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# Private Sector Investment Decisions in Building and Construction: Increasing, Managing and Transferring Risks: Case study of Lagos, Nigeria

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## 1.0 Introduction

The building and construction industry in Nigeria is a fast growing sector of the economy which recorded a growth rate of more than 20% between 2006 and 2007. This growth has, however, not been commensurate with the growth of Nigeria's total GDP as the overall contribution of the construction sector to the country's GDP remains very low at 1.83% in 2008. Key factors that have contributed to the growth in the construction and property sector include high demand for buildings across all sectors of the economy; the focus on infrastructural development by state and federal governments; the adoption of privatisation and commercialisation as instruments of federal government policy and attempts at controlling regulations relating to how the construction business is carried out in the country (Trade Invest Nigeria, 2012). Nonetheless, major constraints have been identified in the development of the sector. The World Bank 2011 ranking on "Ease of Doing Business" indicates that out of 183 countries Nigeria ranks 167$^{th}$ in "Dealing with Construction Permits", 97$^{th}$ in "Enforcing Contracts and 59$^{th}$ in "Protecting Investors". The number of days for dealing with construction permit of 350 for Nigeria is considerably higher than the average of 268 days for sub-Saharan countries. The bottlenecks in land acqusition, and general laxity in contract enforcements are additional regulatory impediments to infrastructural development in relation to the growth of the construction industry (Vetiva, 2011).

The real estate sector in Nigeria comprises two main segments- residential and non-residential. According to NBS (2010), residential real estate segment accounted for 93.3% of real estate construction in the country in 2008, while the non-residential real estate sector was distributed among commercial (4.6%), industrial (0.5%) and others (1.6%) for roads, bridges, ports and airports etc. Three areas of significant growth in building and construction activities in Nigeria are (i) Lagos, the commercial nerve-centre of the country, (ii) Abuja, the Federal Capital Territory which has witnessed a major rise in construction activities in the past decade, especially as population influx into the city has necessitated expansion into new towns and (iii) the Niger-Delta region, base of Nigeria's oil industry.

## 2.0 Private Sector Involvement in Real Estate Development

Given the capital intensive nature of infrastructure projects, governments have been the biggest spender on infrastructure in Nigeria. The changing landscape of infrastructure financing on the African continent has, however, resulted in increasing focus on private sector participation, especially in form of Public Private Sector Participation (PPP). Private sector investment in residential real estate development in Nigeria has been one of the responses to the limited success of governments with provision of public housing since initial efforts by the Lagos Executive Development Board (LEDB) in 1928. Public housing provision in Nigeria has consistently not been able to satisfy the demand for housing, as almost 90% of the nation's housing stock

is provided by the formal and informal private sector (FGN, 2002; UN-HABITAT, 2006; Olatubara, 2007). Analysis of the different public housing programs initiated by government between 1962 and 1999 shows that only about 14% of the planned housing units were actually completed (Ibem et al, 2011). The huge capital outlay committed into projects undertaken by private estate developers means that houses built are only affordable to individuals in the high and upper middle-income class thereby excluding the low-income and urban poor from benefitting from such arrangement.

Specific reforms introduced by government to stimulate and assist the private sector to play the leading roles in housing production and delivery include support of the establishment of the Real Estate Developers Association of Nigeria (REDAN), Building Materials Producers Association of Nigeria (BUMPAN); the reduction of interest rates on national housing fund loan to members of REDAN and restructuring of the housing finance sub-sector to include the introduction of secondary mortgage market (Henshaw, 2010). The Real Estate Developer's Association of Nigeria (REDAN) is the principal agency of the organized private sector recognized by government and approved by the Federal Mortgage Bank of Nigeria. In south west Nigeria alone, 498 real estate property firms are registered with REDAN.

While the capacity to formulate sound public policies for urban development and housing is not lacking, consistent failure of institutions and political structures, corruption and corrupt practices have hindered the successful implementation and actualisation of such policies in the country (Onakuse and Lenihan, 2007). Many builders cut-corners to get their building plans approved, thereby neglecting the safety codes as enshrined in the building plan. Although bribes are not taken by planning officials to grant unlawful development permits, officials do tacitly overlook planning and building contraventions for percuniary gains. The absence of standardized training for artisans engaged in the construction industry is another fundamental cause of construction defects which culminate in disaster risks. Eighty per cent of artisans in the construction industry are not certified and unskilled (Ede, 2011; Aniekwu and Ozochi, 2010; Kayode et al, 2008).

## 3.0 Urban Development, Flood Risks and Disaster Risk Reduction in Lagos

Lagos, the former capital city of Nigeria until December 1991, and the hub of business and economic development for the country is by far the largest and most complex urban area in Nigeria. About 70 per cent of the population in Lagos live in slums due to the inability of private and public institutions to provide land for housing or housing. The scarcity of decent and affordable housing in good locations of Lagos means poor migrants are forced to reside in areas that are either susceptible to flooding or build in such a manner that hinders flow of storm water.

### *3.1 Framework for urban development*

Existing framework for urban development in the city is guided by land use plans and zoning regulations in terms of permissible developments, height, density and

building setback provisions. Real estate developers in Lagos are expected to build according to zoning regulations. To this effect the regulatory frameworks contain provisions that provide safeguards to disaster risks e.g. regulations on the minimum setback to the ocean, lagoon, river and creeks, and gorges/canal/drainages respectively. Government also allocates land to private developers in various locations of Lagos state for building. There are however other influences other than government regulations and guidelines that affect property developer's decisions on where and how to build. These include funds available to build, target market, availability of infrastructure, affordability of cost of land, direction of urban growth (i.e. areas where a lot of developments are going on) and security. This has resulted in recent pattern in private sector investments observed in the extension of residential and commercial property into marginal lands, flood-prone and coastal areas which have contributed to increasing vulnerability of urban population to natural disasters especially floods.

There are however instances where land allocated to property developers by government in the past has resulted in present risks for the people as a result of non-consideration of possible future effects of climate change as is being experienced currently (e. g. heavier precipitation resulting in floods, fluvial flooding, increased frequency of ocean surges). Examples of this are the prime real estates along the Lagos coast especially in Lekki Phase II and the private developer's scheme in Isheri North located on the flood plain of the Ogun River.

### *3.2 Real estate development and flood Risks*

Developed land comprising residential, industrial, commercial, transportation and other use increased from 85.4 $km^2$ (43.36%) to 111.9 $km^2$ (56.8%) of the total land area of Lagos between 1986 and 2002 (Okude and Ademiluyi, 2006). Significant loss (38-100%) in wetlands as a result of urban development in coastal parts of the city was also recorded during the period 1986-2006 (Taiwo, 2009). Subsequent changes in the hydrological fluxes arising from changes in land use land cover in the urban watershed have resulted in increasing flood hazard and risk in many parts of the metropolis. Although flooding has become widespread in the city it is the urban poor in slum communities that are mostly affected due to their hazardous locations and their limited adaptive capacity (Adelekan, 2010). Lagos is presently assessed to be one of the 50 cities most exposed to extreme sea levels and is projected to experience more than 800% increase in population exposure by the 2070s. (Nicholls et al, 2007). The recent flood events of 2010 and 2011 in Lagos exposed the risks of building developments mostly by private individuals and poor urban dwellers in hazardous areas.

The large scale real estate property development in the Lekki Peninsular, the newly developing area of Lagos expansion, especially since 1983 when the Lagos state government began to allocate land here for urban development provides an example of how real estate property development is influencing disasters (Adelekan, 2010). The physical development of the Lekki Peninsular which is being undertaken with little or no consideration for sea level rise and the possible risk of coastal flooding make this rapidly urbanizing area and its growing population highly vulnerable to associated disaster risks. In the last three years real estates which

have been developed by different developers on the Lekki Peninsular and other coastal locations in Lagos have been exposed to flood risks and ocean surges. Extensive dredging and sand-filling activities taking place on the Lagos shoreline for urban development by private developers in recent years has been adduced for the increased intensity of ocean storm surges e along the Lagos coast which has affected not only the beneficiaries of such projects but also those residing in poor communities along the coast. The on-going Eko Atlantic City project is particularly considered by the public to have implications for increasing flood risks on the Lagos coast. The project being executed by a privately-owned company with the support of the Lagos State Government was initiated to undertake extensive reclamation towards recovery and protection of the eroded Lagos coastline and construction of an 850 hectare island. It is projected that Eko Atlantic City will provide a new business centre for Lagos, offering high-value residential and office space and recreational opportunities that will support some 400,000 residents and 200,000 daily commuters (van der Spek, 2009).

The exposure to flood risks in these locations has resulted in varying costs to property owners and also the public sector. While some residents in Lekki Phase II have abandoned their buildings others have remained to face the risks with the associated coping costs. The property market in Lekki has been affected and some property owners have had to sell their buildings at half the economic cost in order to avoid total loss. At Goshen Beach Estate, Lekki an ocean surge protection levy of ₦1million was placed on property owners to raise fund towards saving the estate from destruction.

The total cost of the 2011 floods in Lagos, in terms of goods and properties, was estimated by the Nigerian insurance industry as NGN30 billion (USD200 million). The 2011 Lagos floods resulted in the highest claims settlement in the history of the Nigerian insurance industry, with only one company making claims of over NGN7 billion (USD46 million). Another consortium of 10 insurance firms were said to have paid NGN1 billion as interim settlement to another company (Popoola, 2011). Yet, a broad category of properties damaged or lost to flood are not insured and are owned by middle-class and poor residents, many of whom live in informal settlements.

For the urban poor that were displaced by the severe floods of 2010, 2011 due to their location in high risk areas especially along the Ogun River and canals, huge public spending was committed by Lagos state government to the establishment of three relief camps in different parts of Lagos state and for the provision of relief materials, medical supplies and feeding.

### *3.3 Risk reduction measures*

The Lagos State Government embarked on a number of measures to reduce the exposure of urban population to flood risks. One of which is the discontinuation of development in Isheri North and physical development in other areas liable to flooding and wetlands which were initially approved for building has been stopped. Attempts have also been made to demolish buildings on drainage paths. This has, however, resulted in huge costs to the public**.-**In 2000, ₦2.93 billion was budgeted by the Lagos state government to demolish buildings on drainage paths (The

Guardian June 8, 2000). Incentives have also been provided to private developers to factor disaster risk reduction into investment in building and construction. This includes the provision of land to private estate developers at less than premium cost to discourage development arbitrarily on marginal lands.

Real estates built and maintained by private construction companies especially for the elites or high-income group have infrastructures in place to minimise disasters risks than low cost housing estates in the same zones. This is because of the huge capital outlay committed into projects, constant maintenance of estates are undertaken and the fact that prospective residents are ever willing to pay for the accommodation. Some of the risk reduction measures adopted include:

- Detailed study of sites in order to ascertain suitability for the proposed projects
- Collection of loan facilities to provide capital for the huge investments.
- Insurance of properties
- Filling of the ground with artificial earth materials in order to reinforce its strength against any disaster
- The use of piles in building to reinforce the strength of foundations; where lands are sold to private individuals, buildings are laid on deep raft foundation due to the cost of the former. This consequently predisposes the deep-raft foundation buildings to flood risks and impacts than the former.
- Maintaining the appropriate setbacks and reserve areas prone to flooding as conservation or recreational centres.
- Construction of low-rise buildings due to the nature of the terrain
- Provision of adequate drainage to convey excess runoff via underground canal to the adjoining lagoon etc.
- Further engineering correction techniques are carried out to withstand any impending disaster

These measures have, however, only partially limited the vulnerability of construction projects to flood disasters in spite of the advanced mitigation measures in place. The incentives available to aid disaster risks reduction come majorly from insurance companies who come in to indemnify for their clients in periods of disaster. Property developers however noted that most insurance firms exploit clients as they readily look out for ‘loop-holes’ to extricate themselves when claims are to be made which downplays their role in practice. Again, government does not help matters as they are only concerned about the taxes or charges accruable to them in such estates without the provision of adequate infrastructure. It was observed that the meagre incentives derived from Government came only in cases where lands are purchased from them. This is because of the relative cheaper price and the fact that documentation of the landed property is easily fast-tracked.

## 4.0 Policy Implications and Conclusions

> *"Development decisions are hinged on feasibility studies carried out by technical experts in order to determine the viability of proposed projects. Also, land that was to be acquired by the company was reported to have been owned by ten families. The company was obliged to develop the area for commercial purpose in order to defray the cost of purchase from the communal land owners. This is the rationale behind the Victoria Garden City and the Ikota Shopping Complex in Ajah area of Lagos state. The area was initially swampy but was eventually sand filled and developed".*
>
> -Private Sector Developer, Lekki-Ajah, Lagos

Based on the realities on ground with respect to private sector decisions for investments in real estate in the city, it is important that regulations for urban development take the interest of private developers into consideration. This can only be achieved if there is a strong stakeholder's engagement at the inception of policy to facilitate internal policy directions. There is need to get the feedback of property developers so that regulations will be right and based on knowledge of the operating environment. This will encourage developers in implementing the regulations. There is also the need to integrate economic considerations of developers into physical planning regulations since the cost land plays a major role in investments in real estate. When cost of land is high, limitations provided by regulations may not be worthwhile for investments by developers. Regulations on kind of development or provision for mixed development can be employed to change the value of land and enable developers to invest in disaster reduction measures. Presently, Lagos does not have any flood hazard/risk maps which is expedient for informed decision making in urban development. The fact that low-income groups cannot find or afford safer sites contributes to their exposure to flood risks as they build in areas at risk of flooding, along flood plains and in areas that should be left undeveloped such as wetlands. It is therefore imperative that a land policy, that encourages the development of housing schemes that low-income groups can afford on safe sites, be developed (Adelekan, 2010).

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