HOUSING OBSOLESCENCE
A CASE STUDY OF KATSINA STATE STAFF HOUSING

BY

DIKKO KADO

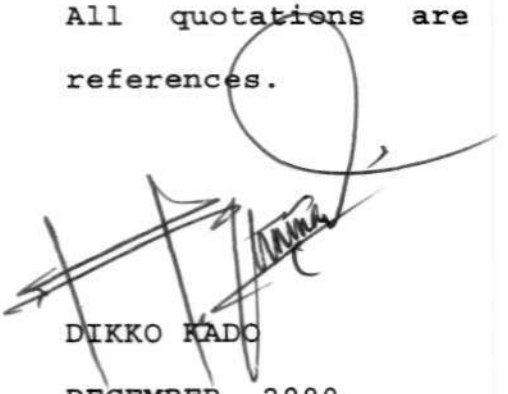
A THESIS SUBMITTED TO THE POSTGRADUATE SCHOOL
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DECLARATION

I hereby declare that this thesis has been prepared by me and is solely the record of my research work, and that it has not been presented in any previous application for a higher degree.

All quotations are specifically acknowledged by means of references.



DIKKO HADO

DECEMBER, 2000

CERTIFICATION

This thesis entitled "HOUSING OBSOLESCENCE: A CASE STUDY OF KATSINA STATE STAFF HOUSING" by DIKKO KADO meets the regulations governing the award of the degree of Master of Science (Construction Management) of Ahmadu Bello University, Zaria and is approved for its contribution to knowledge and literary presentation.

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DEDICATION

This work is dedicated to my family, relatives, friends and all people of goodwill.

ACKNOWLEDGEMENT

My profound gratitude be to Allah the Almighty for everything He has blessed me with and in particular for giving me the opportunity to conduct this work successfully. Blessed is His Rasul Muhammad (S.A.W).

I would particularly acknowledge the outstanding and tireless guidance of my supervisors: Mallam Kabiru Bala and Mr. Joseph Kehinde. I wish to also acknowledge the concern of my Head of Department, Dr. O.G. Okoli toward the completion of the work.

I wish to acknowledge the support, encouragement and guidance of my parents, guardians, lecturers, friends and colleagues toward the success of this research work.

The success of this work would have been illusive without the assistance of the staff of the various establishments covered by the work. I therefore express my gratitude to all that have assisted in this respect and particularly Mallam Sulaiman Kankia of the Office of the Secretary to the Katsina State Government.

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ABSTRACT

This study was aimed at investigating staff housing obsolescence in Katsina State. The study became imperative due to the fact that many staff houses across the state were observed to have become obsolete.

Physical surveys and questionnaires were used to generate data from several establishments in the state as well as current occupants of some staff houses pertaining to the factors identified to have led to the staff housing obsolescence in the state.

Presentation of data was done in tabular form with simple percentage and descriptive analysis.

Failure of priming actions, environmental hazards, conversion to other uses, physical dilapidation due to old age of buildings and other conditions leading to inhabitability were the factors identified to have contributed to the staff housing obsolescence in the state. Factors having direct bearing on occupants were ranked and analysed using Spearman's Rank Correlation Coefficient.

The work revealed that certain number of houses were actually affected by obsolescence. To improve their functionality it has been recommended that failed priming actions should be reassessed for reinvestment where possible or else affected lands and houses should be sold or leased out; housing estates should be sold to the

occupants to release government of maintenance and management responsibility, other houses which cannot be sold should be revitalized and records on staff houses should be properly kept.

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CHAPTER 1

INTRODUCTION

1.1 BACKGROUND

The character of an existing space as well as the character of space suitable for a desired set of activities can be described unambiguously in terms of its load bearing capacity, environmental condition, services facilities and finishes, (Markus, 1979). Moreover, Seeley (1996), pointed out that the basic relative characteristic of landed property is durability which makes it to physically last over over a long period of time. This is true, especially where standard and suitable materials are used in its construction and also where conditions of use as well as the environmental conditions are adequate and favourable.

In the same vein, Warren (1993), mentioned that "obviously the physical life of a building can be very long with many buildings remaining structurally intact and actually in use for hundreds of years". However, Johnson and Wilkes (1993), argued that a durable building is of little benefit if it has built-in obsolescence.

The word obsolescence has been closely related to ageing, which is not always true especially when related to built space, because according to Raftery (1991), "just as it is possible for an old building to be useful, it is also possible for a new or recent building to become useless". Thus, obsolescence should in addition and more appropriately be related to degree of usefulness instead of to age solely.

Building obsolescence can be viewed in terms of building's uses or function, it's general internal and external environment and influences as well as it's structural conditions. One of the reasons behind this is pointed out by Johnson and Wilkes (1993), that "the useful life of a building depends on it's internal and external environment; both in terms of longevity of material and as appropriate habitat for its occupants".

It is worth mentioning that the quality, habitability and effective performance of a building is significantly affected by the site on which it is located; this is due to the fact that each site has unique and peculiar physical characteristics as a result of its setting (Carter, 1993). To limit any unfavourable effect to the minimum, building life should be appropriately designed. Durability and flexibility are the two components of the design life of buildings which combine to avoid premature failure and undesirable

obsolescence, (Johnson and Wilkes, 1993). A typical case of such obsolescence is physical obsolescence, which is the physical deterioration of the physical structure of buildings and which is not only related to the age of a building but also the use of the building and the nature and scale of maintenance that has been carried out on the building.

Maintenance is therefore, not only significant but also necessary, because according to Al-Hammad et al (1996), "as more and more building facilities are being constructed, maintenance work is required to cope with this construction growth". Moreover, "as construction (sic) facilities become older, it is even more important to maintain these facilities".

Conversely, in economic terms, it may be found that such buildings may have exceeded their useful profit-maximizing life only for a relatively shorter period, despite any maintenance work being carried out on them, (Warren, 1993). Where such instances occur it will only be rewarding if such structures are replaced with others which can increase income or converted to other uses, (Seeley, 1978). This is even more imperative when they are incompatible with technological development, for instance, changes in method of production in industrial building. Similarly, this also applies when the benefit of using the site for other uses is greater than the

current use of the building. While giving consideration to the location of the site, Dorsey (1980) mentioned, that,"accessibility to land is the prime determinant of its socio-economic value". He added that,"for a site to be productive, it must be readily accessible via one or more transportation systems". The same view was also shared by Balchin and Kieve (1979), where they stated that, "the greater the accessibility (general or special) the greater the relevance of accessibility to the use of the land, the higher the value of the land in question".

Security, which is another social factor also determines the value of landed property. Harmon (1979), observed that "our civilization is flourishing but the need for security continues to be a major factor in the design of our houses".

Demography, taste and style of users are also important social factors to reckon with. This is because according to Davies (1977), "although supplying shelter for every one is critical, the quality of dwellings does not in itself solve the housing problem. A dwelling must meet the expectation and living modes of the user". This was further stressed by Lauwe (1961) and Seeley (1978), that "a family house is not an ordinary mechanism. It forms a coherent whole, a structure which should express the structure of the family and allow the latter to live in harmony, making allowance not only for the

function of each of the members at any moment but also for the role which he plays in relation to other members" and that, "changing occupational status, car ownership and educational attainment of a considerable proportion of a population must influence the type of accommodation required".

Moreover, in addition to the importance of identifying and meeting human requirements, Nagarajan (1977) also pointed out the importance of natural condition to which a building is subjected. According to him, "underestimating human requirement in the design of a building may result in human inconveniences which cannot be readily assessed in terms of money, but underestimating nature's condition may result in failure of the building which may or may not be repairable".

Inevitably, the aforementioned and indeed many other reasons call for government intervention to establish land use control through various agencies. However, Briscoe (1993), observed that, "Land-use planning as a regulatory activity can create social and economic problems in the society through its unintended distributive impact". He further stated that "the separation of home from work place produces problems in the journey to work".

According to Raftery (1991), the primary causes of obsolescence are technological changes and changes in the land

values which are affected by social and demographic changes as well as changes in transportation and communication. These act interactively in a given situation thereby making the situation more complex.

Moreover, Seeley (1996), pointed out that, "buildings cannot always be readily adapted to other uses, so wrong development decision can result in heavy losses to investor".

Finally, Henry and Mickey (1980), observed that,

> "housing is particularly affected by obsolescence because of the range of technological changes and social standards which nowadays occur over its normal life span. It is only the high capital value and general adaptability of housing which prevents them from being treated as consumer goods and scrapped as soon as more efficient or fashionable models appear in the market".

However, should they remain standing and should they become actually obsolete, they will eventually stand no more."

1.2 NEED FOR THE STUDY

The role of any society and indeed a country as a whole, should include provision of a decent place to live for all members of that society, Dorsey (1980). Housing is also needed specifically for workers in most countries due to industrial advancement as well as schemes for agricultural

development among others. However, Atkinson (1961), observed that,"only model or large employers are able to house satisfactorily many of their workers".

According to Bala (1990) and Mohammed (1985), federal and state governments in Nigeria have been the major participants in the provision of housing through various means and agencies such as: government appropriation, Federal Mortgage Bank of Nigeria, government and private employers staff housing scheme and states' housing agencies, to mention but a few.

Regrettably, however the problem of housing in this country is persistent as observed by Adima (1986), that "the serious social problem constituted by lack of adequate housing remain unsolved despite government effort to evolve an effective means of harnessing meagre financial resources towards the provision of adequate housing".

The problem of housing is not only limited to inadequacy in terms of the number provided or available, but also their current or possible future condition with a view to proper habitability and possibility of becoming obsolete. Indeed building houses at an increased rate can never eliminate the problem of obsolescence, for although it may satisfy certain portion of the population which can afford to take advantage of such dwellings, it will at the same time undertake the

relative deprivation of those who are forced to occupy the older housing which have none of the advantages of the ones constructed recently, (Henry and Mickey 1980).

Like every other state in the federation, Katsina State has many residential buildings - publicly owned staff houses and owner-occupier houses distributed all over the State. These houses were constructed years ago, most of which are apparently in deplorable conditions. Due to this, many occupants are currently living under unacceptable standard conditions which eventually lead many to vacate their accommodations. This had and is still exposing many houses to vandalisation and dilapidation thereby causing loss of revenue to the government and the failure of the aim and objective of such housing scheme. Ironically, similar conditions have befallen many houses which were briefly occupied or not occupied at all after commissioning. These problems in addition to others require a study like this to be undertaken because according to Alyward (1979), "upgrading of our environment to some desired standard, or the maintenance of the environment at its current standard are identical types of investments when viewed as a way of overcoming obsolescence and decay".

Finally, situations like those mentioned earlier can only be understood and appropriately checked when properly

investigated. It is however worthy of note that,"when we see a decrepit area it is not just physical decay we are observing, but a manifestation of organisational lethargy, disinterest and financial withdrawal and of individual despair and lack of motivation", (Alyward 1979).

1.3 AIM AND OBJECTIVES

The aim of the research work was to study staff housing obsolescence and to determine measures through which staff housing projects can be improved.

The following were the objectives of the study:

i. Appraising and evaluating the current condition of the state staff housing.

ii. Identifyng factors which had direct bearing on previous occupants and assessing their levels of influence in causing the occupants to vacate their accommodations based on the records available with the authorities.

iii. Assessing the response of the present occupants in relation to the factors in (ii) above and establishing any possible relationship.

iv. Suggesting ways through which functionality of staff housing can be improved.

1.4 METHODOLOGY

The methodology set to carry out the work involved literature review which was aimed at studying the features of building and housing with emphasis given to obsolescence and its causes, and field survey by administering different types of questionnaires to both the authorities and the occupants. Questionnaires were referred to as Type A and B, respectively. The Type A questionnaire was used to generate data on the state government's staff housing and for the appraisal of the housing conditions in relation to housing obsolescence and associated causes which led previous occupants to vacate their accommodations. The type B questionnaire was used to generate data for the assessment of the identified factors using the response of the present occupants. Ten (10) copies of this questionniare (Type B) were administered for a pilot survey. A total of one hundred (100) questionnaires were administered. the administration was based on modified stratified random sampling. Modification involved the non-consideration of population and stratum sizes due to the fact that efforts in establishing the population size (total number of staff housing in the state) proved unsuccessful. Questionnaires were administrered to the occupants in the strata identified. These were houses located in urban areas, houses located in rural areas and houses located remote from either of the two. The stratification was to ensure optimum level of representation and fair coverage for generalization.

Data collection was augmented by use of photographs presented in chapter 3 as plates. Other forms of physical survey also involved interview with both official in various ministries and many occupants.

Data presentation was mainly made in tabular form using simple percentages (where applicable) with descriptive analysis. Records and responses obtained from the authorities and the occupants on common factors were ranked, also based on simple percentages. Method presented by Raftery (1991) was adopted in ranking of general assessment of problems. 3, 2, 1 and 0 points were allotted for very significant, less significant, insignificant, and non-response respectively. Spearman's rank correlation coefficient was employed to establish relationship between these sets of observations.

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1.5 SCOPE AND LIMITATIONS

The work was carried out on Katsina State staff housing covering houses under the direct control of office of the secretary to the State Government (these include houses under most establishments and housing estates across the state). Ministry of Education, Katsina State Science and Technical Education Board, Katsina State Farmers Supply Company, Katsina State Health Services Management Board and Isa Kaita College of Education.

Due to unavailability of data from some other establishments, sample size (total number of staff housing in the state) has not been established. For that reason, a modified stratified random sampling (already described in section 1.4) was used for the administration of Type B questionnaire. Stratification was only used for data collection but not in the analysis.

CHAPTER 2

BUILDING OBSOLESCENCE AND HOUSING

2.1 BUILDING OBSOLESCENCE

Obsolescence has been defined by Longman Family Dictionary (1989), as "going out of use" or "becoming obsolete". Similarly,according to Raftery (1991), obsolescence is a continuous process manifested by decreasing benefits steeming from the use of a building. It is also the transition towards the state of becoming obsolete which is said to have occurred when the cost of providing the benefit or of updating the building to provide the benefit exceeds the benefit to be obtained. The basic symptoms of building obsolescence are disuse and antiquation. Therefore usefulness and economy should be the primary determinants of building obsolescence instead of its age alone.

The study of obsolescence has undergone many stages in the past. Raftery (1991) pointed out that:

> The study of obsolescence has undergone three distinct stages. At the beginning of the century, obsolescence was viewed essentially as a process of physical deterioration: this is the most straight-forward to understand and measure. Post-=war studies viewed it mainly as an economic phenomenon by studying the economic life, cycles of investments, cost in use and returns. The more recent work has tended to examine the changes and developments

> which take place from one building to another, noting when and why certain types of buildings and location become obsolete for a particular organisation.

Various categories of obsolescence also pointed out are:

1. Usefulness Obsolescence

In this category, a building is said to be obsolete when it becomes completely useless with respect to all the uses it is expected to support.

2. Physical Obsolescence

This is the physical deterioration of the building's physical structure which depends on its use, the level and mode of use and level of maintenance carried out on it.

3. Economic Obsolescence

This is identified when the benefits of continuing to use the building in its present state, including operating costs are less than the benefits of using the building or site for alternative purpose, excluding any renewal cost. This category has an advantage for appraisal purpose because, figures could be put to it.

4. Functional Obsolescence

This is when a building is no longer able to support efficiently the activities it contains.

5. Location Obsolescence

Where a building becomes unable to support the activities it supports by virtue of its location, it could be regarded as obsolete in relation to the location.

6. Site Obsolescence

This occurs when building value becomes lower than site's or land's on which it is located; lower enough to justify demolition.

7. Environmental Obsolescence

General environmental obsolescence occurs when environmental conditions render it increasingly unfit for its current use.

8. Style Obsolescence

Stylistic qualities due to affluence could be used to establish the standard of a building below which the building could be regarded as obsolete.

9. Control Obsolescence

This category is caused by government or planning regulation action on some class of properties.

10. Tenant Obsolescence

This is described as a situation whereby a tenant considers continued occupation of a building not his best course. To

him the building is becoming obsolete. The consequences of this is that a tenant may not consider it worthy to carry out certain items of maintenance (where he is responsible), especially if the end of the lease is nearing.

11. Rental Obsolescence

This occurs when a landlord feels that the existing rent agreement is out of date (to raise or lower rent).

12. Condition Obsolescence

Where condition of a building causes a fall in rental returns of a property, a condition of obsolescence is said to have occurred. This is closely related to physical obsolescence. A situation like this calls for improvements in order to raise rental value.

The above categorization and indeed many more depend on the assessor. Different views can be held by a user of a building, landlord or owner, various professionals, authorities and the general public.

Raftery (1991), asserted that obsolescence in building is difficult to understand due to the fact that buildings are characterized by long physical life and probably shorter economic life aggravated by their environmental inadaptability and more or less structural. Assessment is also difficult

because assessment is usually viewed in terms of depreciation in nominal or real decrease in value. However, the effect of depreciation cannot be generalized. For instance depreciation due to technical obsolescence could be outweighed by increase in value due to market condition. In addition, depreciation is difficult to understand empirically.

Inspite of the above assertion, to identify any form of obsolescence of a building and associated causes, knowledge of land and buildings, as well as their properties and factors affecting them and their value need to be understood.

2.1.1 Land

Land has been described in the Readers Digest Great Encyclopedia (1964), as "a solid part of the earth's surface". It is made up of varying landforms which are as a result of geomorphic process, Gilson (1980).

Geomorphology which is defined by Small (1980), as "the science of landform study" helps in the development of concept of optimal utilization of the land surface in agriculture, recreation, urban development and others, Deju et al (1972). Also according to them, "adequate recognition of potentially unstable land masses can be very helpful in avoiding hazardous situations by carefully planned construction of houses and roads".

Land Use

Various forms of land uses for meeting human requirements and satisfaction as well as for preserving the environment differ between rural and urban areas.

In rural areas, most of the land is mostly used for agricultural purposes compared to housing, commercial and industrial uses. Land use Acts and other regulations such as the Land Use Decree of 1978 are not stringent in rural areas. Land use and development is at the discretion of the so-called land owner with virtually no planning concept and influence by the authority.

On the other hand, land use in the urban areas is significantly influenced by the activities of planning authorities. The authorities are responsible for establishing standards and regulations based on certain aims and objectives. Planning objective as defined by the World Health Organisation, is "a model of intended future and programme of action and predetermined coordination".

Planning objectives include:

1. To ensure that land is put to the best use giving emphasis to the development of the community.
2. To ensure proper balance between competing demands so as to prevent undesirable mixture of land uses.

3. To encourage management and development of public and private form due to scarcity of resources.
4. To harness non-profitable uses with profitable ones so as to achieve efficiency. For instance, increase of accessibility of land may increase its value and efficient use.
5. To prevent waste of land for less valuable development.

Furthermore, the aim of town, country or physical planning is producing a community environment for the purpose of development of human health and safety as well as the welfare and interest of the general public. Therefore, successful planning should depend on the ultimate knowledge of the social and economic forces at work within cities and hence should focus on a better distribution activity and land use related to contemporary social and economic needs. This is necessary, because need changes quickly than physical form. (Seeley 1978). He further pointed out that unplanned land use could lead to loss of valuable land such as agricultural land, for less valuable uses, waste of resources, disharmony, congestion and mixture of incompatible uses, inadequate or complete lack of social services and incurred cost to the host community. Invariably, most of these are connected with building obsolescence.

In as much as land use planning and principles behind it are expected to take into consideration the social and economic factors with the view to maximizing their benefits, it is essential that members of the public are permitted to participate in planning, since controlling land means controlling people. (Wilhelm 1962).

Division of Land Uses in Urban Areas

Atkinson (1961), stated that, "most of the rapidly growing cities of the less developed regions of the world are composed of several quarters, though economically interdependent, are often imperfectly integrated socially and on some occasions form political distinct units". The United Nations Organisation (1973), identified the following distinct settlements.

1. City core with mixed commercial settlements, usually mixed with 2 (below).
2. Indigenous neighbourhood or urban villages.
3. High class residential areas formerly for colonial administrators and presently for government officials.
4. Mixed income residential areas which are fairly new compared to the above, however, density is higher than in (2 and 3) above.

5. Enclaves of indigenous settlements or quasi-squatters, whose locations are much influenced by transportation lines.
6. Open space intermixed with industrial zones, military bases, airports and few high class residences.

Finally the report concluded that, "What it needed is a land use guidance system based on broad land use objectives and land use relationship, which is supposed to indicate the type of development desired".

Land Development

Development has been defined by the United Nations Organisation (1973) as the carrying out of building, engineering, mining or other operations in, on, over or under land or the making of any material change in the use of any building or land.

According to Chapin and Weiss (1962), land development is the consequence of many decisions and implementation of private and public nature. They further pointed out that a development decision which subsequently lead to another is called a priming action and the latter a secondary action. For instance, industrial or commercial location decision (a priming action), may set in motion a chain of other decisions

such as the location of households, firms and others (secondary actions). Henceforth, a priming action has a structural effect on the distribution of land development and timing effect in fixing sequence of other developments. However, its failure can easily cause the failure of other secondary actions.

Guttenberg (1965), adopted the following considerations in urban development decision criteria.

1. The Interest of the User

In this regard, quality of the facility or development is of interest and is defined by its age, rate of deterioration, basic utilities and modern amenities.

2. The Interest of the Investor

Priority here is given to economic durability of the facility in terms of physical condition, adaptability of design, public services environment, title (freehold or leasehold), and management.

3. The Public Interest

This is concerned with social impact, having to do with legal issues, sanitary conditions, aesthetic attributes and the extent of development.

Factors Influencing Land Use and Development

The factors which influence land use and development are numerous, but the most important as recognised by Seeley (1996), include:

1. Land Ownership in the form of freehold or leasehold.
2. Site characteristics which include soil condition, accessibility and services available, among others.
3. Planning control exercised by planning authority in granting permission for development and stating the period within which the development has to commence.
4. Buildings of special interest pertaining their demolition, extension, or alteration due to their architectural or historic values.
5. Tree preservation order affecting forest reserves or any tree preserved by the law.
6. The statutory requirements covering industrial developments both new and conversion, office development, highway construction and similar developments.

Consequently, any meaningful use of land development must necessarily be predicated on reliable information because according to Kiel and McClain (1996), "locally undesirable land uses imposed cost on the host community which may be partially or completely offset by the stream of benefits provided by the land use".

Land for Residential Development

Development of any form has unique and general requirements upon which choice of land is based. Seeley (1978), has identified the following properties as ideal for residential development requirements:

1. The land should be located above flood plain for convenience and to avoid high construction costs and waste.
2. The land should be physically suitable and if steep, the steepness should be able to enhance character.
3. The land should be reasonably healthy, that is devoid of dangers such as erosions, mines and occurrence of slumps or toxic waste.
4. The land should be easily accessible by means of good communication system such as roads and paths for both human and vehicle convenience.
5. The land should be adequately located for easy provision of public utility services such as electricity, water supply and others.
6. The land should be compatible with adjoining developments.

Failure to meet the above requirements can cause possible obsolescence of any development.

2.1.2 Building

Before buildings are constructed, the function of the proposed building must be determined, which subsequently helps to establish suitable geographical location and the cost of building, Encyclopedia Britannica (1998).

Classification of building types can therefore be broadly made based on the function they perform in supporting the activity intended to be carried out in it. A building can hence be called residential, industrial or commercial.

Furthermore, buildings can be classified based on the major materials used in their construction such as timber, steel, and mud. Other classifications include geometrical aspects such as storey buildings.

Irrespective of their form of classifications, all buildings have a common purpose to the occupants, that is to provide adequate comfort and security for habitation and conducive working environment, Wilkes (1993). To achieve this, he proposed that all buildings should meet most of the following requirements.

1. Natural light for the majority of the day.
2. Provide awareness of outside environmental condition.
3. A changing internal environment reflecting within the limits of the external influence.

4. A high quality of air to refresh the internal space.
5. A high indoor air quality free from pollutants and dust.
6. Insulation in winter or cold seasons.
7. Shade in summer or sunny days.
8. Proper acoustic values for desired privacy and convenience.
9. Adequate artificial lighting.
10. Freer occupation of space and control of the environment by the occupants.
11. Small thermal zones with sensitive controls which respond quickly to comfort requirement.
12. Easily maintained with minimum possible cost.

The general status of buildings have been expressed by Derk and Crooms (1996). According to them "buildings modify climate, influence behaviour and culture, they affect distribution of resources and the ecological pattern of our planet". They further stated that, "human aspiration can only be achieved when climate and buildings are at harmony". This is in addition to the fact, that "civilisation may be defined by its buildings, because, they more than anything else reflect the spirit and status of a society at the time they were built".

At the national level, Armer (1992), observed that, "for most advanced economies, building construction represents one of

the largest if not the largest investment of national resources", and that, "the well being of such economies is therefore heavily dependent upon the satisfactory performance of its construction".

BUILDING LIFE

The actual life of a building is difficult to assess due to the fact that many buildings undergo rectifications, maintenance, repairs, improvement, redevelopment, modification, refurbishment and extension involving continued occupation and vacancy. The ultimate life of a building can only be asserted as the period elapsing from construction to demolition along which most of the aforementioned activities could have occurred. (Raftery 1991). According to him, most buildings are constructed with the intention that they will last for at least sixty years; however, many have been observed to exceed this period.

Structural strength, durability and useability over time bring about two components of building life, that is physical life and economic life. The latter is the primary determinant of building's life and only secondarily by the former. This is because according to Seeley (1978), "changes in demand rather than becoming worn-out is the cause of demolishing building". It can be seen that the earning power of a building determines its ultimate life.

Adaptability and effective management could be combined to extend the life a building by reducing the effect of decrease in its value in the form of loss in return or benefits. (Warren 1993). In his words, "the annual returns of a building are likely to decrease over time". He further pointed out that the rental value of a building investment or owner's economic benefits depend on the following:

1. A new building when perceived as unique in terms of fashion, may attract high demand and subsequently rental value. However, similar development in the same area can generate competition which could drive rental value down, especially if demand fails to rise.
2. The older a building becomes, the higher will be the expenses associated with repairs. Existence of better and affordable alternatives can reduce their net rental returns.
3. The building and the area in which it is located may become technically obsolete or unsuitable for effective operation due to various reasons such as change in transportation system and other infrastructures.
4. Increasing risk and uncertainty involved in the future valuation of gross return.
5. Future returns may tend to be declined by the process of discounting future values.

Once it is established that the value of the building has degraded or that it has become obsolete using appropriate means, any of the following decisions can be effected subject to proper feasibility and viability studies, (Warren, 1993).

1. Extensive refurbishment can be carried out to improve the economic life of the building so as to attract higher level of income or rental value.
2. Create change of use by effecting some fundamental alterations in the building so as to attract a willing client to buy or use the building.
3. Reduce the operating cost of the building through improvement which will possibly increase annual return.
4. Demolish the existing building and replace it with another profitable one.

Finally, it should be noted that as soon as any of the decisions is effected, the cycle will still continue over time and on any type of building redeveloped or constructed.

Factors Influencing Physical and Economic Life of a Building

In general, the following are some of the factors influencing both the physical and economic life of a building as identified by Warren (1993).

1. Physical Environmental Conditions

Deju et al (1972), highlighted that our environment and its uses are changing not only as a result of work of man, but also as a result of natural process. This will favour or otherwise, the continued suitability of the location of a building and the building itself.

2. Adaptability

If the initial use of a building is changed to another, the building is said to be adapted. Where it provides no room for adaptation, both its physical and economic life would have to end otherwise loss will be incurred. (Seeley 1978).

Adaptability of a building is generally determined by its initial design and the general building system. According to Carter (1993), "many systems are combined in the construction of a building. Systems of structure and full range of building services including ventilation, electrical installation, water supply and drainage can all be found in even the smallest building and the degree of complexity depends upon increase with size of the project". Thus, it follows that adaptation could only be effected by affecting the structure of a building, its services and/or internal design, which may involve major or minor alterations depending on its level of adaptability.

To accommodate small or minor changes it could require only relocation of furniture. Similarly use of demountable partitions in the internal design could provide high degree of adaptability and at the same time prevent any structural setback which could arise in demolishing work. On the other hand, major alteration of the structure and its services would be required to provide the amount of space needed for major changes. This could be achieved through horizontal or vertical extension where land is available or where provision is made at the design stage, respectively. Both extensions could however be restricted by planning authority. (Raftery 1991). According to him, services adaptability is very significant, because rapid development in services is expected to occur in the future and it might therefore become the single most important determinant of useful life of a building. In the same vein, Carter (1993), proffered that, "building services systems are often replaced or changed more frequently than structural systems". Their significance is further illuminated by Bala (1990); he mentioned that, "in modern times, for a building to be considered as having minimum facilities for habitation, their services must be adequately provided".

Successful adaptation could be achieved by giving consideration to the physical lives of all the elements and components of a building, their frequency of change and the

inter-relationship between different parts. In addition, future changes need to be predicted as accurately as possible. These would enable devising a suitable order of priority for adaptation for a particular organisation or function. However, Warren (1993) pointed out that marginal cost associated with adaptation decision must be borne in mind. This is in addition to the followings:

i. The process the client or owner requires to be carried out within the building.
ii. His financial position
iii. Period which is likely to elapse before change is made.
iv. Type of change predicted.
v. Accuracy of prediction
vi. Possible action of planning authority likely to affect the decision and purpose.
vii. Environmental response and compatibility.

3. Development in Building Construction Materials.

In observing the trend of technological development, Derk and Croome (1996), stated that, "technology has been viewed at various stages of civilisation as leading to future progress", which, "for example, advance in material science include the development of lightweight, smart and environmentally friendly materials, which will find application in adaptive envelopes

for building". They further contemplated that, "the greatest avenue of technological change will probably continue to occur in material science".

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Improvement in construction methods and materials as well as prefabrication, made speedy construction possible and where such development for any other reasons hastens the economic life of an existing building, advantage could be taken of the situation to effect redevelopment in a better attractive proposition within the shortest possible time. Cost associated with this is relative and subjective, (Warren, 1993).

4. Land Values and Changes in Urban Land Uses

Land value and uses have been discussed earlier: however, it is significant to mention that the value of land and the factors affecting it have tangible effect on the market price of a building and its economic returns or benefits. Similarly, building value could be related to adjoining land uses and the relative complements.

5. Demographic Changes

Absolute increase or decrease in a nation's population due to birth or death do not necessarily have so much effect on the building's life. However, population change due to migration has apparent effect, because, migration could readily lead to

increase in demand for housing and other building facilities in one area and decrease in demand in other areas.

6. Inner City Housing

As an urban area develops, a large stock of housing usually remains in the inner city. These are often of poor quality and in competition with other land uses.

7. Communication

Buildings located close to good means of communication such as good road network would be at advantage compared with those lacking them.

Balchin and Kieve (1979), observed that the importance of accessibility to residential land or building is illustrated when the utility of a particular site is regarded upon monetary factors such as travelling to work, schools, shops and public or private open space, and of non monetary considerations such as compatible neighborhood, fresh air and other basic amenities.

8. Industrial Buildings in Inner Urban Area

Rapid urbanisation process usually amounts to a situation whereby old industrial buildings would have to be within the inner part of the urban area. This is usually as a result of smaller urban areas that originally existed in the past and

which also determine the locations of such industries as at then. The fact that such buildings were often seen being converted to other uses, left derelict or demolished for entirely new development is an evidence that urbanisation has a consequence of shortening both the economic and physical lives of the buildings.

9. Planning, Control, Legislation and Government Activities

Town planning has been viewed by Balchin and Kieve (1979) as a means of increasing the value of private land and its profitable uses. It is also recognised that through the interaction of supply and demand land would be transferred to its highest best use, (Baldin and Kieve, 1979). For that reason, planning decision and similar government activities which include site development restriction, compulsory purchase, provision of improvement grant and interest policy could be regarded as the most important influences on land value and use. The effect depends on whether or not the decision is favourable which will subsequently and respectively affect both its economic and physical lives.

Building Failure and Damages

Building failure and subsequently physical obsolescence has been closely related with improper specification and use of materials by Cater (1993). He therefore suggested that, "careful consideration should be given in the specification of

materials for new buildings" and that, "it is important to consider the energy consumption in manufacture and the durability of materials as well as their safety in use".

Moreover, Singh (1993), observed that environmental factors cause and favour the decay of building structure, contents and decorations. According to him, the most important are: temperature, water, humidity, and lack of ventilation.

Derk and Croome (1996), categorized the causes of building failure into the followings:

1. Use of incompatible components
2. Lack of system approach to design.
3. Mismatch between components that have been manufactured separately.
4. Inadequate installation and use.

In addition, Henry and Mickey (1980), identified population density as effective among causes of building failure. According to them, "inadequate density and especially with high proportion of children increase level of wear and tear of accommodation". They further identified the following classes of building damage.

1. Accidental damage.
2. Damage by rectification work.
3. Damage connected with inadequate population density.

Building Monitoring and Maintenance

Armer (1992), described monitoring as to watch or listen carefully over certain period of time for a special purpose. In his view, the element of monitoring is aimed at ensuring proper function of a building by monitoring its current condition.

According to him, the role of monitoring construction work has a distinct and a general perspective on the user, the owner and the public.

1. The User

The user, as distinct from the owner or appropriately a tenant is concerned with the following:

i. Safety in living or working environment in the building he rents or leases.
ii. To ensure that his business is not damaged by loss or failure of the facility.

2. The Owner

Monitoring objective to the owner if not the user is to protect his investment both as capital and as source of funds.

3. The Public

The objective of monitoring here is also two-fold. That is:

i. To ensure that acceptable level of safety is sustained for the people and

ii. To ensure that a degree of consumer protection is provided to meet the same need.

Building monitoring and inspection cycle are two vital aspects of any maintenance activities. Building maintenance has been defined by Henry and Mickey (1980), as "the care of a building over it's life span and which such elements as cleaning, painting, the replacement of protective covering and the renewal of structural services units which become worn through normal use".

While considering the benefits of maintenance, Liska (1986), pointed out that the escalating cost of new construction, materials and equipment make it necessary to ensure that existing building systems and equipment are maintained on a regular basis, and that repairs are made to last over a long period. He also stressed that, "an effective maintenance

programme is the only answer to lengthening the life of capital investment".

Similarly, Seeley (1978) and Rotimi (1996), stated respectively that, "the prime benefits of maintaining a building are to retain the value of investment, to maintain the building in a condition in which it continues to satisfactorily fulfil its function, and to present a good appearance to the public", and that, "building maintenance is a prescribed incessant activity aimed at increasing useful (sic) life of buildings and their components".

The significance of maintenance at national level is elaborated by Seeley (1987). According to him, the "significance of maintenance is to ensure that a nation's building stock both as facility of production and accommodation is used as effectively as possible, to avoid future burden for the oncoming generation and to maintain the quality of the environment".

Both defects and their effects on a building could be prevented or reduced to the barest minimum by means of better and improved design, specification and careful and prompt maintenance.

At the beginning of building's life, defects are usually rare or are seldom detected. to avoid resulting premature failure

and eventually short life, a good maintenance culture is necessary. This involves keeping full record of property, stating the location, age, condition and construction details of each elements, record of services, floor area and cubic content, accommodation provided, current and any relevant planning decisions, and maintaining effective flow of information between occupants, management and designers, (Seeley 1978). In addition, defects should be rectified as soon as they are detected to prevent further deterioration of the fabric and finishes which could lead to harmful consequences and accumulative cost, (Liska, 1998).

An effective maintenance programme requires good maintenance management skills in form of technical knowledge necessary to identify needs, and to specify the remedy in addition to understanding modern management techniques, a knowledge of property, contract law and appreciation of relevant sociological and economic aspects of maintenance. This is beyond the scope of an ordinary occupant. However, an occupant should, to some reasonable extent be made aware and encouraged to understand the importance and to participate in the maintenance of their houses.

The maintenance problem has been observed to be accentuated by the attitude of individual users, owners and the government at large. According to Henry and Mickey (1980), "to the home

owner, maintenance is at best an annoyance, whilst to the investor it offers no quick returns, and as such neglect can take place over a prolonged period since anything but a marginal effect of property value becomes obvious". While considering government's attitude, they mentioned that, "even in the developed countries of the world where housing authorities appear to carry out regular decorations every five to six years, other aspects of maintenance receive little attention on a regular basis, for instance by annual inspectors, followed by remedial work rather than waiting for actual defect to occur".

2.1.3 Land and Building Values

Raftery (1991), stated that, "value in common parlance is taken to be the intrinsic worth of a good". He also asserted that, "it cannot always be measured in money terms", and that "price does not necessarily always have a direct relationship with value". In contrast, Millington (1990), opined that, "when a valuer uses the word value he will normally be referring to 'a market value', which he defined as the "money obtainable from a person or persons willing and able to purchase an article when it is offered for sale by a willing seller". However, both pointed out that scarcity would affect value. When scarcity increases so would value and vice-versa.

Moreover, value of a particular property is also determined by the importance attached to it by a valuator, and this is derived by the degree of its usefulness to him. For that reason, value depicts the relationship between valuator and the thing being valued. Usefulness therefore generates demand, thereby making value and the demand only but subjective, (Raftery, 1991). According to him the components of value are: scarcity, utility, cost of production, value in use, marginal utility and value in exchange, among which marginal utility is the most important indicator of the relationship between a valuator and the thing being valued.

Factors Affecting Value of Property

The followings are the most important factors affecting the value of landed properties as identified by Warren (1993):

1. Increase or Decrease in Population
2. Change in the age distribution of the population which determines type of accommodation required.
3. Change in proportion of the married to single people. Effect is as above.
4. Change in fashion and taste as a result of increase in income, attainment and affluence.
5. Change of fashion of area as a result of urbanization.
6. Change in type of society such as from agrarian to industrial.

7. Changes in technology.
8. Change in building or construction method casting positive or negative effect in property market.
9. Building cost. However, property value depends on level of its demand, physical condition, location and the stock available in the market.
10. Money supply or purchasing power which determines people's affordability to buy.
11. Improvement or deterioration of communication systems such as motor way and railway.
12. Planning control governed by the authority.

It has been observed that the value of land on which a building is located may have a significant effect on the market price of the building. According to Raftery (1991), monetary value of a building is determined primarily by supply and demand, whereas locational value is determined by intended use of the building and in addition influenced by legislative control, physical nature of the land, availability of transportation and compatibility with surrounding activities.

At the beginning of a building's life it's value under normal circumstances is high compared with the land's value on which it is located. This value would tend to appreciate and at the same time the land's value also appreciates due to competing uses of the building. Level of improvement, compatibility and

adaptability would tend to raise or maintain the value of the building. However, if these qualities start to degenerate competing activities would keep on raising the value of the land. In a situation where these values coincide, keeping the building would lead to incurring economic loss in land value. On the other hand, if the building is demolished before that point, economic cost could be incurred in the building's value.

2.2 HOUSING

The Groilier International Encyclopedia (1991), states that, "a house can be characterised as a structure used as residence". It also declared that, houses reflect changing functions as well as difference in culture, climate, available construction materials and technology.

According to Vagale (1991), house as a shelter is notably important for it is one of the basic needs of individuals, the family and the community in terms of human health, efficiency, social behaviour, satisfaction, coherence and sense of belonging. Moreover, the Federal Government of Nigeria in recognition of the importance of shelter stated in its Fourth National Development Plan (1980-1985) that, "with the exception of food, shelter ranks highest amongst man's needs. Housing goes beyond simple shelter to include utilities and

community services and nearness to employment opportunities as well as education and health facilities.".

In general, shelter provides a physical framework and the environment in which the social, economic, cultural and aesthetic values of man and society are realised, enriched and integrated. Housing also determines the quality of lives, the stability of communities and the health of the national economies. It is therefore recognised that it is the inherent right of every family to live in a decent house, at a reasonable cost, in a desirable community and provided with necessary socio-economic infrastructure, such as access roads, water and electricity supply, sewage and solid waste disposal facilities, which are essential for the realization of the optimum benefits of building houses and improvement, (Mba, 1997).

Ademoroti and Ozo (1992), viewed housing as a product and as a process. According to them, housing as a product is the bundle of services such as the structure of the dwellings, with their built-in facilities and also the aesthetic nature of the environment and the surroundings. On the other hand, housing as a process is the activities that occur in order to secure a liveable housing environment.

They further added that "the usefulness and quality of housing depends in part on its proper location in relation to many other urban facilities".

2.2.1 Housing Need and Demand

According to Vagale (1978), housing needs arise when the quality and quantity of existing accommodation fall below that required by individual household at minimum or higher standard, irrespective of its ability to pay. Whereas effective demand for housing is the ability for a number of households to pay for their dwellings. He further proposed that housing needs for a country can be assessed using the following methods.

1. Conventional Method

This require collection of data and studies on housing market analysis, number of families and households, rate of family formation, vacancy rates, loss of dwellings due to obsolescence, demolition, change in land use, price and rent of accommodation and quality of housing.

2. Unconventional Method

In the absence of relevant data, housing needs can be assessed based on the followings:

i. Investment in terms of Gross National Product (GDP).
ii. Rate of construction of dwellings per year or per 1000 population.
iii. Investment or cost of housing as a percentage of household income.
iv. Employment in the building sector as a percentage of total labour force.

As a result of the rapidly increasing need of adequate housing, not only in the developing countries, but also all over the world, housing has been classified as the single largest component in the total building effort of any nation and rated second major consumer of land after agriculture, (Ademoroti and Ozo 1992). However, Adima (1986), observed that even though needs are identified, plans are usually made, but actual construction is only partial. This is coupled with lack of funds both in the public and private sectors, for the acquisition of land and actual construction.

2.2.2 HOUSING POLICY AND OBJECTIVES

Mohammed (1985), stated that, "housing policy refers to the range of activities the government and private institutions jointly undertake to provide housing services for a population". In this respect, housing policy depends on the economy, population trends, social institutions and the political structure of a community or country in general.

(Vagale, 1978). In his views, objectives of housing policy should include:

1. Provision of a decent and adequate house and healthy environment for every citizen of a country at a reasonable cost and in a desirable community.
2. Housing should be viewed in the large context of the country's economic growth, industrial location, population distribution, social development and settlement structure.
3. Coordination between public and private sectors by complementing each other.
4. Policy measures should be emphasised on and given priority to housing programmes, designed to benefit the least priviledged strata of the society.
5. Housing projects should form an integral part of development of towns and cities.
6. Housing should become an important element of social policy.
7. Housing should aim at eliminating all forms of discriminations based on race, religion, income, occupation, and other socio-economic variables.
8. Home-ownership should be encouraged by positive inducement and by creating an environment in which owner occupied sector can function effectively and efficiently.

9. Housing policy should accelerate the development of those areas which have been targeted for increase in population and national human settlement action.
10. Housing policy should include an urban renewal policy.
11. Professional institutions should be involved in the process of formulating national housing policy.
12. Federal government should accept in large measure, the responsibility for financing housing policy schemes in the capital cities, major industrial centres and selected towns which are rapidly growing and where shortage of accommodation is acute and congestion severe due to stringent financial condition of the states.
13. The policy should incorporate in its scope an industrial framework for the implementation of the policy and administration or management.
14. The housing horizon should extend to education, training or research of knowledge on housing, urban development and allied disciplines.

Housing concern can be asserted as a global issue, because according to Lee and Boon (1996), "governments all over the world are concerned with providing adequate housing to meet the needs of their people. Public interest in housing market ranges from the provision of incentives and other subsidies for poorer families to the construction of public, often rental housing for lower income households". To highlight the

housing problem in Nigeria and the efforts made by the government in alleviating this problem, Mogbo (1992), stated that, "the acute shortage of houses in Nigeria necessitated the formulation of a policy whereby the government had to design and construct different types of housing units to accommodate its officials who serve in many rural and urban centres in the country".

Indeed, housing provision in the country should ideally go hand-in-hand with their adequate upkeep. However, on the contrary, Kakulu (1995), observed that, "our housing delivery system has focused more attention on the construction of new structures rather than the conservation of the existing ones, resulting in gradual depletion of our housing stock".

Finally, the factors identified which are likely to affect occupants of staff houses and on which large part of this work has been based are:

A. Inadequacy of accommodation in terms of family size.
B: High rental charges
C: High maintenance cost
D: Failure of building's structures or elements
E: Insecurity
F: Incompatible neighbourhood
G: Environmental hazards
H: Poor accessibility

I: Remoteness from work place

J: Remoteness from social services

K: Poor quality of building services

L: Poor quality of internal finishes

M: Unsightly external appearances

N: Degradation of tastefulness of dwellings.

CHAPTER 3

HOUSING AND STAFF HOUSING OBSOLESCENCE IN KATSINA STATE

3.1 BRIEF ON KATSINA STATE

Katsina State was created on 23 September 1987 from the former Kaduna State. Presently the State has 34 local government councils.

The state shares borders with Niger Republic to the North, Jigawa and Kano States to the east, Kaduna State to the south and Zamfara state to the west.

Vegetation in the state is generally sub-saharan or semi-arid, spread mostly on plain terrain. It covers about 29,938 sq kms, Katsina State Government Diary (1997).

Despite little variations in vegetation between the northern and southern parts of the state, the weather generally varies with seasons. It is normally cool in the morning, hot in the afternoon and cool in the evening. The harmattan season begins around November and ends around February. During this season the temperature is lowered. The wind is dry and hot between January and April which signals the arrival of rainy season which lasts from April to September.

According to the 1991 population census, the state has a population of 4,370,000 mainly of Hausa/Fulani ethnic groups. Majority of the populace are peasant farmers and animal rearers living in rural areas.

3.2 HOUSING IN KATSINA STATE

The majority of houses in the state were constructed by individuals and private developers. Government's major input in housing is mainly in the provision of basic infrastructure such as water and electricity supply, waste and sewage disposal, and town planning activities mostly in the urban areas.

The direct intervention of government in housing is in the owner-occupier and staff rental housing schemes. General housing policy in this regard is as contained in the National Housing Policy. Housing schemes are planned in accordance with budgetary allocation or provision for a period of four to five years. Design and implementation is carried out by the Ministry or department concerned. However the state Ministry of Works plays a major role in the implementation of government's construction activities.

3.2.1 Owner-Occupier Housing Scheme

As the name implies, it is a scheme where the government develops and sells houses to the people under the control of

the State Housing Corporation. In most cases payment is made by instalment for a period of time depending on the categories of beneficiaries.

Most of the houses that fall under this scheme were inherited from the former Kaduna State, constructed during the Fourth National Development Plan (1981-1985). These houses are prominently known as low-cost houses. The number of houses under this scheme is presented in Table 3.1.

Table 3.1: OWNER-OCCUPIER HOUSES

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LOCATION	BEDROOM NUMBER		TOTAL	YEAR CONSTR-UCTED	REMARKS
	2	3			
Katsina New K/Marusa Low Cost	na	na	139	1980	
Batagarawa Low Cost	na	na	222	1980	
Daura Low cost	na	na	60	na	
Mani low cost	na	na	28	1980	4 others completed in 1990
Kankia low cost	24	8	32	1980	
Funtua low cost	80	20	100	1980	8 others completed in 1989.
Malumfashi low cost	32	12	48	1980	4 others completed in 1989
Dutsinma low cost	32	12	48	1980	
TOTAL			677		

NOTE: na = not available

SOURCE: Katsina State Housing Corporation, (1998).

In addition to the completion of the abandoned blocks of houses indicated in the table, Dutsin Safe Housing Estate was constructed in Katsina metropolis in 1991 at the cost of N9,520,000. The estate comprises of 72 and 104 blocks of two

and three bedroom bungalows respectively. The houses have been sold to members of the public, majority of which were civil servants.

3.2.2 Staff Rental Housing Scheme

Houses under this scheme can be classified as:

1. Houses constructed during colonial rule.
2. Houses constructed by the former Northern Regional government.
3. Houses constructed under the Third National Development Plan (1976-80).
4. Houses constructed by the former Kaduna State government.
5. Houses constructed or purchased by present Katsina State Government.

Unlike the previous scheme, participation of government in this scheme was due to the following reasons.

i. Ensuring convenience, comfort and motivation to staffers for effective performance, which became necessary before and after the creation of the state.
ii. Various activities of the government in various development plans.

Irrespective of the earlier classifications, most of the staff houses were inherited from the former Kaduna State.

Staff houses are normally classified as senior and junior staff quarters. The primary difference is in the location of the houses, facilities provided, size of the houses and the provision of boy's quarters.

Table 3.2 and 3.3 respectively show the breakdown of staff houses according to government establishments and various low cost houses maintained under the staff rental housing scheme constructed during the first phase of the Third National Development Plan (1976-1980).

Table 3.2: STAFF HOUSING ACCORDING TO ESTABLISHMENTS

ESTABLISHMENTS	NUMBER OF HOUSES		TOTAL
	SENIOR STAFF	JUNIOR STAFF	
Ministry of Education	59	10	69
Ministry of Finance	28	9	37
Ministry of Works	41	15	56
Ministry of Agriculture	33	8	41
Ministry of Information	10	3	13
Ministry of Women Affairs	11	4	15
Ministry of Water Resources	18	5	23
Ministry of Health	58	6	64
Ministry of Justice	12	3	15
Ministry of commerce & Industry	10	2	12
Government House	16	4	20
Office of the S.S.G.	21	3	24
Water Board	6	1	7
Dept. of Establishment	7	2	9
State Audit Department	11	2	13
Local Government Audit Dept.	5	2	7
State Radio and Television	7	1	8
Land and Surveying	8	3	11
Budgeting and Planning Dept.	5	1	6
High Court	18	5	23
Sharia Court	6	1	7
Board of Internal Revenue	17	2	19
House of Assembly	9	2	11
TOTAL	416	94	510

SOURCE: Office of the Secretary to the State government, (1998).

Table 3.3: KATSINA STATE STAFF LOW COST HOUSING ESTATES

LOCATION	BEDROOM NUMBER		TOTAL	YEAR CONSTR-UCTED	REMARKS
	2	3			
Katsina Old K/Marusa Low Cost	55	24	79	1979	
Daura Low cost	41	8	49	1979	
Mani Low cost	27	12	39	1979	
Kankia low cost	40	8	48	1979	
Funtua Low cost	61	30	91	1979	
M/fashi low cost	30	16	46	1979	
Dutsinma low cost	30	18	48	1979	
Total	284	116	400		

SOURCE: Office of the Secretary to the State government, (1998).

Between 1989 and 1998 many housing projects were executed by government through its various establishments aimed at alleviating the hardship being experienced by the members of staff. Below is the summary of such activities.

1. In 1989, four blocks of two bedroom bungalows, legislative junior staff quarters were built.
2. In 1990, a total of 104 blocks of bungalows were constructed for Katsina Agricultural and Rural Development Authority (KTARDA) at the cost of

N24,430,000. The houses included additional ones constructed in the existing estate and those constructed in the new estates across the state. The estates comprise of a total of 78 and 26 two and three bedroom bungalows respectively.

3. In 1992, nine blocks of three bedroom bungalows Commissioners' quarters were constructed in the State capital. In the same year, four bungalows were constructed in the Government House for the Military Administrator's aides.
4. In 1993, Goriba housing estate was constructed along Goriba Road, GRA, Katsina comprising of 20 number of three bedroom bungalows.
5. In 1994, the construction of four blocks of three bedroom bungalows was initiated. Presently, three blocks have been completed and commissioned.
6. In 1996, a house was purchased in the state capital and designated as a senior staff house.
7. As at the end of 1998, the construction of three blocks of four bedroom bungalows for top government functionaries/staff quarters was close to completion.

Currently, there are a total of 103 state secondary schools in the state. Out of these number, seven are under the control of the State Science and Technical Educational Board (STEB), while the rest are directly under the control of the state

Ministry of Education. Various Locations and respective number of staff houses under STEB were shown in Table 3.4

Table 3.4: SECONDARY STAFF HOUSES UNDER STEB

LOCATION	NUMBER OF HOUSES			TOTAL	REMARK
	SENIOR	JUNIOR	UNDER CONST-RUCTION		
Funtua	1	3	4	8	
Charanchi	1	4	2	7	
Mai'adua	1	4	2	7	
Malumfashi	14	22		36	
Ingawa	1	4	2	7	
Sandamu	1	9	10	20	
Dutsinma	12	11		23	
TOTAL	31	57	20	108	

SOURCE: Katsina State Science and Technical Board, (1998)

Similarly, staff houses in the remaining secondary schools are also classified as senior and junior staff quarters.

There were a total of 389 and 467 senior and junior staff quarters respectively.

In 1991, Isa Kaita College of Education (formerly Katsina State College of Education) was established at Dutsinma. The institution was allocated part of Universal Primary Education

Teachers College, Dutsinma with the following staff quarters all of which were constructed in 1979.

1. Two blocks of four bedroom bungalow senior staff quarters.
2. Three blocks of three bedroom bungalows senior staff quarters.
3. 20 blocks of two bedroom bungalow senior staff quarters.
4. 20 blocks of one bedroom bungalow junior staff quarters.

Presently, the college has a total of 72 houses. The following were additionally constructed:

5. Six blocks of three bedroom bungalows.
6. 19 blocks of two bedroom bungalows.
7. Two blocks of one bedroom bungalow.

Katsina State Farmers Supply Company (FASKOKT), which is a department under the State Ministry of Agriculture, has several staff houses located in various Farm Services Centres in the State. A total of 72 blocks of two bedroom quarters were located at the various centres across the state. In addition, the Department has 13 and four blocks of houses at KTARDA estates in Funtua and Katsina respectively.

Similarly, KTARDA which is also another department under the State Ministry of Agriculture has equal number of similar houses at the Farm Services Centres mentioned earlier. Thus

a total of 144 are located at the various centres. The centres were used as commercial centres for the sales of fertilizer and farm implements to farmers and also for the purchase of farm produce from them in addition to other services. The houses provided at each centre are for a commercial assistants from FASKOKT and an Extension Worker from KTARDA.

In 1998, Katsina State Health Services Management Board (KSHMB) was created from the State Ministry of Health. The Board is charged with the responsibility of managing all the General Hospitals across the state among other duties. Staff houses according to the location of the various General Hospitals is shown in Table 3.5.

Table 3.5: GENERAL HOSPITALS STAFF HOUSING

LOCATION	NUMBER OF HOUSES ACCORDING TO BEDROOM NUMBER					TOTAL	YEAR CONST-RUCTED
	1	2	3	4	5		
Katsina			20		5	25	1979
Dutsinma		8	14		1	23	1980
Funtua		10	10	2		22	1980
Mani			15	3		18	1980
Daura			8	3		11	1982
Batsari		6	4			10	na
Baure	10		6			16	na
Babbar ruga		4	2			6	na
Malumfashi		6		6		12	na
Rimi	6		8			14	na
Kankia		8	8			16	na
TOTAL	16	42	95	14	6	173	

NOTES: na = not available

SOURCE: KATSINA STATE HEALTH SERVICES MANAGEMENT BOARD (1998)

STAFF HOUSING ALLOCATION

Housing allocation for members of staff in many establishment is mostly controlled by the office of the Secretary to the State Government (S.S.G.). Exception is however enjoyed by ministries and parastatals where allocation is under the control of their respective welfare officers and/or other officers responsible for the allocation. Institutions also enjoy this autonomy, where principals or their representatives

are responsible for allocating houses to staffers directly. However, the S.S.G.'s office reserves the right to request and allocate houses to staffers from any establishment should the need arises.

Generally, the procedure requires a staff member to apply for an accommodation due to the limited number available. Provision is usually on first-come first-served basis. In some establishments however, housing provision is only for senior staff members on certain salary scale. Outstanding applications in some establishments is shown in Table 3.6.

Table 3.6: OUTSTANDING APPLICATIONS FOR STAFF HOUSING

ESTABLISHMENT	NUMBER OF APPLICATIONS	REMARKS
Office of the Secretary to the State Government	75	From various establishments,
Science and Technical Education Board	5	Head Office
Isa Kaita College of Education	24	Staff members of the institution
TOTAL	104	

SOURCE: SOME ESTABLISHMENTS LISTED IN THE TABLE, (1998).

On acceptance of an application, a successful staff member is served with an allocation letter similar to the one in Appendix C, after which he signs an agreement with the

authority taking responsibility of the house. Each staff house has a file for documentation.

STAFF HOUSING MAINTENANCE

Generally, maintenance of houses allocated to staffers is the responsibility of the authority, except where it is established that the damage is recklessly caused by the occupants. In most cases minor defects are usually rectified by the occupants.

Maintenance policy varies from one establishment to another. In some, the policy involves rehabilitation of houses after a minimum of three years except for special reasons, such as fire incidence and damage by storm. Maintenance programme is designed at the beginning of each year in line with budgetary allocation.

On the other hand, maintenance in other establishments is usually carried out only on request by the occupants. The request is usually made by filling a maintenance requisition form, a sample of which is shown in Appendix D. After receiving a request, the authority responsible (mainly the Maintenance Officer and/or the Welfare Officer) usually sends out a team of inspectors to inspect and assess the defect described by the occupant (applicant). Similar to house

allocation maintenance in many establishments is on first come first served basis.

Maintenance is usually executed either directly by the authority using direct labour or contracted out depending on the decision reached by the authority which also depends on the nature and extent of damage in relation to the limited funds available.

To enter into a contract with a maintenance contractor, an agreement form is usually signed by the contractor and the representative of the authority to formalise the contract. an example of this form is shown in Appendix E.

On completion of the job, a certificate of completion similar to the one shown in appendix F is endorsed and issued by an inspection or supervising officer and any other officer concerned, for the final acceptance of the executed work and also to enable payment be made to the contractor.

3.2.3 SUPPLEMENTARY STAFF HOUSING SCHEME

To augment housing provision to members of staff, various establishments engage a supplementary housing policy in the form of renting houses from private owners and allocating them to their staff members. The following is the summary of this policy in some establishments.

1. Office of the Secretary to the State Government: 159 houses are currently being rented by this establishment for staffers in various ministries and establishments across the state.
2. Ministry of Education: A total of 45 houses are being rented by the Ministry for its members of staff in the headquarters and zonal areas as shown below:

Headquarters:	-	4 houses
Katsina Zone:	-	11 houses
Daura Zone:	-	19 houses
Dutsinma Zone:	-	6 houses
M/fashi Zone:	-	5 houses

3. State Technical Education board: 17 houses are being rented by the Board for staffer in various secondary schools under the Board.
4. Isa Kaita College of Education: The institution has four rented houses for its staff members.
5. Katsina State Farmers Supply Company: A single house is being rented by the Department.
6. Katsina State Health Services Management Board: The Board has 30 rented houses for its staff members. The number is associated with the recent promotion of some Primary Health Clinics to General Hospitals.

This type of supplementary housing policy is considered by some establishments as advantageous in that maintenance of such houses is the responsibility of the landlords. However, the popularity of the policy is diminishing in most establishments due to conflicts arising between beneficiaries and the landlords. In addition, rental charges are often higher compared to public staff quarters, and due to the fact that rental charges are generally not deducted directly from the beneficiaries salaries, the government, on many occasions is left to bear the burden of paying the landlords without receiving appropriate payment from the beneficiaries.

3.2.4 STAFF HOUSING APPRAISAL

Poor condition for a comfortable and acceptable standard of habitation to complete dilapidation and vandalization are some of the problems associated with staff housing in the state.

According to available information from various state government's establishments, the following have been identified as the major factors that have affected or are presently affecting staff housing in the state.

1. Failure of priming actions which initially led to the construction of the associated houses.

2. Environmental hazards such as fire, wind storm, and the likes which cause or enhanced physical deterioration of the structures of such houses and their environs.
3. Conversion to other uses.
4. Physical dilapidation of dwellings due to old age of the buildings and physical deterioration.
5. Other inhabitable conditions that forced occupants to vacate their accommodations.

Failure of Priming Actions

Various governments in the past embarked on many development programmes some of which are still being pursued by the state government. However, due to some reasons some programmes had become inactive or dropped. Typical of such is the activities of the Farm Services Centres where due to the failure of this programme, many stores at various centres had become obsolete and were becoming gradually dilapidated affecting along with them the staff houses at such sites. Out of a total of 144 houses mentioned earlier, 143 are presently obsolete.

Despite the decision taken by the authority concerned to hire out some of the affected stores in few centres, however this gesture has not been extended to the staff houses. For that reason, condition of the houses is ever getting worse. a typical condition of such houses is shown in Plate 1.

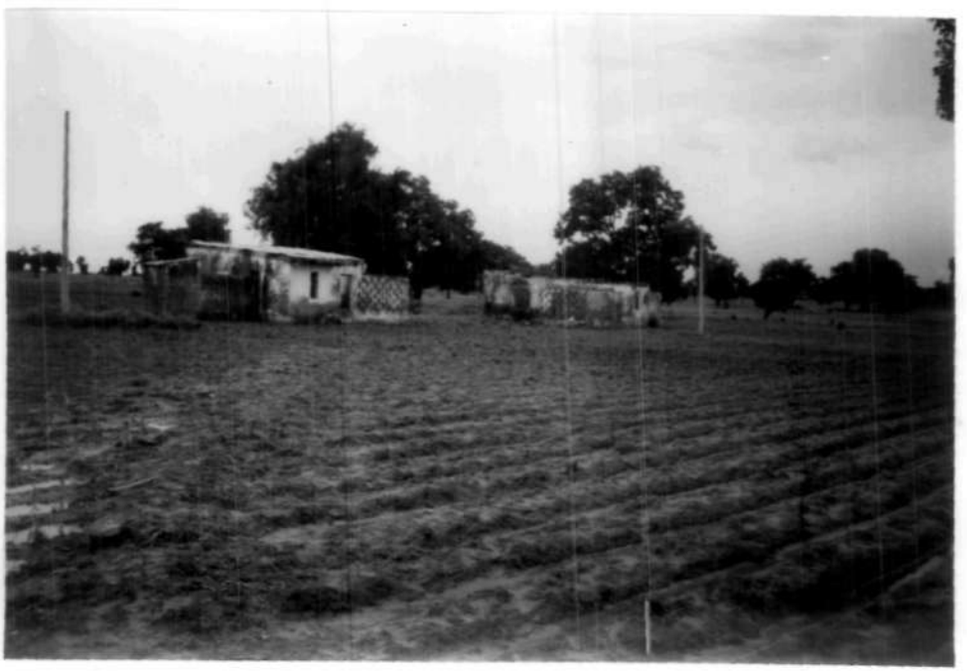


PLATE 1: EFFECT OF FAILED PRIMING ACTION

ENVIRONMENTAL HAZARDS

The commonest hazards that have caused complete dilapidation of various staff houses were: fire incidence and damages by wind storm. Plates II and III show some of the affected houses.



PLATE II: EFFECT OF FIRE INCIDENCE



PLATE III: EFFECT OF WIND STORM

Based on records available, Table 3.7 gives the summary of houses affected with their respective causes. It should be noted that the houses were as at the time of this study vacant (obsolete) and prone to vandalization.

Table 3.7: HOUSES AFFECTED BY ENVIRONMENTAL HAZARDS

DESCRIPTION/ LOCATION	NUMBER AFFECTED	CAUSES	REMARK
GRA Katsina	10	Fire incidence	
Daura Low cost	6	Fire incidence	
KTARDA Estate, Katsina	1	Fire incidence	Belonging to FASKOKT.
Staff quarters	12	Storm and fire	Belong to various secondary schools
Staff quarters	3	Storm and termite attach	Belonging to Isa Kaita College of Education
Staff quarters	2	Fire incidence	Belonging to Ministry of Works
TOTAL	34		

SOURCE: OFFICE OF THE SECRETARY TO THE STATE GOVERNMENT, (1998)

Conversion to Other Uses

Just after the creation of the State, staff residential accommodation became no more important than office accommodation. Hence many houses inherited by the state

government were converted to offices to supplement the existing buildings, those rented from private owners and those spared by concerned citizens. Affected houses were therefore rendered obsolete as far as housing is concerned. This is expected to remain so especially with the construction of the state secretariat abandoned. Plate IV shows a staff house converted to office accommodation.



PLATE IV: HOUSE CONVERTED TO OFFICE BLOCK

The breakdown of houses affected by this circumstance is presented in Table 3.8.

Table 3.8: STAFF HOUSES CONVERTED TO OTHER USES

ESTABLISHMENT/ LOCATION	NUMBER OF HOUSES	NEW FORM OF USE	REMARK
Government College, Katsina staff quarters.	4	Offices	For the Ministry of Education headquarters
Kangiwa Road	2	Secretariat	For N.U.J. and N.L.C.
W.T.C. Road	8	Offices	
Dandagoro	8	Offices	For P.C.C. and Others
Dutsinma Road	1	Offices	I.D.C.
Nagogo Road	5	Offices	For C.S.C. NALDA and SEPA
I.B.B. Way	4	Offices	For R.E.B & KTSTA
Batsari Road	2	Offices	For N.O.A. and F.R.C.N.
K/Kwaya Road	3	Offices	For L.G.S.P.B. & Lagos State Liaison Office
Various Secondary Schools	8	Dormitories	Due to shortage of hostels
Isa Kaita College of Education	3	Club house and staff school	
Sabuwa Local Government Headquarters	1	Office	Belonging to FASKOKT.
Others	15	Offices	For B.I.R. M.O.J. and others
TOTAL	64		

SOURCE: OFFICE OF THE SECRETARY TO THE STATE GOVERNMENT, (1998)

Physical Dilapidation due to Old Age of the Buildings

Although age of a building as earlier discussed does not necessarily affect its function especially when its compatibility is high and in addition to proper usage of material and construction as well as adequate upkeep.

However, a contrary situation can make the life of a building relatively very short. these are some of the reasons identified to have affected many staff houses in the state especially those constructed during the colonial era. Typical of these houses is shown in Plate V.



PLATE V: DILAPIDATED OLD HOUSE

Records available indicated that 96 houses have been affected by this phenomenon. Below is the breakdown according to establishments.

1. Ministry of Education: 17 houses
2. Ministry of finance: 9 houses
3. Ministry of works: 28 houses
4. Ministry of Agriculture: 20 houses
5. Ministry of Information: 3 houses
6. Ministry of women Affairs: 2 houses
7. Ministry of Health: 4 houses
8. Department of Establishment: 1 house
9. Board of Internal Revenue: 5 houses
10. Science and Technical Education Board: 5 houses

Other Conditions Leading to Inhabitability

It has been observed that staff houses also become obsolete and dilapidated for some reasons which may or may not necessarily be connected with the above factors. These were attributed to the level of inhabitable conditions experienced by the previous occupants. Such situations also contribute to the staff housing obsolescence. Discussion and analysis pertaining to these problems are contained in Chapter 4.

Level of deteriorated outlook of these houses have been connected with their neglect after they were vacated which

subsequently led to vandalization and extreme dilapidation. An example of this is shown in Plate VI.



PLATE VI: INHABITED HOUSE

Number of affected houses are presented in Table 3.9.

Table 3.9: VACANT HOUSES DUE TO OTHER INHABITABLE CONDITIONS

ESTABLISHMENT/LOCATION	NUMBER OF HOUSES	REMARKS
Ministry of Education	14	Require minor repairs
Ministry of Finance	10	"
Ministry of works	26	"
Ministry of Agric.	14	"
Ministry of Information	2	"
Ministry of Women Affairs	1	"
Ministry of Health	2	"
Water Board	2	"
Dept. of Establishment	3	"
State Radio & Television	2	"
High Court	2	"
Funtua Low Cost	8	Highly vandalized
Daura Low cost	2	"
Kankia low cost	12	"
Dutsinma low cost	2	"
G.R.A. Katsina	5	"
Various State Sec. Schools	12	"
S.T.E.B. sec. Schools, D/ma	4	Dilapidated
FASKOKT	13	"
TOTAL	136	

SOURCE: OFFICE OF THE SECRETARY TO THE STATE GOVERNMENT, (1998)

Records or reasons why occupants decided to vacate their accommodations is rather sparse because, the occupants hardly state why they decided to leave and the authorities hardly ask why. However, record of some cases corresponding to some of the problems treated by this work have been obtained from the office of the Secretary to the State Government. This is presented in Table 3.10. It should however be noted that the record did not indicate that the affected houses are presently vacant. It only indicated that people do leave their accommodations due to certain reasons which made many houses obsolete and have the tendency to turn many more that way.

Table 3.10; PROBLEMS LEADING TO VACATION OF HOUSES WITH NUMBER OF CASES

DESCRIPTION	NUMBER OF CASES	%	REMARKS
Inadequacy in terms of family size.	10	9.5	
High rental charges,	-	-	No records available
High maintenance cost.	-	-	No records available
Structural/elemental damages	3	2.9	
Insecurity,	9	8.6	
Incompatible neighbourhood	-	-	No records available
Environmental hazards	19	18.1	
Poor accessibility	-	-	No records available
Remoteness from work place	25	23.8	
Remoteness from social services	6	5.7	
Poor quality of building services,	33	31.4	
Poor quality of internal finishes,	-	-	No records available
Unsightly external appearances.	-	-	No records available
Degradation of tastefulness.	-	-	No records available
TOTAL	105	100	

SOURCE: OFFICE OF THE SECRETARY TO THE STATE GOVERNMENT, (1998)

Finally, Table 3.11 indicate the extent to which each of the major factors discussed earlier affected the staff housing condition in the state.

Table 3.11: FACTORS CONTRIBUTING TO OBSOLESCENCE OF HOUSING AND THEIR EXTENT

DESCRIPTION	NUMBER OF HOUSES	%	REMARK
Failure of priming actions	143	30.2	
Environmental hazards	34	7.2	
Conversion to other uses	64	13.5	
Dilapidation due to old age	96	20.3	
Other inhabitable conditions	136	28.8	
TOTAL	473	100	

SOURCE; FIELD SURVEY, (1998)

CHAPTER 4

ANALYSIS OF THE QUESTIONNAIRE

4.1 INTRODUCTION

As stated earlier, questionnaires were used to obtain data for this research work. The result of form A questionnaire has been presented and discussed in chapter 3. The return of Form B questionnaire administered to the occupants of staff accommodation is presented in Table 4.1.

Table 4.1: QUESTIONNAIRES DISTRIBUTED AND RESPONSES

QUESTIONNAIRE	NO.	%
Total administered	100	100.0
Returned	67	67.0
Used (accepted responses)	60	60.0
Unusable (rejected)	7	7.0

SOURCE; FIELD SURVEY, (1998)

It can be seen from Table 4.1 that 67 questionnaires were returned amounting to 67%. Out of this number, 60 questionnaires were considered usable, that is 60%. The remaining 7 questionnaires were rejected because the respective respondents were the residents of the houses rented by the government from private owners for staff members (supplementary staff housing). Such houses were not subject

of analysis of this work, except for the brief discussion made earlier in Chapter 3.

Based on the level of homogeneity of the returned questionnaires in relation to the classes identified in the methodology, 60% return of the administered questionnaires is therefore considered adequate for analysis and meaningful conclusions.

4.2 ESTABLISHING AVERAGE DURATION OF OCCUPANCY

Since this work is concerned with possible reasons leading to vacation of accommodation by occupants, it is imperative to establish the average time occupants spend in their accommodations. Question 1 in the questionnaire addressed this in which an average of 6 years is determined with 98.3% response.

The figure showed that time spent in staff quarters is generally low compared with the age of the buildings. A close investigation revealed the following facts as reason for the trend.

1. Redeployment of staff to present Kaduna State after the creation of Katsina State.

2. Transfer of officers living in the quarters to some other places which usually made it impossible to maintain their accommodation.
3. Mandatory or voluntary retirement of officers living in the quarters.
4. Expulsion of residents for some reasons.
5. Unfavourable occupancy conditions connected with the habitability of accommodations.

4.3 INADEQUACY OF ACCOMMODATION IN TERMS OF FAMILY SIZE

The adequacy or otherwise of a provided accommodation in terms of family size is addressed in questions 2, 3, 4 and 5 in the questionnaire.

4.3.1 Establishing Occupancy Ratio

Occupancy ratio is simply expressed as the number of people living in a residence per bedroom. An average occupancy ratio of 2.3 persons/bedroom was established using a combined response of 93.3% response of question 2 and 3 in the questionnaire. This figure is associated with the following reasons.

1. Many houses, especially for senior cadre officers are provided with boys quarters which supplement bedroom numbers in the house.

2. It has been revealed that considerable number of houses are being occupied by single persons because they are unmarried or that their families are living elsewhere.

3. Due to the culture of the people in the area, one or more members of the family live with another family such as friends or relatives thereby reducing the number of occupants.

4.3.2 Adequacy of Accommodation for a Family

Question 4 addressed the issue of whether or not an accommodation is adequate for a family size. The response shows that 71.7% Of the respondents consider their accommodation adequate for their respective family sizes. The associated occupancy ratio of 2.2 Persons/bedroom is a testimony to that as compared with 2.9 Persons/bedroom for the other 28.3% respondents who considered theirs' inadequate.

Conversely, 84.9% of the respondents have indicated the possibility of changing accommodation if their family size increases as shown in Table 4.2. This is the result of the response of question 5 in the questionnaire.

Table 4.2 POSSIBILITY OF CHANGING ACCOMMODATION WITH INCREASE IN FAMILY SIZE

FITNESS OF ACCOMMODATION	RESPONSE				TOTAL	
	YES		NO			
	NO.	%	NO.	%	NO.	%
Yes	35	58.5	8	13.3	43	71.7
No	14	26.6	1	1.7	17	28.3
TOTAL	51	84.9	9	18.1	80	100.0

SOURCE: FIELD SURVEY, (1998)

A possible reason is that, polygamous marriage is a common practice in the area, whereas the nature of the houses provide little or no room for such practice.

4.4 HIGH RENTAL CHARGES

Staff houses are generally provided under rental condition. Rental charges are usually deducted directly from occupants' salaries. The issue of rent and rental charges are addressed in question 6,7 and 8 in the questionnaire.

4.4.1 PAYMENT OF RENT

This is addressed in question 6. It is set to find out whether some occupants do not pay rent. The response showed that 26.7% of the occupants do not actually pay rent.

A close investigation, revealed that very few exceptions exist in the payment of rental charges which usually affect top government functionaries. Furthermore, it was also revealed that informal arrangements are sometimes made between occupants and the allocating authorities. Such cases are prominent where appropriate government monitoring agencies do not have direct access to information relating to staff houses.

For the remaining 73.3% who pay rent, their response as to whether or not it is high for their respective incomes indicated that 46.6% consider the rental charges as high.

The possibility of vacating accommodation if condition of rental charges persist is addressed in question 8 in the questionnaire. The response presented in Table 4.3 indicated that 43.5% are likely to change their accommodations should the condition persist or become worse.

Table 4.3: POSSIBILITY OF CHANGING ACCOMMODATION IF CONDITION OF RENTAL CHARGES PERSIST

RESPONSE	NO.	%
Yes	26	43.4
No	2	2.3
Not applicable*	32	52.3
TOTAL	60	100.00

NOTE: * These include those who do not pay rent (question 6), those who did not consider rental charges as high nd those who abstained from the response of question 8.

SOURCE: FIELD SURVEY, (1998).

Government policy in deducting rental charges is a common source of complaint among occupants. there has been an outcry and indication that many staff would change accommodation when at one time in the past government issued a circular stating that all the rental allowance provided in the staff salaries would be deducted from the salaries of the members of staff occupying staff quarters. The decision was however withdrawn later by the government. Nevertheless, a source from the authority revealed that the government still considers that the present rental charges are meagre especially when compared with the private owners.

4.5 HIGH MAINTENANCE COST

Staff housing maintenance is addressed in questions 9, 10, 11, 12 and 13 in the questionnaire.

4.5.1 Responsibility for Maintenance of staff Accommodation

As earlier stated, maintenance of staff housing is generally the responsibility of the authority, except in some exceptional circumstances. However, the response of question 9 showed that 13.3%, 41.7% and 43.3% regard the responsibility of the maintenance as theirs, or both theirs and the authorities' and solely the authorities', respectively. This indicate that many occupants do not actually know whose responsibility it is. In any case, the general response to question 10 which addressed the issue of high maintenance cost is shown in table 4.4. This indicate that 46.6% of the respondents consider maintenance cost high enough to justify a change.

Table 4.4: HIGH COST OF MAINTENANCE TO JUSTIFY A CHANGE

RESPONSIBILITY OF MAINTENANCE	RESPONSE						TOTAL	
	YES		NO		ABSTAINED			
	NO.	%	NO.	%	NO.	%	NO.	%
Self	3	5.0	4	6.6	1	1.7	8	13.3
Authority	12	20.0	5	8.4	8	13.3	25	41.7
Both	13	21.6	12	20.0	1	1.7	1	1.7
Abstained					1	1.7	1	1.7
TOTAL	28	46.6	21	35.0	11	18.4	60	100.0

SOURCE: FIELD SURVEY, (1998).

Physical observations revealed that many houses require maintenance work, however lack of authorities' attention in effecting repairs and inavailability of substitute left most occupants with no option other than to continue living in such accommodation. This explains why only about 46% of the occupants indicated possibility of vacation due to this reason.

4.5.2 Frequency of Maintenance Inspection

The frequency of maintenance inspection carried out by the authority is addressed in question 11 in the questionnaire. The response indicated that only 10% of the respondents' dwellings are regularly inspected, 26.7% seldom and 46.7% never inspected. This implies that many establishments carry out maintenance only on request hence do not bother to carry

out any periodic inspection. Yet, the regular and occasional inspection indicate that the policy of maintenance inspection is still being practiced by some establishments.

4.5.3 Reporting Damage to the Authority

Besides regular maintenance inspection, reporting damage to the authority concerned is also a good maintenance culture. Question 12 assessed the attitude of the occupants in this regard. The response indicate that 65% report damage immediately, 10% after some delay and 8.4% do not report damage at all.

4.5.4 Response of the Authority in Effecting Repairs

This is addressed in question 13. The response showed that 13.3% reported cases are immediately attended to by the authority, 38.4% after some delay and 21.6% are not being attended to at all. This explains why some occupants consider the maintenance of their accommodation as their responsibility. From authorities, limited funds makes it impossible to cater for all requests.

4.6 STRUCTURAL OR ELEMENTAL DAMAGES

Question 14 is aimed at identifying whether or not occupants have observed any or some structural or elemental damages in their dwellings. The common elements addressed are walls,

floors, roofs, doors and windows. Averagely, 54.2% of the respondents observed at least one or more damages.

Depending on the extent of the damage, 70% of the respondents of question 15 in the questionnaire indicated that their accommodation is uncomfortable for continued occupation. The result is presented in table 4.5.

Table 4.5: POSSIBILITY OF VACATION BASED ON LIVING CONDITIONS

RESPONSE	NO.	%
Comfortable	16	26.7
Uncomfortable	42	70.0
Abstained	2	3.3
TOTAL	60	100.0

SOURCE: FIELD SURVEY, (1998).

Though the above response explains the current high level of disrepair of the houses, however, it has been identified that many occupants continue to live in that condition due to lack of affordable substitute in both urban and rural areas.

4.7 INSECURITY

Whether or not an accommodation is secured in relation to burglary or dangerous animals is addressed in question 16 in the questionnaire. the response showed that 41.7% felt that they were secured, whereas 55% felt otherwise. For this

reason, an investigation was carried out and the following deductions were made.

1. Traditionally, government quarters are usually located remotely from the town centres or villages, mostly in low density areas with very few exceptions. Hence, many such houses are prone to burglary or attack from dangerous animals.
2. Many government quarters were usually provided with some facilities. This in addition to the perception held by some that people occupying government quarters are usually well to do, subject many to burglary.
3. Except in few places, security posts are not usually provided in staff quarters or estates, therefore an occupant is responsible for the employment of a guard when it becomes necessary. Very few are however capable.

The result of question 17 in the questionnaire as presented in Table 4.6 indicated that 48.3% of the respondents express the possibility of relinquishing their accommodation for another if condition of insecurity persists.

Table 4.6: POSSIBILITY OF CHARGING ACCOMMODATION IF INSECURITY PERSISTS

RESPONSE	NO.	%
Yes	29	48.3
No	4	6.7
Not applicable*	27	45.0
TOTAL	60	100.0

NOTE: * These include those who consider their accommodations secure and those who abstained from the response of question 17 in the questionnaire.

SOURCE: FIELD SURVEY, (1998)

4.8 INCOMPATIBLE NEIGHBOURHOOD

According to the responses obtained in relation to question 18, the neighbourhood of staff quarters and estates were generally residential except for few who stated that farming, animal rearing and some commercial activities characterized their neighbourhoods.

General consideration indicated by the occupants in relation to their neighbourhood is expressed in the response of question 19 in the questionnaire, 86.6% showed that their neighbourhood is friendly, whereas 11.7% regarded theirs as hostile.

The high percentage of positive response indicated a clear view of adequate compatibility within the neighbourhood of staff quarters or estates. This is further emphasised by the response to question 20 which is presented in Table 4.7 where only 3.3% among those who considered theirs as hostile indicated the possibility of vacating their accommodations due to this reason.

Table 4.7: POSSIBILITY OF CHANGING ACCOMMODATION DUE TO INCOMPATIBLE NEIGHBOURHOOD

RESPONSE	NO.	%
Yes	2	3.3
No	5	8.3
Not applicable*	53	88.4
TOTAL	60	100.0

NOTE:* These include those who consider their neighbourhood as friendly and those who abstained from the response of question 20.

SOURCE: FIELD SURVEY, (1998)

4.9 ENVIRONMENTAL HAZARDS

Environmental hazards highlighted and addressed by question 21 include, fire outbreak, erosion, flood and storm. On the average, 20.8% of the respondents observed various kinds of the hazards mentioned. Individually, storm has the highest percentage of 46.7%. This invariably predominates because of the nature of the seasons in the area, which are characterized

by heavy wind storm both during rainy and dry seasons. On the other hand, fire outbreak has the least percentage response of 3.3%. This however, did not tally with the records presented in Chapter 3. A possible explanation is that fire outbreak seldom occurs and where it ever does, damages afflicted usually make the affected houses more or less inhabitable. Therefore response could only be obtained from occupants with mild experiences.

Similarly, 16.7% of the respondents observed occurrence of erosion. This is because, its effect used to manifest after a long time, whereas flood occurrence which has similar percentage of response is generally occasional and mostly related to problems of drainage and orientation of sites. It occur mostly during the rainy season.

Regardless of the form of the hazards, the average response of their effect either serious or negligible is addressed in question 22 in the questionnaire. 26.7% assessed theirs as serious, whereas 48.3% as negligible.

Conversely, the likelihood of changing accommodation in fear of possible persistence and/or reoccurrence of the experienced hazard(s), irrespectively of whether the damage was serious or negligible, 53.3% of the respondents showed a tendency of

possible vacation. This was addressed in question 23, the response of which is shown in table 4.8.

Table 4.8: POSSIBILITY OF VACATING ACCOMMODATION SHOULD HAZARD(S) PERSIST OR REOCCUR

LEVEL OF DAMAGE	RESPONSE						TOTAL	
	YES		NO		ABSTAINED			
	NO.	%	NO.	%	NO.	%	NO.	%
Serious	15	25.0	1	1.7			16	26.7
Negligible	17	28.3	11	18.3	1	1.74	29	48.3
Abstained					15	25.0	15	25.0
TOTAL	32	53.3	12	20.0	16	26.7	60	100.0

SOURCE: FIELD SURVEY, (1998).

4.10 POOR ACCESSIBILITY

The issue concerning adequate road network or suitable access to the staff accommodation has been treated in question 24 and 25 in the questionnaire. 83.3% of the respondents indicated that their dwellings are adequately provided with road network or suitable access. For that reason, only 11.7% showed the possibility of changing their accommodations if the present condition persists. This is presented in table 4.9.

Table 4.9: POSSIBILITY OF CHANGING ACCOMMODATION IF CONDITION OF INACCESSIBILITY PERSISTS

RESPONSE	NO.	%
Yes	7	11.7
No	3	5.0
Not applicable*	50	83.3
TOTAL	60	100.00

NOTE: * These include those who indicated that their accommodations are provided with adequate road network or suitable access in question 24.

SOURCE: FIELD SURVEY, (1998).

The response explains that generally, staff quarters are usually and strategically located in areas provided with essential infrastructures which include good road network and convenient access. In a new housing development, such infrastructure are usually provided before, along or immediately after the execution of the project.

4.11 REMOTENESS FROM WORK PLACE

Questions 26, 27, 28, and 29 addressed the problems having to do with location of accommodation in relation to work place. Response to question 26 indicated a remarkable impression that staff accommodations are suitably located in relation to their respective work place. This is especially true in

institutions and branch offices of many establishments. 86.7% of the respondents responded positively to that.

Moreover, it has been mentioned earlier that staff quarters in urban areas are located in the Government Reservation Areas where most offices are located. This therefore provides adequate proximity to places of work for many workers residing in the quarters or estates. Highly placed workers and some among average working class have official or personal vehicles which assist in reducing inconveniences. This is testified by the response to question 27 where only 8.3% of the respondents indicated that they suffer high transportation cost in going to work.

While, the few that expressed negative response to the above questions complained of going to work late, and the hardship they experience in walking to work. In addition, the general response in relation to other inconveniences addressed in question 28 indicated that many occupants complained of lack of contact with their relatives and friends and that the location of the houses kept them remote from the rest of the townships or villages.

The response of question 29 went almost the same with that of question 27. Only 8.3% of the respondents indicated their

preference for other accommodations closer to their respective work place if condition persists. The response is shown in Table 4.10.

Table 4.10: PREFERENCE FOR OTHER ACCOMMODATION IF REMOTENESS FROM WORK PLACE PERSISTS

RESPONSE	NO.	%
Yes	5	8.3
No	1	1.7
Not applicable*	54	90.0
TOTAL	60	100.0

NOTE: * These include those who consider their accommodations suitably located in relation to their respective work place and those who abstained from the response of question 27.

SOURCE: FIELD SURVEY, (1998).

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4.12 REMOTENESS FROM SOCIAL SERVICES

Some of the most important social services which includes hospitals, schools and markets or shopping centres; have been addressed in question 30 and 31 in the questionnaire. The response of question 30 which examines whether or not staff accommodation is suitably located in relation to these social services indicated a positive response of 66.7%. 76.7% and 60% for hospitals, schools and market or shopping centres respectively. Therefore an average of 67.8% indicate that most staff accommodations were suitably located in relation to these essential social services. However, due to the combined

effect of one or more of the inconveniences associated with the social services, 45% of the respondents expressed the likelihood of changing their accommodation should the condition persist. This is addressed in question 31 and the general response is presented in Table 4.11.

Table 4.11: LIKELIHOOD TO CHANGE ACCOMMODATION DUE TO REMOTENESS FROM SOCIAL SERVICES

RESPONSE	NO.	%
Yes	27	45.0
No	6	10.0
Not applicable*	27	45.0
TOTAL	60	100.0

NOTE: * These include those who consider their accommodations suitably located in relation to social services and those who abstained from the response of question 31.

SOURCE: FIELD SURVEY, (1998).

A relative explanation is that, in most rural areas the performance of the social services in consideration is indeed very poor. Clinics and schools operate irregularly, whereas market days are only but occasional.

4.13 POOR QUALITY OF BUILDING SERVICES

This is covered in questions 32 and 33 in the questionnaire. The quality of services addressed have been assessed using the response of question 32. 41.7%, 51.7% and 6.6% responses

indicated; adequate, inadequate and none provided cases respectively for water supply; 28.4%, 35% and 33.3% for waste disposal; 61.6%, 36.7% and 1.7% for electricity supply; 11.7%, 20.0% and 63.3% for fire fighting; and 8.3%, 28.4% and 13.3% for other services.

On the average, only 30.3% response indicated a general level of adequacy as compared with 34.3% and 23.7% response indicating level of inadequacy and none existence cases respectively. For that reason it became necessary to consider each separately.

1. Water Supply

Even though adequacy of water supply is particularly higher than the general average, however its level of inadequacy is still pronounced especially when compared with the levels of inadequacy in addition to none existence in certain cases. This explains the erratic condition of water supply being experienced in the urban and rural areas where the water supply is available. Similarly, provision of water supply in rural areas is mainly in the form of sunk boreholes or open concrete wells which are sometimes remote from the quarters in consideration.

2. Waste Disposal

The rather discouraging response can be related to the condition of water supply which affects the function of sanitary appliances. Refuse dumps and similar waste disposal facilities in most places are none existent. The activities of the State Environmental Protection Agency and other environmental sanitation agencies have very limited impact beyond the state and local governments headquarters.

3. Electricity Supply

Despite the persistent irregular supply as indicated by the 35.0% response of level of inadequacy, electricity supply can be regarded as the most commendable. Besides the supply obtained from the national grid, supply is also supplemented by generators in some residences.

4. Fire Services

The high negative response indicating none existence of fire fighting services in residences implies that adequate provisions have not been made with regards fire incidence thereby explaining the fact that considerable number of obsolete houses recorded in relation to environmental hazards were mostly as a result of fire incidence.

Where fire fighting equipment were provided, most of them were functionally obsolete as pointed out by the 29.0% response

indicating level of inadequacy. Adequate provision was only in some highly placed government quarters. Same applied to other services such as telephone.

The general response of the occupants on the possibility of changing accommodation if current condition persists or provision remain illusive is shown in Table 4.12. This is addressed in question 33.

Table 4.12: POSSIBILITY OF CHANGING ACCOMMODATION DUE TO POOR OR NONE EXISTENCE OF BUILDING SERVICES

RESPONSE	NO.	%
Yes	34	56.7
No	16	26.6
Not applicable*	10	16.7
TOTAL	60	100.0

NOTE: *These include those who consider the quality of the provided services as adequate in question 32.

SOURCE: FIELD SURVEY, (1998).

4.14 POOR QUALITY OF INTERNAL FINISHES

The commonest internal finishes in such dwellings are paint work and floor finishes. An average of 53.3% positive response of question 34 showed that internal finishes are averagely fair when compared with 36.7% average negative response. For that reason only 31.7% of the occupants who responded to question 35 expressed discomfort for a continued occupation as depicted in Table 4.13.

Table 4.13: CONDITION COMFORTABLE IN RELATION TO INTERNAL FINISHES FOR A CONTINUED OCCUPATION

RESPONSE	NO.	%
Yes	10	16.7
No	19	31.7
Not applicable*	31	51.6
TOTAL	60	100.0

NOTE: * These include those who consider the quality of the internal finishes of their accommodations as good in question 34.

SOURCE: FIELD SURVEY, (1998).

4.15 UNSIGHTLY EXTERNAL APPEARANCE

Question 36 in the questionnaire addressed the issue of the importance attached to external appearance of dwellings. The 83.3% positive response showed that greater percentage of the occupants regarded the external appearance of their dwellings as important. As to whether it is good or bad, the 70.0% positive response of question 37 indicated that the external appearance of such dwellings is generally good. This is quite in line with the response of question 38 in the questionnaire which is presented in Table 4.14.

Table 4.14: POSSIBILITY OF VACATING ACCOMMODATION DUE TO UNSIGHTLY EXTERNAL APPEARANCE

RESPONSE	NO.	%
Yes	4	6.7
No	2	3.3
Not applicable*	54	90.0
TOTAL	60	100.0

NOTE: * These include those who consider the external appearance of their accommodations as good and those who abstain from the response of question 38.

SOURCE: FIELD SURVEY, (1998).

It can be depicted from the table that only 6.7% of the occupants indicated that the condition of the external appearance of their accommodations is likely to affect their continued occupation. Staff quarters sometimes used to be landscaped and in various estates several occupants have taken it upon themselves to do so.

4.16 DEGRADATION OF TASTEFULNESS OF ACCOMMODATION

Tastefulness of dwellings and respective responses of the occupants in this regard was treated using question 39 and 40 in the questionnaire. 40% of the occupants indicated that their respective accommodations were up to their taste, whereas 58.3% regard theirs as below their taste. For that

reason 53.3% of the respondents expressed their likelihood of vacating their accommodations if the above condition deteriorates as shown in Table 4.15 which is the response to question 40.

Table 4.15: POSSIBILITY OF VACATING ACCOMMODATION DUE TO DEGRADATION OF TASTEFULNESS

RESPONSE	NO.	%
Yes	32	53.3
No	3	5.0
Not applicable*	25	41.7
TOTAL	60	100.0

NOTE: *These include those who consider their accommodations as up to the taste of their fashion in question 39 and those who abstained from the response of question 40.

SOURCE: FIELD SURVEY, (1998).

Investigation revealed that despite the deplorable conditions caused by antiquation and disrepair, people continue to live in such houses because they cannot afford alternative ones or that the alternatives are not available. This in addition expresses the general level of poverty in the society which made taste and fashion relevant only for the rich.

4.17 RANKING OF PROBLEMS OF THE STAFF HOUSING

Questions treated earlier were designed to enable fair assessment to be made by occupants of the problems associated

with their accommodations capable of leading to vacation. It was also expected that they would be able to distinguish the effects of these problems that could be contained. Question 41 addressed the issue of their general ranking in view of the latter which could be closely related or otherwise with the former. This was ranked according to the procedure described in the methodology, whereas ranking of the former was made by extracting and considering the respective percentages of the various responses indicating likelihood of vacating accommodations obtained from the previous tables. Both rankings are shown in table 4.16 and 4.17.

Table 4.16: GENERAL RANKING OF PROBLEMS OF ACCOMMODATIONS

CODE	PROBLEM	POINTS	%	POSITION
A	Inadequacy in terms of family size	145	8.72	1
B	High rental charges	124	7.45	4
C	High maintenance cost	116	6.97	6
D	Structural/elemental damages	118	7.09	5
E	Insecurity	115	6.91	9
F	Incompatible neighbourhood	106	6.37	14
G	Environmental hazards	111	6.67	12
H	Poor accessibility	116	6.97	6
I	Remoteness from work place	115	6.91	9
J	Remoteness from social services	109	6.55	13
K	Poor quality of building services	132	7.94	2
L	Poor quality of internal finishes	127	7.63	3
M	Unsightly external appearances	116	6.97	6
N	Degradation of tastefulness	114	6.85	11
	TOTAL	1664	100.0	

Table 4.17: RANKING OF PROBLEMS ACCORDING TO LIKELIHOOD OF VACATION

SOURCE TABLES	CODE	PROBLEM	NO. OF RESPONSE (YES)	% OF RESPONSE (YES)	POSITION
4.2	A	Inadequacy in terms of family size	51	84.9	1
4.3	B	High rental charges	26	43.4	9
4.4	C	High maintenance cost	28	46.7	7
4.5	D	Structural/ elemental damages	38	63.3	2
4.6	E	Insecurity	29	48.3	6
4.7	F	Incompatible neighbourhood	2	3.3	14
4.8	G	Environmental hazards	32	53.3	4
4.9	H	Poor accessibility	7	11.7	11
4.10	I	Remoteness from work place	5	8.3	12
4.11	J	Remoteness from social services	27	45.0	8
4.12	K	Poor quality of building sources	34	56.7	3
4.13	L	Poor quality of internal finishes	10	16.7	10
4.14	M	Unsightly external appearance	40	6.7	13
4.15	N	Degradation of tastefulness	32	53.3	4

4.17.1 Non-parametric Regression Analysis of Rankings

In Chapter 3, Table 3.10 contained the number of cases of vacation of accommodations with respect to the various problems contained in Tables 4.16 and 4.17. Though the problems are the same, however, each stands as a uni-variate data. For that reason, the use of Spearman's rank correlation coefficient (a non-parametric regression analysis tool), was sought for to establish relationship between data (rankings) in;

1. Tables 3.10 and 4.16
2. Tables 3.10 and 4.17; and
3. Tables 4.16 and 4.17

Brief on the Tool

Spearman's rank correlation coefficient denoted by r_s is used to test for linear correlation between two variables (normally ranked), (Sincich, 1992). The coefficient is expressed as:

$$r_s = 1 - \frac{6\sum d^2 1}{n(n^2 - 1)}$$

Where

r_s = Spearman's rank correlation coefficient.

d = The difference between the ranks in the ith observations.

n = The number of observations.

Values of r_s ranges between -1 and +1. A negative value indicates an inverse correlation between observations, while a positive value indicates a strong correlation between the variables. It should be noted that correlation does not mean causality, (Afonja 1985). In other words, change in one variable does not necessarily cause a change in the other.

Application of the Tool

Observations in Tables 3.10 (P1), 4.16 (P2) and 4.17 (P3) were modified and presented in Table 4.18 for the purpose of the test.

Table 4.18: RANKS OF THE VARIOUS OBSERVATIONS

PROBLEM CODE	POSITIONS		
	P1	P2	P3
A	4	1	1
B	8	4	9
C	8	6	7
D	7	5	2
E	5	9	6
F	8	14	14
G	3	12	4
H	8	6	11
I	2	9	12
J	6	13	8
K	1	2	3
L	8	3	10
M	8	6	13
N	8	11	4

P1 = Ranks corresponding to the observations in table 3.10

P2 = Ranks corresponding to the observations in Table 4.16

P3 = Ranks corresponding to the observations in Table 4.17

It is depicted on the table that there existed some ties among the factors under all the ranks: P1, P2, and P3.

In a situation like this, the analysis outlined the following procedures to be adopted.

1. The ranks that the two or more ties would have had should be added, after which their mean should be determined.
2. The mean of the ranks (supposed positions) should be assigned to each tied unit. This should be used in the calculation of r_s.

Based on the above procedure the adjusted ranks are shown in Table 4.19.

Table 4.19 ADJUSTED RANKS OF THE VARIOUS OBSERVATIONS

PROBLEM CODE	POSITIONS		
	P1	P2	P3
A	4	1	1
B	11	4	9
C	11	7	7
D	7	5	2
E	5	9.5	6
F	11	14	14
G	3	12	4.5
H	11	7	11
I	2	9.5	12
J	6	13	8
K	1	2	3
L	11	3	10
M	11	7	13
N	11	11	4.5

CASE 1 RELATIONSHIP BETWEEN OBSERVATIONS IN TABLES 3.10 (P1) AND 4.16 (P2). REFER TO TABLE 4.19.

Table 4.20 P1 VERSUS P2

PROBLEM CODE	P1	P2	d1	$d1^2$
A	4	1	3	9
B	8	4	4	16
C	8	6	2	4
D	7	5	2	4
E	5	9	-4	16
F	8	14	-6	36
G	3	12	-9	81
H	8	6	2	4
I	2	9	-7	49
J	6	13	-7	49
K	1	2	-1	1
L	8	3	5	25
M	8	6	2	4
N	8	11	-3	9
TOTAL				307

d1 = Differences between the observations in Tables 3.10 and 4.16 (P1 - P2)

n = 14

Therefore

r_s = 0.14

This is an evidence (at 99% level of significance) that there is a very weak correlation between the observations in Tables 3.10 and 4.16

CASE II: RELATIONSHIP BETWEEN OBSERVATIONS IN TABLES 3.10 (P1) AND 4.16 (P3). REFER TO TABLE 4.20.

TABLE 4.21 P1 VERSUS P3

PROBLEM CODE	P1	P3	d2	$d2^2$
A	4	1	3	9
B	8	9	-1	1
C	8	7	1	1
D	7	2	5	25
E	5	6	-1	1
F	8	14	-6	36
G	3	4	-1	1
H	8	11	-3	9
I	2	12	-10	100
J	6	8	-2	4
K	1	3	-2	4
L	8	10	-2	4
M	8	13	-5	25
N	8	4	-4	16
TOTAL				236

d2 = Differences between the observations in Tables 3.10 and 4.17 (P1 - P3)

n = 14

Therefore

r_s = 0.51

This is an evidence that there is an average correlation between the observations in Tables 3.10 and 4.17.

CASE III: RELATIONSHIP BETWEEN OBSERVATIONS IN TABLES 4.16 (P2 AND 4.17 (P3). REFER TO TABLE 4.21

Table 4.22 P2 VERSUS P3

PROBLEM CODE	P2	P3	d3	$d3^2$
A	1	1	0	0
B	4	9	5	25
C	6	7	-1	1
D	5	2	3	9
E	9	6	3	9
F	14	14	0	0
G	12	4	8	64
H	6	11	-5	25
I	9	12	-3	9
J	13	8	5	25
K	2	3	-1	1
L	3	10	-7	49
M	6	13	-7	49
N	11	4	7	49
TOTAL				315

d3 = Differences between the observations in Tables 4.16 and 4.17 (P2 - P3)

n = 14

Therefore

$r_s = 0.39$

This is an evidence that there is a weak correlation between the observations in tables 4.16 and 4.17

Summary of the Analysis

1. There is very weak correlation between recorded cases of vacation and the general assessment of problems irrespective of leading to vacation.
2. There is an average correlation between recorded cases of vacation and the likelihood of the problems to cause vacation.
3. There is a very weak correlation between the general assessment of the problems and their likelihood to cause vacation.

In conclusion, the weak and average correlations in 1 and 2 above respectively despite the fact that there exists limited records with the authorities, it nevertheless shows that the two observations are fairly interrelated. On the other hand, correlation in 3 indicated that, the problems addressed vary in order of their possibility to be contained or force occupants to vacate their accommodations.

CHAPTER 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 SUMMARY

A study on Katsina State government housing obsolescence has been conducted.

Interviews, questionnaires and physical survey of the existing conditions of some staff houses were used to collect data for the study.

Results of the findings were presented in tabular forms using simple percentages covered with descriptive analysis. Statistical tool was subsequently employed in the ranking of the problems identified and treated for analysis.

5.2 CONCLUSION

It has been established that staff housing obsolescence in Katsina State actually exists. About 20.1% of the total number of staff houses covered by this work were affected by the problem. The major factors identified as responsible are: failure of priming actions, environmental hazards, conversion to other uses, dilapidation of houses due to old age and physical deterioration, and other conditions which caused inhabitability.

Inadequacy of accommodtions in terms of family size, structural or elemental damages, insecurity, environmental hazards, remoteness from work place and remoteness from social services (whose records were available with the authoirty) were other factors identified under the conditions which cause inhabilitality. Existence of high rental charges, high maintenance cost, incompatible neighbourhood, poor accessibility, poor quality of internal finishes, unsightly external appearances and degradation of tastefulness of dwellings was also acknowledged by the authority. Limitation of records were attributed to the fact that occupants hardly state why they vacate their accommodations, similarly, the authority hardly ask why. Assessment of these factors revealed a varying extent of possibility of vacating accommodations.

Significant level of relationship have been established to exist between the records of reasons of vacation available with the authority and the resonse of the present occupants. This testified that many of the factors actually exist, that they have at varying extent contributed to staff housing obsolescence and that they are likely to further continue to do so in the future.

5.3 RECOMMENDATIONS

To overcome the present problem of staff housing obsolescence, the state government should assess the viability of those priming actions that have failed or are likely to fail. Appropriate reinvestment should be made on those determined to be viable. If otherwise, then the affected lands and buildings should be converted to other viable investments. In the absence of any, then these should be leased or sold to the host communities or other investors.

Housing estates and similar buildings should be sold to their present occupants or other interested parties. This will relieve the government of the responsibility of taking care of such houses and will enable development of more estates by ploughing back funds into housing schemes.

Dilapidated houses which cannot be sold by virtue of their locations or importance should be revitalised and maintained properly.

Statistical records of reasons why staffers (occupants) vacate their accommodations and any related information should be kept properly as this will assist in housing policy formulation and in reducing obsolecence.

Government should ensure that building materials are affordable to the general public, and it should encourage and participate in the development of owner-occupier housing schemes. This should be harnessed by; formulating an effective and realistic short term poverty alleviation policy, making serviced plots available to all categories of people and ensure that both public and private houses are constructed to standards, giving emphasis to environmental factors and associated compatibility to avoid all forms of obsolescence.

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APPENDIX A - FORM A QUESTIONNAIRE

DEPARTMENT OF BUILDING
FACULTY OF ENVIRONMENTAL DESIGN
AHMADU BELLO UNIVERSITY, ZARIA

RESEARCH QUESTIONNAIRE

BACKGROUND

This is a research work being undertaken to study the problems leading to obsolescence in building constructions, particularly Katsina State staff housing.

1. Establishment . . . . . .
2. Year established . . . . . .
3. Does your establishment provide rental accommodation for its staff?

   Yes ( ) No ( )
4. If Yes, outline the conditions and process involved in allocating house to a staff . . . . . .

   . . . . . .

   . . . . . .

   . . . . . .

   . . . . . .
5. If application is involved, what is the number of outstanding applications? . . . . . .

6. Housing Provision:

DESCRIPTION/LOCATION	NUMBER CONSTRUCTED BY BEDROOM NUMBER				COST OF CONSTRUCTION	YEAR CONSTRUCTED
	1	2	3	OTHERS		

7. CURRENT CONDITION OF HOUSING

HOUSING CONDITIONS	NUMBER CONSTRUCTED BY BEDROOM NUMBER				REMARKS
	1	2	3	OTHERS	
Currently being occupied					
Vacant but occupied before					
Never occupied since commissioning					
Dilapidated by environmental hazard(s)					
Converted to other uses besides housing					
Under construction					

NOTES: Describe the nature of the environmental hazard(s) and the form of new uses mentioned above

. . . . . .

. . . . . .

. . . . . .

. . . . . .

. . . . . .

8. Who is responsible for the maintenance of a house allocated to a staff? Occupant ( ) Authority ( ) Both ( )

9. If Authority or Both, outline how maintenance policy, programming and execution is carried out . . . . . .

. . . . . .

. . . . . .

. . . . . .

. . . . . .

10. Comment on the present activities of your establishment if it is contrary to the established format . . . . .

. . . . . .

. . . . . .

. . . . . .

. . . . . .

11. Annual Maintenance Expenditure:

YEAR	AMOUNT BUDGETED	AMOUNT EXPENDED	REMARK

12. It has been observed that failure of some programmes embarked upon by the government and which brought about the construction of staff quarters have affected the condition of these houses. Respond to the following accordingly.

DESCRIPTION OF FAILED PROGRAMME	NUMBER OF AFFECTED HOUSES	REMARK

474776

13. Does your establishment rent houses from private owners for its staff? Yes ( ) No ( )

14. If Yes, how many houses are being rented? . . . . . .

15. Comment on the above policy . . . . . .

. . . . . .

. . . . . .

. . . . . .

. . . . . .

. . . . . .

16. Comment generally on staff housing in your establishment giving emphasis on why staff members prefer to live in accommodations other than those provided by the establishment and/or vacating them thereby making them obsolete.

. . . . . .

. . . . . .

. . . . . .

. . . . . .

17. If there is any information you think will be helpful to this work, kindly write at the back of this page.

Thank you

DIKKO KADO

APPENDIX B - FORM B QUESTIONNAIRE

DEPARTMENT OF BUILDING
FACULTY OF ENVIRONMENTAL DESIGN
AHMADU BELLO UNIVERSITY, ZARIA

RESEARCH QUESTIONNAIRE

BACKGROUND

A research work is being undertaken to study the problems leading to obsolescence in building construction, particularly Katsina State Staff Housing Projects.

You are kindly requested to peruse this questionnaire and make fair assessment based on your experiences.

Finally, your earliest response will contribute immensely towards the successful completion of this research work.

House Address . . . . . .

1. How long have you been in this house? . . . . . .

A

2. How many people are living in the house? . . . . . .
3. How many bedrooms are there in the house . . . . . .
4. Do you consider your accommodation fit for your family size?

   Yes ( ) No ( )

5. Would you go for another accommodation should your family size increase?

Yes ( ) No ( )

B

6. Do you pay rent for your accommodation?

Yes ( ) No ( )

7. If Yes, do you consider it very high for your income?

Yes ( ) No ( )

8. If Yes and should such condition persist, would it force you to change to another accommodation?

Yes ( ) No ( )

C

9. According to occupancy conditions, who is responsible for the maintenance of your accommodation?

Self ( ) Authority ( ) Both ( )

NOTE: If Self, proceed to 14 after 10 otherwise continue with 11.

10. Do you consider the cost of maintenance very high for your income that it may justify a change?

Yes ( ) No ( )

11. How often is your accommodation inspected for maintenance by the authority?

Regularly ( ) Seldom ( ) Never ( )

12. How do you report damage to the authority?

Immediately ( ) After some delay ( )

Not at all ( )

13. If you do report at all, assess the response of the authority in effecting repairs.

    Immediately ( ) After some delay ( )

    Not at all ( )

D

14. Tick against the following structural/elemental damages observed in your accommodation.

    Wall cracks ( ) Floor cracks ( ) Damaged roof ( )

    Doors and windows ( ) Others (specify) . . . . . .

    . . . . . .

15. How do you regard your accommodation in relation to the above problems for a continued occupation?

    Comfortable ( ) Uncomfortable ( )

E

16. How do you regard your accommodation in relation to burglary or hostile animals?

    Secure ( ) Insecure ( )

17. If insecure, do you ever consider seeking for alternative accommodation when such condition persists?

    Yes ( ) No ( )

F

18. Describe the nature and activities of your neighborhood

. . . . . .

. . . . . .

. . . . . .

. . . . . .

19. Do you consider such neighborhood as:

Friendly ( )? Hostile ( )?

20. If hostile, do you consider it a determinant of your continued occupation of the accommodation?

Yes ( ) No ( )

G

21. Tick against the hazard(s) that had or have been affecting your accommodation:

Fire outbreak ( ) Erosion ( ) Flood ( )

Storm ( ) Others (specify) . . . . . .

22. Assess the damage done by the hazard(s)

Serious ( ) Negligible ( )

23. Do you consider the possibility of vacating your accommodation should such hazard(s) persists or reoccur?

Yes ( ) No ( )

H

24. Is your accommodation provided with adequate road network or suitable access?

Yes ( ) No ( )

25. If No, can any further degradation of its present condition make you change accommodation?

Yes ( ) No ( )

I

26. Do you regard your accommodation as suitably located in relation to your work place?

Yes ( ) No ( )

27. If No, does this cost so much in transportation to work place?

Yes ( ) No ( )

28. What other inconveniences does this bring to you?

a) . . . . . .

b) . . . . . .

c) . . . . . .

29. Would you prefer another accommodation closer to your work place should this condition persist?

Yes ( ) No ( )

J

30. Is your accommodation suitably located in relation to the following social facilities?

a. Hospital Yes ( ) No ( )

b. School Yes ( ) No ( )

c. Market/shopping centres Yes ( ) No ( )

d. Others (specify) . . . . . .

31. If averagely no, does this inconvenience you, such that you may likely seek alternative accommodation should the condition persist?

Yes ( ) No ( )

K

32. Assess the quality of the following services in your accommodation:

	Adequate	Inadequate	None
Water Supply	( )	( )	( )
Waste disposal	( )	( )	( )
Electricity supply	( )	( )	( )
Fire fighting	( )	( )	( )

Others (specify) . . . . . .

33. If adequate or none provided at all, and if this should continue, would this force you to go for another accommodation?

Yes ( ) No ( )

L

34. Assess the quality of your internal finishes

	Good	Bad
Paint work	( )	( )
Floor finishes	( )	( )

Others (specify) . . . . . .

35. If Averagely bad, do you consider the general condition comfortable for a continued occupation of the house?

Yes ( ) No ( )

M

36. Is the external appearance of your accommodation very important to you?

Yes ( ) No ( )

37. If Yes, what do you consider it?

Good ( ) Bad ( )

38. If Bad, would it affect your continued occupation of the house if it turns worse?

Yes ( ) No ( )

N

39. Do you regard your present accommodation as up to your taste of fashion ( ) or below your taste ( )?

40. If it is below your taste of fashion, will any further degradation make you change to another one?

Yes ( ) No ( )

P

41. Rank the Problems of your building (house) accordingly?

PROBLEMS	VERY SIGNI-FICANT	LESS SIGNI-FICANT	INSIGNI-FICANT
Inadequacy in terms of family size			
High maintenance cost			
Structural/elemental damages			
Insecurity			
Incompatible neighborhood			
Environmental hazards			
Poor accessibility			
Remoteness from work place			
Remoteness from social serv.			
Poor quality of building services			
Poor quality of internal finishes			
Unsightly external appearances			
Degradation of tastefulness/fashionness			
Others (specify)			

If there is any information you think will be helpful to this work, kindly write at the back of this page.

Thank you.

DIKKO KADO

APPENDIX C: STAFF HOUSING ALLOCATION FORM



FARMERS SUPPLY COMPANY LIMITED

No. 1 & 2 Nagogo Road
G. R. A.
P. M. B 2053,
Katsina
Telephone: 31066

Our Ref: FASCOKT/HQ/ADM/3/1/44

Your Ref: .....

Date 6/ 8/ 91

_____

_____

_____

_____

OCCUPATION OF NEWLY CONSTRUCTED RESIDENTIAL ACCOMMODATION

I am directed to refer to our letter No. KTARDA/HQ/323/ Vol.1/10 on the allocation of Senior/Intermediate staff quarters, in which you were notified of the allocation of house No to you.

I am further directed to request you to ensure immediate movement into the said house before 9th August, 1991. The house currently being occupied by you, which is situated at _____ and which tenancy agreement has/will expired by _____ _____ is hereby surrendered back to the landlord with effect from the aforementioned date. You will therefore personnaly be liable to the landlord therefrom.

For: (Hamza Pala D/ma)
General Manager.

APPENDIX D: MAINTENANCE REQUISITION FORM

FARMERS SUPPLY COMPANY (KATSINA STATE) LIMITED

REPAIRS REQUISITION

Address:.....Date:.....

The Estate Officer,
Farmers Supply Company (KTS) Ltd.,
No. 1 & 2 Nagog Road,
Katsina.

Will you please arrange to carry out the following repairs.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Ahmadu Bello University,
Zaria, Nigeria.

.....
Occupiers Signature.

APPENDIX E: MAINTENANCE CONTRACT AGREEMENT FORM

Katsina State,
Katsina.

Date:.....19.....

MAINTENACE WORKS CONTRACT AGREEMENT

1. You are hereby informed that you have been awarded the contract of maintenace works at:.....

2. Details of the works are as per schedule of work on your notification of award, vide letter No;.....

3. Youa are required to complete the works to the reasonable satisfaction of the Supervising Officer within a period of ..... weeks.

4. Your failure to complete the works within the specified period will render you liable to be surcharged liquidation damages of:..... per week for each additional week over the allowed contract period.

5. When it is accepted that you have completed the works satisfactorilly a payment of ₦:.....(.....
.....) will be made to you by the Farmers Supply Company (Katsina State) Limited.

6. CONDITIONS

(i) All materials for the works must be of good quality, and workmanship shall so far as procureable be of the respective King and standard.

(ii) The contractor may be instructed by Supervising Officer to remove from site any work, materials or goods which are not in accordance with these required and he is expected to abide by these instructions.

(iii) The Contract Sum shall not be adjusted or altered in any way what-so-ever exeept for where there is an approval by the General Manager.

(iv) Any error in description or in quantity in or omission of items from the works shall be reported in writing before correcting and shall be deemed to be a variation.

APPENDIX F: MAINTENANCE COMPLETION CERTIFICATE

Farmers Supply Company Limited.
Katsina State.
Katsina.

Date:.....19:.....

FARMERS SUPPLY COMPANY'S MAINTENACE WORK COMPLETION CERTIFICATE

1. Description of Work:.....

.....

2. Site:.....

3. Contractor:.....

4. Contract No:.....

5. PORTION to be completed by Store Officer/Commercial Assistant/Officer concerned:-

I certify that the works mentioned on item (1) above have been completed to my satisfaction.

NAME:..... Signature:.....

Rank:..... Date:.....

6. Portion to be completed by Supervising Officer:-

I certify that I have inspected and found works mentioned on item (1) above satisfactorily completed and that payment can be effected.

NAME:..... Signature:.....

Rank:..... Date:.....