

## **Quality Affordable Housing: A Theoretical Framework for Planning and Design of Quality Housing**

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### **Abstract**

*The provision of adequate, good or quality housing for the population has always been a major challenge and task for most nations in the world particularly the developing countries. As such various measures have been undertaken towards this end. However, the major constraint or problem in this respect has always been in defining the criteria for quality housing and establishing the standards of quality housing particularly with respect to the parameters in the determination of quality as some of the parameters are subjective and contextual such as psychological, cultural and environmental aspects. This paper is aimed at discussing the concept of quality housing and establishing the parameters and theoretical framework which can be used by researchers, town planners, architects, policy makers and others in the formulation of criteria / guidelines for the planning and design of quality housing.*

*Key words: Housing, quality housing, affordable housing, housing guidelines, housing criteria.*

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## **INTRODUCTION**

Housing is a very important aspect in life. It is therefore necessary for architects and planners to work in concerted effort with social scientists to develop a better understanding of the needs of the people whose housing is to be provided. Lazenby, M. (1977) suggested that there are three ways that architects, planners and social scientists can work together in developing a framework for the provision of good housing design. Firstly, it is recognized that at the beginning of the process, the architect or planner must gather information which eventually will be synthesized and integrated through his design talents to produce an environment consonant with the wish and aspirations of the occupants.

Secondly, at the other end of the planning process there are several instances where architects and social scientists have collaborated in the evaluation of a residential environment from the point of view of the users. Some pertinent questions to ask are to what extent have the needs of the residents been met? Is the environment being used by its occupants in the ways designers have envisioned? To what extent has the environment contributed to the residents' quality of life experience? These and other questions can be answered through post- construction evaluation.

Finally, architects, planners and social scientists should begin to pool their talents in efforts to determine those salient dimensions of housing and residential areas which contribute to the overall quality of life experience. While objective indicators will continue to be used to measure the quality of housing environment and improvements in it over time, the extent to which human needs are satisfied within this environment will become an equally important indicator in the future.

The main concern of this paper is to discuss the concept of quality housing which can be the basis or the theoretical framework for the study of housing towards developing planning and design guidelines for quality housing. It involves discussion on the concepts of housing, housing and human needs, the relationships of housing and social, cultural, environmental, economic, structural and tenures norms of the community concerned.

## **CONCEPT OF 'HOUSING'**

Housing is a multi-dimensional concept. It has been defined differently by different people depending on the emphasis and focus of analysis. The basic definition is housing as shelter and the provision of human needs.

### ***Housing as Shelter and Creation of Communities***

The Oxford Dictionary (1987) defines a 'house' as a building for human habitation'. While 'housing' is given the meaning of 'dwelling houses collectively, provision of these; shelter, or lodging'. The United Nations however defined housing not simply as shelter, but also as a means of creating communities, giving great emphasis on the functions which housing has to perform (United Nations, 1978).

According to the organization, housing is a means which should perform a double function: the interior, one of providing a place where a household of different age, sex, education, occupation, intellectual modes and values can meet in harmony; and the exterior, one of providing meeting grounds for groups of households and for the healthy and enjoyment enrichment of their lives and the life of the community.

In another report, the United Nations emphasized that housing should be considered as more than shelter, or more than the mere protection of man and his activities from the elements of nature. How much more and what the deficiencies of aspects of housing is more difficult to answer. It is assumed that the answer will vary according to geographic and climatic regions, by religion and ethnic groups, by available income to be spent on housing as well as by the

individual's own past history with housing and his individual preferences and attitudes (United Nations, 1977).

### ***Housing and Facilities***

A committee of experts on the public health aspects of housing convened by WHO defined housing as '... the residential environment, neighborhood, micro-district or the physical structure that mankind uses for shelter and the environments of that structure, including all the necessary services, facilities, equipments and devices needed or devised for the physical and mental health and social well-being of the family and the individuals (United Nations, 1977).

### ***Housing as a Cultural Phenomenon***

Rapoport, A. highlighted the concept of housing from a different perspective. According to him, the house is an institution, not just a structure created for a complex set of purposes. As building a house is a cultural phenomenon, its form and organization are greatly influenced by the cultural milieu to which it belongs. Very early in recorded time, the house became more than shelter for primitive man and almost from the beginning its function was more than a physical or utilitarian concept. If the provision of shelter is the passive function of the house, then its positive purpose is the creation of an environment that is best suited to the way of life of a people – in other words, a social unit of space (Rapoport, A., 1969).

### **Housing as a Commodity**

In economic term, housing is considered a commodity which has a market value and can be bought and sold. Through housing is reflected a person's economic standing and his affordability to attain a certain level of quality of life. Housing is also considered a security which a person owns for the benefit of one's future.

## **QUALITY HOUSING**

The concept of 'quality housing' has been discussed particularly by the United Nations through its series of seminars on the social aspects of housing through the use of different terms such as 'suitable', 'adequate', 'standard' or 'good' housing. As it was impossible to have a universal definition of good or quality housing, it was generally agreed that good housing satisfies the residents' needs at a given stage of development. It was also agreed that good housing should fulfill the various functions which housing should provide, the important ones being for shelter, family life, economic stability, family participation and access to community facilities (United Nations, 1977).

Dan Soen (1979) discussed the concept of 'habitable' housing in relation to occupants' needs and dwelling satisfaction. He highlighted the fact that housing quality is influenced by a whole series of factors namely engineering, social, behavioral and others and that the quality of housing is not static because it varies in accordance with circumstances. As such, the quality of housing should be assessed based on a multi-dimensional perspective, particularly with respect to the function of housing in meeting human needs.

Turner, J.F.C (1976) highlighted the issue of the value of housing. He argued that housing problem arises as a result of the mismatch between people's socio-economic and their cultural situations and the housing processes and products. Housing problems according to him arise when housing process, that is housing goods and services and the ways and means by which they are produced cease to be vehicles for the fulfillment of the users' lives and hopes. In his studies he discovered that some of the poorest dwellings materially speaking were clearly the best socially and some but not all of the highest standard dwellings were the most socially oppressive. Hence,

indicating the need to ensure a good match between housing and the needs and wants of people in the provision of good or quality housing.

## **HOUSING AND HUMAN NEEDS**

The most important function of housing is to provide for human needs. In common term 'needs' means requirements of some sort. Human needs can be in the form of 'objective' or 'subjective' needs. Objective needs are basic and measurable which according to Doxiadis, C. A. (1968) are certain minimum needs which do not change over time such as the need for certain cubic metres of oxygen per hour, certain kilos of water per day or certain minimum standard of space per person.

The other category of need is the 'subjective need' which are needs perceived by people which involves the question of which. This question however cannot be answered in a uniform way mainly because of the variability of human perception, behaviour and priorities. According to Doxiadis (1968):

*'..everybody has a subjective meaning for his own needs or for the needs of mankind, and that there is no accepted system of values which allows us to measure, compare and to judge these needs.... Needs vary enormously with time, locality, conditions, and that even for the same person, they change continuously'.*

Quality housing is housing that fulfils human needs. The important needs of housing are the need for shelter, needs that are not culturally induced such as need for comfort and being, and culturally induced need such as need for recognition, identity and support for a lifestyle.

### **Housing and Family Needs**

An important function of housing is for the fulfillment of family needs, which vary according to the stage in the life cycle of the family. Bayer, G.H (1965) distinguished four separate stages, each of which has a planning implication on the occupant's needs. The stages are the young couple stage which consists of the core family with no children; the founding family stage which consists of a couple with children aged below eight years old; the growing family consisting of parents and children aged between eight to eighteen years old and the contracting family which consists of a pair of aging parents some of whose children have already passed the age of eighteen. Generally, it is usual to distinguish three stages in the life cycle, vis-à-vis the stage of growing family, the contracting family stage and the static family stage. A good housing is one which matches the needs of the family according to the stage in the family's life cycle.

### **Housing and Environment**

The other important element in housing is that it is concerned with the provision of conducive environment for a living. Lazenby, M.,(1977) highlighted that there are four types of environments impinging on man, firstly, the physical, the socio-cultural, the psychological and the physiological environments. The physical environment is one which has direct influence on one's level of comfort and well being. In an urban context for example, man is being exposed to increasing levels of noise, air pollution, traffic congestion and crowding. Given the opportunity, most individuals would tend to move away permanently from such conditions.

Secondly, there is the socio-cultural environment whereby man is often confronted with social contacts. Confrontation with too many contacts may become a problem to man. To the extent that man does not have or cannot create some form of protection for himself and his family, he is faced with a problem situation.

Then there is the psychological environment which is internal to man. A problem is generated when a preferred way of behavior does not match with actual behavior at any point in time. It simply means that a psychological problem exists when a given psychological need is unmet. Psychologists refer to the basic needs for social interaction, affiliation with people, and the need to belong to a social group. There is also the psychological need for individuals to have a high esteem of themselves, for self respect and for having the respect of others.

Finally, there is the physiological environment. This environment can be considered a problem when one's homeostatic balance is disrupted, such as the need for sufficient space, clean air, water and so forth.

Invariably, there are a number of problem situation stemming from the various environments that man encounters which can give rise to several needs related to housing. These include the need to escape temporarily from the physical stresses of the urban environment; the need to experience nature; the need for privacy; the need for security and safety for self and family; the need for affiliation and belonging; the need for social recognition and status; the need for physical exercise; and the need for tension release (Lazenby, M.,1977).

### **Housing and Socio-Cultural Aspects**

Housing and socio-cultural aspects are very closely interrelated. The relationship can be seen in terms of the influence one has upon the other and vice versa. The influence of socio-cultural aspects on housing can be viewed particularly in relation to settlement pattern and houseform. The influence of culture on settlement pattern for example, is clearly indicated through the Feng Shui system of the Chinese community.

On the other hand, the influence of socio-cultural aspects on housing can be observed through house form. In this respect, family structure and system were found to influence most. Rapoport's studies of some African communities for example, identified certain differences in the houseform (particularly the spatial arrangements) of polygamous as against monogamous households (Rapoport, A. 1969). The influence of kinship and caste on houseform have also been identified.

The major aspects of culture which has a direct relationship to housing are that of the lifestyles and the norms of occupants. While lifestyle is actually the outcome of a whole series of factors including culture, socio-economic status and character of the family, norms can be defined as the standards people share and they provide guidelines for people's activities (Blake and Davis, 1964).

### **Housing, Income and Affordability**

Housing is directly related to income levels. This is proven by the fact that the richer a person is, the more likely he or she would own a bigger and better quality house and vice versa. As such, it is common that a rich landlord would live in a luxurious mansion while a poor person lives in poor quality shelter made of cheap quality materials with smaller space and few rooms, as the house relates very much to his affordability.

Housing affordability measures the cost of a house against the amount buyers can afford to spend on housing (Ahmad Zaki, 1997). The amount available for housing investment or rental depends on many factors, the important ones are the household expenditure pattern, recurrent housing costs, housing options and standards, sources and types of financing and household savings. In the provision of quality housing, the affordability factor should also be considered.

## **QUALITY HOUSING AND NORMS**

A good housing is one which meets the quality norms. The quality norms refers to the quality level of the housing which is in congruent with the family's needs and social status. These norms can be established through the measure of quality of the dwelling unit norms, the neighborhood norms and the expenditure norms. In housing literature, emphasis is given on the cultural norms as the criteria for judging housing conditions.

### **Housing and Cultural Norms**

Quality housing is housing that fulfills human needs. Basically, there are three types of needs which housing fulfills - the need for shelter, human needs not culturally induced such as recognition, affection, respect, and so forth and the culturally induced needs, also termed as 'housing norms'.

Sometimes the definition of housing need appears to arise from the biological characteristics of humans that imply a need for certain kinds of protection from weather, predators or enemies. However, often an implicit cultural definition appears to be employed as well. Housing needs reasonably may be equated with cultural norms for housing. In this respect, housing needs do not derive from minimum shelter needs or minimum health and safety standards in any absolute sense, but should also be derived from cultural standards against which the housing conditions are judged.

### ***Cultural Norms and Values***

Cultural norms are rules or standards both formal and informal, for the conduct and life conditions to members of a particular society (Morris & Winter, 1978). Some housing literature emphasize cultural norms as the criteria for judging housing conditions to be in striking contrast to the use of values by many researchers. Norms are more useful as criteria because values are general guidelines for evaluation of goals, while norms may assist in the understanding of general cultural patterns in a society. They may be used to guide the judgment of housing conditions and behavior in terms of their appropriateness in the society.

### ***Measuring Cultural Norms***

According to Williams (1970), cultural norms for a group can be discovered through inferred testimony, that is people either explicitly state the norm or from their description of the approved and disapproved conduct for certain situations. From here one can infer implicit norms. Secondly, cultural norms may also be discovered by observing spontaneous behavior in real life situation. The average response would represent a rather valid measure of norm.

The sound measurement of cultural norms requires reference to what people say are the norms and to the kind of behavior that are rewarded and punished. Testimony about the norms may be obtained from three sources namely, lay members of the society, official representatives and / or experts.

Louis Wirth (1947) recognized the importance of the distinction between behavior and norms in housing. According to him, it is important not to mistake the actual state of affairs for the underlying attitudes of people. Just because people live in slums does not mean that they wish to live in them or that they hold housing in low esteem as a value. It may simply be that they are not able to afford a better housing.

The basic source of knowledge about norms is what people say or member testimony. Asking a member of the society for example on, 'how many bedrooms should the average family with four children have would elicit a normative response. The respondents' answers to the question regarding the proper number of bedrooms for a family with four children could be tabulated. The average response would represent a rather valid measure of the bedroom norm (Morris & Winter, 1978).

Many housing surveys have also tended to describe actual housing conditions to elicit the respondents' desires, aspirations, preferences or expectations regarding the kind of housing they would like to have. Desires are a reflection of the kind of housing a family feels it should have and therefore, are expressions of family norms.

It may be true that family norm is very close to the cultural norm. However, family norms may differ from cultural norms if the family has had a long history of housing that did not meet the cultural norms. Preferences on the other hand are family norms that have been relaxed because of extenuating circumstances at a specific instant at which the choice or decision is made.

### **Dwelling Unit Norms**

An important component in the measure of quality in housing is the measure on the quality of the dwelling unit. This involves measuring the subjective reaction of people to attributes of their dwelling unit which requires knowledge of the objective attributes that contribute to quality through which the subjective reactions of families are obtained.

The main parameter in measuring quality of dwelling unit is through the space requirements or also known as space norms. Space requirement or space norm is normally determined in relation to activities. This is usually done by determining the amount of space required to perform a certain activity. This would involve calculating the space needed for furniture, equipment, space to use the equipment, storage space and also space for performing the activity.

The housing need of a family can be determined through understanding of the family structure and family functions. The main family functions are as nurturant socialization and for the fulfillment of the biological and psychological needs of family members, which are met through the space norms.

Space norm refers to the amount of space a family should have, usually measured in square feet or number of rooms required, a measure normally applied to measure crowding. Space norm basically prescribes the amount of space a family should have. This norm is dependent upon family size, family composition and cultural values. The popular method for establishing space needs in the past has been in terms of the ratio between number of persons and the amount of space needed to accommodate the number of persons.

The combination of the space norms is then converted into housing space standards, which is actually the measure of the amount of space necessary to ensure the quality of housing that is adequate for the protection of health, safety and general welfare of the occupants. It is necessary that the space need of the family in housing be measured based on the internal space requirements and also the immediate external surrounding.

Besides the influence of cultural rules, space requirements are also determined by activities. Space needs based on activity is normally determined through establishing the space required for undertaking an activity whereby the furniture, the equipment needed for each activity, space to use the equipment while performing the activity and the storage space needed should be taken into account.

### **Neighborhood and Environmental Norms**

The location of the dwelling unit and the nature of its immediate area or the neighborhood are prime determinants of the family's housing condition. Some aspects of the location of the dwelling unit that potentially would be considered by families with respect to housing is location, which refers to the relation of the housing unit to work, schools, shopping, recreational facilities and the location of the home to friends and relatives.

Secondly, is location as physical environment, referring to the individual aspects of the physical environment such as density, light, air, and conditions of other dwellings surrounding the housing unit; the quality of the community facilities, services and utilities.

The third factor is location with respect to the social environment, referring to the characteristics of the people in the area. In this respect, factors such as racial integration, homogeneity in terms of socio-economic status, and so forth are sometimes considered important by people in determining housing quality.

Neighborhood norms require that a family lives in a neighborhood appropriate to its socio-economic status. In this respect, the factors upon which the reactions of residents can be measured are in terms of the distance of their housing to facilities and services, the site of their dwelling, the ethnic composition of the neighborhood and the general life quality in the area which can be measured through the level of safety, cleanliness and exposure to noise and other forms of pollution (Morris & Winter, 1978).

### **Tenure and Structural Norms**

There is a strong norm almost everywhere in favor of home ownership as compared to rental. The decision to own or rent is closely related to family income. The rate of switching from rental tenure to home ownership rises with increases in income. However, the impetus for home ownership is not solely based on economic benefits alone but also with respect to the market conditions. The decision for or against home purchase was also found to be based on the comparison between the demand price and the supply price. The family would decide to own when the rental price is high and to rent when the rental price is low.

The decision to own or rent were also found to be influenced by non-economic factors. Such reasons to own were found to be related to the ability of families to conform to the cultural norms for ownership, to achieve the emotional goal such as the feeling of security, family security, ego satisfaction, living pattern goals and status and prestige goals.

The next important norm related to housing is that of structural norm. This norm however, can be measured in terms of housing type, the design aspects and the amenities provided in the dwelling unit. The ideal situation would definitely be for the single family dwelling unit. However, mainly due to affordability factor, that choice may be constraint by the next best alternative such as for semi-detached house, terrace house, cluster housing, multi-storey or condominiums.

Tenure and structural norms are very closely related to economic factors. If the tenure and structure type norms were to be ranked according to importance, it is likely that the norm for ownership is the more important of the two. As ownership of single family dwellings become increasingly more expensive, family behavior indicates a preference for compromising the norms for structure type rather than the ownership norm. Studies have also indicated a strong relationship between norms for tenure and structure type with stage in the life cycle of families.

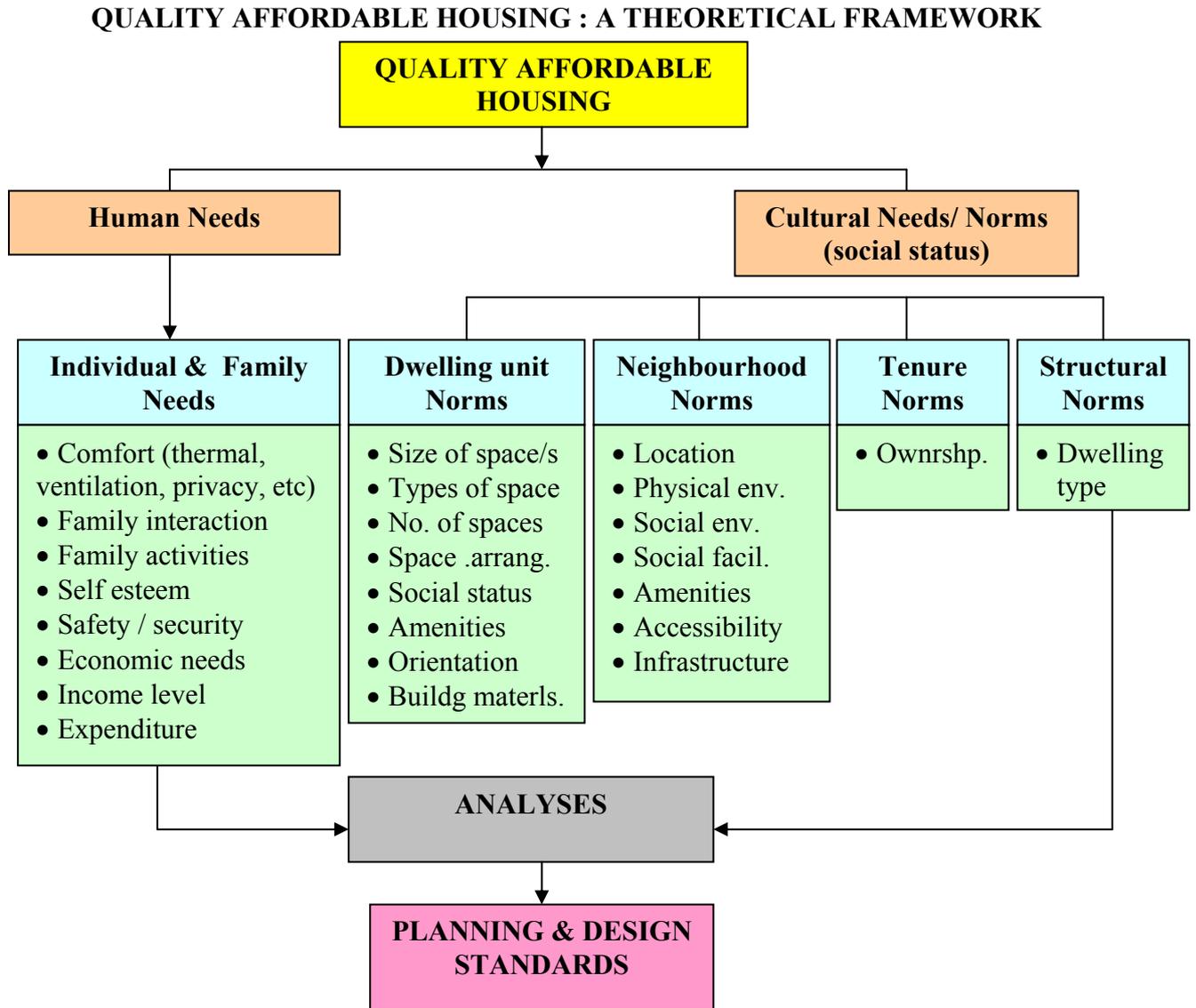
### **Expenditure Norms**

The relationship between the family life cycle and norms for housing quality and housing expenditure were found to be relatively strong (Morris, E.W, 1977). As family progresses through stages of the family life cycle, higher quality housing and more expensive housing is prescribed until retirement. The expenditure norm in housing is the family's expenditure level which is related to income and its spending patterns. Such norm may be directly related and influenced by the family size, family structure and stage in the life cycle of the family and is also directly related to affordability.

## CRITERIA FOR QUALITY AFFORDABLE HOUSING

Based on the discussion above, it can be summarised that theoretically, quality affordable housing encompasses the provision of housing which fulfills the following needs (Diagram 1):

Diagram 1



- Human needs:
  - Individual needs
  - Family needs.
  - Economic needs and expenditure patterns
- Cultural needs (housing norms):
  - Dwelling unit norms
  - Neighborhood norms
  - Tenure and Structural norms
  - Social status norms

## **CONCLUSION**

The above discussion highlights the fact that housing is a complex and multi-dimensional phenomenon. Therefore, in developing a model which can be used as a guideline for the design and provision of quality affordable housing would require analyses of the various parameters or perspectives particularly with respect to the individual and family needs, the physical, physiological, economic, affordability, social, cultural, dwelling unit or space requirement, environmental, neighborhood, location, tenure, structural norms and also psychology of the occupants, which constitute the pertinent parameters for the formulation of standards or criteria for the planning and design of quality affordable housing.

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