

**EVALUATION ON THE CONDITION OF HOUSING IN KUBWA, FCT,
ABUJA**

BY

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DECLARATION

I hereby declare that this thesis has been written by me and it is a report of my research work. It has not been presented in my previous application for degree. All quotations are indicated and sources of information specifically acknowledged by means of references.

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CERTIFICATION

The study on the condition of housing in Kubwa, FCT, Abuja, Nigeria meets the regulations governing the award of Master of Science of the School of Postgraduate, Nasarawa State University, Keffi and is approved for its contribution to knowledge.

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DEDICATION

I wish to dedicate this work to Almighty God for his guidance and protection upon my life.

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ABSTRACT

This study examined the housing condition in Kubwa District of Bwari Area Council in Abuja. The analysis suggests that households' choice of living spaces is influenced by income, facilities available and nature of the residential area. It recognizes the profound influence it has on the health, behaviour and efficiency of man and the nation as a whole. More so, the study examines the socio-economics of the people, types of building, housing facilities and the effect of bad housing condition. In gathering the data required for analysis, random sampling was adopted on the households on which a total number of 250 copies of questionnaires were administered in the entire study area and data collected were presented through the use of tables, graphs, photographs and analysis of variance. Findings on housing disclosed that majority of the buildings in the study area are residential bungalow buildings. Findings also reveals that there is high level of congestion, poor state of roads and buildings, the inefficiency of infrastructure and public services due to poor maintenance culture of residents in the study area. The study revealed that there is a level of association between the housing condition and its health, economic and social effect in the study area. Also, the inadequacy of the existing facilities which has created high occupancy ratio has invariable led to over utilization of the available resources putting the facilities in deplorable conditions. Recommendations were proffered to guide the policy makers towards enhancing the lives of the residents of the area. Some of which include upgrading programme through the provision of urban basic services and improved sanitation strategies for sustainable management of the area. Public enlightenment campaign is also recommended so that the residents will know the importance of good living condition to their health and as well to know the danger of abusing their environment.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Housing is one of the basic human needs. It ranks second after food and thereafter clothing. It is a pre-requisite for human survival (Onibokun, 1985). Housing as a unit of the environment has profound influence on the health, efficiency, social behaviour, satisfaction and general welfare of the community. It reflects the cultural, social and economic values of a society, as it is the best physical and historical evidence of the civilization of a country. Adedeji (2004) argued that housing issues affect the life of individuals as well as that of a nation; hence both nature and society ascribed great importance to the role it plays to bring about human comfort. The importance of providing adequate and quality housing in any country cannot be overstated nor disputed in time or space. It is a stimulant to the national economy. However, the re-current nature of housing needs and the unending desire for good housing tend to confirm the widely impression that there is hardly any society that has been able to cope satisfactorily with its housing requirement (Modupe, 1986). Furthermore, researchers have shown that housing can affect mental and physical health, both positively and negatively. This issue was highlighted at the United Nations Habitat I Conference held in Vancouver in 1976; during the international year of shelter for the homeless in 1987; and at the Habitat II conference held in Istanbul in 1996. Consequently, great attention has been paid in most developing countries by academics, professionals and decision makers alike to the housing problems and to the design of housing policies to combat this problem. Despite

this, housing shortages still persist in most parts of the world especially in developing world nations among which is Nigeria.

Globally, in order to meet the enormous housing challenges particularly in developing countries including Nigeria, the international community established the Habitat Agenda on housing in Istanbul to provide adequate shelter for all, achieve sustainable human settlements as well as the recognition of the primary responsibility for implementing the Habitat Agenda(Onibokun, 1985).

However, it is from this that various writers try to describe and really explain what the word housing connotes. Agbola (1998) describes housing as a collection of characteristics to provide a unique home within any neighborhood. He further defines housing as a bundle of services and an array of economic, sociological and psychological phenomena. Housing is the process of providing functional shelter in a proper setting in a neighborhood supported by sustainable maintenance of the built environment for the day-to-day living, working and recreation of individuals and families / groups within a community.

In the same vein, United Nation (UN) reaffirmed that “the concept of housing is more than a shelter; rather it encompasses all the auxiliary services and community facilities which are necessary for human well-being”.

The importance of housing was highlighted when the UN Committee on housing recommended that there should be:

Universal recognition of the access to housing is a fundamental human right and that no individual should be deprived of housing or benefits related thereon on the basis of

*ethnic origin, beliefs, age sex, social or economic conditions
nor should the cost of housing require an unreasonable share
of the total family income.*

In recent decades, there has been an increasing emphasis on the housing sector by different governments of the developing countries. Yet the adequate provision of this basic need eludes a high proportion of the population of (these countries). Although rural housing conditions are generally far from satisfactory, the problem attains its most acute proportion in the urban centers of the Less Developed Countries. A number of factors account for this, including the accelerated rate of urbanization since 1950, occasioned primarily by rural urban migration and secondly by natural increases within the urban centers themselves, non-renewal of dilapidated structures, poor facilities in existing houses, poor environmental conditions of dwellings and insufficient supply of new housing units.

(Dwyer 2001) argues that today's urban problems are reaching such dimensions on the world scale as to place them third in importance to the threat of nuclear warfare and famine. Housing of course is not the only urban problem as urban areas everywhere suffer a variety of housing, hygienic and management problem including housing inadequacy and congestion, limited water supplies and sanitation; inadequate social services; poor land management etcetera, but housing problem is clearly in the burgeoning cities of the Third World (Onibokun, 1985).

In Nigeria, the housing problem is becoming increasingly desperate as the average citizen lives in what could hardly be described as decent housing condition. This situation was depicted in a story carried by a national newspaper which described the housing

condition of a poor family of six living in a wooden shelter at Ijora-Bachiya, Lagos Agbola (1998).

The author explains: they occupy two small rooms which could pass for one standard 12 by 12 feet room. The toilet facilities are nothing to write home about – roofless Zinc structures erected on a suspended surface over swamp. Two planks which serve as a foot bridge link the main house to the toilet section. A round hole carved out from the wooden floor of the latrine serves as clarity through which tenants defecate into the swampy surface. A dug out well at the front of the household provides water for bathing and other household washing. Drinking water is obtained some four poles sway from a public tap-joint efforts of their neighbors.

The situation highlighted above describes the daily living condition of millions of Nigerians either in the rural or urban areas. The sad thing note here is that the situation is not the same everywhere. It is basically different in more privileged areas occupied by highly placed public servants and private employees as well as the well to-do-in the Nigerian society.

The growing scale of inadequate shelter in Nigerian urban areas has spanned not only the living habits but also unconventional ways of living. In some parts of Lagos for instance, these involved hazardous occupations and economic activities like caretaker agreements, rental of shanties in unfinished buildings or rental of a sleeping place in warehouses or in a store extension, a garage or some other commercial space in which goods are stored but which the workers use as their sleeping places and sometimes illegally sublet to friends. Others pitch their tents under overhead bridges or in workshops used by craft workers and artisans. This crowded living conditions bring them other problems of over

population, poor water supply, sanitation, drainage, inadequate facilities for the removal of household wastes, refuse disposal etcetera.

Other problems of urbanization and hence housing problems that informs the relocation of the FCT to Abuja include the difficulty of the Lagos State Government in getting Federal Government establishments to comply with housing and town planning regulations which contributed significantly to the poor planning system of metropolitan Lagos; the city congestion in Lagos made life extremely difficult for the inhabitant and visitors from within and outside the country who had business to transact therein and drainage has been a problem of immense magnitude Agbola (1998).

These problems stated above among many others contributed significantly to the relocation of the FCT in Abuja. However, some of these problems have started manifesting in Abuja and have assumed an alarming proportion in some cases. An urgent step is required to prevent the re-occurrence of the problems of Lagos in the nation's new capital, Abuja.

In seeking solution to the housing problems in Nigeria, various regimes in the past have demonstrated their interest in providing public housing or subsidized low medium and high cost housing units for the people. This gained a boost at the inception of the 1979 constitution where all the then five political parties made housing a priority in their parties' manifestoes. To endorse this move, the then President of the Federal Republic of Nigeria, Alhaji Shehu Shagari declared. Good shelter is recognized by our government as the right of every Nigerian will require millions of additional housing units in urban as well as rural areas. An elaborate national housing programmes was embarked upon in 1980 based on the concept of affordability and citizen participation.

1.2 Statement of problem

It has been reported that about five million avoidable deaths occur worldwide (Abiodun 1997) each year due to poor housing conditions, and between two to three million people would not become physically disabled, if housing conditions were good throughout the world.

If one considers the above in the light of world's population of five billion as at 1987, the housing situation will be worse than the picture presented above. – To be able to overcome these problems the UN went further, it is estimated that the world would need about 500 million housing units in the next 20 years; of this number, Africa will require about 375 million units while the rest of the world require 125 million units, constituting in percentage terms 75 percent and 25 percent respectively. Africa, it is believed has the next highest rate of urbanization in the world beside China and India, thus, much of the growing population are said to be absorbed in city Slums and squatter settlements. The calamity appears worse in the rural areas of Less Developed Countries where about 70 percent of the homes have been declared unfit for human habitation. Nigeria's housing condition is not any better from the global situation highlighted above, it is perhaps as bad as in many another developing countries. For instance, Nigeria's urban housing stock is put at 2.9 million, whereas annual urban housing needs requires an additional supply of 3.6million to rectify the situation. A conservative estimate suggests that there are "three and a half persons per room in Nigerian cities, contrary to the internationally accepted norm of two persons per room".

The problem of housing in Abuja has become enormous and complex, exhibiting apparent and marked differences in areas. In most of the areas in Abuja, the problem is

not only restricted to quantity but also to the poor quality of available housing units and the environment. The result is manifested in growing overcrowding in homes and increasing pressure on infrastructural facilities and rapidly deteriorating environment. The scenario is only slightly different in the rural areas of the city where the problem is primarily that of quality of housing and inadequacy of infrastructures like roads, drainages, pipe borne water, electricity etcetera.

The past and present regimes have made effort on the need to provide good housing to the people of the Federal Capital Territory, (FCT) Abuja to cope with her role of being the capital of the Federal Republic of Nigeria and to resolve the thorny urban housing problems that confronted Lagos. Yet, it is clear that after more than twenty years of the commencement of the construction of the FCT Abuja and almost fourteen years after FCT Abuja officially acquired the status of capital of Federal Republic of Nigeria 1991, the housing situation in Abuja is not a pleasant one particularly among low and medium level employees of government, construction workers, corporate bodies, artisans and craftsmen among many other categories of inhabitants, inspite of billions of naira so far spent and millions of naira budgetary allocation to the housing sector.

To achieve this, the housing situation in FCT Abuja sought to provide answers to the following questions:

- (a) What are the socio-economic activities of the people?
- (b) What are the types of building in the study area?
- (c) What are the housing facilities in the study area?
- (d) What are the effect of bad housing condition?

These are some of the unanswered questions that prompted the researcher to undertake this study.

1.3 Aim and Objectives of the study

The aim of this study is to examine the condition of housing in Kubwa, Abuja, Fct. Specifically the study is to achieve the following objectives.

- i. To examine the socio-economics activities of the people.
- ii. To determine the types of building in the study area.
- iii. To examine the housing facilities in the study area.
- iv. To examine the effect of bad housing condition.

1.4 Hypothesis tested

H₀: There is no significance relationship between housing condition and its health, economic and social effect in Kubwa, Abuja, FCT.

H₁: There is significance relationship between housing condition and its health, economic and social effect in Kubwa, Abuja, FCT.

1.5 Scope and limitation of the research

The scope of this study covers Kubwa, Abuja, FCT.

The main criterion for the choice of center is for convenience of data collection because of familiarity with the source of data. Furthermore, this area is fairly urbanized with FCT having a projected population of 2,238,751 in 2011 population figure. This figure is much higher now with the relocation of more Ministries, Agencies, Embassies and other commercial activities.

This study is limited on the grounds of time it covers, the period 2016-2017. Also the fact that this study is limited to partially fulfill a course requirement within a given period implies a time constraint.

In spite of these shortcomings, efforts were made to bring up to-date useful data as well as other relevant information in line with the topic under study.

1.6 Justification of the research

One may perhaps be tempted to ask why emphasis is being placed on housing. Firstly of all man's basic needs, housing arguably, constitutes and indeed poses the greatest challenge. Secondly, a vigorous and buoyant housing sector is an indication of a strong programme of national investment and is indeed the foundation of and the first step to future economic growth and social development. Housing generally has remained an interdependent phenomenon that affects every facet of mankind and it represents one of the most basic human needs which no doubt has a profound impact on health, welfare and productivity of every individual irrespective of socio-economic status, colour or creed (Ifenna, 2008).

However, one of the problems facing the study area is the problem of housing. Most infrastructural facilities related to housing are drastically deteriorating such as unkempt drainage system, building sinking into the ground, indiscriminate waste disposal, and illegal electricity connection among others. All these problems can lead to loss of lives and properties in the area. The study area is one of the areas that is experiencing housing problem in Abuja, FCT, and it need urgent attention, to address the issue. In order to improve the physical and the socio economic activities of the people.

1.7 Significance of the study

Housing has been universally accepted as the second most important essential human need after food. Housing in all its ramifications is more than mere shelter since it embraces all the social services and utilities that go to make a community or neighborhood a livable environment.

Though many studies and commentaries have been made on urban housing problems and the consequences on the environment, none of them was however bothered with the in-depth, study and analysis of the housing condition in FCT Abuja. Better still, there is limited documentation of these conditions, thus this study was necessitated by the need to provide up-to-date analysis of the housing conditions in FCT Abuja and it is believed that the findings, conclusion may provide a guide to those in power and policy makers to reduce or eradicate housing conditions in FCT Abuja.

1.8 Research constraints

There are some limiting factors that directly or indirectly affected the conduct of this research. Some of the factors that limited the work to an extent are indicated as follows:

Financial limitation is one of the major problems the researcher encountered and this hindered movement to some important places of interest. Lack of fund also hindered the researcher from carrying out more findings in the study area. Also, local key informants and interviewees demanded for financial inducement before giving out useful information. This is not proper, but the researcher being a student could not meet up with such financial demand. The researcher experienced difficulty in getting documentary

materials about the various communities involved as much work have not been done on the study area.

Finally, lack of trust on the side of the informants also posed as hindrance, some of them objected to the researchers taking their photographs due to fear of the unknown or for security reasons. Despite all these, the researcher was able to obtain information which played vital role for the successful completion of this work.

CHAPTER TWO

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

2.1 Literature perspective

The World Health Organization (WHO) describes housing as residential environment which includes the physical structure used for shelter, all necessary services, facilities, equipment's and devices needed or desired for the physical and mental health and social well-being of the family and individuals. The United Nations Ad-Hoc Group of Experts on Housing and Urban Development equally asserted that housing is neither a mere shelter nor household facilities alone. It is an essential need that comprises essential services and facilities, which make up a physical environment that link such individuals and his family to the community in which it evolves. Therefore, environmental amenities like waste disposal, water supply, and road access and location services implied by the special links between necessary economic and social infrastructure like education, health and recreation are all parts of the package of services designated as housing (Aribigbola, 2001).

The United Nations Habitat Report (1989) affirmed that a large proportion of the third world's urban population lives and works in very poor condition. Apart from the fact that the poor inhabit many different low quality forms of housing, there are two other basic environmental problems that are evidently noticeable. One is the presence of pathogens in the human environment due to lack of basic infrastructure and services. The second is crowded and cramped living conditions.

During the design process of human shelter, certain determinants deserve consideration, irrespective of prevailing socio-economic condition and attendants, materials and

technologies. To this, climate has been examined to be a determinant of building form and of the choice of materials and constructional techniques. Reviewing into the past, many authors have given various ideas about the origin of mass housing for the public as regard their important and problems. Among these are Onibokun (1990), Anyanwu (1998), George (1999), Omole (2000) and Aluko (2009). Above all, it is necessary or essential that the right kind of organization be put in place by management firms with appropriate built-up fledged housing management department that see to the co-ordination of elements to be applied in management decision.

It is pertinent to note that millions of people still live in indecent housing in informal urban settlements lacking basic services such as; clean water, sanitation, basic roadways or footpaths, and drainage. This is a common phenomenon in Lagos urban centers. The impacts of service failures and indecent housing on health, livability, prosperity and sustainability of human settlement cannot be over emphasized. Housing in its present day definition is more than just shelter as it include the environment and all necessary infrastructures that make life comfortable. Housing is a key determinant of quality of life that can be measured at individual, household, and community levels (Agbola, 1998). It has economic, social, and psychological and physical significance which support community functioning. The need for adequate and decent housing currently forms the central focus and an integral component in National strategies for growth and poverty reduction. However, evaluating the conditions require appropriate methodology (Francescato, Weidemann, & Anderson, 1989). Decent and affordable housing is one of the basic needs of individuals, the family and the community at large and being a pre-requisite to the survival of man it has significant impact on man's health, livability,

prosperity, efficient, social behaviour, satisfaction and general welfare of the community at large.

However, studies show that housing problem in developing countries' cities as exemplified by Buenos Aires (Argentina) Lagos (Nigeria) and Allahabad (India) is not only limited to quantities but also qualities of the available housing units and the environment (Cairncross, Hardoy, & Satterthwaite, 1990). The problem is more pronounced in urban informal settlements where overcrowding, congestion and inadequate facilities have become order of the day. These problems are compounded by lack of legal title (secured tenure) of the residents. It has been argued at different fora that security of tenure is one of the most important catalysts in stabilizing communities, improving shelter conditions and provision of decent and adequate housing for the urban poor who are mostly accommodated in informal settlements that are also characterized by poor environmental conditions (UN-HABITAT, 2008).

The environmental quality of urban areas has tremendous impact on the health status of all urban residents. While the entire urban population suffers from poor environmental quality, the urban poor tend to be the most vulnerable as they are often living in marginalized parts of the city (UN-HABITAT, 2006). Their situation is further amplified because they lack sufficient resources to invest in infrastructure improvements. The negative consequences of poor environmental quality impact every aspect of their lives as well as the livability and health of the community at large. Healthy cities require safe, easily accessible, and affordable water; sanitation; safe home and work environments; clean air; and reduced exposure to disease pathogens (Ashton, 1992). Poor housing conditions, exposure to excessive heat or cold, diseases, air, soil and water pollution

along with industrial and commercial occupational risks, which are inherent features of informal urban settlements and their dwellers, exacerbating the high environmental health risks for the urban poor. Lack of safety nets and social support systems, such as health insurance, as well as lack of property rights and tenure, further overwhelm the urban poor.

2.2 Conceptual framework

The project was based on some certain concepts. These include HousingConcept, Sustainability Concept and Concepts of Privatization.

2.2.1 Housing concept definition

Economic literature draws special attention to the concept “housing”, however, there is no common definition. The researchers explain the concept “housing” differently. For example, Smith (1776) defines the housing as a commodity; Ricardo (1817) as tangible asset with potential return; Jevons (1871) as fixed asset regardless the housing is owned or rented; Marshall (1890) as a capital that is similar to the machine, if it is operated by a worker, but as a commodity if it is not operated. Grimes & Orville (1976) explain that in the past the concept “housing” was associated with a physical phenomenon, and the policies of countries for its provision mostly are related with construction costs that may largely vary depending on the type of construction material, various housing standards and construction quality.

Within framework of housing policy the researcher Torgersen (1987) explains the concept “housing” as “the wobbly pillar under the welfare state” because in contrast to

the health and education provision, the state does not see its role as the main service provider in this field.

In the course of time the approaches for characterization of the concept “housing” have changed which depends on both the change in the politics, economics and other fields. Webster’s dictionary as one of the explanation for concept “housing” gives the following: housing means dwellings provided for people. Business Dictionary defines housing as building or building structure complying with requirements of laws and regulations and where the individuals with their families may live. Similar definition for the concept “housing” is provided in Macmillan Dictionary where the housing is defined as buildings for people to live in.

The concept “housing” has a similar concept “house” which was described by Melnikas (1998) as a specific and relatively limited, physically, biologically, socially close place where people and groups of people can live their biosocial life, by receiving services, performing house chores and other biosocial activity.

Melnikas (1998) considers that nowadays more attention is focused on the benefits and costs of housing, i.e. having the housing comfortable, convenient and appropriate, but at the same time also energy-efficient; the costs of its purchase, construction and maintenance should be proportionate to the benefits that can be obtained from this housing.

Researching the housing stock as an element of regional socio-economic development Sidełska (2014) uses the concept “housing” as real estate or its part in the building, including non-residential building that is used for dwelling purposes all year round (..).

The Central Statistical Bureau (CSB) for statistical purposes defines the concept “housing (housing unit)” as separated and independent place of residence, intended for living for one household, or place of residence, which is not intended for living, but which was used by the household during the census as a permanent residence. “Housing” includes occupied conventional dwellings and other housing units. Usually the housing has fixed address (Central Statistical Bureau, 2005).

Taking into account the above mentioned the author concludes that in FCT, Abuja there is no distinct link between the term “housing” defined in the laws and regulations and policy planning documents. It is not clear why within the period of 20 years no legal act has been developed to clarify the concept of housing and the related aspects. In FCT, Abuja there is a need to develop a common definition of housing, which should be set by the laws and regulations in order to address the short comings in existing laws and regulations and to create common terminology in the housing sector.

The author has offered a general definition for the concept of “housing” that is more suitable for the research problem housing is a building or part of a building where a household can live all year round and which meets certain statutory requirements, including also residential address.

2.2.2 Privatization Concept

Privatization as a concept is not a new concept, and very little has changed in the concept of privatization from even as far back as the 1930'. Perhaps the biggest single change in the current privatization environment in the area of social and human services is the possibility of private companies being contracted to administer entire public funded

system. According to the World Bank, privatization “is the transfer of ownership of state owned enterprises (SOEs) to the private sector by sale(full or partial) of going concerns or by sale of assets following their liquidation.” It is also term refers to the shifting of the provisions of service from the government to private sector.

Privatization is generally understood as a kind of transaction by which state property is transferred to private hands. Yet, the concept of privation is much broader than that, for it is not only public property but also public functions that should be privatized. The form of privatization can also be diverse, starting from the sale of state assets and ending with the state renouncing certain functions and its interference in people’s private affairs. Even the bankruptcy of state structure losing in the competitive fight with the private sector can be viewed as privatization (Simasius, 1997).

In Nigeria, there is an increased drive towards privatization of state owned Enterprises. The objectives of the privatization and commercialization programme according to the Director-General Bureau of public Enterprises are to Melnikas (1998):

- Restructure and rationalize the public sector in order to lessen the dominance of unproductive investment in the sector;
- Re-orientate the enterprises for privatization and commercialization towards a new horizon of performance improvement, viability and overall efficiency;
- Raise funds for financing socioeconomics developments in such area as health, education and infrastructure;
- Ensure positive returns on public sector investments in commercialized enterprises, through more efficient management;

- Check the present absolute dependence on the Treasury for funding by otherwise commercially oriented parastatals and so, encourage their approach to the Nigeria Capital Market to meet their funding requirements;
- Initiate the process of gradual cession to the private sector of such enterprises which are better operated by the private sector;

According to Simasius (1997) “It does not necessarily follow that the transfer of state owned property to private hands proclaims pursuit free market principle. It is important to private government functions, such as social security and education. The success of privatization will, to a great extent depends on the suitability of its mechanism.

2.3 Condition of housing in Nigeria

One major challenge militating against sustainable housing and urban development in most developing countries is that of spontaneous and uncontrolled urbanization (Misilu, Nsokimieno, Chen and Zhang, 2010). It has been observed that rapid growth in urbanization is a characteristic of the developing countries, and this has been particularly so since the 1950s. This is manifested in the high annual growth rates attained by agglomerated settlements (Abiodun, 1997).

Existing studies on housing situation in Nigeria, especially in urban areas however reveal acute housing problems expressed in both quantitative and qualitative terms (Abiodun, 1983; Onibokun, 1985; Aribigbola, 2000). Awotona and Ogunshakin (1994) noted that a larger proportion of the population in Nigeria lives in substandard and poor housing. The reality of this scenario is that the urban house forms in Nigeria accommodate extended

family, living with many inconveniences, while spatial congestion and overload of infrastructures cause problems in living comfort.

The rapid urbanization and poor economic growth have compounded the problems of inadequate housing in Nigeria (Okoye, 1990). These housing inadequacies, particularly for the low-income group, have been complicated by high rate of population growth, inflated real estate values, influx of rural immigrants, deplorable urban services and infrastructure, and a lack of implementation of planning policies (Oladunjoye, 2005; Olotuah, 2000). The reality of this situation is that existing housing stocks are inadequate to cater for the increase in population. The situation in Lagos for instance, which is the most urbanized city in Nigeria, has become so pathetic such that overcrowding, slums and substandard housing as well as unhealthy and poor environmental conditions are manifestations of this problem. Besides the acute shortfall in housing supply in relation to demand, the majority of dwellings in the hinterland – mostly owned by the indigenes, remained unplanned (Abiodun, 1997; Oduwaiye, 2009). Since housing remains a social responsibility of every government, and to a large extent, the health of a country and well-being of its people depends on the quality, condition and level of success in the housing sector (HC, 2003; Gilbertson, Green, Ormandy and Thomson, 2008). It is imperative that appropriate policy framework be put in place to address the urban housing problems necessitated by rapid urbanization in Nigeria.

A study carried out by Onibokun (1990), put the nation's housing needs estimates for 1990 to be 8,413,980, 7,770,000 and 7,624,230 units for the high, medium, and low income groups, respectively. The same study projected the year 2000 needs to be 14,372,900, 13,273,291 and 12,419,068; while the estimates for the year 2020 stands at

39,989,286, 33,570,900 and 28,548,633 housing units for high, medium and low income groups, respectively. The National Rolling Plan from 1990 to 1992 projected the housing deficit to increase between 4.8 million to 5.9 million by 2000. The 1991 Housing Policy estimated that 700,000 housing units needed to be built each year if the housing deficit was to be cancelled. The document, in fact, indicated that no fewer than 60 percent of new housing units were to be built in the urban centers (Ogu and Ogbuozobe, 2001; Federal Republic of Nigeria, 1991). This figure had increased at the time the 1991 Housing Policy was being reviewed in 2002. In 2006, the Ministry of Housing and Urban Development declared that the country needed about ten million housing units before all Nigerians could be sheltered.

2.4 Past and present government interventions in housing delivery in Nigeria

A brief look at past and present housing policies and programmes in Nigeria focuses on four periods of government intervention in housing delivery. These include the colonial, post-independence, second civilian administration and post second republic periods till the present date (Federal Republic of Nigeria, 1991; Achunine, 1993; Olotuah and Babadoye, 2009).

2.4.1 Colonial Period

Government intervention in housing in Nigeria started in earnest right from the colonial era. Housing policies and activities in Nigeria during this phase of official intervention were mainly center on the provision of quarters for expatriate staff as well as selected indigenous staff in some specialized occupations like railways and police, a situation that led to emergence of the Government Residential Areas (GRAs) in Nigeria. The

underlying idea in the establishments of the GRAs was to create conducive environments for the expatriates comparable to the living conditions in their respective countries. Their housing quarters were well planned, with all the possible comfort, services and amenities; including water, closed sewers, electricity, and abundance of open space and recreational areas. The idea of housing reservation was thus initiated and implemented in Lagos and in regional and provincial capitals throughout the country.

The Surulere housing scheme in Lagos, which was established in the late 1950s, was partly designed to provide temporary residential housing for the displaced people from the slum areas of Central Lagos. The scheme however became permanent housing for such families as a result of problems associated with the re-allocation of redeveloped land in Central Lagos (Abiodun, 1985). The need to clear the slums in Lagos gave birth to the Central Lagos Slum Clearance Scheme in 1995, which opened up Apapa and later Victoria Island as high and low density areas of Lagos. The Lagos Executive Development Board (LEDB) in a bid to find solution to the public housing problems in the Lagos metropolis established the following schemes:

- Akinsemoyin and Eric Moore Housing Estate, Surulere;
- Freehold Housing Scheme and Site and Services Estate at Surulere, Apapa, Southeast and Southwest Ikoyi, Lupe and Isolo Estates;
- Workers Housing Estate and Re-Housing Estate;
- Workers Housing Estate (Phase II), Surulere (Aribigbola, 2000).

Housing corporations, in 1958, were established by the Western Regional Government, an act that was soon emulated by other regions. The primary and major functions of the housing corporations were the construction of housing units for sales to members of the

public and the issuance of loans to whoever wished to build their own houses on their land (Onibokun, 1985).

2.4.2 Post-Independence Era (1960-1979)

Emphasis in official intervention in the housing sector during this period was laid on the five-year development plans as instruments for economic growth. In the first two plans (1960 - 1970), the situation in the housing sector worsened as the plans were poorly implemented. This was further compounded by the outbreak of the civil war, especially in the war affected areas. The third plan, which spanned from 1975 to 1980 spilling over to the second civilian administration, witnessed some improvements. Within this period, government recognized the housing problems and saw the necessity to increase the provision of housing infrastructure to a substantial level through government participation. Federal Government's housing interventions through some of its agencies include:

- The Nigeria Army Housing Scheme;
- The Nigerian Police Force (NPF) Housing Scheme;
- The Nigeria Port Authority (NPA) Housing Scheme; etc.

2.4.3 Second Civilian Administration Era (1980-1983)

This era saw a steady increase in interest by the public sector to be involved in housing delivery, and ushered in an epochal recognition by government of the importance of the housing sector within the overall economy. Most of the strategies and activities during this period had public's involvement in the provision of shelter as their common feature.

Despite the increased public interest in the housing sector, the period witnessed huge failures. When government allocated N1.9 billion for housing construction to the twenty states of Nigeria existing at that time, only little tangible impact was felt. By June 1983, N600 million (37.5%) had been spent to complete only 32,000 units, yielding an overall achievement level of 20 percent (Federal Republic of Nigeria, 1991).

The period coincided approximately with the fourth national development plan period. It witnessed the continued increasing deficit on urban housing as well as its continuous deterioration in the rural areas. The beneficiaries of this programme were identified as the low-income earners whose annual income did not exceed N8000. It is pertinent to mention that this phase of the programme failed to take off in most states, and that the shelter policy came to an abrupt end in December 1983, making way for a fresh look at the shelter sector which has culminated in the new National Housing Policy.

2.4.4 Post Second Republic Period till Date (1984 to 2006)

Much activities in the area of housing was not done at the onset of this period as it has been very much transitional, in which the Federal Government was preoccupied with the preparation of a new and more relevant National Housing Policy. This policy was finalized and launched in February 1991. The policy has since become operational as the detailed modalities for its implementation have been put in place.

The under-performance of the National Housing Policy in meeting its set goals and objectives led to a comprehensive review, which culminated in the Housing and Urban Development Policy of 2002. The new National Housing Policy was proposed in 2002, and its first draft, came into publication in January 2004. The major thrust of the Housing

and Urban Development Policy is to meet the quantitative housing needs of Nigerians through mortgage finance. The policy was revised in 2004 entailing strategies for housing provision and the institutional framework for it. As proposed by the Presidential Technical Committee on Urban Development and Housing, the framework for its operation involved restructuring of existing structures and the creation of new ones, and the International Review of Social Sciences and Humanities, Vol.2, No.1 (2011), 176-185 \promulgation of new laws. These include: Employees Housing Scheme (Special Provision) Act (Cap 107); Land Use Act 1978; Mortgage Institutions Act, 1989 (Cap 231); Federal Housing Authority Act, 1990 (Cap 136); and National Urban Development Policy of 1997, among several others. The housing reforms also involved the establishment of the Federal Ministry of Housing and Urban Development which is saddled with the responsibility of adequately addressing the complex problems of the urban sector (Oladunjoye, 2005).

2.5 Role of the Federal Housing Authority (FHA)

- Develop and manage real estate on commercial basis in all states of the Federation and the Federal Capital Territory (FCT);
- Provide sites and services for all income groups with special emphasis on the No-income and Low-income groups. The funds for providing for these two groups shall be provided by the Federal Government and other sources;
- Provide No-income and Low-income, cooperative, rental and rural housing in all States of the Federation and the Capital Territory from funds provided by Government and other sources;

- Execute such housing programmes in the public interest as may be approved by the Federal Government; and
- Mobilize off-shore funding for housing development.

(Federal Republic of Nigeria, 2006).

2.6 An appraisal of government's housing delivery policies in Nigeria

Doubtlessly, some of the past policies and programmes for development in Nigeria were contextually and practically relevant in addressing popular needs. Undeniably, some of the policies initiated by the government at both the federal and states levels in meeting the housing needs of the people are steps in the right direction as such actions, however minimal, have alleviated the problems of the acute shortages of services and facilities in housing, as well as defusing the persistent housing tension among the low-income group in the major urban areas (Jiboye, 1997). However, considering the scope and magnitude of the housing problems necessitated by spontaneous urbanization as well as the slow speed and weak content of official intervention in addressing the developmental challenges, some of the outcomes of these actions are unidentifiable. Some of the reasons identified as responsible for these shortcomings are outlined as follows:

- 1) In Nigeria, it is evident that the planning, programming and implementation of the mass housing policy and programmes suffer grossly from planning inconsistency and weak organizational structures due to political instability, and over centralized mechanism of decision making and execution (Jiboye, 1997; Adeniyi, 1978). For instance, most of the houses built by government tagged low-income housing are rather too expensive and out of the reach of the targeted low-income group. Also, many of the

housing units were located many kilometers away from those who require them and from the functionally active boundaries where socio-economic activities take place within the cities (Olotuah and Babadoye, 2009).

2) The involvement of the public sector in housing in Nigeria has been more of policy formulation than housing delivery. Despite huge allocations of money to the housing sector in the National Development Plans, very little was achieved in terms of meeting specified targets in housing construction (Jiboye, 1997; Atolagbe, 1997). This is especially true for direct house construction programme. A number of reasons can be adduced for this, which include: wrong perception of the housing needs of the low income earners, who incidentally constitute the vast majority of urban dwellers; the proposal of typical housing that is not rooted in the different Nigeria's climatic, cultural and socio-economic environments; improper planning and poor execution of housing policies and programmes; undue politicizing of government housing programmes and the lack of the political will and astuteness to carry out government housing programmes to logical conclusions, and insensitivity of government to the operations of the private sector in housing delivery (Olotuah and Babadoye, 2009; Ademiluyi and Raji, 2008).

There is no doubt that the magnitude of the quantitative housing needs of Nigerians is enormous considering the rapid increase in population, and the rate at which urbanization is occurring in the country (Olotuah, 2009). Also to be considered is the level of inconsistency by the government in its approach and strategies aimed at achieving the goal of the National Housing Policy, as housing matters are constantly transferred to different government ministries from one government regime to the other. For instance, the housing reforms embarked upon by the Federal Government (1999 – 2007) involved

the establishment of the Federal Ministry of Housing and Urban Development. The ministry was, inter alia, to supervise the Federal Mortgage Bank of Nigeria, especially in the disbursement of loans from contributions into the National Housing Trust Fund. This ministry was later scrapped, and in its place, a new Federal Ministry of Works and Housing was created to perform the same responsibilities (Olotuah and Babadoye, 2009).

Despite various inadequacies in the existing housing policy framework in Nigeria, the indispensability of public sector intervention in housing delivery must be emphasized, especially for low-income earners. Since housing is essential for man's existence and the development of human potential, its adequacy, both qualitative and numerical enhances the health, welfare and productivity of the individual and consequently the wealth of the nation (HC, 2003; Gilbertson, Green, Ormandy. and Thomson, 2008). Government has a social responsibility therefore to ensure adequate housing provision for the people. In order to achieve this goal, there is the need for a redirection and redefinition of existing policy framework which should be made relevant to the present developmental needs and realities, and formed within the context of global sustainable housing and urban development realities.

2.7 Housing provision in the FCT

2.7.1 Background and Historical Development of the FCT, Abuja

The Federal Capital Territory (FCT), Abuja became the new administrative capital of Nigeria on 12th December, 1991. Abuja city is located in the central part of Nigeria north of the confluence of the Niger and Benue Rivers and lies at latitude 9° 07'N and longitude 7° 48' E (Fig 1).



Figure 2.1: Map of Nigeria showing Federal Capital Territory, Abuja

It was established when it was discovered that Lagos, the Nigeria since 1914, could no longer serve the dual role of both the state and federal capital. The problems experienced with Lagos include acute housing shortage, traffic congestion and overstressed infrastructure. In order to solve the enumerated problems of Lagos, a new Federal Territory, with Abuja as the Federal Capital City, was created. The Abuja Master Plan's projections (with a target year of 2000) envisaged a population of 3.2 million residents.

However, the population of the city exploded even before its development is completed. As the capital of the sixth largest oil producing country in the world, Abuja has witnessed a massive influx of people into the city due to social, economic, and political factors. According to, with less than 50% of the planned development achieved, the population of

Abuja is estimated at 6 million. Within a span of twenty-one years (1991-2012), the city has grown from a population of 387, 671 in 1991 to projected figures of 2,245,000 in 2012. This population makes it the fourth largest city in Nigeria only surpassed by Lagos, Kano and Ibadan.

With an estimated growth rate of 9.3%, Abuja city is facing an acute housing shortage. This acute shortage was compelled by the spontaneous relocation of federal employees without adequate provision for their accommodation, and the constant influx of people since 1991.

2.7.2 Housing Delivery in the FCT

When the federal government relocated the Federal Capital from Lagos to Abuja, the idea was to develop the FCT with 100 percent funding by the government. From the onset up to the mid-2000, the Federal government was involved in the provision of houses, infrastructure, and services. For instance, 22,000 housing units in Phase I and II, and the Gwarimpa Housing Estate the largest housing estate in West Africa were constructed.

However, since the late 1990s, funds allocated to the FCTA by the federal government have continued to dwindle. This shortage of funds makes the FCTA unable to develop the city at the abnormal rate of population influx the territory is witnessing today. As at December 2012; the FCTA had an existing infrastructure liability of over ₦420 billion (\$2.6 billion). However, the annual budgetary allocation to the FCTA had not averaged more than ₦50 billion. This discrepancy portends a major problem to those administering the Territory.

In order to meet the burgeoning housing need in Abuja, the Federal Capital Territory Administration (FCTA) introduced the Mass Housing Scheme in the year 2000 under its Public-Private Partnership (PPP) program. The program aims to bridge the wide gap between the supply and demand in housing stock in the Federal Capital Territory (FCT). It emphasized in creating an enabling environment for more active private sector participation. Under the scheme, the government is to provide primary infrastructure and allocate land to private developers. The private developers, will in turn, provide secondary and tertiary infrastructure as well as develop and sell completed houses to members of the general public.

CHAPTER THREE

STUDY AREA AND RESEARCH METHODOLOGY

3.1 Study area

3.1.1 Location

Kubwa District is located in the Federal Capital Territory on the northern part of Abuja as shown in Fig. 2. It is bounded on the north by lower Usman Dam, on the south by Jabo village as shown in Fig. 3. Geographically, Kubwa falls between latitude $9^{\circ} 09''$ North, longitude $6^{\circ} 44''$ and $7^{\circ} 20''$ East. It is one of the areas designated for resettlement within the Federal Capital Territory. It covers an area of approximately 860 hectares.

The land of Kubwa is generally low, undulating and speckled with rock outcrops. The soils in the district are typically deep and well drained having only local constraints where they are high in lay or stones. They contain large amount of humus making them considerably fertile and suitable for farming. The onset of rainy season is usually experienced in April, and most of the annual rainfall is recorded between the months of July and September. The temperature ranges between 21°C and 32°C in the area.

According to year 2006 census, the population of Kubwa is about 12,183 people. The dominant tribe in the area is Gwari. The Gwari people are the indigenous tribe in the area but various other Nigerian tribes from different parts of the country moved to Kubwa as a result of resettlement scheme in the area. The area is now socially heterogeneous with people divergent tribes exhibiting divergent cultures and traditions.

Other minority tribes in the area include Koro, Gwardara, Gada, Hausa/Fulani, Igbo and Yoruba. The people in the area engage in agricultural activities, cattle rearing, crafting and civil service.

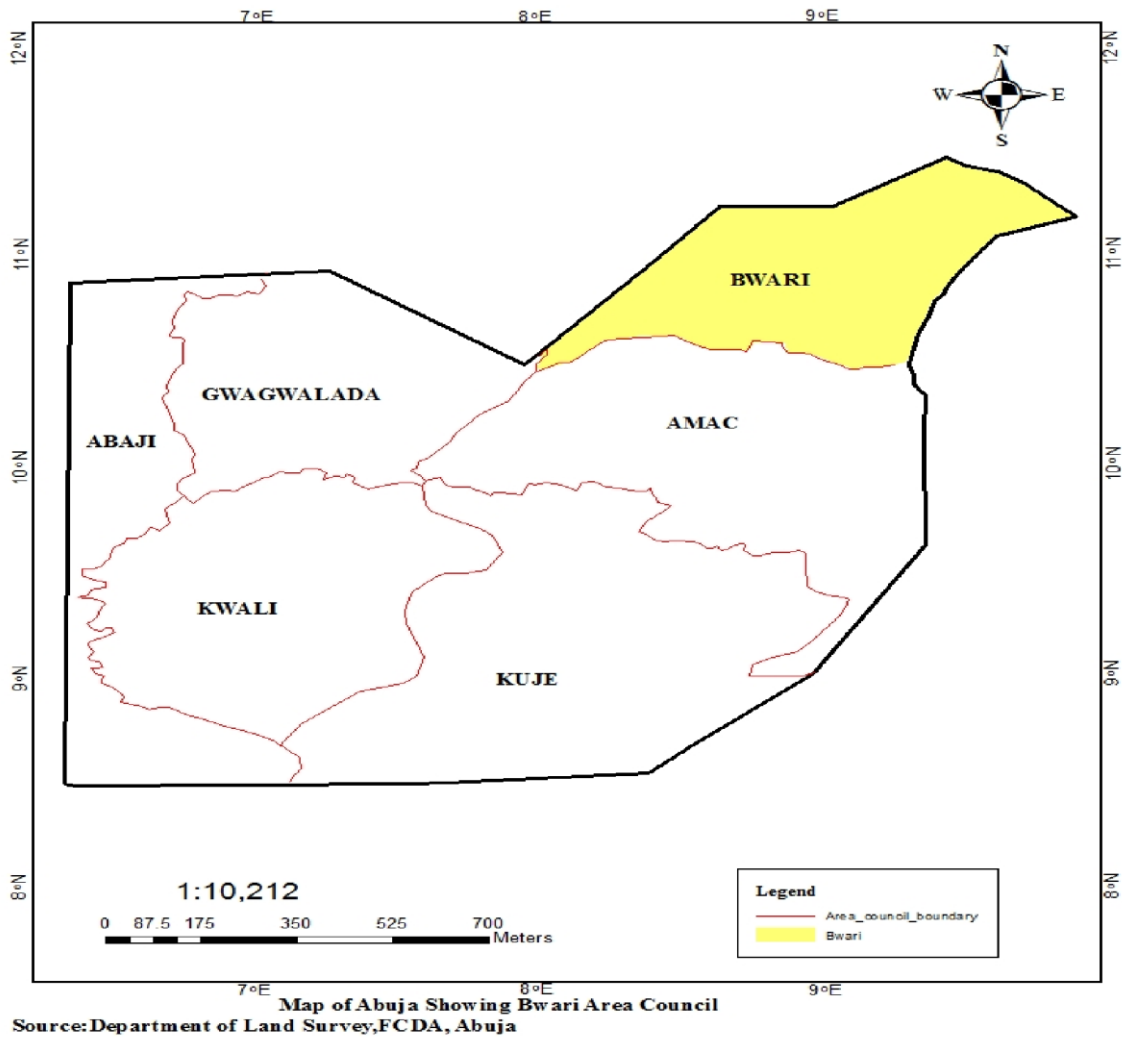


Figure 3.1. Map of Abuja showing Bwari Area Council
 Source: Department of Land Survey, FCDA, Abuja.

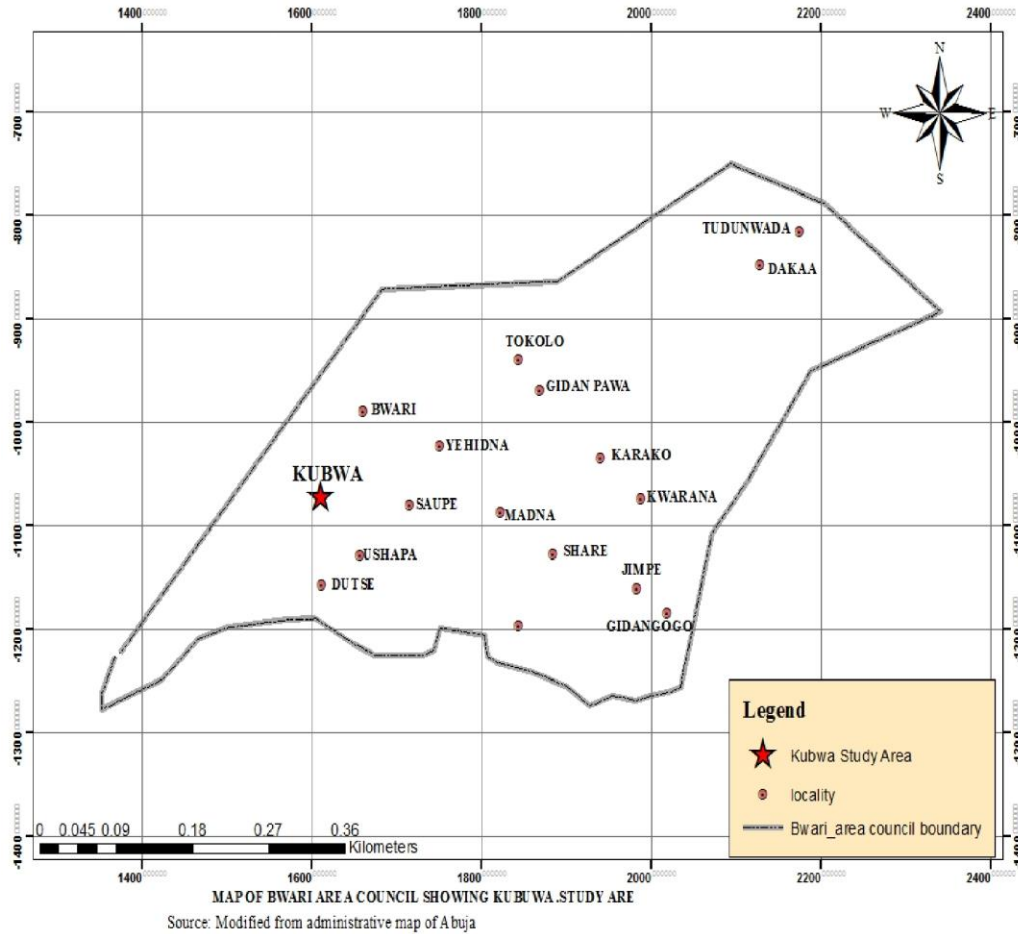


Figure 3.2. Map of Bwari area council showing kubwa

3.2 Climate

Abuja under Köppen climate classification features a tropical wet and dry climate (Köppen: *Aw*). Kubwa experiences three weather conditions annually. This includes a warm, humid rainy season and a blistering dry season. In between the two, there is a brief interlude of harmattan occasioned by the northeast trade wind, with the main feature of dust haze and dryness (Olotuah, 2009).

The rainy season begins from April and ends in October, when daytime temperatures reach 28 °C (82.4 °F) to 30 °C (86.0 °F) and nighttime lows hover around 22 °C (71.6 °F)

to 23 °C (73.4 °F). In the dry season, daytime temperatures can soar as high as 40 °C (104.0 °F) and nighttime temperatures can dip to 12 °C (53.6 °F). Even the chilliest nights can be followed by daytime temperatures well above 30 °C (86.0 °F). The high altitudes and undulating terrain of the Kubwa act as a moderating influence on the weather of the territory.

Rainfall in Kubwa reflects the territory's location on the windward side of the Jos Plateau and the zone of rising air masses with the city receiving frequent rainfall during the rainy season from April to October every year (Olotuah, 2009).

3.3 Soils

The soils of the territory are generally shallow and sandy in nature, especially on the major plains such as Iku, and Gurara. The high sand content particularly; makes the soils to be highly erodible. The shallow depths is a reflection of the presence of stony lower horizons. Those on the famous Gwagwa plains are however deep and clayey, perhaps reflecting the influence of parent materials like gabbro and fine them to medium textured biotite granite (Olotuah, 2009).

Thus, the soils rich of the Gwagwa plains are the most fertile and productive. In addition, their being more or less from ally exposed interfluvial summits, makes them ideal for urban development.

3.4 Vegetation

The FCT falls within the guinea savanna vegetation zone of Nigeria.

Patches of rain forest, constituting about 7.4 per cent of the total mass of vegetation, however, occur in the Gwagwa plains, especially in the gullied terrain to the south and

rugged southeastern parts of the territory. Patches of the rain forest contain trees such as *Antiriseria africana*, *Anthocleista nobilis*, *Cecropia pentandra*, *Colobosporium giganteum*, *Celtis* spp., *Chlorophora excelsa*, *Khaya grandifoliola*, *Terminalia superba*, *Piptadenia africana*, *Lophira alata*, *Teninalia ivorensis*, *Triplochiton scleroxylon* and *Dracaena arborea*. The dominant vegetation of the territory is classified into three savannah types, as follows:

Park or Grassy Savannah: This occupies about fifty-three percent of the total area of the FCT. It is annual in nature and only a few trees are found among the just grasses (Olotuah, 2009).

Savannah Woodland: This covers about 12.85 percent of the total area and occurs mostly in the rugged and less accessible parts of the territory, especially in the Gurara, Robo and Rubochi half plains and surrounding hills. The commonest tree species found include *Azadirachta africana*, *Anogeissus leicarpus*, *Butyrospermum paradoxum*, *Daniellia oliveri*, *Kyayasanegalensis*, *Prosopis rigia africana*, *Uapaca toniensis*, *Albizia* spp., *Vitex doniana*, *Bombax costatum* and *non Pterocarpus erinaceus*.

Shrub Savannah: Occurs extensively in rough terrain close to hills and ridges in all parts of the territory, and cover about 12.9 per cent of the total area (Olotuah, 2009). Species composition varies extensively.

Ecological Problems: The major ecological problems that are thus inflicted on the FCT include:

Soil Erosion and Gullying: Human activities like urban growth, vegetation clearance and cultivation have pushed land use activities towards highly fragile areas, and increased the fragility of the less fragile ones. Today, there are several areas of heavily eroded

badlands' surfaces and numerous gullies of varying dimensions, some of which cover up to about 0.1 sq. km in areal extent.

Soil Degradation: Another dimension to the effect of population increase on the FCT environment is the increased pressure being exerted on land for food production. Under such situation, more nutrients are being exported out of the soil than are being replaced through conventional soil fertility maintenance practices. A major implication of such removal is occurrence of soil degradation.

Though no comprehensive studies have so far been conducted to examine the extent of this problem, it is nevertheless reason to assume that under the present farming systems, soils of the FCT are undergoing some forms of degradation. At any rate, processes like erosion and vegetation removal are themselves important agents of soil degradation.

Devegetation: To prepare lands for both cultivation and urban development, some forms of vegetation clearance have to take place irrespective of the inherent role the vegetation is playing in sustaining the ecosystem of the area where the clearance is being made. On the other hand, game chasers sometimes freely set vegetation on fire in order to enable them have access to wild animals (Olotuah, 2009).

In the FCT, the problem has assumed a serious dimension, because, while there are some guidelines for urban growth for instance, none exists for ensuring that the development becomes environment friendly. However, there are attempts, many of them private, being made to afforest areas around settlements to particularly provide shade and for aesthetics.

Urban Waste Management: Though regulations for urban growth do exist on the territory, their strict enforcement has become extremely difficult, especially in the satellite towns of the territory. Consequently, for instance, sites designated in the master

plans as refuse disposal sites are in many cases converted into built-up areas and consequently refuse disposals are made sometimes on areas designated as green areas and parking spaces. Without effective monitoring and disposal arrangements, several parts of the FCT are now turning into eyesores (Olotuah, 2009).

3.5 Geology

The FCT is almost predominantly underlain by high grade metamorphic and igneous rocks of precambrian age (Agboola 1998).

Generally trending NNESSW, these rocks consist of gneiss, migmatites and granites. A schist belt outcrops along the eastern margin of the area. The belt broadens southwards and attains a maximum development to the southeastern sector of the area where the topography is rugged and the relief is high. In general, the rocks are highly sheared. The rocks of the area can be divided into five major groups, as follows (Agboola 1998):

Metamorphosed Supracrustal (Exogenetic) Rocks: Mica Schist (sh), Marble (m), Amphibolite and Amphibole Schist (a), Fine Medium Grained Gneiss.

Migmatitic Complex: Migmatite (mi), Migmatitic Gneiss (mg), Granite Gneiss (gg), Porphyroblastic Granite-Gneiss (pg), Leucocratic Granite-Gneiss (lg) . Intrusive Granite-Coarse Grained Granite (e.g.).

Minor Intrusions: Rhyolites (ry), QuartzFeldspar Porphyry (py), Dacatitea and Anddesites (an), Dolerites and Basalts (b).

Other Formations: Quartzite (qz), Pegmatite (p), Quartz vein (q)

3.6 Relief

The lowest elevation in the Federal Capital territory is found in the extreme southwest where the flood plain of the river Guraja is at an elevation of about 70m above sea level. From there, the land rises irregularly eastwards, northwards and northwestwards. The highest part of the territory is in the northeast where there are many peaks over 760m above sea level. Hills occur either as clusters or form long ranges (Agboola 1998). The most prominent of these include the Gawa range in the northeast, the Gurfata range southwest of Suleja, the Bwari Aso range in the northeast, the IdonKasa range north west of Kuje and the Wuna range north of Gwagwalada. Elsewhere in the territory, there are many rather roundish isolated hills usually called inselbergs. In between the major hills are extensive plains, the most important of which are the Gwagwa plains, the lku Gurara plains, the Robo plains and the Rubochi plains. Indeed, about fifty two per cent of the Federal Capital Territory consists of plains.

3.7 Economy activities

Mineral resources include clay, tin, feldspar, gold, iron ore, lead, marble, and talc. Abuja's Nnamdi Azikiwe International Airport, named after Nigeria's first president, consists of an international and a domestic terminal, both sharing the same runway. In 2004, the airport served 2,232,905 passengers. Abuja city has major road connections, and has an efficient rapid bus and green cab system. Construction was underway, in 2008, for a light rail system for the city. Abuja did not (2008) have a connection to the national railway network of Nigeria.

3.8 Agricultural activities

Nigerian women are involved in all aspects of agricultural activities: (agricultural production, animal production, and transportation of crop from farm to the house, processing, storage and marketing).

Furthermore it was estimated that women are responsible for 70 percent of actual farm work and constitute up to 60 percent of farming population in Nigeria.

In the Federal Capital Territory, agriculture caters for the livelihood of over 60% of the inhabitants in the FCT.

Farming is the major occupation of the people in some of the area and the crops grown are tomatoes, cowpea, soybean, maize, rice, yam and livestock reared include poultry, goats, sheep and cattle.

3.9 Industrial activities

Kubwa is one of the major suburban districts in FCT. It is mainly a residential area and is densely populated. It is about 25 minutes from the Central Business District of Abuja. It is on the right side of the Murtala Mohammed Express Way (from the city centre to Suleja).

The Murtala Mohammed Express Way has heavy traffic in the early hours of the morning between 6.00am to 10.00am and 4.00pm to 8.30pm on the lanes from Kubwa to city centre and city centre to Kubwa respectively. During these periods of heavy traffic the journey to or from Kubwa to city centre could take well over one hour. The Express way is presently being expanded and works are noticed in difference segment of the exoress way.

Some of the landmarks in Kubwa include:

- 1st Gate – the first major entrance to Kubwa when coming from the city centre.
- 2nd Gate – the second major entrance to Kubwa when coming from the city centre.
- Mr Biggs.
- Chicken Republic.
- RCCG Kingdom Life Parish (Redeem Church).
- St Leo Catholic Church.
- Diamond Bank Office.
- Oceanic Bank Office.
- Zenith Bank Office.
- NYSC Orientation Camp and
- Kubwa Market.

3.10 Research Methodology

The methods adopted in the research are discussed as method of data collection and method of analysis of data.

3.10.1 Data collection

The data used for the study comprised both primary and secondary sources of data.

(a) Primary Data

The primary source comprised mainly a set of structured questionnaire used to collect information from residents in the places where they are located.

The residents' copies of questionnaire includes information about people's socio-economic background, which includes: age, sex, occupation, marital status, education,

income, and places of residence. While the other part of it includes variables such as the types of building, general facilities and effect of bad housing condition.

(i) ***Sampling Unit***

The following five zones in Kubwa, FCT, Abuja; Kubwa FHA, Phases 2 and 3, Kubwa village and Byzahim village are selected for this research because each of them has general facilities that serve the town and its hinterland. In terms of accessibility, there is one major road that runs through Kubwa that is Gado Nasco road. Most commercial buildings in the area are located along Gado Nasco road and also interconnected by Trunk B roads. The lower - level healthcare facilities are represented by Comprehensive Health Centres and Primary Healthcare Centres, chosen in such a way to depict the urban- rural spread.

(ii) ***Sampling Frame***

A household survey was carried out in each of the towns in order to select the respondents interviewed for the exercise. A listing of the populations in the towns formed the sampling frame from which the sample size will be drawn.

(b) **Secondary Data**

Secondary sources of data are obtained from the university library published materials, journals, articles, internet etc.

3.11 Sample techniques and Size

The sampling technique used for investigation in the study is simple random sampling. Here, each individual or sample are chosen randomly and entirely by chance such that each individual or sample in the population has the same probability of being chosen at any stage during the sampling process.

Furthermore, stratified random sampling of households are adopted based on administrative zones in the area to select the respondents for the questionnaire survey. In order to obtain a representative sample of the whole population, the number of copies of questionnaires administered in each zone is proportional to the population size of the zone. A total of two hundred and fifty copies of questionnaires are administered to respondents across the five administrative zones in Kubwa using random sampling technique. The inhabitants in the entire administrative zones refers are chosen with the size of the sample of 2.05%. The size of the sample was derived as follows:

$$\text{Sample size} = \frac{\text{Copies of questionnaire}}{\text{Total population}} * 100$$

Table 1 below shows the copies of number of questionnaire that will be administered in each administrative zone.

Table 3.1. Administrative zones in Kubwa

Zones	Population size	No. of copies of questionnaire	Percentage
Kubwa FHA	3002	61	24.6
Phaze 2	1069	22	8.8
Phaze 3	4029	83	33.1
Kubwa Village	3012	62	24.7
Byzahim Village	1077	22	8.8
Total	12,183	250	100

Source: Bwari Area Council (2017)

3.12 Method of data Analysis

Data that are collected from these sources are subjected to both quantitative and qualitative analysis. After the coding of the parameters, the data are subjected to descriptive analysis with the aid of statistical package for the social sciences (SPSS).

Frequency distribution are used for the descriptive analysis and it entailed the use of charts, frequency tables in order to get a general understanding of socioeconomic characteristics of the respondents, types of buildings, general facilities of the areas while cross-tabulation be done for the inferential analysis. The inferential statistical methods that are adopted is One- Way Analysis of Variance (ANOVA).

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION

4.1 Introduction

This chapter contains the analyses of data, discussion of findings and testing of hypothesis of the study. The results obtained from these were analyzed and constitute significant proportion of this chapter.

4.2 Highest level of education attained by the people in the study

Table 2 shows the highest level of education attained in the study area. The survey carried out in the area shows that 75 (30.0%) of the respondents in the study area have tertiary education, while 95 (38.0%) of them have a secondary education, 39 (15.6%) with only primary education, 21(8.4%)fall in the category of others and 20 (8.0%) of them have no formal education as seen in table 2 and fig.4

Table 4.1. Educational Attainment of the respondents in the study area

Status	Number of response	Percentage
No formal education	20	8
Primary School	39	15.6
Secondary School	95	38
Tertiary Institution	75	30
Others	21	8.4
TOTAL	250	100

Source: field survey, September 2017.

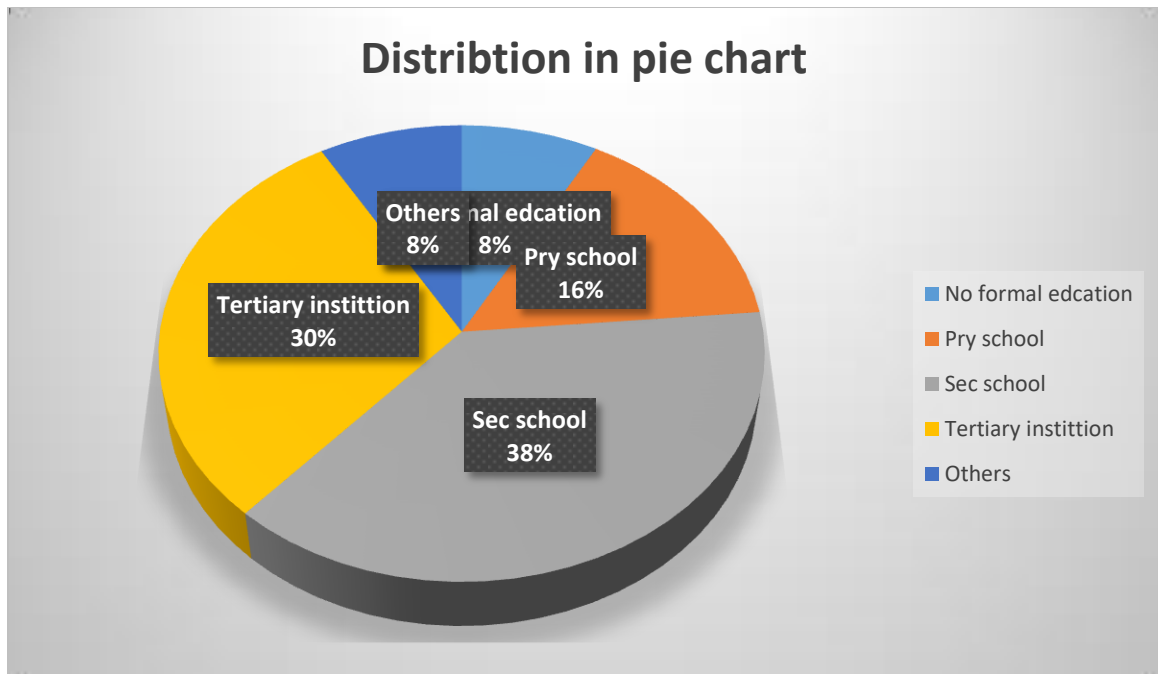


Fig 4.1 Distributions in pie chart of the education attained of the respondents in the study area

From the table presented above, it is clear that the majority of the residents are educated, either with a secondary or tertiary education. This gave them the opportunity to communicate well and effectively express themselves in English language. This implies that majority of the respondent were able to interact and understand the basis of carrying out this research work.

4.2.1 Age group of households respondent in the study area

The age group of the household head is to show the genuinity of the data collected from the study area. The age group of household respondent varies and ranges from 0-18years, 19-30, 31-45, 46-60, and 61-Above. The data gathered from the field survey, shows that greater proportion of the respondent (42.0%) fall within age bracket of 31-45, while a

total of 32.2% of the respondent fall within the age bracket of 46-60years, 15.9% is between the age bracket 19-30 years and 9.9% is between 61-Above,See figure 5.

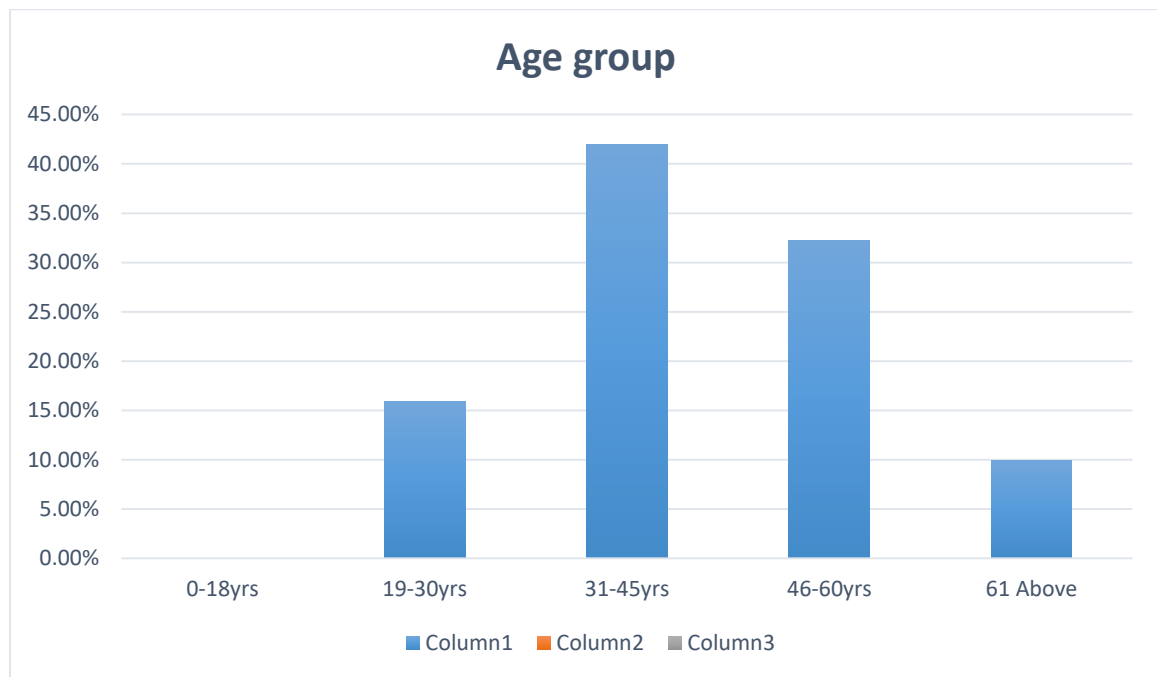


Fig 4.2: Age group of household head

The result, reflects that majority of the respondent are adult, who knows, understand and can really supply the necessary information require for this research study. This implies that the sampled respondents are capable of responding meaningfully to questions raised in the questionnaire. This makes the results more reliable and from the cross-tabulations it shows that age has influence on the choice of housing condition in the study area.

4.2.2 Household size of respondents in the study area

The household size of the respondents shows the number of people that lives under the same roof in the area. According to the field survey carried out in the area, 101 (40.4%)

of the respondent have a household size of between 4-6 people. While 103 (41.2%) are between 7-10 people, 31(12.4%) are between 1-3 people. While 10 above have a family size of 15(6.0%) of the respondent. See table 3.

Table 4.2: Household size of respondents in the study area

Family size	Number of Response	Percentage
1-3people	31	12.4
4-6 people	101	40.4
7-10 people	103	41.2
10 Above	15	6.0
TOTAL	250	100

Source: field survey, September 2009.

The analysis from the table shown above reveals that majority of the household have an average of nine (9) members. The household size is generally high coupled with the nation's average household size as revealed by the National Population Commission census of 2006, which put the nation's household size at 7. The implication of this is that, through significantly effort from the national figure, it can be deduced that more people live in a relatively small size dwelling unit.

4.2.3 Occupations of respondents in the study area

The study area over the years has experienced a major departure from its traditional occupation to other areas of economic activities, predominantly in the informal sector.

The informal sectors include petty trading, artisans and other activities. Other occupation is the private sector. Although, some work in different government organization, while some are employed into private organization and others are self-employed. The survey

carried out revealed that 31.2% of the respondent is in informal sector, while 27.9% covers the private sector; the public with 24.9% and 16.0 are unemployed. See table 4 and figure 5 below.

4.3 Occupation of the respondent in the study area

Occupation	Number of Response	Percentage (%)
Informal	78	31.2
Private	69	27.9
Public	63	24.9
Unemployed	40	16.0
Total	250	100

Source: field survey, September 2017.

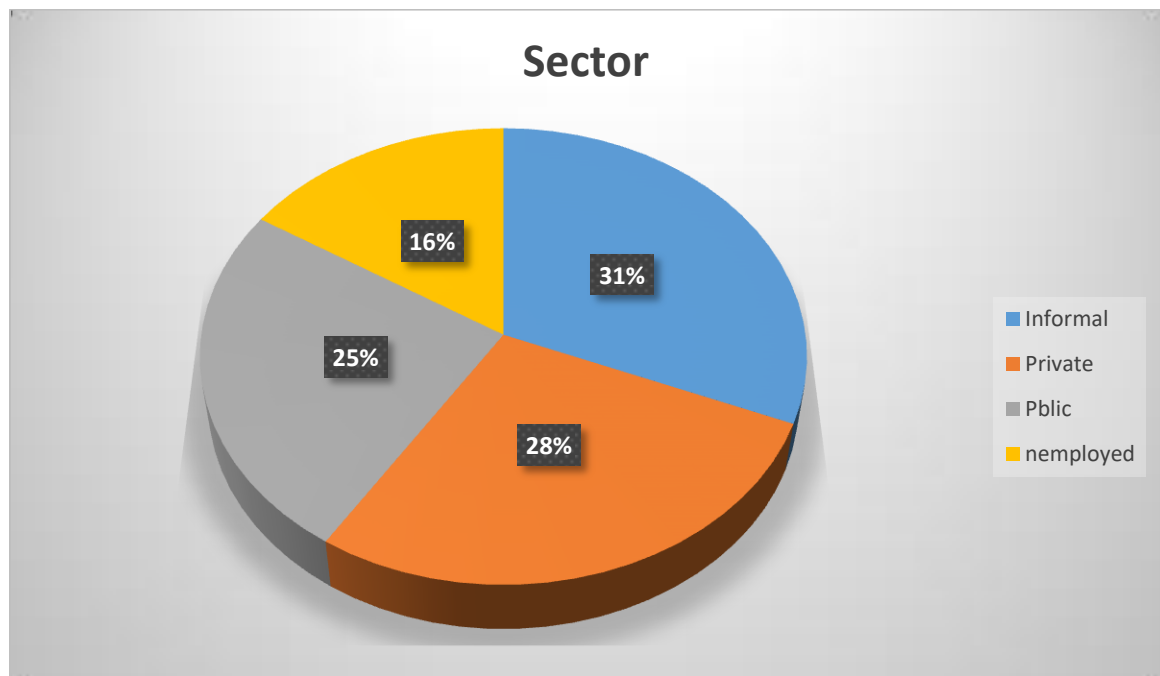


Fig 4.3: Occupation of Respondent in percentage

The figure above reveals that majority of the people living within the study area are under the informal sector, implying that the refer sector is a determinant factor for housing condition. Since house within the informal economic sector is generally living on low income.

4.2.4 Income levels of respondents in the study area

The level of income of the people will strongly be attached to the nature of work the people are involve in. The income may not be from one source, and as such it gives room for variation in the income level per month. Table 4 depicts the pattern of the income structure of the respondents as obtained from the field survey. Higher proportion of the respondents (36.4%) earn between ₦18, 001.00–₦50, 000.00 monthly. 76.4% of the respondents can be classified as low-income earners, while about 27.6% earn between ₦50, 001.00–₦85, 000.00. 16.0% earn between ₦85, 001.00 – ₦150, 000.00, while 12.4% is below ₦18, 000.00. This result shows that majority of householders or residents of the study area are low income earners. See table 4.

Table 4.4 Income levels of respondents in the study area

Income Per Month (₦)	Number of Response	Cumulative Frequency	Percentage
Below 18,000.00	31	31	12.4
18,000 – 50,000.00	91	122	36.4
50,000 – 85,000.00	69	191	27.6
85,000 – 150,000.00	40	231	16.0
150,000	19	250	7.6
Total	250	825	100

Source: field survey, September 2017

The table above reveals that majority of the people living in the area earn below ₦50,000.00 per month. This can be attached or categorized as the low and medium earners.

4.3 Types of house and building materials in the study area

The types of building show the type of structures that are generally acceptable by the people in the study area. It was observed from table 5 that bungalow type of building takes 24.4% and followed by flat which accounts for 21.2%. The block of flat, multifamily unit, brazilian type, traditional houses and others take 20.4, 8.4, 15.6, 8.4 and 1.6% respectively. The above derived statistics shows clearly that Bungalow, Flat and Block of flat are frequently used and in use by the people who are residents in the study area. Brazilian housing units i.e. face to face is next in line of commonly used and in use housing units and this was physically observed in the study area through the structurally patterns of the hosing condition and also in line feedback received from the

people who were given copies of questionnaire to fill on the field. This shows that the inhabitants of the study area are after roomy structures.

Table 4.5 Types of building of the respondents in the study area

Types of building	Freq.	Percentage
Bungalow	61	24.4
Flat	53	21.2
Block of flat	51	20.4
Multi-family units	21	8.4
Brazilian (face to face)	39	15.6
Traditional houses	21	8.4
Others	4	1.6
TOTAL	250	100

Source: Field survey 2017

4.3.1 Building materials in the study area

4.3.1.1 Types of roof and ceiling materials in the study area

The qualities of the roof materials used in the study area were also assessed. The table 6 show the characteristic of the roof. Zinc iron sheet which covers the highest percentage of the roofing material in the study area was noted with considerable rusting, leaking and sagging. Many have some parts missing while only a few of the buildings have no defects in their roof. On the ceiling condition, the study shows that few houses have asbestos tiles and POP as the ceiling materials while majority had ceiling wood, mat and cardboard covers commonly in use. The survey on the condition of the ceiling reveals that few

building ceilings were in good condition while majority were leaking with missing parts. This constituted a great risk to the life of the inhabitants.

Table 4.6 Types of roof and ceiling materials of the respondents in the study area

Roof materials	Freq.	Percentage
Stone coated	10	4
Aluminum	64	25.6
Aluminum step-tile	29	11.6
Zinc	136	54.4
Others	11	4.4
TOTAL	250	100

Source: Field survey 2017

4.3.1.2 Types of wall materials in the study area

The available qualities of building wall materials were assessed through the combined effort of the respondents. Table 7 show the summary information of the qualities of the wall. Majority of the houses within the Kubwa were built with concrete cement block cement while few were built with others building materials, mud and slaps (see Table 8). This indicates a relative less urban slum quality with cement or others. This however represents only the living houses. Though the quality of the materials for the walls appeared in good order, larger proportion of the buildings was not in good condition. In addition to the poor condition of the wall, they stood in weak foundation that endangers the life of occupants (field survey).

Table 4.7 Types of wall materials of the respondents in the study area

Wall materials	Freq.	Percentage
Mud	35	14
Cement	170	68
Slaps	4	1.6
Others	41	16.4
TOTAL	250	100

Source: Field survey 2017

4.3.1.3 Types of floor materials in the study area

The standards of floor area of the house types were assessed. Respondents' opinions or views assisted in arriving at the distribution in the table 8 below. The floor material is a reflection of the quality level of housing in a place and usually it is one of the areas researchers do focus on during survey. Large proportions of the houses here had cement concrete as the floor materials, while terrazzo(ceramic) materials and modern tiles cover very less numbers. The timber (Hardwood) materials also cover less compare to others refers above. Studies also revealed that majority of the floor were cracked and those with lower foundation belts were permanently damp for most parts of the year.

Generally, the floor conditions of Kubwa housing were below average in terms of quality. Studies further revealed that the topography of Kubwa is generally undulating and marshy terrain. No wonder during rainy season the only available main roads become unmotorable due to flooding.

Table 4.8 Types of floor materials of the respondents in the study area

Floor materials	Freq.	Percentage
Ceramic (Terrazzo)	7	2.8
Marble (Modern tiles)	2	0.8
Hardwood (Timber)	1	0.4
Cement concrete	221	88.4
Laminate	-	-
Others	19	7.6
TOTAL	250	100

Source: Field survey 2017

4.4 Housing facilities available in the study area

The quality of the housing facilities can be seen in the area of the functionality and durability of the amenities. The facilities varies from floor materials (Ceramic, Marble, Hardwood, and so on) Electricity, Toilet, and Kitchen facilities and other utilities that make the house function effectively.

4.4.1 Refuse disposal system in the study area

Refuse collection and disposal remains one of the major challenges in the contemporary Nigerian settlement. It is more pronounced in part of Federal Capital Territory, Abuja. Although, the FCT government is really making effort to reduce this problem. But for residents of the study area, refuse disposal is indiscriminate as refuse is dumped in the abandoned drainage channel, despite the fact that the agency comes once in a while. See plate 1.



Plate 4.1: Indiscriminate waste disposal in Kubwa

Table 4.9: Refuse Disposal System in the study area

Focus	Number of Response	Percentage
Daily	-	-
Weekly	41	16.4
Twice a week	9	3.6
Twice in two week	20	8
Monthly	151	60.4
No response	29	11.6
TOTAL	250	100

Source: field survey, September 2017.

From the field survey, 41 (16.4%) of the wastes are collected weekly, 9 (3.6%) of the same waste are collected twice a week, while 20 (8.0%), 151 (60.4%), and 29 (11.6%) are collected twice in two week, monthly and others respectively. Physical site visits confirm that some areas of the study area on which buildings are erected are made up grounds mostly filled with refuse. As a result, the land is unstable. The implication of these is that the area will not only be unhealthy but destroy and pollute the environment.

4.4.2 Source of water supply

The sources of water distributed within the area vary from pipe-borne water, well water or borehole and tanker services. The major sources of water in the study area were hand-dug wells found, few bore-hole and non-functional pipe-borne water. The wells and boreholes were found in 74.4% of the building. Water from the public domain that were accrue to the buildings in the study area was about 4%. The one from public taps situated along the streets was however available to 9.6% of the buildings. The respondent in the study area hardly make use of tankers services according feedback received from them but it was gathered that the about 6% of the respondent patronized their services.

The available water supply in the area is not portable, due to poor provision made for the supply and distribution of the water. Most of the pipes laid for the distribution of the water are been laid in the drainage system and as such contaminating the water.

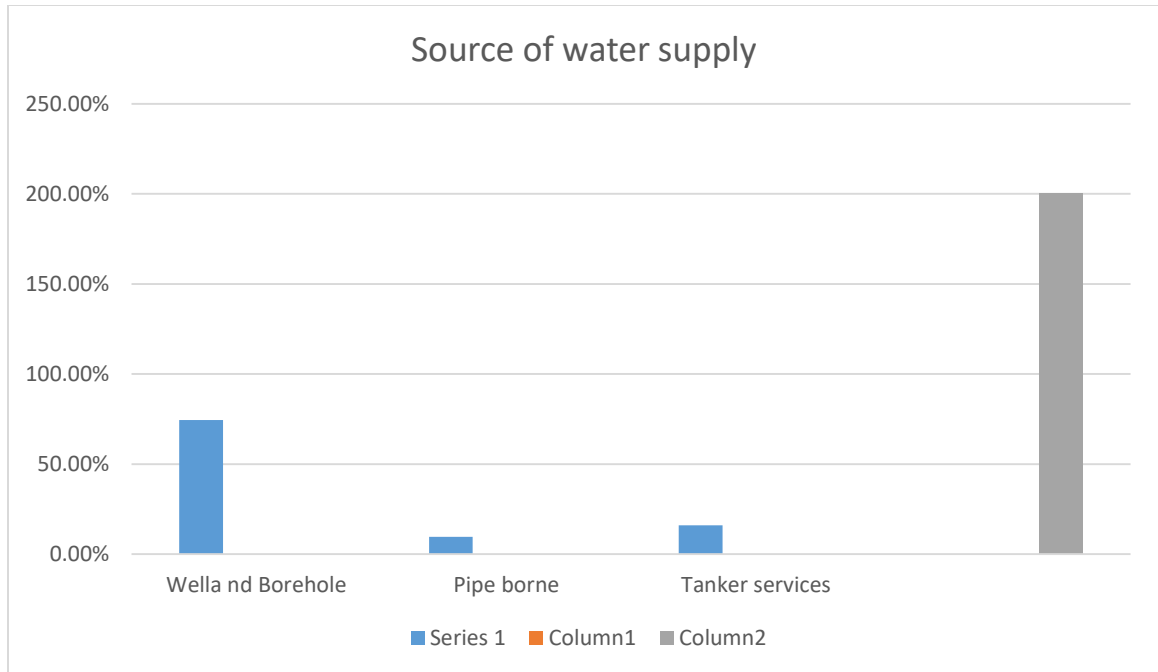


Plate 4.2: Water Pipe Line inside Drainage Channel.

In view of the fact that water pipe lines run through clogged open drains full of waste water, the possibility of seepage into the pipes through loose joints and broken points is

very high, thus lowering the water quality. .

Table 4.10: Sources of water supply in the study area

Focus	Number of response	Percentage
Pipe-borne	24	9.6
Bore-hole	76	30.4
Hand dug-well	110	44
Water tank storage	31	12.4
Others	9	3.6
TOTAL	250	100

Source: field survey, September 2017

However, the implication of this findings is that majority of residents of the city depend on water supply from unsafe sources thereby lowering the quality of housing in the city.



Plate 4.3: One of the Public Tap that is not functioning in Kubwa

4.4.3 Quality of toilet facilities in the study area

The qualities of toilet facilities as related to the house types were also assessed through the respondents. Table 11 below shows such distribution. The type and condition of facilities in houses explain the quality levels of the houses/residential structures in an area. The study revealed that, bathroom and toilet/latrine facilities that were seen alongside the building; fewer of it were located outside the house, while large numbers of it were located within the buildings.

Majority of the bathrooms were mere zinc, outside the houses. The type of bathroom commonest in fewer of the study area generally was the one where users carried buckets into the bathroom which might be outside or within the houses, shower-bath type covered less.

4.4.4 Type and quality of electricity supply sources in the study area

Electricity supply to the study area was chiefly from Abuja Electricity Distribution Company(AEDC), which is the only source of electricity supply noticed in the study area, account for about 92% of the sampled buildings. Because of the recent power problem in the country, the only alternative source of power supply has been the electrical generating sets. Almost all household has at least one set each (field survey). The identified effect was measured in terms of the amount of carbon monoxide as pollutant these sets were emitting, thereby endangering the health of all the inhabitants of Kubwa.

About 1.6% used generating plant as supplements while 6% depends solely on solar source. This is quite impressive while the light supplied by the AEDC can be improve

upon. There are cases of the areas been put in total darkness for weeks or sometimes months.

Table 4.11: Types and quality of electricity supply in the study area

Electricity Supply (Source)	Freq.	Percentage
AEDC	230	92.0
Generator Set	4	1.60
Solar	15	6.0
Others	1	0.4
TOTAL	250	100

Source: field survey, September 2017

4.4.5 Availability of kitchen in the study area

Kitchen in houses within the study area is either within the building or outside the building. Apart from this, it is not all the houses in the area that has kitchen facilities. Based on the field survey 80.4% of the total housing stock have kitchen, some of them are not attached and cannot practically guarantee safety to living. Another 10.0% of the total housing stocks have no kitchen at all. See (table 12.below). It shows that this people either cook in their rooms or on danger spot into which other people can accidentally run into. This situation calls for development of housing standards and building codes to avert any future disaster.

Table 12: Types of kitchen available in the study area

Types of Kitchen	Freq.	Percentage
Indoor	201	80.4
Outdoor	25	10
Batcher	22	8.8
Others	2	0.8
TOTAL	250	100

Source: field survey, September 2017

4.4.6 Availability of social facilities and services in the study area

The social facilities and services available were assessed through the participative views of the respondents.

Table 4.13 is showing respondents' views of the distribution.

Social facilities and services	Freq.	Percentage
Primary school	71	28.4
Secondary school	40	16
Clinic/Hospital	21	8.4
Shopping/Market	16	6.4
Place of worship	47	18.8
Refuse dump-site	13	5.2
Cemetery	1	0.4
Police post	4	1.6
Children playground	21	8.4
Motor park	16	6.4
TOTAL	250	100

Source: field survey, September 2017

Social facilities and services are the basic elements or requirement needed for any neighborhood unit to function very effectively and efficiently as a unit of such settlement where the availability of these basic elements were not adequate, such settlements deteriorate so easily and becomes less functional in due cause.

The field survey revealed these following sets of social facilities and service identified in scattered locations in Kubwa. They were Nursery and Primary Schools, Hospitals/Clinics, Places of Worship and Cemetery and so on.

According to the available Town Planning Standard in Nigeria (Kehinde, 1999), Kubwa if planned and with the size now (69.355 hectares) should have a total of 13,871 population going by the standard of 200 persons per hectare. Presently, the projected population of Kubwa now is put at over 35,007 (Area council, 2011). The available facilities and services therefore is grossly inadequate, where at all they are available.

The resultant effect is non-functioning of the settlement and this generally affects the social set-up of the environment of Kubwa.

4.5 Respondents assessment of the effect of housing condition

The causes of some of the identified Social, Health and Environmental effect were assessed through a respondents-based effort. Table 14 is showing the distribution of the respondents' assessments.

Table 14 below is the set-up of analysis of variance for the surveyed areas in Kubwa each with Social, Health and/Environmental problem that characterize the areas and to state if their differences are significant.

Table 4.14 Hosing condition in the study area

Effect	Kbwa FHA	Phase 2	Phase 3	Kbwa Village	Byzahim Village
Homelessness and Criminality	6	-	3	-	2
Delinquency	-	1	-	-	-
Violence against the person	3	1	6	-	1
Burglary and Theft	12	1	3	15	6
Drugs	3	-	6	3	-
Public disturbances	6	4	3	6	1
Domestic incidents	3	-	3	3	1
Educational attainment	-	1	3	-	1
Cold	6	1	3	6	3
Respiratory problem e.g. diarrhea	6	1	9	-	3
Depression	12	4	3	6	1
Mental ill-health	-	-	3	3	-
Low economic productivity	18	3	12	12	4
Retardant enterprising skills	3	3	9	9	1
Others	18	8	21	3	2

Source: Field survey 2018

Solution: we wish to test

H_0 : There is no significance relationship between housing condition and its effect in Kubwa, Abuja, Fct.

H_1 : There is significance relationship between housing condition and its effect in Kubwa, Abuja, Fct.

$$\bar{X}_{kf} = \frac{6+3+12+3+6+3+6+6+12+18+3+18}{12+12} = \frac{96}{24} = 8$$

$$\bar{X}_{p2} = \frac{1+1+1+4+1+1+1+4+3+3+8}{11} = 2.5$$

$$\bar{X}_{p3} = \frac{3+6+3+6+3+3+3+3+9+3+3+12+9+21}{14} = 6.2$$

$$\bar{X}_{kv} = \frac{15+3+6+3+6+6+3+12+9+3}{10} = 6.6$$

$$\bar{X}_{bv} = \frac{2+1+6+1+1+1+3+3+1+4+1+2}{12} = 2.1$$

Mean of the categories means.

$$\bar{X} = \frac{8+2.5+6.2+6.6+2.1}{5+5} = \frac{25.4}{10} = 5.08$$

Now we work out Sum of squares (SS) between and SS within categories:

$$\begin{aligned} \text{SS between} &= n_1(\bar{X}_{kf} - \bar{X})^2 + n_2(\bar{X}_{p2} - \bar{X})^2 + n_3(\bar{X}_{p3} - \bar{X})^2 + n_4(\bar{X}_{kv} - \bar{X})^2 + n_5(\bar{X}_{bv} - \bar{X})^2 \\ &= 12(8-5.08)^2 + 11(2.5-5.08)^2 + 14(6.2-5.08)^2 + 10(6.6-5.08)^2 + 12(2.1-5.08)^2 \\ &= 12(8.5264) + 11(6.6564) + 14(1.2544) + 10(2.3104) + 12(8.8804) \\ &= 102.31 + 73.22 + 17.56 + 23.104 + 106.56 \\ &= 322.76 \end{aligned}$$

$$SS \text{ within} = \sum (\ddot{X}_{kf.i} - \ddot{X}_{kf})^2 + \sum (\ddot{X}_{p2.i} - \ddot{X}_{p2})^2 + \sum (\ddot{X}_{p3.i} - \ddot{X}_{p3})^2 + \sum (\ddot{X}_{kv.i} - \ddot{X}_{kv})^2 + \sum (\ddot{X}_{bv.i} - \ddot{X}_{bv})^2$$

Where i = Individual categories collected in each communities of the surveyed areas.

$$= [(6-8)^2 + (3-8)^2 + (12-8)^2 + (3-8)^2 + (6-8)^2 + (3-8)^2 + (6-8)^2 + (6-8)^2 + (12-8)^2 + (18-8)^2 + (3-8)^2 + (18-8)^2] + [(1-2.5)^2 + (1-2.5)^2 + (1-2.5)^2 + (4-2.5)^2 + (1-2.5)^2 + (1-2.5)^2 + (1-2.5)^2 + (4-2.5)^2 + (3-2.5)^2 + (3-2.5)^2 + (8-2.5)^2] + [(3-6.2)^2 + (6-6.2)^2 + (3-6.2)^2 + (6-6.2)^2 + (3-6.2)^2 + (3-6.2)^2 + (3-6.2)^2 + (9-6.2)^2 + (3-6.2)^2 + (3-6.2)^2 + (12-6.2)^2 + (9-6.2)^2 + (21-6.2)^2] + [(15-6.6)^2 + (3-6.6)^2 + (6-6.6)^2 + (3-6.6)^2 + (6-6.6)^2 + (6-6.6)^2 + (3-6.6)^2 + (12-6.6)^2 + (9-6.6)^2 + (3-6.6)^2] + [(2-2.1)^2 + (1-2.1)^2 + (6-2.1)^2 + (1-2.1)^2 + (1-2.1)^2 + (1-2.1)^2 + (3-2.1)^2 + (3-2.1)^2 + (1-2.1)^2 + (4-2.1)^2 + (1-2.1)^2 + (2-2.1)^2]$$

$$[4+25+16+25+4+25+4+4+16+100+25+100]+$$

$$[2.25+2.25+2.25+2.25+2.25+2.25+2.25+2.25+0.25+0.25+30.25] \quad + \quad [10.24+0.04+10.24+0.04+10.24+10.24+10.24+10.24+7.84+10.24+10.24+33.64+7.84+219.04] \quad +$$

$$[70.56+12.96+0.36+12.96+0.36+0.36+12.96+29.16+5.76+12.96] \quad +$$

$$[0.01+1.21+15.21+1.21+1.21+1.21+0.81+0.81+1.21+3.61+0.81+0.01].$$

$$= 348+48.75+350.36+158.4+27.32$$

$$= 932.83$$

SS for total variance = SS between + SS within.

$$= 322.76 + 932.83$$

$$= 1255.59$$

I can now set-up the ANOVA Table 15 for this problem:

Source of variation	Sum of squares (SS)	Degrees of freedom (d.f.)	Mean Square (MS). (This is divide by d.f.) and is an estimation of variance to be used in F-ratio	F-ratio
Between categories or samples	SS between	$(k - 1)$	MS between = $\frac{\text{SS between}}{(k - 1)}$	$\frac{\text{MS between}}{\text{MS within}}$
Within samples or categories	SS within	$(n - k)$	MS within = $\frac{\text{SS within}}{(n - k)}$	
Total	$\sum_{I=1, 2 \dots} \sum_{J=1, 2 \dots} (X_{ij} - \bar{X})^2$	$(n - 1)$		

Where $(k - 1)$ represent degree of freedom (d.f.) between categories

$(n - k)$ represent degree of freedom within categories.

The degrees of freedom for the total variance will be equal to the number of items in all categories minus one i.e., $(n - 1)$. The degrees of freedom for between and within must be add up to the degrees of freedom for the total variance i.e., $(n - 1) = (k - 1) + (n - k)$.

N = Total numbers of items in all categories i.e., $n_1 + n_2 + n_3 + \dots + n_k$

K = Numbers of categories.

From the set-up ANOVA Table 15, I can now input the calculated value above into the Table 16 below.

Table 16.

Source of variance	SS	d.f.	Mean Square (MS)	F-ratio	Critical value F (at 5%) from the F-table
Between categories	322.76	$5 - 1 = 4$	$322.76/4 = 80.69$	$80.69/17.27 = 4.7$	$F(4, 54) = 2.78$
Within categories	932.83	$59 - 5 = 54$	$932.83/54 = 17.27$		
Total	1255.59	$(59 - 1) = 58$			

The above table shows that the calculated value of F is **4.7**, which is more than the table value of **2.78 at 5%** with d.f being $V_1 = 4$ and $V_2 = 54$ and hence, we reject H_0 at **5 %** level of significance i.e. null hypothesis. In the case above, however, we are able to reject it and accept the alternative research hypothesis that there is an association between the

housing condition in the study area and the prevailing effects i.e. the housing condition influences the development of the effects in some town in Kubwa.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Summary of findings

The problem of housing in Abuja has become enormous and complex, exhibiting apparent and marked differences in areas, most particularly, in my studied areas. In most of the areas in Abuja, the problem is not only restricted to quantity but also to the poor quality of available housing units and the environment. The result is manifested in growing overcrowding in homes and increasing pressure on infrastructural facilities and rapidly deteriorating environment. The scenario is only slightly different in the rural areas of the city where the problem is primarily that of quality of housing and inadequacy of infrastructures like roads, drainages, pipe borne water, electricity etcetera.

The aim of this study is to examine the condition of housing in Kubwa, Abuja, Fct. Specifically the study is to achieve the following objectives, through:

1. Socio-economics activities of the people
2. Types of the building
3. Housing facilities and
4. Effect of bad housing condition.

Furthermore, frequency distribution are used for the descriptive analysis and it will entailed the use of charts, frequency tables in order to get a general understanding. After the coding of the parameters, the data are subjected to descriptive analysis with the aid of One Way Analysis of Variance (ANOVA).

The findings of this research study were gathered through various field survey carried out on different variables that is relevant to the focus of the study. In view of the above analysis made, it was shown that the residence of the study area were

1. Living in an unhealthy environment. The various housing problem that have been discussed above, require physical and economic attention.
2. The bulk age brackets of 31-45 which takes 42.0% of the total residents interviewed and this indicates their readiness to improve their standard of living.
3. Bulk of the resident have Secondary School Certificate as their highest level of education and account for 38.0%. This has serious effect on the environmental quality of the area.
4. Informal sector are mostly found in the study area and thereby take 31.2%.
5. 36.4% of the resident earn less than N50, 000 (36.4%) and this has affected the standard of living of the residents.
6. 4-6 households take the highest percentage in the study area. This is necessary to determine the degree of congestion. The average household size of 4-6 takes the highest aggregate of 59.5%.
7. The Bungalow type of building is mostly common in the study area with 24.4%. This has specified the model type of building required by the residents in case of any re-development of the area.
8. Most of the buildings are constructed with cement wall, corrugated iron sheet that are fair in condition.

Furthermore, the floors are made of concrete. Most of the buildings have kitchen facilities with pit latrines. It should be indicated at this juncture that the use of pit latrines

is obsolete and unhygienic for human habitation. The infrastructural facilities are grossly inadequate. There is problem of drainage system, non-availability of refuse disposal method, street parking and a host of others.

It is therefore necessary for all the concerned stakeholders to involve in the development of the area. This would make life conducive for the residents and even creating functional relationship between the area and its adjoining settlements.

5.1 Conclusion

In Africa, ownership of a house is of supreme importance to men and women; it is a status symbol of unique significance; it allows family obligations of hospitality to be fulfilled; it is a place of people of great repute would like relations to be buried; it is also regarded as an asset to bequeath to the next generation.

In view of the above analysis made, it is obvious from the analysis that the residence of the study area are living in an unhealthy environment. The various housing problem that have been discussed above, require physical and economic attention.

There is need for a more consistent policy on managing urban housing problems by the government. Emphasis should be on problems of housing quantity, quality and allocation. Government should concentrate resources on low-cost houses with serious commitment as against the past corruptive tendencies of government executing agencies and weak administrative capacity. There should be co-ordination between policies and implementation.

Efforts to explain the urban housing problems in Abuja which ignore the broader macro aspects of the urbanization problem in the area is inadequate. They provoke policies

which are inadequate because they do not pay sufficient attention to the context in which the problem arises. Thus, any attempt to develop housing policy for Abuja must be within the context of understanding of overall urbanization trends and income distribution within the city. The government should start from an acceptance that much of the low income household particularly squatter populations is due to a deficiency of low income housing. Such policy should therefore accept such of this housing and introduce positive measures to encourage its persistence.

5.2 Recommendations

Based on the major findings in the study, the following recommendations are put toward as policy guidelines toward a sustainable management of the area of study. The first recommendation is the need for:

1. Effective public enlightenment strategies to affect public awareness and community participation in area of personal hygiene and need for improving sanitary condition in the area. According to Osoko (2000) and Owoeye (2003), an enforcement of environmental sanitation laws on citizens has a little prospect of success without an enlightened public. The starting point therefore is to educate the people on the dangers of poor sanitation on their health and the need for an improved healthy environment.
2. It also involves improving the existing infrastructures as well as providing new ones.
3. Generation of employment opportunities, otherwise known, as economic revitalization is highly needed in the area. This will help to improve the level of capital base and potential for capital formation among the residents that will enhance their level of provision for basic household facilities and proper maintenance of buildings. This

approach offers future proceed that can sustain any improvement effort that may be put in place to revive the area.

4. Upgrading programme through rehabilitation/renovation approach as well as provision of urban basic services. This simply involves rejuvenation of affected parts of the area by retaining some structures that are retainable; rehabilitate old buildings and structures.

5. Sanitary services in the areas need urgent attention, particularly water supply and waste disposal facilities. However, mini-water-works or boreholes and public toilets in strategic places in the area are recommended under Urban Basic Service Programme.

6. Also, the efforts of the Waste Management Authority should be well supported through adequate funding so that facilities for effective services to more areas can be enhanced.

7. In the light of this, Local Government Authority should be called to their primary responsibility to ensure regular collection of refuse in these areas that are more structure in nature (Bungalow) and unstructured in nature. Meanwhile, the reintroduction of old sanitary inspectors, called '*Wolewole*' would be needed to reawaken the unconcerned attitude of the residents towards sanitary laws and regulations. Inspections should be made without prior notice so that the people can always prepare to keep their surroundings clean at all times. Efforts should be made as well to ensure punitive measure on any culprit who violates such orders.

Urban housing problems in Kubwa Abuja cannot be conceived and implemented in isolation from other social and economic policies because of its multiplier effect on the other sectors of national economy. Adequate housing contributes to the attainment of the

physical and moral health of a nation and it is the most important factor for physical survival of man after the provision of food.

In conclusion, efforts should be geared towards resolving the entire problem of urbanization, instead of zero-in-on the urban housing problems. In other words, urban housing problems constitutes only an aspect of the large social system and whatever affects urban housing will also have an impact on the other subsystems and the entire system of government.

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APPENDIX I QUESTIONNAIRE

Questionnaire for research proposal

Study on the condition of housing in Kubwa, FCT, Abuja, Nigeria

This questionnaire is designed for the research proposal of Agwor, Chukwuemeka Paul; a Postgraduate student of Nasarawa State University, Keffi, in pursuit of a Master of Science in Environmental Resources Management. The information you give is strictly confidential and will be used solely for the research purposes.

For more information, you can send email to paulforchrist19@yahoo.com

Personal information: Demographic Characteristics' of respondents

Kindly tick the appropriate boxes.

1. What is your sex? Male Female.
2. What is your age? 0 – 18 19 - 30 31-45 46 – 60 61- Above
3. What is your marital status? Single Married Divorce Widow (er)
4. What is your level of education? No Primary Secondary Tertiary Others (Specify).....
5. What is your present occupation? Farmer Business Civil service Student Artisan Unemployed Others (Specify)
6. What is your level of income monthly? ≤ #18,000.00 #18,001.00 - #50,000.00 #50,001.00 - #85,000.00 #85,001.00 - #150,000.00 #150,001.00 and above.
7. Members of household? 1 - 3 4 - 6 7 - 10 10 Above.

Section B

Types of house and building materials available in the study area

Kindly tick the appropriate boxes.

8. What is the types of house in your area? () Bungalow () Flat () Block of flat () Multi-family units () Brazilian (face to face) () Traditional houses () Others (Specify)

9. Types of roofing in your area? () Stone-coated () Aluminum () Aluminum step tile () Zinc () Others (Specify)

10. Types of wall in your area? () Mud block () Cement block () Slaps block () Others (Specify)

11. Types of floor in your area? () Ceramic () Marble () Hardwood () Custom Made () Laminate () Others (Specify)

12. Types of window in your area? () Aluminum () Casement () Others (Specify)

13. Types of door in your area? () Energy efficient () Wooden () Others (Specify)

14. Types of ceiling in your area? () POP () Wooden () Asbestos () Others (Specify)

Section C

Housing facilities available in the study area

Kindly tick the appropriate boxes.

- 15. Number of times waste is collected in your area? Daily Weekly Twice a week Twice in two weeks Monthly No response.
- 16. Sources of your water? Pipe borne Borehole Hand-Dug well Water tank storage Others (Specify)
- 17. Types of toilet in your house? Latrine Water closet Bush Others (Specify)
- 18. Types of electricity generation in your house? Abuja Electricity Distribution Company Generator Solar Others (Specify)
- 19. Types of kitchen in your house? Indoor Outdoor Batcher Others (Specify)
- 20. Types of bathroom in your house? Indoor Outdoor Batcher Others (Specify)
- 21. Which of the social centers available in your area? Cinema Recreational Primary school Secondary school Tertiary institution Library Health institution Shopping complex/corner shop Others (Specify)

Section D

Effect of bad housing to the wellbeing of the people in the study area

Kindly tick the appropriate boxes.

22. Which of these social effect of bad housing are noticeable in your area? () Homelessness and Criminality () Delinquency () Violence against the person () Burglary and Theft () Drugs () Public disturbances () Domestic incidents () Educational attainment () Others (Specify)

23. Which of these health effect of bad housing are noticeable in your area? () Cold () Respiratory problems (including asthma), diarrhea () Depression () Mental ill-health () Others (Specify)

24. Which of these economic effect of bad housing are noticeable in your area? () Low economic productivity () Retardant enterprising skills () Others (Specify)

25. Freely comment on the condition of housing in your area.