers and the nature of developments that existed physically in the study area. Hence, the need to assess the constraints in the study area.

Table 2: Utilisation of Land after Acquisition

12

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Bogije

Ibeju

7

			LAGOS	//IBADAN EXPR	RESS AXIS		
S/N	Quantity of land Bought (in Acres)	Location	Year bought	How many Acres is used for site and service scheme	How many Acres is used for plot sub- division	How many acres is used for housing development	How many Acres is left vacant
1	2	Ibafo	2018	None	1	1	None
2	5	Ibafo	2007	1	1	3	None
3	13	Ibafo	1982	2.5	None	10.5	None
4	20	Mowe	2015	12	4	4	None
5	50	Arepo	2017	None	None	None	50
6	65	Magboro	2007	5	30	20	10
7	10	Arepo	2010	3	6	6	1
8	10	Atan-Ota	2010	1	5	4	None
9	3	Arepo	2016	1	None	2	None
10	3	Ibafo	2017	None	3	2	1
11	2	Isheri	2008	None	None	None	2
				LEKKI-EPE AX	IIS		
S/N	Quantity of land Bought in Acres	Location	Year bought	How many Acres is used for site and service scheme	How many Acres is used for plot sub- division	How many acres is used for housing development	How many Acres is left vacant
1	2	Majek	2017	None	None	2	None
2	4	Badore	2015	None	None	4	None
3	4	Epe	2016	1	3	3	None
4	1	Simawa	2017	None	None	None	1
5	2	Ibeju	2017	None	None	None	2
6	30	Onishon	2014	3	10	7	10
_				_		_	_

2016

2010

2

5

None

5

3

None

7

None

9	40	Akodo	2013	None	10	5	25
10	30	Ibeju	2014	None	10	15	5
11	6	Ikota	2011	None	None	6	None
12	7	Ikate	2015	None	None	7	None
13	5	Elegushi	2014	None	None	5	None
14	1	Ikate	2017	None	1	1	None
15	50	Simawa	2012	2	48	50	8
16	30	Ofada	2015	None	None	None	30
17	15	Elemoro	2015	1	15	15	None
18	5	Epe	2016	None	None	None	5
		Abraham					
19	10	Adesanya	2008	2	1	6	1
20	1	Ipodo	2010	None	1	1	None
21	20	Lekki	2011	None	12	6	2
22	25	Sangotedo	2008	None	None	22	3
23	1	Abule Nla	2012	None	1	1	None
24	2	Epe	2016	None	2	1	1
25	1	Ibeju	2016	1/2	1/2	None	1/2
26	2	Lekki	2006	None	None	2	None

	IKORODU AXIS										
S/N	Quantity of land Bought in Acres	Location	Year bought	How many Acres is used for site and service scheme	How many Acres is used for plot sub- division	How many acres is used for housing development	How many Acres is left vacant				
1	2	Ikorodu	2012	None	None	2	None				
2	10	Ikorodu	1995	3	7	5	None				
3	2	Elepe	2017	None	2	2	None				
4	1	Ebute	2018	None	None	5plots	1 plot				
5	5	Oluodo	2018	None	3	3	2				
6	2	Agric	2016	None	None	1	1				
7	1	Agbowa	2014	None	None	1	None				
8	7	Maya	2015	None	7	3	4				
9	10	Igbogbo	2016	None	10	None	10				
10	3	Imota	2015	None	3	3	None				
11	2	Aleke	2018	None	None	2	None				
12	10	Ikorodu	2013	1	5	2	2				
13	1/2	Agbowa	2015	None	1/2	1/2	None				
14	1/2	Gberigbe	2005	None	1/2	None	1/2				
15	1/2	Salabo	2015	None	1/2	1/2	None				

Notes: (i) 1plot = 648 square metres for low income (ii) One US Dollar =360.00 NGR Naira as at 7th January, 2019

(iii) 1plot=700-800sqm for middle income (iv) Between 800-1000sqm for high income earner. The location under study is fringe areas and often desired by the low- and middle-income earners. Hence developers apportion between 648-700sqm as the standard plot size in the fringe areas.

(ii) assessing the challenges of housing development in Lagos urban fringe

Developers were asked to rate the seriousness of challenges inhibiting the transformation of acquired land to housing development. The result is presented in Table 2 and Table 3.

Table 3: Land Acquisition and Stakeholders Challenges

1		
Challenges	Mean	Ranking
Rigorous process of title documentation and C of O	4.58	1st
Re-acquisition of land by the government	4.58	1st
Payment for different stages of development from foundation to	4.58	1st
roofing level		
Problem with omo-onile (local land vendors) re-selling land	4.50	2^{nd}
already purchased		
Allotted plots to secondary purchaser left vacant for future use or	4.38	3^{rd}
sale		
Bribe demand by government officials	4.36	4 th
Default in installment payment by secondary purchasers	4.24	5 th
Breach of contract by secondary buyers	4.22	6 th
Request for frivolous charges other than development charges	4.22	6 th
Request for annual development charge without physical	4.22	6^{th}
development		
Payment of annual development charge	4.22	6 th
J		

Note: Developers are referred to as primary purchasers while secondary purchasers are people who buy from the developers.

Developers indicated the rigours of processing title documentation and C of O is a major problem bedevilling their land activities and housing supply with a mean of 4.58; re-acquisition of land with C of O (4.58); payment for different stages of development from foundation to roofing level is also a major challenge developers faced as it also ranked 1st with a mean of 4.58. Omo-onile (local land vendors) re-selling the land ranked 2nd with a mean of 4.50, allotted plots to secondary purchasers left vacant for future use or sale ranked 3rd (4.38), bribe demand by government officials ranked 4th (4.36), default in installment payment by secondary purchasers ranked 5th (4.24), breach of contract by secondary buyers, request for frivolous charges other than development charges, request for annual development charge without physical development and payment of annual development ranked 6th with a mean of 4.22. The issues with rigorous title processing and omo-onile reselling land bought by developers have been an age long challenge. Though efforts such as digitization of land records and criminalizing the actions of omo-onile have been made. However, the challenge is yet to be resolved.

Principal component factor analysis (PCFA) was adopted further to explore the critical factors affecting land development after acquisition in table 4. The data displayed factorability potential based on Bartlett's test of sphericity. Initially, eight components were identified, and these together explained 68.501% variance, with high impact emanating from the first and second components. The scree plot in figure 3 shows a clear cut at the second nodal point. The

two explored factors together explained 36.352% compared to 68.501% of the eight factor loadings. The dominant variables on the first component signified institutional factors, and this revolves around title documentation delay, planning approval very slow and rigorous, call for regularization of title after C of O and change in policy/regulations. The second component centres on inconsistency in government policy and regulations. Components three to eight revolves around location and land not ripe for development, finance, climate change, lack of coordination between government agencies and developers on infrastructure provision, high cost of construction and opposition to fringe expansion from government agencies and local land grabbers.

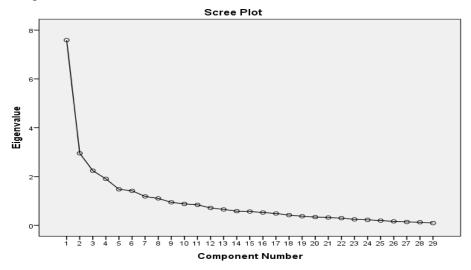


Figure 3: Scree plot on factors that affect the development of the acquired land by developers for housing development.

Component]	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumula tive %	Total	% of Variance	Cumula tive %	Total	% of Variance	Cumula tive %	
Institutional factors	7.59	26.173	26.173	7.59	26.173	26.173	3.176	10.953	10.953	
Inconsistency in government policy and regulations	2.952	10.18	36.352	2.952	10.18	36.352	3.011	10.384	21.338	
Lack of effective demand and land not ripe for development	2.24	7.722	44.075	2.24	7.722	44.075	2.49	8.588	29.925	
Finance	1.904	6.565	50.64	1.904	6.565	50.64	2.473	8.526	38.452	
Climate change	1.476	5.091	55.731	1.476	5.091	55.731	2.332	8.041	46.493	
Lack of coordination between government agencies and developers in infrastructure	1.416	4.881	60.612	1.416	4.881	60.612	2.151	7.417	53.91	
provision										
High cost of construction	1.185	4.085	64.697	1.185	4.085	64.697	2.145	7.398	61.307	
Opposition to fringe expansion										
from government agencies and	1.103	3.804	68.501	1.103	3.804	68.501	2.086	7.193	68.501	
local land grabbers										
	0.944									
10										
11										
12										
1-										
15										
16										
17										
18	0.421	1.452	91.3							
19	0.373	1.285	92.585							
20	0.34	1.173	93.758							
21	0.321	1.106	94.864							
22	0.295	1.019	95.882							
23	0.246	0.847	96.73							
24	0.227	0.782	97.512							
25	0.196	0.675	98.187							
20	0.163	0.563	98.75							
27	0.139	0.48	99.23							
28			99.669							
29		0.331 Method:								

Extraction Method: Principal Component Analysis.

(iii) Examine policy strategies in place to foster housing development

The same set of strategy variables was assessed by both the developers and government officials in order to know which strategy is acceptable by both stakeholders and otherwise. Mean item score and ranking were used to assess the most acceptable strategies by developers using a scale of 1-5 (where 5 represents very acceptable, 4 for acceptable, 3 for uncertain and considered fairly acceptable, 2 for unacceptable and I for very unacceptable). Joint venture in real estate investment between public and private sector agencies was rated first with a mean of 4.68, while infrastructure provision by government and equitable cost recovery mechanism was ranked second in position. With a mean score of 4.54, collaborative housing production policy enactment ranked third. This is followed by collaborative financing in the fourth position with a mean score of 4.38. Tax rebate for low- and middle-income residential developments and decentralization of land administration occupy the fifth and sixth positions, with means scores of 4.30 and 4.24 respectively. The provision of tax subsidy occupied the seventh position with a mean score of 4.20, while the imposition of site value tax was in the eighth position with a mean score of 4.18.

The same set of variables was administered to government officials during the semi-structured interviews conducted. The provision of title document as a form of equity partnership ranked first with a mean score of 4.13, while the provision of infrastructure such as road accessibility network and creating an equitable cost recovery mechanism ranked second with a mean score of 4.08. However, all other strategies accorded acceptable statuses by the developers were recorded as fairly acceptable by the government officials as they had mean scores below 4.0. These variables include: collaboration with primary stakeholders (developers) with a mean score of 3.67, provision of land as equity funding with a score of 3.67 and collaboration with a mean score of 3.50. Other forms of collaborations include: collaboration with a housing association (Real Estate Developers Association of Nigeria, REDAN) had a mean score of 3.45, collaboration with other built industry professionals with a mean score of 3.33, collaboration with secondary stakeholders (individuals and housing owners) with a score of 3.20, and collaborative housing production policy enactment with a mean score of 3.00.

5.0 Discussion of Findings

The activities of developers are not in any way directly contributing to assuaging the housing deficits. This is not in any way different from the general pattern of activities in the study areas. This could be attributed to some challenges as shown in table 4 and the bureaucratic process of checks adopted by the government to re-acquire the land from developers or request for ratification of land with C of O as shown in Table 3. This in line with the studies of Nolte (2014); Deininger and Xia (2018) affirmed that the risk of uncertainty in a changing environment bedevilled developers' effort.

This study has shown that challenges related to institutional frameworks have been identified as major impediments to housing development and not finance, contrary to the studies of Nubi (2000; 2015); Hedberg and Krainer (2012); Gallent and Tewdwr-Jones (2018). This is because, in seeking funding through financial institutions or alternative sources, an acceptable title document (C of O) is a paramount requirement.

This indicates that inconsistencies in government policies and institutional factors are endemically prevalent and a bane to housing development in the Lagos fringe areas. This is yet to be substantially addressed to enhance housing development initiatives of developers in the

study areas. The studies of Wen et al., (2018) Ayonga (2015), Altuzarra and Esteban (2011) Dowall (1989) affirmed that these two factors were recurrent in many emerging countries, Nigeria inclusive, where changes in policies introduced have posed challenges of time, cost and risks to undertaking new housing developments. This, therefore, calls for urgent attention given the rapid population growth and the attendant increase in the gap between housing need and supply.

On the strategies to foster housing development, the government affirmed their willingness to partner with developers in the provision of title document processing as well as infrastructure provision, majorly road accessibility network. It is, however, daunting that planning approval, land titling, and registration is still a rigorous, complex process and time-consuming process. Infrastructure is also not readily available in the study locations as evident in Table 4. Meanwhile, the strategy of partnership is not only about land provision for developers, but should also include a policy framework that provides an enabling environment in terms of finance, local building materials, and sustainable regulatory frameworks.

7.0 Conclusion and Recommendation

The involvement of developers and built environment actors is a necessary part of planning, which will help incentivize the various actors involved. The inclusion of developers in the enactment of government policies is important for the sustainable growth of the fringe areas. Moreover, fringe development requires a dynamic process, with multiple actors' involvement, and not filled with bureaucracy which slows down the process. Land titling and planning approval processes have been affirmed by developers to be rigorous, time-consuming with bureaucratic bottlenecks as a result of weak land institutions and inconsistency in policy and regulatory checks. This study, therefore, recommends the decentralization of land administration to ease the complex system of both enforcements of regulations and regulatory processes. In addition, the government should change from a managerial to an entrepreneurial mode of operation, thereby forging a strategic partnership with the private sector in land and housing development, to avert the rigorous processing of land title documentation. The government should also remove policies and regulations which serve as an impediment to timely land documentation. Changes in policies and regulations in respect of re-acquisition of land already bought by developers, for the overriding public interest, is very daunting for private developers and investments. This policy should be discouraged to enhance housing development and gradual reduction of the housing deficit.

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REFERENCES

- Adedire, F. M., Oduwaye, L., and Tony, I. (2016) Drivers of Housing Development in Ibeju-Lekki, Lagos Peri-Urban Settlement. International Journal of Innovative Research and Advanced Studies Volume 3 (10)
- Agbola, S. B. (1993). Major problems of housing in Nigeria. A paper presented at a workshop on Housing Problems in Nigeria. Green Spring Hotel, Ibadan, Nigeria.
- Altuzarra, A. and Esteban, M. (2011). Land prices and housing prices: the case of Spain. *Journal of Housing and the Built Environment*, 26, 397-409. Doi: 10.1007/s 10901-011-9235-8
- Alufohai, A. G. (2013). The Lagos State 2010 Mortgage Law and the Supply of Housing. A paper presented at the International Federation of Surveyors FIG Working Week- Environment for Sustainability, Abuja, Nigeria.
- Ayonga, J. N. (2015). Real estate development outside the city country of Nairobi and the escalation of urban sprawl: could developers be avoiding zoning-related costs in the city? *Journal of Geography and Regional Planning*, 8 (10), 261-272
- Babade, Tope (2007). Affordable housing programme as agenda for the Federal Ministry of Housing in Timothy Olugbenga Nubi, Modupe Moronke Omirin and Akintade Samuel Afolayan (Eds.), Private sector driven housing delivery. Issues, challenges and prospects: Lagos, Department of Estate Management, University of Lagos.
- Bryant, C. R., Russworm, L. H., and McLellan, A. G. (1982). *The city's countryside*, London Longman. Bramley, G. (2003). Planning regulation and housing supply in a market system. In: O'Sullivan and Gibb, (eds.) Housing economics and public policy. London: Blackwell Science.
- Colwell, P. F. (2002). Tweaking the Dipasquale Wheaton Model. *Journal of Housing Economics*, 11, 24 39
- Cozmei, C., Oforei, M., and Serban, E. (2014). The real estate behaviours in response to the tax vagaries. *Procedia Economics and Finance Journal*, 15, 1420-1427.
- Czischke, D. (2017). Collaborative housing and housing providers: towards an analytical framework of multi-stakeholder collaboration in housing co-production. *International Journal of Housing Policy*, 1-28, DOI: 10.1080/19491247.2017.1331593
- Czischke, D. (2014). Social housing organisations in England and the Netherlands: Between the state, market and community *A doctoral dissertation*. Delft University of Technology, The Netherlands.
- Deininger, k., and Xia, F. (2018). Assessing the long-term performance of large-scale land transfers: Challenges and opportunities in Malawi's estate sector. *World Development*, 104 (2018) 281–296.
- Dowall, D. E. (1989). Making land development work: the process and critical element. *Real Estate Finance*, 6 (3), 15-26
- Gallent, N. and Tewdwr-Jones, M. (2018). Rural second homes in Europe: examining housing supply and planning control. United Kingdom, Routledge, 75- 156.
- Glaeser, E. L., Gyourko, J., Morales, E., and Nathanson, C. G. (2013). Housing Dynamics. NBER Working Paper.
- Golland, A. J. (1996). Systems of housing supply and housing production in Europe: A comparison of the United Kingdom, the Netherlands and Germany. A thesis submitted in partial fulfilment of the requirements for the Degree of Doctor of Philosophy at De Montfort University.
- Gyourko, J., and Raven, M. (2015). "Regulation and housing supply." in Gilles, D. J., et al. (Eds.) *Handbook of Regional and Urban Economics 5B* (chap 19). Amsterdam: Elsevier.
- Healey, P. (1991). Models of the development process: a review. Journal of Property Research, 8, 219-238
- Hedberg, W., andKrainer, J. (2012). Housing supply and foreclosures. Federal reserve bank of San Francisco working paper series, 2012-20; http://www.frbsf.org/publications/economics/papers/2012/wp12-20bk.pdf

- Hsieh, C., and Moretti, E. (2017). Housing constraints and spatial mis-allocation, NBER Working Paper Series.
- IMF (2015). International Monetary Fund Report.
- Iyanda, B. A. (2015). Formal land ownership and housing development in Lagos State, Nigeria. *Asian Journal of Science and Technology* 6 (3), 1155-1160.
- John, Rose (2017). The Housing Supply Myth. Department of Geography and the Environment, Kwantlen Polytechnic University, Surrey, BC. Working Paper Version 1.
- Kaiser, E. J., and Weiss, S. (1970). Public policy and the residential development process. *Journal of the American Institute of Planners*, *36* (1), 30-37
- Lagos State Government (2013)
- La Cava, G. (2016) "Housing Prices, Mortgage Interest Rates and the Rising Share of Capital in the United States", BIS Working Papers, No. 572.
- Lai, N. and Wang, K. (1999). Land-supply restrictions, developer strategies and housing policies. *International* Real Estate Review, 2 (1), 143-159
- Mabogunje, A. L. (1993). "New Paradigm for Urban Development in Africa" A Keynote Address Delivered at the 1993 Annual Conference of the Canadian Association of African Studies held at the University Toronto, 12th 15th May.
- Mayer, C. J., and Somerville, C. T. (2000): "Residential construction: Using the urban growth model to estimate housing supply," *Journal of Urban Economics*, 48, 85–109.
- Meen, G. (2002). An overview of issues in housing modelling and policy. The University of Reading Paper Series, November.
- Nolte, K. (2014). Large-scale agricultural investments under poor land governance in Zambia. *Land Use Policy*, 38, 698-706.
- Nubi, T.G. (2015). Beyond bricks and mortar. *An inaugural lecture*, Lagos, Nigeria: University of Lagos press
- Nubi, T. O. (2010a). New town development in Ogun State: Issues, lessons and prospects. First National Conference, Department of Urban and Regional Planning, University of Lagos, Nigeria
- Nubi, T. O. (2010b). Towards a sustainable housing finance in Nigeria: The challenges of developing adequate housing stock and a road map. *Quarterly Journal of the International Union for Housing Finance*
- Nwoko, K. C. (2016) Land Ownership versus Development in the Era of Globalisation: A Trajectory of Conflict and Wealth Accumulation in Southern Nigeria. Journal of African Transformation, Volume 1, No. 2, 2016, pp. 77-94
- Olofa, S., and Nwosu, A. (2015). Investigating the problems associated with public private partnership in the process of housing delivery in Nigeria. *International Journal of Education and Research*, 3(1).
- Omirin, M. M. (2003). Issues in land accessibility in Nigeria. Land management and property tax reform in Nigeria, op. cit., pp. 49 70.
- Omirin, M. M. (2007). An evaluation of the effectiveness of tax incentives for private sector investment in low-income housing in Lagos in Timothy Olugbenga Nubi, Modupe Moronke Omirin and Akintade Samuel Afolayan (Eds.) Private Sector Driven Housing Delivery. Issues, Challenges and Prospects: Lagos, Department of Estate Management, University of Lagos.
- Onibokun, A. G. (1990). "A review of government housing policy and programme" Onibokun, A. G. (Ed.) Urban Housing in Nigeria. Ibadan: Nigerian Institute of Social and Economic Research (NISER). Ibadan, 1–16
- Oshodi, L. (2010). Housing, population and development in Lagos, Nigeria. Retrieved online, 18th November, 2018 from https://oshlookman.wordpress.com/2010/11/24/housing-situation-in-lagosnigeria/
- Oyalowo, B. A. (2018). An assessment of co-operative societies and housing supply in Lagos State. A PhD thesis submitted to the Department of Estate Management, University of Lagos, Akoka, Nigeria.

- Quigley, J. M., and S. Raphael (2005): "Regulation and the high cost of Housing in California," *American Economic Review Papers and Proceedings*, 95, 323–328.
- UN DESA (2018) United Nations, Department of Economic and Social Affairs, Population Division. World Population Prospects 2018, Online Edition. Rev. 1.
- Usoro, U. (2015). Effectiveness of sites and services schemes in low and medium income housing provision in Nigeria. *International Journal of Economic Development Research and Investment*, 6 (2), 39-50
- Taltavull de La Paz, P. (2014). New supply and housing price behaviour: A short revision of the empirical evidence. *The Malopolska School of Economics Research Papers Collection*, 25 (2), 1-8
- Topel, R., and S. Rosen (1988). "Housing Investment in the United States," *Journal of Political Economy*, 96(4), 718–740.
- Wang, X. and Hua, S. (2013). Influence factors of Chinese real estate. *Applied Mechanics and Materials*, 405-408, 3391-3395
- Wen, H., Chu, L., Zhang, J., and Xiao, Y. (2018). Competitive Intensity, Developer Expectation, and Land Price: Evidence from Hangzhou, China. *Journal of Urban Planning and Development*, 144(4), 04018040. doi:10.1061/(asce)up.1943-5444.000049
- World Bank (2015). Stocktaking of the Housing Sector in Sub-Saharan Africa. The International Bank for Reconstruction and Development / The World Bank, Washington DC, 1-23
- Wubneh, M. (2018). Policies and praxis of land acquisition, use, and development in Ethiopia. *Land Use Policy*, 73, 170–183.
- Yates, J. (2011). 'Housing in Australia in the 2000s: On the agenda too late?', in Gerard and Kearns (eds), The Australian Economy in the 2000s, Proceedings of a Conference, Reserve Bank of Australia, Sydney, pp 261–296.
- Zoomers, A., Noorloos F. V., Otsuki, K., Steel, G., andWesten, G. V. (2017). The rush for land in an urbanizing world: From land grabbing toward developing safe, resilient, and sustainable cities and landscapes, *World Development*, http://dx.doi.org/10.1016/j. worlddev.2016.11.016