

## Incentive Zoning: An Alternative to Squatter Settlements in Abuja, Nigeria

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### Abstract

Nigeria has an unprecedented level of housing deficit, which is evident in the presence of slums and squatter settlements in its cities. Abuja, the Nation's capital, though master planned from inception, is not an exception. The rate of urbanization in Abuja has exceeded the housing stock that was planned for. In the quest to solve this problem of housing shortage, public-private partnership – a housing policy of the Federal Government of Nigeria in consonance with the United Nations' Agenda 21 – was established. The effort however failed, as the aim of private developers is usually at tangent with that of the government. To achieve the intended Mass Housing Delivery, incentive zoning (a kind of design control) should be made a requirement for Public-Private Partnership (PPP) for it to increase the housing stock while providing sustainable housing for the low and medium income earners. The aim of this paper is to investigate the socio-economic characteristics of squatters, to see the feasibility of PPP housing scheme as an alternative for squatters today with view to make the scheme more responsive. Data for the study were obtained through Questionnaire administration. Questionnaire was distributed amongst respondents in 5 purposively selected squatter settlements in Abuja, and 220 found to be valid. The locations, namely, Sauka (51 respondents), Kuchingoro (51 respondents), Kpeyegi (20 respondents), Kwali (49 respondents) and Karshi (49 respondents), were purposively selected. The data collected were analyzed using descriptive analysis. The result shows that for most squatters the public-private partnership is not any feasible alternative housing at the moment, so the need for incentive zoning.

**Keywords:** Housing stock; Incentive zoning; Public-Private partnership; Squatter settlements; Sustainable housing

### Introduction

Housing serves both economic and social roles simultaneously; hence, housing has not been strictly categorized as an economic good, even in the capitalist society. The level of importance that is attached to housing by different governments throughout the world shows how critical good housing is to every human being. Housing, therefore, is top in the agenda of most governments, as they put in place policies and other efforts to ensure the provision of housing for low-income earners.

Although past governments in Nigeria often expressed interest in the provision of housing for the populace, the strategies were of little benefit to low income groups [1]. There is an increasing pressure upon governments over the world to improve man's environment and provide housing that's adequate and affordable. But the increasing rate of housing deficit in Nigeria suppresses every idea that the government has made efforts thus far to provide adequate housing for the masses, almost to say that our government is not moved at all by the pressure. Therefore, Aribigbola [1] posits that there is the need for a dynamic approach or strategy to combat the problem of housing shortage in the face of growing population and dwindling resources of the country. So the problem is in two parts, housing deficit and housing affordability. Amongst efforts made by government is the Public-Private partnership (which was recommended by the United Nations). But the common characteristic of the private housing is the commercial inclination, so that this greater portion of the housing stock is unaffordable to the low-income earners, the target group. This problem is in no way singular to Nigeria, it's a global issue. However, a strategy in addressing this problem is Incentive Zoning.

The study therefore attempts to examine the gap between 'Public-Private Partnership Housing' and 'Affordable Housing' with a view to suggesting policy framework for the control of squatter settlements. In this quest, the socio-economic characteristics of squatters were obtained through questionnaire analysis, as it is considered as quintessential for any good suggestion bordering on housing policy, that will set 'Sustainability' and 'Low-cost housing' amongst the objectives of developers, to be made.

### Literature Review

It has been emphasized that housing is a basic need of mankind and that investment in housing has a positive role in the economic and social development of a nation [1]. According to Adeniyi, in the formulation of a national housing policy or the setting up of a National Housing Programme, three motives are particularly relevant- social, political and economic factors.

There is a need, therefore, for a dynamic strategy to combat the problem of housing shortage in the face of the growing population and dwindling resources of the country [1]. Aribigbola [1] proposed Sites-and-Services as a strategy for achieving adequate housing in Nigeria. Aribigbola [1] stated how that with this strategy, Low-income earners can erect their own buildings, and that, with phased construction, the owner can improve his dwelling according to his financial capacity; easy access to land, which are well laid out with services provided (thus providing a framework for monitoring and controlling developments); will conserve government resources. Aribigbola [1] then concluded that for his proposal to achieve the desired objective the National Housing Policy needs to be reviewed further and sites and services scheme should be emphasized as the major instrument of making accommodation to Nigerians.

Daramola et al. [2] agrees that housing delivery is one of the major problems confronting developing countries, and that the problem has remained absolutely intractable in Nigeria. Then he puts in motion that the increasing involvement of the multinational companies in

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the private partnership sector of housing provision and delivery in Nigeria is getting more and more uncomfortable for the national economy. Daramola et al. [2] concluded that the involvement of the populace is desirable for success in housing provision. Hence, he said, government's involvement should be limited to site and services level.

Steve Burroughs, who has practical experience of Site-and-Services project in South Africa, also posits that Site-and-Service is a strategy to be adopted in Nigeria. Burroughs [3] stated that 'when addressing housing, we are dealing with continuing and ever changing process and not just with projects that have distinct starting and finishing points'. To overcome the difficulties of housing the poor, and stop the growth of squatter settlements, the strategy needs to be shifted to the Self-Help Empowerment (SHE) housing [3]. In SHE, the poor who enters into the group participation programme experience an individual impact on their interpersonal and community self. Having maintained that curbing the growth of squatter communities is a major problem, Burroughs [3] concludes that SHE programme provided through the Housing Support Centre (HSC) is only one solution. The HSC provides the process wherein the services and community facilities will provide the training and expertise for the SHE which in turn will gradually provide the housing itself.

Though such project as this has been successfully carried out in South Africa, the political environment in Nigeria is not the same as that in South Africa. There may, therefore, still be a need for enabling policies to be made. A crucial problem for this strategy, Site-and-Service, in Nigeria is, 'how such policy would be made to ensure that the masses are not sidelined in allocation of the serviced plot'.

Contrary to Daramola et al. [2] that government's involvement should be limited to site and services level. Olotuah [4] asserts that though the public sector intervention in housing development has been largely unsuccessful, it has the imperative role in ensuring the optimum performance of the private sector (which has been the greater supplier of housing in this country). He also posits that economic and ecological considerations are required in policy formulation and decision-making.

## Understanding the Concept of Incentive Zoning

Incentive zoning is one technique for controlling city design. The first major attempt to introduce zoning incentives was in the comprehensive revision of New York City's zoning regulations made in 1961. At inception, the most significant design feature of the incentive zoning was a provision that a developer could achieve an increase in floor area of up to 20%, in certain high-density commercial and residential districts, by providing a plaza that met the qualification in the ordinance. Other bonuses were considered after the first usage of zoning incentive, according to provision, for arcades, and other amenities.

Zoning incentive can be about letting developers build a larger building if they provide certain desirable features or amenities, as it was at inception. This is a valuable addition to soften the rigidity of zoning regulation where undesired. Barnett [5] noted that the nature of the activities permitted by zoning is important (separating land uses into zones); he noted, however, that zoning rules created dreary courts and light wells, error that the new law corrects.

## Housing Provision, Housing Policy and Housing Need in Abuja

Abuja, which located between latitudes 8°25' and 9°25' North and longitudes 6°45' and 7°39' east, in the geographical centre of Nigeria,

was established by decree in 1976 with the charge of developing a new federal capital for Nigeria. Abuja has an approximate land area of 8,250 sq. km planned to be developed in four phases. The Federal Capital Development Authority was assigned to coordinate the development, provision, and implementation of the housing programs in the territory. There was significant influx of civil servants and their household in 1991 when the capital was officially transferred from Lagos to Abuja which heightened the demand for affordable housing. Ever since 1991 there has been a growth in the city's population. The estimated growth rate is currently at 9.3% [6], 2010, quoted by Umoh, 2012. In 1980, the FCDA began the construction of Public Housing, allocating units to the staff of different ministries in lieu of a monthly housing allowance [6]. By 1994, 22,000 units had been completed and allocated [6]. In 1992, other federal agencies, including the Federal Housing Authority and the Federal Ministry of Work and Housing had completed 1,623 housing units [6]. Despite the efforts of government in providing housing people in the city, rentals were still needed, and were supplied by the private sector. Many of these rental units were provided by small-scale developers in outlying settlements of Abuja, because of the reluctance of the corporate private sector to embark on this form of housing development on a large-scale or for low-income tenants [6]. Whereas the initial plan was that the private sector would bear 35% of housing cost, up until 1997, 95% of the cost was borne by Federal Government. However, on observation, the Private Sector was said to be able to provide more housing and serviced land to the public more efficiently and affordably [6]. Mass Housing Scheme (MHS) was commenced in 2000 under the framework of a PPP [7] with the goal of involving the private sector in the mass housing delivery. The MHS, which was a partnership between private developers and FCTA, were meant to allocate land to the Organized Private Sector, produce affordable housing units, and to develop primary and tertiary infrastructure. However, according to the survey conducted in 2012, this partnership did not achieve the much desired objectives of the program [7].

According to Ukoje and Kanu [7], FCTA did not adhere to the rule for land allocation as they were made in defiance of the specification of the agreement. For the private developers that were allotted land, the housing units not only fell short of the stipulated time, but were also unaffordable.

The major players in the private sector partnership are the multi-nationalists [2]. Some of these players include G Cappa, Jr. Boygues, Taylor Woodrow and Julius Berger, HFP, CITEC, Aima Beach Estate Developers, Seagate Estate Developers, commercial banks, insurance companies, oil companies and some indigenous contracting outfits. Whereas the efforts of some small-scale contractors have been geared towards the production of housing for the middle- and low-income groups, most multi-nationalists normally cater for the middle- and high-income groups, with absolutely no plans for the masses. So that depending on unit type and location price ranges of 15-19 million naira, 20-28 million naira, and 25-32 million naira are the costs for two bedroom semi-detached bungalows, three bedrooms detached bungalows, and four bedroom detached bungalows. This price ranges surely shows that in the housing supply, the demand of even the civil servants with monthly minimum wage of 18,000 naira was not considered.

## Methodology

Primary data on the socio-economic characteristics of squatters were collected in order to examine the proximity of Public-Private Partnership (PPP) property to the low and medium income earners.

Residents' (squatters) socio-economic characteristics were obtained through questionnaire administration. Questionnaire was distributed amongst respondents in 5 different squatter settlements in Abuja, which were purposively selected, and 220 questionnaires found to be valid. A break-down for each location indicates that 51 residents were sampled in Sauka, 51 residents in Kuchingoro, 20 residents in Kpeyeyi, 49 residents in Kwali, and 49 residents in Karshi.

Variables of the socio-economic characteristics of the people of each location were obtained as nominal or ranking data. Most of the data collected were analyzed using descriptive analysis. Percentages, mode and median, as the case may be, were thereafter computed for each location to aid comparison and generalizations.

## Analysis, Results and Discussion

The research findings are categorized under two sub-headings, socio-economic characteristics in different locations and position on housing made of mud blocks (Adobe). Unless otherwise stated, the tables presented in this section emanated from the author's field survey.

### Socio-Economic Characteristics in Different Locations

Four residents' socio-economic attributes are examined. These are the highest education level, occupation, average monthly income, and length of stay in the respective settlements. Most of the squatters in the five (5) locations except for Sauka have attained degrees from tertiary institutions. This shows that those that have not been catered for in terms of housing include those who have attained to the level of tertiary institutions (Table 1).

The survey reveals that self-employed residents constitute the majority of the population in all the study areas. Artisan and even civil servants also have a good number in these communities. Apart from others that engage in other occupations, there are the minority of the sample that engages in farming (Table 2).

The study sought to know the income group that the majority of squatters fall into: The majority of squatters in the 5 locations sampled

Highest Formal Educational Level attained	Residential locations				
	Karshi	Sauka	Kwali	Kuchingoro	Kpeyeyi
None	6 (12.2%)	9 (17.6%)	4 (8.2%)	9 (17.6%)	0 (0.0%)
Primary	9 (18.4%)	13 (25.5%)	8 (16.3%)	1 (2.0%)	1 (5.0%)
Secondary	13 (26.5%)	19 (37.3%)	18 (36.7%)	4 (7.8%)	1 (5.0%)
Tertiary	21 (42.9%)	10 (19.6%)	19 (38.8%)	37 (72.5%)	18 (90.0%)
Total	49 (100.0%)	51 (100.0%)	49 (100.0%)	51 (100.0%)	20 (100.0%)

**Table 1:** Residential locations. Source: Author's field survey, 2014.

Residential locations	Occupation					Total
	Self-employed	Artisan	Farming	Civil Servant	Others	
Karshi	24	9	1	14	1	49
Sauka	21	22	1	7	0	51
Kwali	26	8	2	13	0	49
Kuchingoro	15	5	0	18	13	51
Kpeyeyi	2	1	0	14	3	20
Total	88	45	4	66	17	220

**Table 2:** Occupation. Source: Author's field survey, 2014.

earn within the range of N15500 and N30000. In no way can this group of people afford the houses provided by Private developers which have a minimum price range of N15 to N19 million (Table 3).

Recognizing the fact that people can only require what they can afford, what is the affordability gap? Affordability gap is defined here as the difference between the required annual rent on the least expensive house (developed as a result of the PPP Scheme) and the 33% (as recommended by the International Labour Organization) that can be deducted from the total salary of a potential home owner. Taking the rental value to be a generous 2% of the sales price, the least rent would be 300,000 naira. The bar chart below shows the proximity of the PPP project to 33% of the higher boundary of the modal class (9900 naira) in the 5 residences. It is revealed that most private developers are in no way close to providing affordable housing for the low and medium-income earners in Abuja (Figure 1).

The study also revealed that the majority of squatters in Kwali have stayed in the location for more than 15 years. This shows to an extent that they content with the location likely because In summary, the variables that affirm that the PPP housing is no alternative for most squatters in the study areas till date are: Income Classification, which is associated with their occupation and their highest level of formal education attained; and the length of stay in the settlement (Table 4). The study reveals that low-income earners constitute the predominant population in the squatter settlements. The study further sought to know the portion of the population that has amongst its social characteristics the acceptance of house made of mud-blocks (Adobe).

### Position on Housing Made of Mud-Blocks (Adobe)

Majority of squatters in the five location sampled accepts Adobe as a building material. Hence, private developers should consider this and give a fixed percentage of their developments to be constructed with Adobe which will much more affordable to the masses (Table 5).

That, we may be the more conscious of the 'house-owning' capability of squatters, the structure of the monthly income of squatters in Abuja showed clearly that the provision of adequate houses costing 4.75 million on a 25 year mortgage at 6% cannot be a possible alternative to squatters, even if he devotes 50% of his earning per annum to housing. Hence, the recommendation for the strategy - such as Incentive zoning - that will set things as sustainable and low-cost housing amongst the objectives of developers. It has also been clearly shown that in the absence of some assistance, adequate housing is presently unaffordable the majority of Abuja city dwellers.

Income Group	Residential locations				
	Karshi	Sauka	Kwali	Kuchingoro	Kpeyeyi
<=N6500	8 (16.7%)	0 (0.0%)	0 (0.0%)	1 (2.1%)	2 (10.0%)
7000-N15000	13 (27.1%)	3 (5.9%)	9 (18.8%)	16 (33.3%)	3 (15.0%)
N15500-N30000	22 (45.8%)	32 (62.7%)	15 (31.2%)	27 (56.2%)	10 (50.0%)
N31500-N50000	3 (6.2%)	10 (19.6%)	11 (22.9%)	3 (6.2%)	5 (25.0%)
N51000-N100000	1 (2.1%)	6 (11.8%)	7 (14.6%)	0 (0.0%)	0 (0.0%)
>N100000	1 (2.1%)	0 (0.0%)	6 (12.5%)	1 (2.1%)	0 (0.0%)
Total	48 (100.0%)	51 (100.0%)	48 (100.0%)	48 (100.0%)	20 (100.0%)

**Table 3:** Income Group. Source: Author's field survey, 2014.

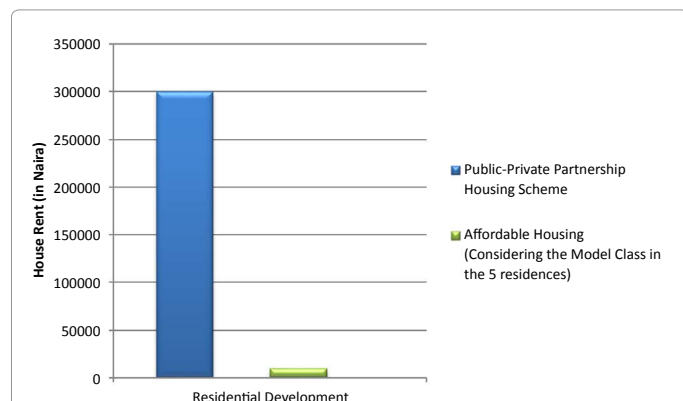


Figure 1: Socio-Economic characteristics in different locations.

Length of stay (years)	Residential locations				
	Karshi	Sauka	Kwali	Kuchingoro	Kpeyegy
1-5	33 (67.3%)	14 (27.5%)	8 (16.3%)	30 (60.0%)	15 (75.0%)
6-9	6 (12.2%)	10 (19.6%)	13 (26.5%)	17 (34.0%)	3 (15.0%)
10-14	7 (14.3%)	13 (25.5%)	6 (12.2%)	3 (6.0%)	2 (10.0%)
>=15	3 (6.1%)	14 (27.5%)	22 (44.9%)	0 (0.0%)	0 (0.0%)
Total	49 (100.0%)	51 (100.0%)	49 (100.0%)	50 (100.0%)	20 (100.0%)

Table 4: Length of stay. Source: Author's Field Survey, 2014.

Residential Locations	Can you live in a house made of mud-blocks (Adobe)?		Total
	No	Yes	
Karishi	0	49	49
Sauka	20	31	51
Kwali	9	40	49
Kuchingoro	1	48	49
Kpeyegy	3	16	19
Total	33	184	217

Table 5: Position on housing made of mud-blocks (Adobe). Source: Author's field survey, 2014.

## Incentive Zoning as an Alternative to Squatter Settlements

Just when architectural standards in the 1960s were to be based upon the "revolutionary" concepts of architecture expounded by Le Corbusier and others during the 1920s, incentive zoning was introduced to encourage developers to comply with such standards-building plazas. Today, incentive zoning is considered as a tool to eliminate sprawl, and means through which sustainability can be achieved in the built environment. Seattle, a major seaport, and Commercial Centre in West Central Washington, is a city in which incentive zoning is used as a means in providing sustainable housing. Residents in Seattle are have one common feature with the squatters in Abuja: they are modest wage workers (low and moderate income earners), who are increasingly priced out of the Seattle housing market. In stating their position on Seattle's Incentive Zoning Program, Housing Development Consortium (HDC) said that Incentive Zoning offers Seattle an opportunity to meet its goal of significantly increasing the city's affordable housing stock.

Amongst the benefits of Incentive Zoning are far more housing are produced; developers are encouraged to build affordable housing units

within the larger development, which helps to create a diverse, mixed-income, opportunity rich neighbourhoods for all people.

However, social acceptability and economic feasibility have to be considered for urban housing to be sustainable [8]. Hence, economic and ecological considerations are required in the formulation of any policy, even incentive zoning. When economic integration in areas of Abuja undergoing new developments are fostered, then not only will Public Private Partnership reach the target group (the masses), but the housing stock will also increase substantially. Government should, therefore, require developers to affordable housing as it allows private developers access to land at subsidized cost.

Based on consideration of the socio-economic characteristics of squatters, it is recommended that in Abuja:

1. Incentive Zoning Program should require residential developers to produce affordable houses in their developments alongside market-rate units.
2. Incentive Zoning should require that the affordable houses to be provided by private developer should be a fixed percentage of housing units. This will ensure that in new residential developments there is a fixed allocation affordable to low- and moderate-income earners.
3. The Incentive Zoning shouldn't leave provision for developers to opt-in, but make it a requirement for the approval of any development.
4. There should be adequate checking in the approval process of new developments, and monitoring of the development.
5. There should be the establishment of an organization that rate and reward sustainability in housing, and publish the rating of new developments in Abuja.

Surely, ensuring that there is an adequate supply of affordable housing in every new development will have positive implication for environmental sustainability, social equity, and strength of the city's economy.

## Conclusion

Housing is a primary concern in human life and the development of the society, so its sustainability is highly essential. Even as Sites-and-Services is said to be important, government involvement in sensitizing and stimulating the optimum performance of private developers is also imperative. Therefore, in the words of Olotuah [4], a comprehensive housing programme that will involve both the public and private sector should be formulated based on the housing needs of the urban areas.

This paper has described some socio-economical characteristics of squatters and made suggestions on how incentive zoning can be used as a tool for integrating sustainability in the objectives of developers. However, it must be emphasized that that this idea is only a step towards achieving one small step in this long walk of success.

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