

**THE NARROW LOT ATTACHED HOUSE AS AN ALTERNATIVE  
FORM OF RESIDENTIAL DEVELOPMENT IN URBAN AREAS OF  
NIGERIA.**

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**ABSTRACT.**

Expanding urban population and declining resource base makes it necessary for governments in developing countries to improve efficiency in the use of available limited resources, and to ensure that such resources are stretched to meet the needs of their expanding urban areas. No where is this more necessary than in the use of urban land and its associate services. This paper presents an alternative form of residential development for urban areas in Nigeria, emphasizing lower land use standards and a reduction in the cost of providing urban services and infrastructure. The existing system of land subdivision and servicing is reviewed and some of its inherent inefficiencies highlighted. The proposed system is presented and its advantages highlighted. The paper concludes on the need to question existing landuse standards and practices in order to improve efficiency in the use of our limited resources.

**INTRODUCTION**

Nigeria like most developing countries is experiencing a rapid increase in both its total population and in the ratio of the population living in urban areas. The country presently has the largest population in Black Africa, and its rate of urban population growth, estimated at between 6 and 10 percent is among the highest in the world (Taylor, 1987:435).

The rapid rate of urban population growth in the country has created a serious problem for the public sector in the provision of urban services and infrastructure, such as Water, electricity, roads, drainage and refuse collection, to meet the needs of its expanding urban areas. The situation is further exacerbated by the current economic recession being experienced and by inefficiency in the utilization of available resources. The result has been a decline in the service situation of most of our urban areas in the country.

The use of urban land provides a good example of the inefficiency in the utilization of available resources. Present regulations and practices encourage the parcelling and allocation of land in excessively large lots thereby contributing to unnecessary urban sprawl, an increase in the cost of providing services and infrastructure, and low per capital utilization of the services and infrastructure. Poor households tend to suffer most from the inefficiency in the use of resources

as they are denied access to services due to the inherent short fall in supply.

The objective of this paper is to present an alternative form of residential development, with emphasis on a cheaper and more efficient system of subdividing land and providing services and infrastructure, for urban areas in Nigeria. The paper is divided into three parts. The first part review the existing land subdivision regulations and practices in the country, pointing out some of the inherent inefficiencies in the system. The second part presents the Narrow Lot Attached form of residential development. The last part presents the advantages of the Narrow Lot form of development justifying its selection for use in Nigeria. Examples of land use regulations and practices throughout the paper have been drawn from the Kano Metropolitan area. This is for no other reason than that the author is most familiar with regulations and practices there. This notwithstanding it is believed that this paper will find relevance in almost all the urban areas of the country as there is a near uniformity in land use practices across the whole country.

#### LANDUSE REGULATIONS AND DEVELOPMENT CONTROL PRACTICES

Existing land subdivision practices and development control regulations and practices in almost all the urban areas in Nigeria have their origin in regulations and practices existing during the colonial period. These regulations and practices were introduced mostly to address issues of public health and welfare.

In Kano, the first building regulations known as the Township Ordinance was enacted in 1940. This was not altered until 1987, when it was reviewed and re-enacted as the Kano State Urban Planning and Development (Building) regulations edict of 1987 (Garba, 1992:59). The edict specifies norms and standards relating to broad aspect of the development process including plot sizes, level of plot utilization, minimum space standards for ventilation, lighting, and drainage. These standards are given with out any justification as to their derivation and are mostly derived from the reviewed colonial legislation. Little consideration was given to the present resource situation of the country, or to the affordability of the standards to the generality of the people of the state.

The regulations, for example, specify lot sizes of 180, 330, and 400 for plots of high,

medium and low density respective. In practice, however, The Land and Survey Division responsible for plot allocation in the state allocates plots ranging in size from 225 square metres (15m X 15m) to 8100 square metres (90m X 90m). These plot sizes have been shown by several researchers to be excessively large and unrealistic (Home, 1986:232; Aboesch 1982:148). Home, in fact, suggested plot sizes of 270, 375 and 400 square metres for low, medium and high density residential developments including provision for the traditional courtyard and Zaure (reception). Plots of as low as 100 square meters have also been shown to be adequate for most low income families in developing countries (Lynch, 1984:37).

Apart from the unnecessary large plot sizes, plots are also allocated with very large plot frontages ranging from 15m to 60m. Regulations also specify set backs, and restrictions on plot coverage. Setbacks are specified at 6m, 3m, and 1.5m for the front, rear and sides of plots respectively, while plot coverage is restricted to 60 percent of the total plot area.

The unnecessary large plots encourage inefficiency in the use of our limited land resources thereby restricting the amount of land that could be available for development if a more efficient system is used. It also encourages urban sprawl with an attendant consequence in the provision of infrastructure especially transportation. The large frontages of the allocated plots increases the cost of servicing residential land, stresses the limited purse of the public sector and results in the under utilization of such services as roads, electricity, drainage, sewage, telephone etc. Houses with plot frontages of as low as 4 square metres have been shown to be feasible for low income developments in many developing countries (Lynch, 1984:335).

Setbacks appear to meaningful when they are related to height of developments, in order to permit light to fall on side walks, and to allow light and air to reach the interiors of building (Barnett,1982:61). Other than that, the setbacks only serve to waste land, and result in monotonous developments and street facade as most buildings appear to have the same location. Also, the relationship of the setbacks to public health and welfare in residential developments have never been sufficiently highlighted and therefore appear obscure (Lynch, 1984:345). In a similar vein, limitation in buildable area of a plot appear to be meaningful only if it is related to the height of a development, or to provisions for the provision of courtyards to ensure the

ventilation of rooms. At present, the restrictions on the level of plot utilization only appear as an end in itself rather than as a measure aimed at achieving a specific object with regards to development.

Apart from the inefficiencies in the existing regulations, certain practices which have achieved a normative status also appear to contribute to the inefficiency in the use of available resources especially with regards to land use. Roads which are a major infrastructure cost in land development, for example, sometimes take up as much as 50 percent of the land in public residential layout schemes. Also, road width in public layouts sometimes go up to as high as 30 meters, and appear to lack any sense of hierarchy. These practices contribute to the inefficiency in land utilization, and contribute to increasing the cost of servicing, thereby restricting the amount of land available for development. This is more so, since the ratio of the car owning segment of the population appear to be very low.

#### CONCEPT OF THE NARROW LOT ATTACHED HOUSE.

The inefficiencies in the existing regulations and practices makes it necessary to review them in order to improve efficiency. It is particularly necessary to review the use of the detached form of residential development in our inner cities in order to conserve land and ensure the effective use of limited public resources. An alternative to the detached type of development that readily comes to mind is the narrow lot form of the development. This type of development has found wide and varied application in cities of both the developed and the developing world. The principles of this type of development is that plots are parcelled with very narrow frontages, going to as low as 4m, while the depths of the plot can be increased substantially to achieve desired plot areas without increasing the cost of servicing. Ratio of plot width to frontage vary from as low as 1.5 to as high as 2.5.

Other attributes of this type of development that may find application in Nigeria include:

- 1, Increase in plot frontages could be done in multiples of a module, say 1.5 or 3m thereby ensuring the availability of different types of plot to satisfy different levels of demand;
- 2, maximum and minimum plot frontages can be established, with charges for servicing

reflecting the size of a plot frontage;

3, Plots can be given out on commercial basis with plot owners paying fully for the cost of servicing. Charges can be distributed so as to discourage the demand for large plot frontages.

4, Plot can be arranged back to back to increase the distance between street service runs;

5, residential areas can be designed as planned unit developments with a hierarchical structure in both community organization and the provision of service such as roads.

#### ADVANTAGES OF THE NARROW LOT TYPE OF DEVELOPMENT

A major problem factor hindering the adequate supply and accessibility to land in developing countries is not the availability of virgin land for development, but as Dunkerely et. al. have pointed out, the shortage of financial and implementation capacity plays a major role in limiting supply. With limitation in financial capacity and an increasing urban population, it is necessary to ensure that the limited available resources are used to reach as large a segment of the population as possible. This is where the Narrow lot form of development is relevant. This form of development maximises the use of our limited resources. For example, servicing a plot of 7.5 meter frontage, will lead to a saving of 75 percent and 85 percent when compared to the cost of servicing a 30m and 60m plots respectively. In real terms, this means that 3 and 7 more additional plots can be serviced with the amount needed to service single 30m and 60m plots respectively. This savings cut across board; it covers the cost of providing infrastructure and services such as roads, drainage, electricity, telephone services, and sewerage.

Using the narrow lot system of subdivision will also lead to an increase in the number of available serviced plots for development. This will reduce any countervailing pressure to subvert the land market, and improve the access of low income groups to land. The parcelling of lot with very narrow frontages means that these plots may also become more affordable. Governments can therefore afford to charge economically for the provision services thereby enabling it to recoup the cost of servicing and to use the recouped cost as a revolving fund for the further servicing of additional plots. In the long run, this will ensure the continuous availability of ripe land for development in the urban areas.

The increase participation of the government in land development using the narrow lot system of development, and the affordability of legal lots by low income groups will give the government an extra-ability to control developments in the city centres. This should in the long run improve the efficiency in the functioning of our cities, and also lead to the creation of more pleasant environments.

Other spin ups which will spring from the use of the narrow lot form of development include the densification of our cities, avoidance of unnecessary sprawl, and the availability of more resources resulting from savings in the cost of transportation, in maintenance cost, and in the use of non-renewable resources such as gasoline.

## CONCLUSION

In the forgoing pages, we have highlighted some of the inefficiencies in our existing landuse regulations, and we have put forward a proposal for a more efficient system of land subdivision. Our aim throughout the exercise is not to prescribe a panacea for all our urban ills, but rather to stimulate discussion on existing regulations and practices which are prevailing in our urban area. Several issues in the regulations and practices beg for a review. Among these are standards dealing with provision of rooms, standards dealing with material, lighting, fire and ventilation. I hope that this paper will stimulate a discussion that will eventually lead to the review of the existing regulations in the country.

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