

# Improving the Quality of Affordable Housing; the Case of Maraş in Famagusta City, North Cyprus, Turkey

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*Abstract:* - Affordable housing is one of the most competitive ideologies of our time because everyone acknowledges that it must happen but no one can agree on what need to response these ideologies. This is conventional, because objecting to the goal of housing and saving energies is like objecting to other essentially important needs like foods, clothes etc. This article is going to measure the requirement of human to affordable housing also the effort for improving affordability in housing of “Maraş” in “Famagusta, North Cyprus”. The aim of the study is to find out how improve the quality of life of the residents and the effect of natural energies as a good point regard to Mediterranean climate for enhancing the quality of affordable housing and respect to the future generation needs of energy. Various strategies can be applied to improve affordable housing in order to promote the social needs and provide people with a better place for to live. The achievement of the study is the low quality of life and high outgoings of energy consumption in “Maraş”. It should be considered as an attempt to introduce main elements of the space for dealing with problems of improving the quality of affordable housing. The data collection has been based on observation, questionnaire, interview with professionals and local people and surveying. Observation have been used for surveying the quality of households again questionnaires and local interview have been designed to illustrate the variety of functions is required also, interview with professionals and surveying have been done for discovering the best solution for problems.

*Key-Words:* - Affordable housing, quality of life, sustainability, energy efficiency

## 1 Introduction

The issue of housing the urban populace especially the less privilege part of the society is one of the major challenges facing mankind in the twenty first century. Though studies by various researchers have shown that housing problem is worldwide, however it is of greater scale in the developing countries around the world such as Famagusta.

In an effort to begin the challenges associated with housing the less privilege of the societies, world leader, decision makers, have introduced and implemented various housing programs and policies such affordable housing. Although affordable housing has been a major topic of national policy in many countries, it is agreed by intellectuals that sustainable affordable housing is a poorly defined concept both in scientific literature and in policy and guidance documents [1]. The concept seems to mean everything; it is about ecology, environment, technology, social cohesion, community sustainability, citizen participation, lifestyle, etc. If the definition of sustainable development by World Commission on Environment and Development [2]

is applied in affordable housing, sustainable affordable housing will be defined as housing that meet the needs of the present residents without compromising the ability of the future residents to meet their own needs. Such housing according to forges a strong link between social justice and environmental sustainability, and connects the wellbeing of the environment, thus building on the core social and economic values of affordable housing [3].

Using the application of sustainability for affordable housing in Famagusta as a case study, arguing that rather than limiting sustainable outcomes, the existence of the sustainability debate which focuses on the many challenges is a positive signal that sustainability may be reachable [4].

Affordable housing in residential area is more related to group of people who are sharing common physical, social and environmental conditions. Debate on affordable housing has been the focus of many discussions and this article as well. In order to investigate user’s feeling in a specific area (Maraş), it seems necessary to dive more deeply through the

residential characteristic and in order to measure the level of the human's income in particular area, careful consideration to that area in terms of variety of functions is required. The greatest challenge in this research is to investigate the standard factors for improving the quality of affordable housing until users should be engaged in housing development process in order to create better quality houses that are socially and culturally appropriate. This will help to create or enhance community cohesion and spirit as well. Also designing durable houses according to climate and natural energies to response the cost of power and utilities, especially in Famagusta which has high potential to utilize endless energies.

## 2 Research objectives

The concept of quality has a strong link between people and the buildings, which is mentioned by human senses and perceptions (Chapman, 1999).

In this paper determining the level of housing construction with respect to the natural energies, and environmental issues and especially how this can improve the quality of housing has been the major incentive scheme. when applied into housing, it does not only deal with issues of affordability but also ability of the households to meet their basic needs, food, shelter and health, their relationships with neighbours and physical environment. Therefore in an attempt to investigate the standard factors for improving the quality of affordable housing. Moreover finding out the possible solution for the correction of using energies and income creation would be the other significant issues to be investigated.

### 2.1 Field study and methodology

A majority portion of Famagusta (Maraş area) has been occupied by low income households. Most of them are willing to have affordable housing with low energy consumption. In this article residential part of Maraş area have been chosen as field study; Besides, data collection based on observation and visualization by photographs and charts, getting along with residents and asking for questionnaires and interview with professionals and survey have been done.

## 3 Literature review

Affordable housing in the modern period i.e. twenty first century is still a major challenge especially to the governments of developing countries where

according to UN-HABITAT (2000) more than “one billion human beings still lack adequate shelter...” [5]. Developed countries such as Great Britain and United states have gone through years of changes both positive and negative in affordable housing delivery reforms and policies in order to find the best solution of housing the less privilege members of their societies. These countries are now concentrating on qualities not quantities of affordable housing because the post-world wars experience shows what happened when quality is sacrificed for quantity [6].

Projects such as; Solara houses located in California by Rodriguez Associates, 500 Hyacinth Place in Chicago by K2 studio and Wentworth Commons in Chicago by Harley Ellis have proved that it is possible to create a common ground between affordability and sustainability (Fig.1&2).



Figure 1: Solara houses, California



Figure 2: Wentworth Commons, Chicago

### 3.1 Perspective of Affordable Housing

“Affordable housing” is the latest in a long list of synonyms to denote housing for those who cannot afford the free-market price. Earlier in this century it was called “Social housing” or “Subsidized housing”. The rubric for all of these, and term used by most European is “Social housing”, which expresses both the intention and humane society has an obligation to assist those of its members who could not otherwise have decent housing (Davis, 1995).

In order to analyse the issue of housing affordability, it is necessary to divide those who use housing into four categories: 1.renters, 2.first-time purchasers, 3.households moving from an owned housing unit into another such unit, and 4.households occupying housing they own and do not plan to leave. How affordability is measured is also critical to an understanding of the issue. The traditional measure has been a ratio of current

housing expenses to current income. The accepted norm has been that households should not spend more than 25 to 30 percent of their incomes on housing [7]. Definition of affordable housing is the most often cited in literature and used by most government programs and researchers; she defined the term affordable housing as “that which costs no more than 30 percent of the income of the occupant household” [8]. According to U.S Department of Housing and Urban Development Families who pay more than 30 percent of their income for housing are considered cost burdened and may have difficulty affording necessities such as food, clothing, transportation and medical care [9].

### 3.2. Types of Affordable Housing:

The main types of affordable housing schemes are divided to two categories. The first one is Rent based Affordable Housing that the main aim of this housing is to provide a subsidized below market housing rate to the less privilege members of the society. The second category is named Ownership based Affordable Housing. The houses in this type are sold at subsidized below market housing rate to the less privilege members of the society. At stated by social houses are sold to house occupants where payments were made in full or on the basis of lease hold system where payments are made periodically. Though the aim of this housing scheme is enable the less privilege members of the society own their homes, ownership based affordable housing is more appealing to high income earners [10].

## 4. Why Is Affordability Essential?

Housing is one of the most basic needs of human beings. According to hierarchy of needs based on Maslow’s theory (Fig. 3), biological and physiological needs include, shelter, sleep etc. If these needs are not met, the human body cannot continue to function [11].

Housing is also a fundamental human right. “Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services,.....”.[12].

The ability of people i.e. low income earners to have the opportunity of decent homes which they can afford can help in solving some of the problems of associated with families in need.

In terms of a nation’s economy, affordable housing potentially has an impact on a country’s economic outcomes in a number of ways [13].

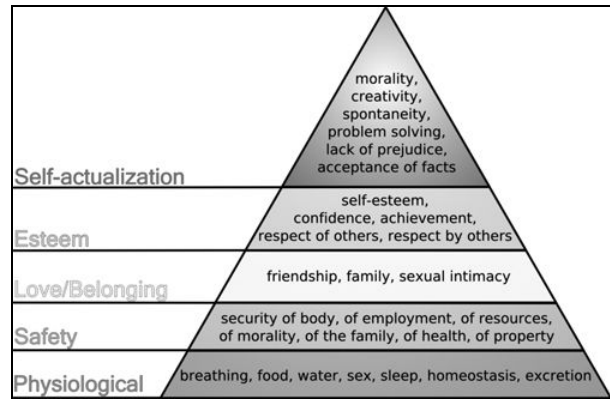


Figure 3: Maslow pyramid

In the first place, it can affect the macro economy. Secondly lack of affordable housing may affect the efficiency with which labor markets operate either at national and regional level and thirdly, it has an impact on wealth distribution in the society and therefore can contribute to social and economic problems that flow from an inequitable distribution of resources. In other words, housing affordability affects the economy through its impact on stability, efficiency and equity.

## 5. Field Study and Data Collection Methods

Maraş (Fig. 4) is the first oldest and probably largest district of the city founded outside the walls of the oldest city. Maraş is the sample environment of the present study that it is indeed one of pre-planned and fully developed residential district of the city.

5.1. Collecting the data started by asking and interview with some groups of residents due to the fact that the majority portion of Famagusta (Maras Beside half of people have owner houses however 45 percent of them are inhabiting rental houses.

Unfortunately more than 55 percent of them are living with another families and they don’t have a private house while they don’t have enough spaces for their selves and the quality of houses is less than standards that it have been clearly perceived by both observation and asking about human’s needs. Questionnaire has been formally designed as a narrative of how people feel about their housing with respect to the problem of this case study (Fig. 5).

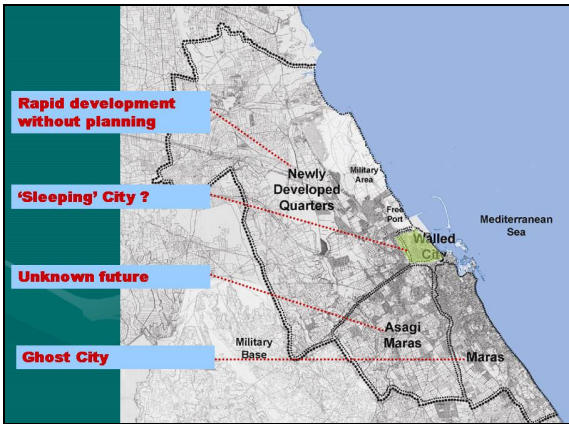


Figure 4: Demonstrate location of case study

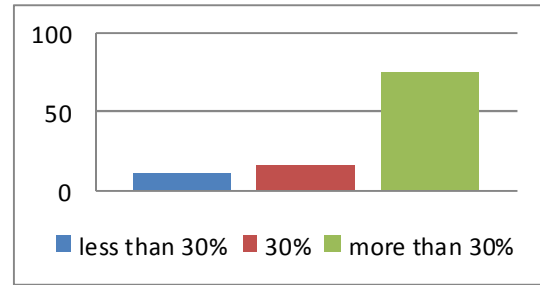


Table 2: Percentage of salary goes for costs like energy

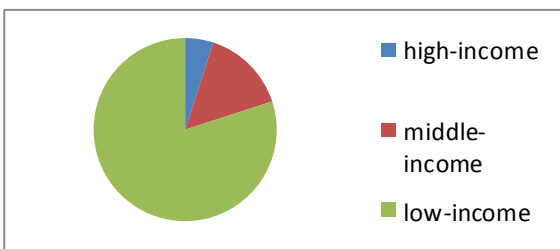


Table 1: The percentage of household's income in Maras

It is desperately needed since the main goal of the urban designers must be to supply the user's requirements.



Figure 5: low quality of houses in Maras area

5.2. Second questionnaire was assigned to ask about the salary/wage goes for costs like energy and fuel because According to the world standard has been that low-income households should not spend more than 25 to 30 percent of their income on housing [7]. However, more than 75 percent of people are spending more than 30 percent of their salaries (Table. 2).

5.3. Third questionnaire has been drawn up to display the type of energy that people are using for cooling and heating while decreasing fossil fuel is a serious menace for humans specially future generations. Since, Mediterranean climate has high potential to utilize endless energies which are able to enhance and protect affordable housing environment as earlier discussed. The majority of people are using electricity for cooling and heating their houses in this area (Table. 3). According to interview with professional persons in energy field it is so obvious primary payment of advanced system for conduct solar energy to electricity for cooling and heating is so much however, If it's detected for a long period of time it will be more economic and cheaper. Also, approximately 35 percent of people are using Gas for hating that low-income households are dissatisfied because it is so expensive (fig. 6). Beside, some people have nothing for balancing climate in their houses so in terms of done survey, appropriate orientation ,that is North-South in this case study, can create potential for additional savings from more sophisticated passive solar techniques. Also for creating natural ventilation and refreshing air for cooling houses, the best orientation for opening is East-West (Fig. 7).



Figure 6: Gas for heating

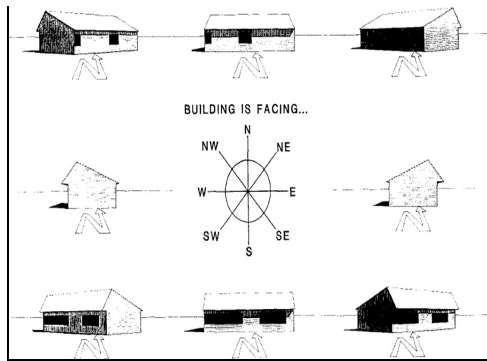


Figure 7: Schematic showing different orientations for a residential building (Morrissey & Moore, 2010)

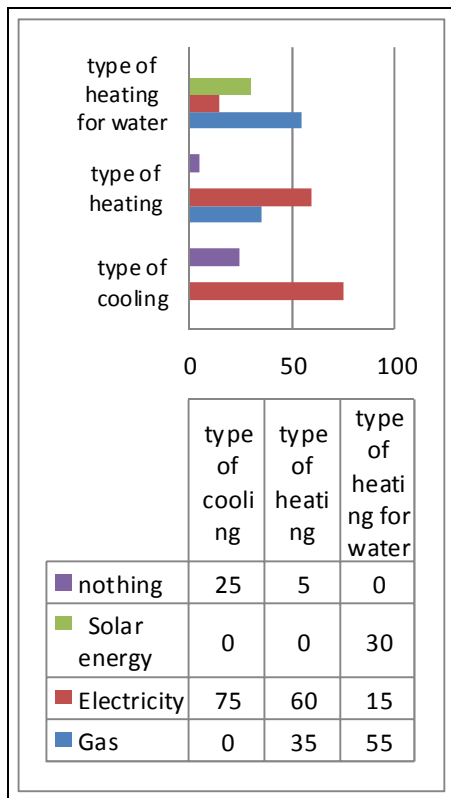


Table 3: Used type of energy

### 6. Evaluation of data

During the data collection, it seems that all of the residents exactly know about suitable quality of life. Following points have been thoroughly investigated in order to make affordable housing in terms of sustainability for improving affordable housing for a long term. In addition, the survey measured respondents' satisfaction or dissatisfaction with their houses and the cost of their housing.

### 7. Conclusion

This study has set up an evaluation on the affordable housing of Maraş area to improve the quality of them. After communicating with users and demonstrating

their primary needs, adaptable materials must be used; besides, correct orientation of buildings to achieve maximum benefits of natural resources must be considered.

Additionally, characteristics of affordable and sustainable housing for improving affordability include a product that is of a suitable size and quality for its occupants and doesn't increase the incidence of housing stress over the lifecycle of the house. A creation where individual and government financial obligations can be met on an on-going basis without policy change that is socially acceptable.

When applied into housing, it does not only deal with issues of affordability but also ability of the households to meet their basic needs, i.e. food, shelter and health, their relationships with neighbors and physical environment. Therefore it connects the wellbeing of people with the wellbeing of the environment, hence creating a housing that is not only affordable but also durable. Cost such as utility, powers, etc. have substantial impact on households. This is because a home may be affordable to purchase but after some period, its occupants may spend the same value as initial purchase price in excessive utilities and other costs. Therefore, it may not be affordable in the long run. So designing of houses according to climate and natural energies to response the cost of power and utilities, especially in Famagusta which has high potential to utilize endless energies. Also usage of local and recycled building materials and suitable material for preventing waste of energy should be studied and improved to render them suitable for producing cost-effective and durable houses.

For promoting economic growth in affordable housing, some important factors must be considered to create job opportunities; employment as a result of diversity of work and varied economic base, also, economic buoyancy; creating local economy through new markets and opportunities for sales growth, cost reduction through improved efficiency of resources, beside "environmentally friendly economic growth" [14]. To design some marketing for women like workshops for increasing households' incomes. It is suggested that users should be engaged in housing development process in order to create better quality houses that are socially and culturally appropriate. This will help to create or enhance community cohesion and spirit as well.



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